Effect of Educational Cartoons on the Learning Outcomes of Pre-Nursery Pupils in Ado Ekiti, Ekiti State

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ABSTRACT: Technological advancements have brought about several innovations into the educational settings which in turn allows teachers to choose appropriate instructional materials and teaching methods suitable for their lessons. The study investigated the effects of educational cartoons on the learning outcomes of pre-nursery pupils in Ado-Ekiti, Ekiti State. The study adopted the pretest, post-test control group design. The population of the study consisted of all the pre-nursery pupils in private schools in Ado Metropolis. The sample of the study comprised 36 pupils who were selected through simple random sampling technique. An instrument titled Educational Cartoons and Pupils’ Learning Outcomes (ECPLO) was used to collect the data for the study. The validity of the instrument was ensured by experts in Language Education and test and measurement. A test-retest method was used was used to determine the reliability of the instrument while Pearson Moment Correlation Method was used to analyse the result which yielded a reliability co-efficient of 0.78. The finding of the study revealed that there is significant effect of educational cartoons on the learning outcomes of pupils in the experimental group. Based on the finding and conclusion of the study, it is therefore recommended that teachers should be encouraged to incorporate educational cartoons in teaching their pupils so as to foster good academic performance. Parents should also be encouraged to streamline the kind of cartoons they exposed their children to.

KEYWORDS: Technology, teaching methods, instructional materials, pre-nursery

INTRODUCTION

From the time immemorial, children have always been captivated by storytelling. Children tend to develop a kind of imagination where they see themselves as some of the characters portrayed in the stories most especially when the said character showcase some qualities that appeal to them. Story telling was the major way in which they entertain themselves at the end of their daily activities and it was through this act that many parents and grandparents were able to bond with the children. The major aim of storytelling centuries ago was to teach moral and acquaint the children with the taboos of the society. This was the scenario of a typical Nigerian
community before technology took over. Technological inventions like television, laptop and mobile devices have changed the entertainment narrative of children.

Furthermore, technological advancements have brought in a lot of changes when we talk about children’s entertainment. The usual night time story telling has been replaced by cartoons. Cartoons contribute to children’s learning and their social and emotional development. They improve children’s problem-solving skills and aesthetic pleasure by helping them enjoy their time (Parlakyidiz, & Parlakyidiz 2022.) One might begin to wonder why children are attracted to cartoons. Some of these reasons are explained below.

Cartoons possess a visually captivating and stimulating quality due to their bright colors, imaginative settings, and unique character designs. Their expressive and vibrant animation engrosses children's attention and arouses their interest. These animated shows often have simplistic storylines and plots that are easily comprehensible for young children. The clarity of the narratives simplifies the process of following along and understanding the happenings on the screen. The characters and situations depicted in cartoons are relatable to children, and they can establish an emotional connection with them. These characters have exaggerated, endearing, or funny personalities that evoke empathy, excitement, or happiness in children. The humorous content of cartoons resonates with children's sense of playfulness and fun. The incorporation of silly gags, slapstick comedy, and witty dialogues provide entertainment and laughter, which children thoroughly enjoy.

Moreover, numerous cartoons promote learning and development, incorporating various educational elements such as letters, numbers, problem-solving, and moral lessons, making them an engaging and informative tool for children's growth. Children are frequently transported to imaginative and alternate dimensions via cartoons, providing an outlet from the actual world. This mode of escapism enables children to cultivate their cognitive and imaginative abilities by utilizing their creative faculties.

Lastly, children develop a fondness for specific cartoon characters, who often become their role models. These characters may embody admirable qualities such as courage, compassion, or resolve, which inspire children to emulate them. Cartoons are readily accessible through various mediums such as television, streaming services, DVDs, and online platforms. This widespread availability enables children to view their preferred cartoons at their leisure, thereby augmenting their fondness for them.

Observation revealed that many Nigerian children are exposed to various types of cartoons. Some of them watch cartoons before going to school in the morning and when they come back from school in the evening. The researcher personally observed that most of these children are left unsupervised while watching cartoons. They are the ones who will select the kind of cartoon they want to watch not minding whether it will benefit them educationally or not. As long as it is entertaining, they are good to go. Sharma & Suri (2020) assert that cartoons if not supervised can have both positive and negative impacts on children and behaviour. They highlighted the positive impact of cartoon on children to include: improves observation and power, give wings to their imagination, teach them to respect parents and elders, help in language development and improves their health. The negative impact according to them are
educational distraction, violence and aggression. In the same vein, Parvin and Islam (2020) opine that children learn too many good lessons by watching cartoon programmes which directly contribute to their language, behavioural and educational developments.

Based on the structure of education in Nigeria, children are expected to start schooling from basic 1 but the private schools have their own structure which is a little bit different from that of public schools. The private primary schools include pre-primary classes in their structure. These pre-primary classes start from creche to Nursery 2. This means that it caters for children between the ages of 6 months to 4 years. It is a common knowledge that children who fall into this age group are really difficult to manage especially if their teaching is not being augmented with what can calm them down. Jamal, Ibrahim & Surif (2019) opine that since attracting the attention of students is not an easy task, teachers can find the initiatives of using visual teaching materials such as cartoons during the teaching and learning process.

Educational cartoons are those cartoon that are designed for educational purpose. They are shown on many cable television channels. Since technology has made everything easy, many of the cable television channels can be accessed via mobile devices like iPad, laptops and smartphones. Educational cartoons are designed to be entertaining and engaging, capturing children’s attention and motivating them to learn. They often focus on teaching pre-nursery pupils fundamental concepts such as numbers, letters, shapes, colours and problem-solving skills. Engaging with these can help them develop their cognitive abilities and improve their understanding of these basic concepts.

In addition, since teachers have always been advised to teach from known to unknown and from concrete to abstract, educational cartoons use visuals, animations, and graphics to illustrate concepts, making them more concrete and easier to understand. Educational cartoons can also be used to reinforce academic concepts through repetition, examples and visual cues due to the sing along way they are mostly presented. Information presented in this way can help solidify children’s understanding and recall important details.

Furthermore, educational cartoons can be used to improve the language development and problem-solving skills of children. Children will be exposed to new vocabulary, sentence structure and language patterns which can help in their overall language development. Real-life scenarios and problems presented in educational cartoons which require critical thinking and problem-solving skills can help children develop their analytical thinking, reasoning and decision-making abilities. However, it should be noted that the effectiveness of educational cartoons depends on various factors such as the quality of the content, age appropriateness and above all the individual differences of the children.

Eker and Karadeniz (2014) investigated the effects of educational practice with cartoons on learning outcomes. The study employed the quasi-experimental pre-test, post-test control group design while a total of 56 4th grade students constituted the sample for the study. The findings of the study revealed that student’s retention scores in the experimental group were higher than those in the control group. Similarly, Sulyman, Ajayi and Reuben (2022) conducted a study on the effect of animated film on pupil’s academic performance in social studies in Ilorin metropolis of Kwara Swtate. A quasi-experimental design was adopted while primary 2 intact
classes were used for the study. The findings showed that pupils in the experimental group performed better than their counterparts in the control group.

Omer and Yuksel (2020) conducted research on the effects of three-dimensional cartoons on pre-school children’s conceptual development in relation to spatial perception. The study was conducted with a sample of 83 pre-school children in the age range of 48–60 months. The study used Solomon four-group experimental research design. The data were collected with a concept development test developed by the researchers, to determine children’s levels of conceptual development. The findings demonstrated that cartoons had statistically significant effects on pre-school children’s levels of conceptual development. It is evident from the findings of these studies that educational cartoons can be a formidable tool in the improving the learning outcomes of pre-schoolers and pre-nursery pupils of Ado Ekiti metropolis. Most of the studies carried out on educational cartoons made use of specially prepared animated packages but this study made use of educational programmes shown on cable television.

**Purpose of the Study**

This study assessed the effect of educational cartoons on the learning outcomes of pre-nursery pupils in Ado Ekiti. Specifically, the study:

i. examined the homogeneity of pupils in the control and experimental groups

ii. examined the effect of cartoons on the learning outcomes of pupils in Ado Ekiti

**Research Hypotheses**

The following hypothesis were formulated for the study;

1. There is no significant difference in the pre-test mean scores of pupils in the experimental and control groups.

2. Educational cartoons do not significantly affect the learning outcomes of pupils in the experimental group.

3. There is no significance difference in the post-test mean scores of pupils in the experimental and control groups.

**METHODOLOGY**

The study adopted the pretest, post-test control group design. Pretest was administered to determine the homogeneity of the pupils while posttest was used to measure their learning outcomes. The population of the study consisted of all the pre-nursery pupils in private schools in Ado Metropolis. The sample of the study comprised 36 pupils who were selected through simple random sampling technique. An instrument titled Educational Cartoons and Pupils’ Learning Outcomes (ECPLO) was used to collect the data for the study. The instrument was divided into 2 sections. Section A sought information about the pupils’ demographic variables while section B consisted of 20 items. The validity of the instrument was ensured by experts in Language Education and test and measurement. A test-retest method was used was used to determine the reliability of the instrument while Pearson Moment Correlation Method was used to analyse the result which yielded a reliability co-efficient of 0.78.
The experimental procedure was in three stages.

**Stage I:** This is the pretreatment stage where pretest was administered to the pupils to determine their homogeneity. It was also at this stage that research assistants were trained on how to use package prepared for the study. This covered a period of 1 week.

**Stage II:** This is the treatment stage where the treatment was administered to the pupils. This covered a period of 6 weeks.

**Stage III:** This is the post treatment stage where posttest was administered on the pupils. This covered a period of 1 week.

The data collected from the study were analysed using inferential statistics. Hypotheses were tested using t test. All hypotheses were tested at 0.05 level of significance.

**RESULTS**

**Hypothesis 1:** There is no significant difference in the pre-test mean scores of pupils in the experimental and control groups.

<table>
<thead>
<tr>
<th>Groups</th>
<th>N</th>
<th>Mean</th>
<th>S. D</th>
<th>t_cal</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Control</td>
<td>18</td>
<td>55.83</td>
<td>6.17</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Experimental</td>
<td>18</td>
<td>57.61</td>
<td>5.33</td>
<td>0.926</td>
<td>0.361</td>
</tr>
</tbody>
</table>

p>0.05 (Result Not Significant)

Table 1 showed that the t_cal (0.926) is not significant at 0.05 level of significance. The null hypothesis is not rejected; this implies that there is no significant difference in the pre-test mean scores of pupils in the experimental and control groups.

**Hypothesis 2:** Educational cartoons do not significantly affect the learning outcomes of pupils in the experimental group.

<table>
<thead>
<tr>
<th>Groups</th>
<th>N</th>
<th>Mean</th>
<th>S. D</th>
<th>t_cal</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Experimental Pretest</td>
<td>18</td>
<td>57.61</td>
<td>5.33</td>
<td>6.453*</td>
<td>0.000</td>
</tr>
<tr>
<td>Experimental Posttest</td>
<td>18</td>
<td>72.722</td>
<td>8.39</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

P<0.05 (Significant Result)

Table 2 showed that the t_cal (6.453*) is significant at 0.05 level of significance. The null hypothesis is not accepted; this implies that there is significant effect of educational cartoons on the learning outcomes of pupils in the experimental group.

**Hypothesis 3:** There is no significance difference in the post-test mean scores of pupils in the experimental and control groups.
Table 3: t-test showing significant difference in the post-test mean scores of pupils in the experimental and control groups.

<table>
<thead>
<tr>
<th>Groups</th>
<th>N</th>
<th>Mean</th>
<th>S. D</th>
<th>t_{cal}</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Control Posttest</td>
<td>18</td>
<td>55.00</td>
<td>8.28</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Experimental Posttest</td>
<td>18</td>
<td>72.72</td>
<td>8.39</td>
<td>6.379*</td>
<td>0.000</td>
</tr>
</tbody>
</table>

P<0.05  
(Significant Result)

Table 3 showed that the t_{cal} (6.379*) is significant at 0.05 level of significance. The null hypothesis is not accepted, this implies that there is significant difference in the post-test mean scores of pupils in the experimental and control groups.

DISCUSSION

The finding of this study revealed that there is no significant difference in the pre-test mean scores of pupils in the experimental and control groups. Both the control and experimental groups have moderate mean scores. This implies that the two groups are homogenous. This could be attributed to the fact that they were both exposed to the same teaching methods.

The finding also revealed that there is significant effect of educational cartoons on the learning outcomes of pupils in the experimental groups. This finding corroborates the finding of Omer and Yuksel (2020) who conducted research on the effects of three-dimensional cartoons on pre-school children’s conceptual development in relation to spatial perception and found out that cartoons had statistically significant effects on pre-school children’s levels of conceptual development.

The finding further revealed that there is significant difference in the post-test mean scores of pupils in the experimental and control groups. This finding is in line with the finding of Eker and Karadeniz (2014) who investigated the effects of educational practice with cartoons on learning outcomes and found out that student’s retention scores in the experimental group were higher than those in the control group.

CONCLUSION

It could be concluded from this study that there was a significant effect of educational cartoons on the learning outcomes of pre-nursery pupils in Ado Ekiti.

Recommendations

Based on the finding and conclusion in this study, the following recommendations were made:

1. Teachers should be encouraged to incorporate educational cartoons into their teaching strategies so as to enhance their pupils’ academic performance.
2. Parents should also be encouraged to streamline the kind of cartoon they exposed their children to. They should endeavour to make their children watch more of educational cartons at home in order to augment what they are being taught in school.
REFERENCES