

Evaluation the Effects of game based animation "Blue's Clues" on Preschool children learning

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ABSTRACT: This paper focuses on measuring the effectiveness of video-based instructional games on preschool children, and Training videos, entertainment attraction for children plays a significant role in enhancing the quality of learning. Since its premiere in 1996, Blue's Clues has continued to stand out as one of the top five preschool series on all of commercial television. With its interactive, educational focus, Blue's Clues was a pioneer in a new model of preschoolers' television .Blue's Clues is an animated show with a live host, Joe (or Steve on older episodes), who guides children through the day's adventure finding Blue's clues. Blue is the cute blue puppy dog who leaves the clues, and Joe, along with the viewing children, must find and put them together in order to figure out what Blue is telling everyone .The show's educational focus covers a range of information from colors and shapes to numbers, letters and problem solving ideas. "Blue's Clues" is an attractive animation for young age group of children and from the educational aspects include prominent elements for educators and educational experts. Although the film is based on play but through the play levels pays attention to education and in each section is tries to teach a particular subject .this study is going to evaluate the effectiveness of training -fun "Blue's Clues" television show from the aspect of problem solving and also from the mothers and teachers point of view to define the effectiveness of applying film and the game of footprints on children learning. After gathering the results, and data analysis comparing pre-test and post-test that were taken by children, this was obtained that, along with traces of water, learning of children after seeing film is improving .and this improvement was 60%.

Keywords: educational videos, games, learning theory, constructivism, problem-solving approach.

INTRODUCTION

Using the media as a communication channel is too far back the history. In Stone Age objects were gradually used to notice. (Adegbija, 2012)

Early childhood preschool period is brief but has significant role in sharpening the child's personality the child finds out the first things about his living environment and his behavior and temperament emerge.

Early Childhood is so important, there should be great deal of attention to the instruction in this period that should be taken in mind that what must be done to train the child correctly. What is the spirit of child training science? Weather what has been done for preschool children can flourish the soul of research and learning in their mind or not is the focus of this paper .Instructional media can have the best usage to Communicate with children and if it be accompanied with game that would be more effective. The game is one of the stages in the life of every child that grows with him; he learns and takes the personality of the games characters. we can talk to children through different languages: fiction, poetry ,Proverbs, and.... but the Best And the most communicative language is the game one That Every Children At any Age, Interest and Mental power Can understand and enjoy it. Game is the base of life and a window to the world of child, and can be very useful and meaningful instrument for teaching. When a child plays a game he shares his ideas and solves the problem by himself. While playing he thinks, plans, finds new ways

and make lots of experiments. All of these result in his Intellectual, Emotional and Social training, and we can see that the "Blue's Clues" is Taking advantage of game in the best way in his instructional design. Based on "nick.jr" teachers may use this film as complement of their curriculums Especially When the Colors and Enumeration is going to be thought. Lots of parents nowadays also use the same way to teach their children. The Directors answer to the question of "How finding the Symbols will help the child to learn?" was this "Symbols are the Ways that help children to solve the problems. If the Blue has a problem to be solved the whole parts of the Section should be paid attention. Every symbol makes the problem more limited for the child and he has to think more carefully to solve it. They are required to write any little information like an adult and make a logical conclusion. (Savery & Duffy, 1995)

Jim Forbes (narrator) has called it "one of the most successful, critically acclaimed, and ground-breaking preschool television series of all time. Author Malcolm Gladwell called the show "perhaps the 'stickiest'—meaning the most irresistible and involving—television show ever". Its innovative use of research, technology, and interactive content has influenced its genre since its debut, including the "gold standard of preschool TV programs" .It became the highest-rated show for preschoolers on commercial television, and received nine Emmy awards. Its efficacy in teaching children using the medium of television has been documented in research studies. This particular program is designed based on game play and engage children with finding traces of the Blue.

During the 1980s, most researchers using and evaluating educational games in the classroom, stated that the games are powerful in transferring the concepts of learning in learning Environments and collaborative learning Elements such as creativity, curiosity, excitement and Competition should be included to produce a different learning environment within an empirical game (the Bourne Hyde, 2006). Elements such as Curiosity and, excitement can be seen clearly in the games of "Blue" and if it displays Purposeful its effects can be watched in creativity of children.

Cognitive development, or the process of growth in intellectual abilities such as thinking, reasoning and understanding, is a major component of early childhood. According to the World Health Organization, early childhood is the most important phase of development throughout the lifespan. So games for cognitive development during early childhood are an effective way to help kids grow intellectually. The game is not a mindless and structures matter but it's an integral part of our lives. Its Effective means to operate effectively and efficiently in Adulthood and learning in cognitive development (Jennifer Zimmerman, 2010). The Blue teaches the child issues with the game that not only in childhood but also in adulthood would be helpful for him.in this collection the child learns that in order to reach the answer, assemblage the information and take note of the important points and based on his attempting try to ratiocinate and conclude it is what the children exactly need to know to be able to face problems.

Which Instructional design model has been considered in designing this movie?

Model is a mental picture that can help us to perceive what we cannot see or directly experience. (1990 Dorin, Demmin & Gabel)

Psychology perspective shared in this show:

Behaviorist focus on observable behavior and it is obvious that a person comes to mind as a black box, the view blocks and ignores the possibility of the whole process of thinking (1990 - Good & Brophy). This perspective focuses solely on the design of learning environments and teacher center training, and the primary role is played by external stimuli and environment not the person himself.

During the sections of the show we are witnessing a series of steps that push the child forward through play his favorite games associated with the film, invite him to think in order to Recall his prior experiences and make him judge logically to play better. This method is more based on the constructivist learning methods. The Method of this theory acquires the learner to perpend, synthesize, and find the relationship among events to reach a deep understanding. The relationship between his new information, past experience leads to the production of comprehension and production of meaning and deeper understanding of the subject is achieved. (Witroc, 1974). According to Jonson (1991) constructivism believes that learners construct their own reality or interpret it compared with their empirical perception. Therefore the personal knowledge is subordinate of past experience, mental structures, and beliefs applied to interpretation of matters and events. According to constructivism learning theories instructional design is providing resources and procedures in order to facilitate students learning that is creation of meaning in their mind (Fardanesh, 1998).

This TV show has great consistency with problem solving method and implement of this method help to effectiveness of the movie. Problem solving is the highest Level of human being Cognitive Activities and is one the most valuable instructional objectives. In constructivism, problem solving is known as a very effective method Of course if the principle of constructivism be operated completely. Morgan and et al(1984) say the problem is the difference Between the existing situation and the desired one in other words When a Person Faces a situation that cannot respond it Immediately by appalling his information and skills in the moment he is facing a problem And to

find a Solution for it he should contemplate. In education, we need to provide different ways of thinking. Creating problem, directing thinking towards solving it and the development of challenge for the logical conclusion are the exact, well-planned and executed steps of "Blues clues" collection.

5Steps of teaching Students problem solving By "Di Crawford" are summarized as followed: (First Create a Problem and provide the Learners by brief information to solve it)

1 – Determine the Expected answers final behavioral Performance.

2- Specify the Input behavior of the learner Associated with concepts and Principles Required To solve the Problem and evaluate it.

3 - Help them to recall concepts and Principles Related to Problem.

4 - Provide Oral explanation to guide The Learners Thought to Find Appropriate Solution of Problem.

5 - Ask them to display their learning through illustrating Steps of finding Problem Solution (Shabani, 2003).

Each step of solving problem forms the phase of "Blue clues" game trail

In First step, the game summary is delivered to the child in verse and music form and gives him clues such as the issue of the episode and which material the child is expected to learn at the end. The Presenter asks about the children's knowledge and evaluates their levels of proficiency by motivational questions. In order to recall the concepts, he reminds similar cases in previous sections and guide their mind thought traces. Frequently asked questions keep the children active .they can measure their amount of learning by trying to take note. You can see the entire process of problem solving and their practical application having been implemented in this program.

Considering the capabilities of "Blues clues" collection, the researcher selected this Production of educational videos for children. In this study, the researcher is going to review the works done especially for children and open a window for New and Creative productions about teaching children through television as a media and attract the artists and educators to beneficial productions made for children with hope to be the witness of newer and qualified works in near future.

MATERIALS AND METHODS

Methods and research tools:

In this study both the analytical and Quasi-experimental methods of research are used. The main tool of this research is a section of "Blues clues" that was selected on purpose among different sections of the collection. In order to answer the research questions, the analysis is done in two parts: The first part, evaluating the effectiveness of the film in children learning procedure is done by Quasi-experimental method. The second part, evaluation of Children parents and the trainers of the film is done qualitatively. The analytical tool was a researcher-made questionnaire filled by 20 mothers and 4 trainers of children who had watched the movie. In Questionnaire I have used both open-ended questions and close tests with Likert scale. Responses are analyzed qualitatively. In Quasi-experimental method we tested 20 randomly selected children samples of 40 children of a pre-school institution. Before the cases watch the film the pretest was given and after watching the film, the same 20 children were given the posttest. In order to eliminate noise between the pre-test and post-test the post test was postponed for two weeks later. Tests scores were assessed quantitatively and at the end of evaluation each code was given two scores (posttest score and pretest score.) comparing pre-test and post-test scores for each level After the film showed the to enhance of children's learning.

RESULTS AND DISCUSSION

Results

The Questions of mothers and trainers questionnaire were aimed to evaluate the attraction, aesthetics aspects of different parts of the film and the attention paid by children while watching, etc. The results suggest that the film was very good that the 90% of teachers and 85% of mothers evaluated it excellent and said that its effectiveness on preschool children is unique.

The quantitative conclusion of the questionnaire that was done by mothers and trainers was as follows

$$\begin{aligned}
 &(x_1)4.9 + (x_2)4.1 + (x_3)3.55 + (x_4)4.25 + (x_5)4.1 + (x_6)4.45 + (x_7)4.42 + (x_8)4.45 + \\
 &(x_9)4.36 + (x_{10})4.15 + (x_{11})4.8 + (x_{12})4.3 + (x_{13})4.75 + (x_{14})3.7 + (x_{15})4 + \\
 &(x_{16})4.15 + (x_{17})4.85 + (x_{18})4.7 + (x_{19})4.3 + (x_{20})4 + (x_{21})4 + (x_{22})4 + (x_{23})4.1 + \\
 &(x_{24})4.1 = 102.48 \rightarrow \frac{102.48}{24} = \mathbf{4.27}
 \end{aligned}$$

Mothers and trainers stated that the children showed interest in learning the topic after watching its film ,and this is part of a series improved their learning motivation.

The question of the interaction level was gained the highest value among other questions, the trainers stated that the film has been very successful with children and they saw the children's communication with the film and the presenter was very well and they had repeated the presenter's motions by themselves. Some respondents also stated that some parts of the film, like the part about stomach was a bit confusing to children and was not Consistent with the child's level of understanding and also from the cultural aspect there was not any good Coordination, but the movements and Improvisation of the presenter refresh the children and don't make them bored.

Results obtained from mothers and trainer's questionnaire was 4.27 from 5 that were excellent at the applied scale.

After analyzing the interviews that were conducted with children, the effectiveness of the film on children learning, promoting learning about 61, % indicated that it was unique. In order to quantitative evaluation of tests for each test we consider an improvement present .the average of all presents resulted:

$$\begin{aligned}
 \text{average} &= (x_1)80\% + (x_2)60\% + (x_3)30\% + (x_4)50\% + (x_5)60\% + (x_6)50\% + \\
 &(x_7)60\% + (x_8)80\% + (x_9)40\% + (x_{10})60\% + (x_{11})60\% + (x_{12})80\% + (x_{13})70\% + \\
 &(x_{14})50\% + (x_{15})60\% + (x_{16})80\% + (x_{17})70\% + (x_{18})50\% + (x_{19})40\% + \\
 &(x_{20})80\% = \frac{1210}{20} \approx \mathbf{61\%}
 \end{aligned}$$

Learning progress after the film was Ranged 6 1% respectively.

Discussion:

In This article we evaluated the effectiveness of "blue's clues" animation that was based on a learning game on preschool children learning and the results gained shed that one of the accessible medium of learning is a wonderful films, and especially the film Emerging on learning theories and theories used in their design, such as "Blues clues" that because of its adaptation with the method of problem-solving and the high level of interaction with the audiences the program is the set of its kind unique. Qualitative Analysis showed that Children's films have the ability to mix the patterns of activation with motivational methods such as games to produce a film with multidimensional Teaching capabilities to be shown for children in particular issues. According to the surveys conducted it was noticed that effective learning and teaching methods such as problem solving can be implemented and applied in educational media such as movies. In this regard, it is proposed to implement the integration of new theories such as constructivism, connectivism and instructional videos, and if possible on the theory of creative educational films be produced. As the learner is active in these theories, those films with higher level of interaction would be more successful in this field. It's also suggested that the effectiveness of such programs on teaching and learning for children with special needs be investigated. At the end because of lasting effects of this animation on children's learning, the researcher Emphasizes on producing instructional films based on interactive games.

REFERENCES

Adegbija MV. 2012. New technologies and the conduct of e-examination: A case study of the National Open University of Nigeria. *Journal of Research in Education*

Bryson C. 2005. Blue's Clues Review for Parents. Retrieved May18, 2013, from [http://kidstvmovies. about.com/ od/ bluesclues/ fr/ bluerev.htm](http://kidstvmovies.about.com/od/bluesclues/fr/bluerev.htm)

Dorin H, Demmin PE and Gabel D. 1990. Chemistry: The study of matter. (3rd ed.). Englewood Cliffs, NJ: Prentice Hall, Inc.

D'Angelo J. 2002. "Ex-'Blue's Clues' host Steve Burns an indie rocker at heart". MTV.com. Retrieved 2007-12-18.

Fardanesh H. 2007. Instructional design in behaviorist, cognitivist and constructivist/ perspectives Retrieved 2007-18. [http://www.alzahra.ac.ir/ persian/journals/humanities16.htm](http://www.alzahra.ac.ir/persian/journals/humanities16.htm).

- Forbes J. 2006. Behind the Clues: 10 Years of Blue (Part 1) (Short documentary). Nickelodeon.
- Good TL and Brophy JE. 1990. Educational psychology: A realistic approach. (4thed.).WhitePlains,NY:Longman
- Konigsberg I. 1998. *the complete film dictionary* (2nd. Ed). newyork, NY: penguin publishers.
- Savery JR and Duffy TM. 1995. Problem based learning: An instructional model and its constructivist framework. *Educational Technology* (35): 31-38. Reviewed by Chuck Ferguson.
- Shabani H. 2003. Professional teaching. Samt press. Tehran.
- Witrock MC. 1974. Learning as a generative process. *Educational Psychologist*; 19(2):87–95.
- Zimmerman J. 2013. Games for Cognitive Development during Early Childhood,<http://everydaylife.globalpost.com/games-cognitive-development-during-early-childhood-6870.html>. Retrieved 2013-5-12.
- http://en.wikipedia.org/wiki/User:JD_Caldwell/JD_Caldwell#cite_note-spin.com-3. Retrieved 2013-5-12.