

Learning Through Video Machines: An Analysis of the Impact of Television Cartoon as Teaching Aid in Selected Primary Schools

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Abstract

Mass media play a vital role in the society, some positive and some negative. This research was conducted to find out the impact of television cartoon on children academic performance. The study provides basic and comprehensive information on how educational cartoons are used in classroom as an audio-visual aid by teachers. To achieve the objective of study, causal comparative and survey methods were carried out on two primary schools which have the same curriculum and the same teaching aid except that School I is exposed to television cartoon as a teaching aid and School II is not exposed to television cartoon. The pupils were given achievement test and the teachers were given a questionnaire. The data analysed revealed that children exposed to television cartoon performed better than children not exposed to television cartoon. Use of television cartoon should be adopted as teaching aid and made a policy in Nigeria primary school system. Further research on age appropriate audio-visual aid to be employed by the teacher in teaching and the impact of television, music video, music lyrics and the internet on the mental and physical well-being of children and adolescents should be developed and supported.

Keywords: Impact .Television cartoon .Academic performance .Children

INTRODUCTION

There are lots of television contents designed for different gratifications of their target audiences, which may be for children, teenagers, youth or adult to achieve various objectives. Cartoons and animated films were once the favourite programmes of viewers of different age group in the society. These cartoons and animated films were enjoyed by almost every person, from different walks of life on their television sets and theatres. In the beginning when the animated movies and cartoon started their journey, the programme content of both contained humour and entertainment for all age and sophistication levels. Cartoons, however, now lacked their cross-generational appeal and converted into "kids stuff" (Kellogg, 1992). Cartoon is not a precise term nowadays as it is applied to multifaceted graphic form. It is the most entertaining source for kids as they developed strong affiliation and attachment with it (Kermnitz 1973).

Cartoon is a movie made using animation instead of live actors, especially a humorous film intended primarily for children or a sequence of humorous drawings that tell a short story, published in a newspaper or magazine, commenting on a topical event or theme. Cartoons have evolved from their origins as preparatory drawings to satirical sketches in newspapers and periodicals in the 1800s, and more recently to an exaggerated representation of human life as shown by modern examples such as The Simpsons.

The only existing Nigerian produced cartoon show is "Bino and Fino" created by Adamu Waziri, with only three episodes, as opposed to at least twelve episodes that sponsors often seek to have and consequently, it is not shown in any of Nigeria local stations but shown in United kingdom, Cable News Network (CNN), United States and South African stations.

In a study by Gill (2000, p.12), 'The Effect of Cartoon Characters as Motivators of Preschool Disadvantaged Children', "cartoon character stimulate interpersonal

behaviour, learning and social growth. Children associated with cartoon characters are more readily than adult and in many cases tend to retain the lesson imparted. If a cartoon character conveys an educational or moral lesson, then it can help speed up the learning process in children.”

Furthermore, Gill (2000, p.12) suggests that cartoons help teachers reach higher levels of learning. Gill’s research concluded that using a cartoon character in classroom material stimulate interpersonal behaviour, learning and social development in children. He submits that children who use work material with a cartoon character learn more than children using the same materials without the cartoon character.

This agrees with the social learning theory, which is particularly valuable in analyzing the possible effects of television violence, but it is also a general theory of learning that can be applied to other areas of mass media effects.

Statement of Problem

One major function of the mass media is to educate the audience. Cartoon is not a precise term nowadays as it is applied to multifaceted graphic form. It is the most entertaining source for kids as they developed a strong affiliation and attachment to it, (Kemnitz, 1973). It goes a long way in helping them academically in their early age in school, and other social aspect of life, just as Gill (2000) concluded in his research, “children who use work material with a cartoon character learn more than children using the same material without the cartoon character”.

Close (2004) notes that given the right conditions, children between the ages of two and five may experience benefits from good-quality educational television. For this group of children there is evidence that attention and comprehension, receptive vocabulary, some expressive language, letter-sound knowledge, and knowledge of narrative and storytelling all benefit from high-quality and age-appropriate educational programming

Also, Essa and Young (1994) noted the amount of time children spend watching television content like cartoon can affect their creativity. Creativity in the short and long run can determine children academic performance. Furthermore, Alaba (2007) stated that there are many instructional materials that are cheap. Cartoons can be used to tell a story and to stimulate creative thinking. The questions we need to ask are: What are educational cartoons? Are they of importance or hindrance to children academic performance?

In response to this problem, this study provides some issues concerning educational cartoon and establishes if cartoon is of benefit or hindrance to the academic performance of children that are exposed to it especially to primary school pupils of PHCN Schools I and II.

Research Questions

The following questions were formulated to guide the study:

1. Does television cartoon improve children’s academic performance?
2. How frequent does the pupil watch television cartoon in classroom?
3. Should the use of television cartoon as teaching aid by teachers, be encouraged or discouraged?
4. What other teaching aids/methods are employed by the teachers?

Research hypothesis

Hi: Children exposed to television cartoon as teaching aid in classroom are more likely to perform better in their academic work than children not exposed to any classroom television cartoon.

Theoretical Framework and Literature Review

This work is anchored on two theories viz: the hypodermic needle or Magic Bullet and Cognitive theories of the media. Hypodermic Needle or Magic Bullet Theory: The "hypodermic needle theory" implied mass media had a *direct, immediate* and *powerful* effect on its audiences. The theory suggests that the mass media could influence a very large group of people (who are seen to be passive) directly and uniformly by 'shooting' or 'injecting' them with appropriate messages designed to trigger a desired response. The hypodermic needle model suggests that media messages are injected straight into a passive audience which is immediately influenced by the message. The theory expresses the view that the media is a dangerous means of communicating an idea because the receiver or audience is powerless to resist the impact of the message. Children especially are seen to be passive beings that watch and accept what they see on the television screen.

Cognitive Theory: This theory assumes that people are active processors of information in television. It posits that with effective cognitive processes, learning is easier and new information can be stored in the memory for a long time. On the other hand, ineffective cognitive processes result to learning difficulties that can be seen anytime during the lifetime of an individual. In essence the child cognitive development affects how and when he learns skills. In choosing any teaching aids for children like cartoon one must take into account the child's current cognitive stage in order to create a curriculum and choose audio-visual aids that are engaging and effective.

Instructional Media, Educational Cartoons and Comics

The use of television cartoon in the classroom is part of audio-visual instructional media or material used by teachers in the classroom to teach their pupils. According to Azikiwe (2007), instructional media covers whatever the teacher uses to involve all the five senses of sight, hearing, touch, smell and taste, while presenting his/her lessons. In similar vein Adegun (1977) says instructional media are things which are intended to help the teacher to teach more effectively and enable the student learn more readily.

Learning resources that fall under audio-visual aids appeal to the senses of sight, hearing and touch. They include line sound film, sound strip projector, television and video tape recorders and tapes. The audio aids are instructional materials that appeal to the sense of hearing and touch too. They include records and record players, tapes and tape recorder, radio and language laboratories.

According to Alaba (2007), educational comics are forms of cartoons in which a cast of characters present an educational story in a sequence of closely related drawings designed to entertain and educate the readers. They can also take the form of pictorial presentation and the use of stair caricature or exaggeration to tell a story of person, group, situation or scenery. They convey subtle message of persuasion, expresses power that captures attention and influences attitudes and behaviour. An educational cartoon on the other hand is a pictorial representation or a caricature of a person, an idea or a situation designed to influence public opinion. Cartoons and comics have some similar characteristics but different origin.

Educational Television in Nigeria

According to Sampath (2007), Educational Television (ETV) includes programmes whose general interest is to educate rather than entertain. ETV generally includes instructional television and non-commercialised television programmes.

Since the advent of radio and television in Nigeria, there had been increasing effort to use these media channels as tools for the teaching of specific contents especially to children in schools and colleges. Since then, through independence Nigeria has experienced a slow, but progressive effort at the improvement of the audiovisual instruction and educational broadcasting in schools and colleges all over the country.

Presently, all television stations throughout the country, especially those under federal control, have one form of educational programming or another, and some of it sponsored by the state or federal ministries of Education.

The need to cope with this major defect resulting from television programmers and producers has pressured enthusiastic researchers and even, television programmers to rely heavily on foreign films, cartoons and materials. Though as of present there is only one produced Nigerian cartoon but not shown in any Nigerian local station.

In most television stations in Nigeria and across Africa, most children programmes are foreign and almost similar contents are transmitted in all stations. There are many other children programmes, which are aimed at heavy entertainment and little learning. Also, most cartoon films used for classroom teaching are foreign produced, such as Sesame Street, Dora the Explorer, Barney and Friends etc.

Methodology

The study, employs Causal – Comparative research and Survey methods. According to Fraenkel and Wallenan (2000), in Causal-comparative research, investigators attempt to determine the cause or consequences of differences that already exist between or among groups of individuals. On the other hand, Survey is used to find out people's opinion, describe their behaviour and predict such behaviour.

The population is basically Nigeria children within the age of 6 to 8 years old in Power Holding Company of Nigeria (PHCN) Primary School 1, Life Camp Jebba, Niger State (Group A) and in Power Holding Company of Nigeria (PHCN) Primary School 2, Labour Camp Jebba, Kwara State (Group B), all in North Central zone. Group A that have characteristics (criterion group) and group B that do not have the characteristics (non-criterion group) to prove if the early stated hypothesis is accepted or rejected.

147 respondents were sampled from 195 pupils and teachers of primary 2 in both schools. The sample consists of 130 pupils and 17 teachers. Achievement test was administered to the primary audience of study; which includes: the schools where children are exposed to television cartoon and where the children are not exposed to television cartoon. The test revolves around the school curriculum that cartoon programmes like "Leap frog", "Barney and Friends", "Dora and Friends", "Sesame Street" etc. address. The same test was administered to both schools and at the end of it; a comparative study of the performance of the two schools was undertaken.

The secondary audience were 17 teachers from both schools that were administered questionnaire to ascertain whether the population of study was truly exposed to television cartoon in the classrooms or not. Also to ascertain other facts that will provide answers to the research questions. In essence, a causal- comparative study was employed to examine the interrelationship or differences in the performance of the two schools and finally draw an explanatory inference at the end of the study.

Result Presentation and Data Analysis

Research Question 1: Does television cartoon improve children academic performance?

Table 1: Cross tabulation of pupils grade by school of respondent

| School of respondent | Grade of respondent | | | | Total |
|------------------------|---------------------|------|-----------|-----------|-------|
| | Poor | Good | very good | Excellent | |
| PHCN Primary School I | 2 | 17 | 30 | 16 | 65 |
| PHCN Primary School II | 21 | 27 | 17 | 0 | 65 |
| Total | 23 | 44 | 47 | 16 | 130 |

Source: Field work 2014

From the data on table 1 above, 2 pupils in PHCN School I performed poorly, while 21 pupils in PHCN Primary School II performed poorly. The performance of 17 pupils was good in PHCN School I, while 27 pupils performance was good in PHCN School II. 30 pupils performance was very good in PHCN School 1, while 17 pupils performance was good in PHCN School II. 16 pupils performed excellently well in PHCN School I, while in PHCN School II, no pupil performed excellently well. This means that on the average, PHCN Primary School I performance was better than PHCN Primary School II because television cartoon is used as a teaching aid in school (I) unlike school (II). This data are also graphically represented in the histogram below.

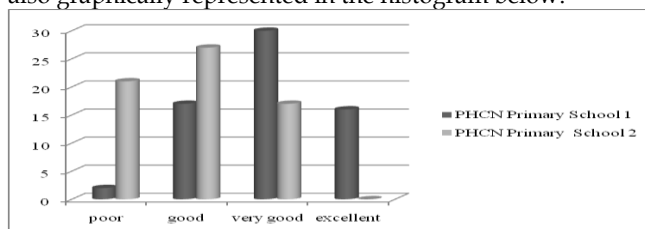


Fig 1: Pupils performance in School I and School II in test

Research Question 2: How frequent does the pupils watch television cartoon in classroom?

Nine copies of the questionnaire were distributed to the teachers in PHCN Primary School I. The question posed; "*Are the pupils exposed to television cartoon frequently?*" Eight of the teachers attested that the children watch television cartoon frequently, while one of the teachers said the pupils are not often exposed to television cartoon. This means that the children in PHCN Primary School I are on a regular basis exposed to television cartoon. The data are represented on the chart below;

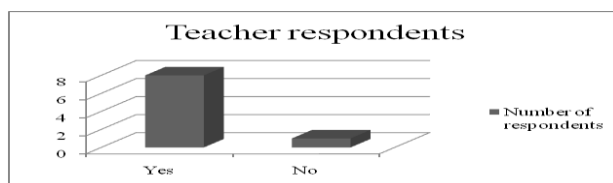


Fig 2: Frequency of children exposure to television cartoon.

Research Question 3: Should television cartoon as a teaching aid by teachers be encouraged or discouraged?

Table 2: Cross tabulation of school of respondent by pupils who passed and failed the achievement test.

| School of respondent | Pass and failure | | Total |
|-----------------------|------------------|------|-------|
| | pass | Fail | |
| PHCN primary school 1 | 64 | 1 | 65 |
| PHCN primary school 2 | 52 | 13 | 65 |
| Total | 116 | 14 | 130 |

From the data on table 2 above, 64 pupils in PHCN Primary School I passed the aptitude test while only 1 pupil failed it. 52 pupils in PHCN Primary School II passed the aptitude test, while 13 pupils failed the aptitude test. This means that pupils in School I performed better than the pupils in School II. Therefore television cartoon as a teaching aid should be encouraged since the difference in performance could be linked to exposure to television cartoon.

Research Question 4: What other teaching aids are employed by the teachers?

The data reveal the use of these teaching aids and methods by the teachers in teaching their pupils; real object, flash cards, calendar, chart, plastacine, abacus, sand pit, pictures, diagram, computer, flash card, calendar and chalkboard. However, the chart is the most used teaching aid.

Test of hypothesis

H₁ Children exposed to television cartoon as teaching aid in classroom on a are more likely to perform better in their academic work than children who are not exposed to any classroom television cartoon.

H₀ Children exposed to classroom television cartoon are not likely to perform better in their academic work than children not exposed to any classroom television cartoon.

Decision Rule for the Hypothesis

If the T-calculated is greater than the T-tabulated, reject the hypothesis and accept the alternative hypothesis.

Table 3: Paired T-Test Indicating the Differences in Performance of Primary School (I) and Primary School (II)

| Academic performance of school (I) and school (II) | Mean | N | Std. deviation | Std. error mean | T | Df. | P. value | Remark |
|--|---------|----|----------------|-----------------|---------|-----|----------|--------|
| School (I) | 22.8154 | 65 | 3.57024 | .44283 | 6.74575 | 64 | .000 | S |
| School (II) | 17.5692 | 65 | 4.13434 | .51280 | | | | |

S= Significant at 0.05 alpha level

Table 3 above shows that the paired t-test observed value indicating the differences in the academic performance of schools I and II is 6.75; therefore $P > 0.05$.

Since the t-calculated 6.74575 > t-table 1.9966, the Null Hypothesis is rejected and the alternative hypothesis is accepted. This means that, the mean score of the School I (22.8) is significantly different from the mean score of School II (17.6).

Therefore we conclude that School I performed better than School II because pupils are exposed to television cartoon as a teaching aid in the classroom. It should be noted that both schools make use of other teaching aids except the use of television cartoon. Therefore the difference in performance can be linked to exposure to television cartoon as a teaching aid in classroom.

Summary of Findings

From the data analyzed above, it is evident that television cartoon plays a vital role in the lives of children for better understanding of what they are taught in school. The analysis shows that children exposed to television cartoon in classroom are more likely to perform better than children not exposed to television cartoon in classroom.

It was discovered that television cartoon contribute immensely in enhancing children performance, for this reason television cartoon usage in classroom should be encouraged. These findings collaborate the findings of teachers.scholatic.com, that without greater use of visual learning in schools and other places of learning, many students are under-performing because of the inconsistency between teachers' teaching styles and students' learning styles.

The teaching aids include; real object, map, flash cards, calendar, bar chart, plasticise, abacus, sand pit, pictures, and chalkboard and all this is done with the physical presence of the teacher academic performance of the pupils will improve greatly.

Conclusion

It has been variously established in various studies that the media have a great influence on the mass audience – this is the strength of the mass media. This study has reaffirmed that the use of television cartoon in classroom have a positive impact on the pupils as the result of the hypothesis of study proved that children exposed to television cartoon perform better than children not exposed to television cartoon.

Recommendations

This study provides a basis for other researchers to investigate on how audio-visuals aids like cartoon can be properly used in classroom. Future researchers should carry out experimental research on this topic to further expand the claim of this study, or otherwise. Content analysis on frequently used cartoon films should be carried out to provide a manual guide for producers of educational cartoon.

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