

EFFECT OF EDUTAINMENT VIDEOS ON COGNITIVE AND SOCIAL SKILLS DEVELOPMENT OF PRESCHOOL CHILDREN

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Abstract

The need for the use of edutainment videos in the teaching and learning of preschool children cannot be overlooked. Edutainment can be seen as an integration of educational content and elements of entertainment. It is defined as the type of teaching and learning that is placed within the framework of entertainment. Edutainment videos are characterized by an electronic medium where learning and entertainment occur simultaneously. With these edutainment videos, children may learn while having fun, which enhances their learning and has the capacity to boost their cognitive and social skills as well. This study was therefore carried out to examine the effect of edutainment videos on cognitive and social skills development among preschool children in Gboko Local Government Area (LGA) of Benue state, Nigeria. Four research questions and six null hypotheses guided the study. The study adopted a quasi-experimental research design. The study population comprised all the nursery three preschool children in Gboko LGA for the 2021/2022 academic year. A sample of 85 preschool children (39 males and 46 females) in four intact classes in two different preschools was drawn through purposive sampling technique. A rating scale developed by the researchers on cognitive and social skills development was used as instruments for data collection. The instruments were validated by two experts in childhood education and one expert in measurement and evaluation from University of Nigeria, Nsukka. The reliability of the instruments were 0.79 and 0.82 for cognitive and social skills questionnaires respectively using Cronbach's alpha. Data obtained were analyzed using mean and standard deviation to answer the research questions while Analysis of Covariance (ANCOVA) was used in testing the null hypotheses at 0.05 level of significance. The result of the study, among others revealed that edutainment videos enhanced preschoolers' cognitive and social skills more than the conventional teacher centred method. It was also found that gender had no significant influence on preschoolers' cognitive and social skills development. The result also showed that the difference between the cognitive and social skills development of the preschoolers taught using edutainment videos and those taught using conventional teacher centred method was statistically significant ($p < 0.05$). Based on these findings, the researchers concluded that the use of edutainment videos as an instructional strategy was effective, and it was recommended among others that workshops and seminars be organized for the training of preschool teachers on the use of edutainment videos in teaching preschoolers. It is also recommended that audio-visual materials be provided to early childhood or preschool centres to enhance lesson delivery by the preschool teachers.

Keywords: Cognitive Skills, Edutainment videos, Gender, Preschool learners, Social Skills.

1 INTRODUCTION

Education, a teaching and learning process, is the cornerstone for the development and empowerment of every nation. It shapes people's personalities and is crucial for spreading and upholding a person's culture, beliefs, and values in society. Education supports the creation of innovations and the fulfillment of every nation's new needs. To some extent, the development of a nation's human resources through a well-defined educational system can be used to gauge that nation's growth [1]. A nation can therefore rarely develop without a top-notch educational system. Consequently, if you want to ensure that future generations have the abilities they need to care for themselves in all areas of growth, education is crucial.

In general, childhood experiences and years are extremely important for good human development and cannot be undervalued in anyone's life. Preschool is therefore developed as a way to expose kids to learning experiences that fit their developmental needs and get them ready for meaningful life and future academic endeavor. Preschool, according to [2], is an early childhood program aimed at assisting kids in forming the routines, attitudes, and abilities necessary for primary schooling. Preschool is described by the Federal Republic of Nigeria as the sort of instruction intended for kids between the ages of 0 and 4 in an early childhood care center or nursery [3]. This indicates that the type of instruction offered to children in preschool serves as the cornerstone for their formal education.

In accordance with the aforementioned, [4] claimed that preschool is the cornerstone upon which an individual's entire educational experience is built, and that its quality defines the level of success to be attained. Probably for this reason, [5] emphasized that preschool education is crucial to children's life. So, it might be concluded that preschool learning experiences play a significant role in determining each person's future academic achievement.

The Federal Republic of Nigeria, in its National Policy on Education [3], recognizes the significance of preschool and states that the level of education is essential, with its objectives including facilitating a seamless transition of a child from the home to the school, preparing the child for the primary level of education, offering adequate care and supervision for the kids while their parents are at work, and instilling social norms in kids. Additional goals include fostering in children a spirit of inquiry and creativity via play with toys, exploration of the natural world, painting, music, and other forms of expression, as well as fostering in them a sense of cooperation and teamwork. These also involve teaching children the fundamentals of numbers, letters, colors, shapes, and forms through play and instilling healthy habits, particularly good health practices. These goals ostensibly demonstrate that preschool gives kids the chance to develop reading skills that will maximize their eventual academic experiences. Hence, preschoolers refer to children between the ages of 3-5 years who have not yet started primary school. [6] claim that these children can be found in creches, nurseries, and kindergarten where they are expected to develop their cognitive and social abilities at a young age.

Cognitive development in children can be seen as an active learning through "critical thinking and practical inquiry", which grow out of experience but also involve imagination and reflection upon what is learned. Research has shown that achievement of cognitive presence is dependent upon appropriate teaching and learning skills. [7] defined cognitive development as the extent to which pupils are able to construct and confirm meaning through sustained discourse in a community of inquiry. [7] explained that cognitive development requires that individuals encounter others who contradict their own intuitively derived ideas and notions and thereby create cognitive conflicts. The resolution of these conflicts leads to higher forms of reasoning. Thus, cognitive development is closely linked to interaction with others in the class, whether another pupil, the instructor, or course readings.

Social development, which includes a number of interconnected developmental domains such as social interaction, emotional awareness, and self-regulation, is another study variable. Preschoolers' connections with each other, particularly those with adults and peers, are the center of social interaction. Children learn to share, assist others, play together, and take turns as they grow socially. Teachers and other early childhood professionals are crucial in fostering children's social development. Supporting young children's social development can be both gratifying and difficult, according to Mayer, [8]. Realistic expectations of children's development at various ages are essential to offering support. It improves preschoolers' skills for sharing their knowledge, expressing their feelings and making their own decisions without asking for help, which make them more successful in their future lives. Children learn freely and have fun in a healthy environment, incorporating nature and stimulating all the senses. Owing to their young ages, they are challenging to instruct or manage without the aid of edutainment, such as educational movies. This is due to the possibility that children learn best in a pleasant or enjoyable learning environment.

As mentioned previously, edutainment is the combination of educational material with entertainment components. According to [9], edutainment is a form of education that is integrated into entertainment. The term "edutainment" refers, according to [10], to the synthesis of education and entertainment, or, to put it another way, the combination of education with enjoyment. [11] characterized edutainment as a blend of audio, animation, visuals, video, and literature that promoted learning among students. Moreover, the term "edutainment" refers to the concept of joyful learning that parents or teachers can employ to instruct and entertain their pupils at the same time [12]. Edutainment learning incorporates a range of elements, including media, the classroom environment, and different activities, to promote joy while playing and learning [13]. Consequently, one may assume that using edutainment movies is the best method of teaching and learning for young individuals, such as preschoolers. Edutainment videos are those audio-visual technological tools that are used to teach kids about numbers and numeracy, colors, drawing, the alphabet, reading, and vocabulary, according to [14]. They are also perceived as audio or audio-visual electronic media that meld enjoyment with education. This claim supports [15] observation that educational videos are an example of an electronic medium that combines education and enjoyment. Videos of this type include, among others, those from ABC Mouse, Barney and Friends, Teletubbies, Sesame Street, Dora the Explorer, Bob the Builder, Wonder Pets, Daniel the Tiger's Neighborhood, Noddy and Thomas the Tank Engine, and Poochy Choo Choo [14]; [16]. Children may

study while having fun with these edutainment videos, which improves learning and has the potential to improve literacy skills.

Children can learn the alphabet and other fundamental reading skills while enjoying the ABC Mouse video, for example. Similar to this, Barney and Friends, a video and television program, tries to teach literacy skills to kids between the ages of 1 and 8. A purple dinosaur that sings instructive tunes is another feature. Teletubbies tries to increase children's vocabulary and cognitive understanding by using appealing colors and providing opportunity for young children to imitate phrases spoken on television. With Sesame Street, kids are also introduced to concepts like literacy, numeracy, and social and practical skills [14]. According to [17], these methods are compelling and can teach kids how to read while entertaining them. In short, the main goal of employing educational movies is to boost kids' interest in learning and their effectiveness in picking up necessary abilities. Edutainment films are therefore audiovisual electronic media that, in the context of this study, teach toddlers how to read and write while simultaneously making them feel good or joyful about learning these skills.

Edutainment videos encourage learners by blending educational material with entertaining features that can improve their literacy skills and enthusiasm in learning. They do this by using vibrant animations, attractive noises, and interactive bits of software [18]. [19] noted that films encourage learning since they let students visualize the material while feeling engaged and gaining the needed information and abilities. Edutainment videos, which can assist children have a better understanding of literacy and numeracy, are said to inspire children to learn. The videos can be used to improve classroom instruction for kids as well as instruction for children outside of the classroom. There are many assertions that using digital or electronic tools, like audio and video content, can help kids learn more effectively than doing things the old-fashioned manner [21], [22], [23].

In some multimedia or educational cartoons, the use of sound, graphics, texts, and animation often captures children's interests and improves their learning, according to research [20]. A range of edutainment media, such as movies, TV series, and videos, could be used to achieve this. Edutainment movies, on the other hand, can encourage children to relax, think creatively, and learn, but they must be carefully selected, monitored, and supervised, according to [24].

Nonetheless, studies suggests that children's gender may have an impact on the development of their social and cognitive skills. Gender is a social and cultural construct that describes the traits, proclivities, and roles that various civilizations assign to males and females. These variations could show up in their academic performance. Contradictory reports from the past exist, nevertheless. For instance, according to [25], 32% of girls were able to link letters to sounds, compared to 26% of boys, and 70% of females were able to name letters at the beginning of the school year, compared to 62% of boys. This suggests that gender may have an impact on how children learn to read. Contrary to earlier reports, the study by [26] found that gender was not a major predictor of preschool children's reading proficiency. This indicates that additional research on gender is necessary to understand how it influences various aspects of life.

It is important to remember that edutainment movies are not frequently used in Nigerian schools and homes, despite the potential benefits they may have for children's learning. Also, there is a dearth of empirical research on the impact of edutainment movies on preschoolers' cognitive and social skills development in Nigeria, particularly in Gboko Local Government Area of Benue State. This was the gap in the literature, that inspired the researchers to investigate this subject.

The study objectives, therefore, include to determining the: (1) mean cognitive skill development scores of preschool children exposed to edutainment videos and those not exposed to it. (2) mean social skill development scores of preschool children exposed to edutainment videos and those not exposed to it. (3) influence of gender on cognitive skill development scores of preschool children. (4) influence of gender on social skill development scores of preschool children. (5) The interaction effect of teaching approaches and gender on the mean cognitive skills development scores of preschool children. (6) The interaction effect of teaching approaches and gender on the mean social skills development scores of preschool children.

The following research questions were posed to guide the study. (1) What is the mean cognitive skill development scores of preschool children exposed to edutainment videos and those not exposed to it? (2) What is the mean social skill development scores of preschool children exposed to edutainment videos and those not exposed to it? (3) What is the influence of gender on cognitive skill development scores of preschool children? (4) What is the influence of gender on social skill development scores of preschool children?

The following hypotheses were formulated in the study and were tested at 0.05 level of significance.

- **H₀₁:** There is no significant difference between the mean cognitive skill development scores of preschool children exposed to edutainment videos and those not exposed to it.
- **H₀₂:** There is no significant difference between the mean social skill development scores of preschool children exposed to edutainment videos and those not exposed to it.
- **H₀₃:** There is no significant influence of gender on the mean cognitive skill development scores of preschool children.
- **H₀₄:** There is no significant influence of gender on the mean social skill development scores of preschool children.
- **H₀₅:** There is no significant interaction effect of teaching approaches and gender on the mean cognitive skills development scores of preschool children.
- **H₀₆:** There is no significant interaction effect of teaching approaches and gender on the mean social skills development scores of preschool children.

2 METHODOLOGY

The non-equivalent control group pretest-posttest quasi-experimental research design was adopted for the study. The study was conducted in Gboko Local Government Area (LGA) of Benue State, Nigeria. The study population comprised all the nursery three in private primary schools in the LGA for the 2021–2022 academic year. The sample of the study was made up of 78 (32 males and 46 females, 35 preschoolers in experimental group and 43 preschoolers in control group) nursery three preschoolers, in four intact classes. They were drawn from four different schools for the study using a purposive sampling technique. The purposive sampling technique was used to ensure that only schools with modern electronic gadgets (such as television and computers) are selected for the study and these gadgets are only found in private schools in Nigeria, hence the choice of selecting private primary schools. The use of intact classes was to avoid disruption of normal school activities in the schools involved in the study. The conditions for selecting a school were that the school had at least: 1) one functional television set and video player; 2) a source of power or electricity; 3) a qualified teacher with a minimum qualification of Nigerian Certificate in Education (NCE) in Early Childhood Education; and 4) that the school authorities were willing to permit the involvement of the preschool children and the use of the school facilities for the study. Only one stream of the nursery three intact classes was selected in each of the four sampled schools, and the entire class was consequently used for the study. Two of the four intact classes selected in two different schools were randomly assigned to the experimental group, while the other two intact classes in two other schools were assigned to the control group.

The instrument for data collection was a rating scale on cognitive and social skills development of preschoolers developed by the researchers from the literature reviewed. Both cognitive and social skills rating scales had 15 items each on a 4-point rating scale of Always, Often, Seldom, and Never, with numerical values of 4, 3, 2, and 1 respectively. Also, the edutainment video used for the study was the ABC Mouse developed by [27];" and [28] "Let's Play School" by The Barney company) contained on a DVD. The cognitive and social skills development rating scale and the Edutainment videos contained on a DVD were validated by three experts, one in educational technology, one in early childhood education, and one in measurement and evaluation unit, all from the University of Nigeria, Nsukka. The research instruments (cognitive and social skills development) were later trial tested on 20 nursery three preschoolers in Makurdi local government area. The obtained data were used to estimate the reliability coefficients using Cronbach's Alpha and the coefficients were 0.83 and 0.80 respectively. These reliability indices showed that the instruments were reliable for the study.

2.1 Procedure

The researchers visited the sampled schools, introduced themselves to the school authorities, and sought permission to conduct the study using the schools. The school authorities provided the researchers with informed consent and approval before the experiment began, and this was done following proper consultation with the parents of the children, who also gave their consent for the participation of their children in the study through the school authorities. Upon granting permission, the researchers recruited regular classroom teachers in the four sampled nursery schools as research assistants. The research assistants for the experimental group were given proper orientation on the use of two edutainment videos (The ABC Mouse and the Barney and Friends) by playing and watching the

videos, while their counterparts in the control group were to follow their usual way of teaching. The teachers in both the experimental and control groups were well-trained on how to collect data using the research instrument.

In the first week, the instruments (cognitive and social skills development) were administered to the study sample to determine their cognitive and social skills before the start of the experiment. This enabled the teachers to examine the preschoolers' level of cognitive and social skills. After that, both the experimental and control groups participated in the experiment for a total of four (4) weeks, including revision. The ABC Mouse and the Barney and Friends videos given to the research assistants for the experimental group were used as the treatment package, while the control group received instruction using the standard chalkboard teaching method. Each session of instruction was carried out during regular school hours, adhering to the four-week schedule of 30 minutes for each session. Both sets of instructions for the two groups had the same content, precise objectives, duration, and evaluation. The same instruments were re-administered as post-test to assess how the various interventions enhanced the development of the preschoolers' cognitive and social skills. The same teachers examined the pupils both at pretest and post-test.

2.2 Data Analysis

The data collected from the pretest and posttest were subjected to statistical analysis. The data were analyzed using mean and standard deviations to answer the research questions, and the hypotheses were tested using analysis of covariance (ANCOVA) at a 0.05 level of significance.

3 RESULTS

Research Question One: What is the mean cognitive skill development scores of preschool children exposed to edutainment videos and those not exposed to it?

Table 1: Mean and Standard deviation of pretest and posttest rating of the effect of Edutainment Videos on pupils' cognitive skills development

SN	Instructional Mode	N	Pretest		Posttest		Mean Gain
			\bar{X}	SD	\bar{X}	SD	
1	Edutainment Videos	35	35.53	5.58	53.38	3.98	17.85
2	Conventional Method	43	34.05	6.78	48.43	4.08	14.38

According to finding in Table 1, the experimental group had a pretest mean rating for cognitive skill development of 35.53 with a standard deviation of 5.58 and a posttest mean rating of 53.38 with a standard deviation of 3.98. For the experimental group, the difference between the pretest and posttest means was 17.85. The control group taught using the traditional method had a pretest mean of 34.05 and a posttest mean of 48.43 with standard deviations of 4.08 and 6.78, respectively. For the control group, there was a 14.38 difference between the pretest and posttest means. The results also demonstrate that for each of the groups, the posttest mean ratings were higher than the pretest mean ratings, with a better mean gain for the experimental group that was taught using edutainment videos. This suggests that the educational strategy of edutainment videos has some effects on the development of preschoolers' cognitive skills more so than the traditional lecture method.

Research Question Two: What is the mean social skill development scores of preschool children exposed to edutainment videos and those not exposed to it?

Table 2: Mean and Standard deviation of pretest and posttest rating of the effect of Edutainment Videos on pupils' social skills development

SN	Instructional Mode	N	Pretest		Posttest		Mean Gain
			\bar{X}	SD	\bar{X}	SD	
1	Edutainment Videos	35	35.44	6.77	55.26	3.89	19.82
2	Conventional Method	43	38.16	6.60	44.48	2.88	6.34

According to Table 2, the experimental group had a pretest mean rating for social skill development of 35.44 with a standard deviation of 6.77 and a posttest mean of 55.26 with a standard deviation of 3.89. The group received instructions utilizing the edutainment videos teaching approach. For the experimental group, the difference between the pretest and posttest means was 19.82. The control group, which was taught without the use of edutainment videos, had a pretest mean of 38.16 and a posttest mean of 44.48. For the group that was not exposed to edutainment, the difference between the pretest and posttest means was 6.34. Since the group taught using edutainment videos had higher mean gain scores, this is an indication that edutainment videos instructional strategy had more effects on preschoolers' social skill development.

Research Question Three: What is the influence of gender on cognitive skill development scores of preschool children?

Table 3: Mean and Standard deviation of the influence of gender on cognitive skill development scores of preschool children

SN	Gender	N	Pretest		Posttest		Mean Gain
			\bar{X}	SD	\bar{X}	SD	
1	Male	32	33.53	6.51	51.47	4.48	17.94
2	Female	46	35.59	6.04	49.91	4.83	14.32

Results in Table 3 show that the male preschoolers had a cognitive skill development pretest mean rating of 33.53 with a standard deviation of 6.51 and a posttest mean of 51.47 with a standard deviation of 4.48. The difference between the pretest and posttest mean for the male preschoolers was 17.94. The female preschoolers had a pretest mean of 35.59 with a standard deviation of 6.04 and a posttest mean of 49.91 with a standard deviation of 4.83. The difference between the pretest and posttest mean for the female preschoolers was 14.32. Results show that the male preschoolers perform slightly higher than the female preschoolers with respect to cognitive skill development.

Research Question Four: What is the influence of gender on social skill development scores of preschool children?

Table 4: Mean and Standard deviation of the influence of gender on social skill development scores of preschool children

SN	Gender	N	Pretest		Posttest		Mean Gain
			\bar{X}	SD	\bar{X}	SD	
1	Male	32	36.09	6.37	48.56	6.13	12.47
2	Female	46	37.66	7.06	49.66	6.52	12.00

Results in Table 4 show that the male preschoolers had a social skill development pretest mean rating of 36.09 with a standard deviation of 6.37 and a posttest mean of 48.56 with a standard deviation of 6.13. The difference between the pretest and posttest mean for the male preschoolers on social skill development was 12.47. The female preschoolers had a pretest mean of 37.66 with a standard deviation of 7.06 and a posttest mean of 49.66 with a standard deviation of 6.52. The difference between the pretest and posttest mean for the female preschoolers on social skills development was 12.00. Results show that the male preschoolers also perform slightly higher than the female preschoolers with respect to social skill development.

3.1 Hypothesis One

H₀₁: There is no significant difference between the mean cognitive skill development scores of preschool children exposed to edutainment videos and those not exposed to it.

Table 5: Analysis of Covariance (ANCOVA) of the difference between the mean rating of cognitive skills development of pupils taught using edutainment videos and those taught without edutainment videos.

Source	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Decision
Corrected Model	575.137 ^a	4	143.784	9.226	0.00	0.336	
Intercept	5689.940	1	5689.940	365.081	0.00	0.833	
PretestCognitive	8.748	1	8.748	.561	0.45	0.008	
Group	418.967	1	418.967	26.882	0.00	0.269	S
Gender	52.374	1	52.374	3.360	0.07	0.044	NS
Group * Gender	36.538	1	36.538	2.344	0.13	0.031	NS
Error	1137.735	73	15.585				
Total	201340.000	78					
Corrected Total	1712.872	77					

Note: S = Significant, NS = Not significant, $\alpha = 0.05$

The finding of the study as presented in Table 5 shows the ANCOVA of the difference between the mean cognitive skill development scores of preschool children exposed to edutainment videos and those not exposed to it. The result was statistically significant at ($F = 418.967$, $p = 0.00$, $\eta^2p = 0.269$). Since the associated probability value of 0.00 is less than 0.05 set as level of significance, the null hypothesis is rejected. Thus, inference drawn is that there was a statistically significant difference between the mean cognitive skill development scores of preschool children exposed to edutainment videos and those not exposed to it. The result further showed the effect size of ($\eta^2p = 0.269$), which indicates that 26.9% variance in pupils' cognitive skills development is attributed to the use of edutainment video during classroom instructions.

3.2 Hypothesis Two

H₀₂: There is no significant difference between the mean social skill development scores of preschool children exposed to edutainment videos and those not exposed to it.

Table 6: Analysis of Covariance (ANCOVA) of the difference between the mean rating of social skills development of pupils taught using edutainment videos and those taught without edutainment videos.

Source	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Decision
Corrected Model	2304.079 ^a	4	576.020	53.402	0.00	0.745	
Intercept	5190.035	1	5190.035	481.164	0.00	0.868	
PretestSocialskill	25.879	1	25.879	2.399	0.12	0.032	
Group	2095.977	1	2095.977	194.316	0.00	0.727	S
Gender	8.520	1	8.520	.790	0.37	0.011	NS
Group * Gender	34.260	1	34.260	3.176	0.07	0.042	NS
Error	787.408	73	10.786				
Total	191744.000	78					
Corrected Total	3091.487	77					

Note: S = Significant, NS = Not significant, $\alpha = 0.05$

The study's findings are shown in Table 6, which includes an ANCOVA of the variation in mean social skill development scores between preschoolers exposed to edutainment videos and those who were not. At ($F = 194.316$, $p = 0.00$, and $2p = 0.727$), the result was statistically significant. The null hypothesis is rejected since the associated probability value of 0.00 is less than the level of significance of 0.05. Therefore, it can be concluded that there was a statistically significant difference in the mean social skill development scores between preschoolers who had access to edutainment movies and those who had not. The result further showed the effect size of ($\eta^2p = 0.727$), which indicates that 72.7% variance in

pupils' social skills development is attributed to the use of edutainment video during classroom instructions.

3.3 Hypothesis Three

H₀₃: There is no significant influence of gender on the mean cognitive skill development scores of preschool children.

The result on Table 5 shows the ANCOVA of the influence of gender on cognitive skills development of preschoolers. The result was not statistically significant at ($F = 3.360$, $p = 0.07$ $\eta^2p = 0.04$). Since the associated probability value of 0.07 is greater than 0.05 set as level of significance, the null hypothesis is not rejected. Thus, inference drawn is that gender did not significantly influence cognitive skills development of preschoolers during the experiment. The result further showed the effect size of ($\eta^2p = 0.04$), which indicates that only 4% variance in pupils' cognitive skills development is attributed to the influence of gender.

3.4 Hypothesis Four

H₀₄: There is no significant influence of gender on the mean social skill development scores of preschool children.

The ANCOVA results in Table 6 show how gender influences preschoolers' social skills develop. The f-ratio of ($F = 0.790$, $p = 0.37$) indicates that the result was not statistically significant. The null hypothesis is not rejected since the associated probability value of 0.37 exceeds the threshold of 0.05 specified for level of significance. Therefore, it can be concluded that during the trial, gender had no discernible impact on preschoolers' social skill development.

3.5 Hypothesis Five

H₀₅: There is no significant interaction effect of teaching approaches and gender on the mean cognitive skills development scores of preschool children."

The result in Table 5 shows that an F-ratio of 2.344 and the associated probability value of 0.13 were obtained with respect to the significant interaction effect of instructional strategies and gender on pupils' cognitive skills development. Since the associated probability value of 0.13 is greater than 0.05 set as level of significance, the null hypothesis is not rejected. Inference drawn is that the interaction effect of instructional strategy and gender on preschoolers' cognitive skills development is not statistically significant.

3.6 Hypothesis Six

H₀₆: There is no significant interaction effect of teaching approaches and gender on the mean social skills development scores of preschool children."

The finding in Table 6 illustrates the interaction effect between gender and instructional strategies on the development of social skills in preschoolers, with an F-ratio of 3.176 and an associated probability value of 0.07. The null hypothesis is not rejected since the associated probability value of 0.07 exceeds the level of significance of 0.05. The conclusion that follows is that there is no statistically significant interaction between instructional strategies and gender on the development of social skills in preschoolers.

3.7 Discussion

This study examined the effect of edutainment videos on cognitive and social skills development of preschool children in Gboko Local Government Area of Benue State. The findings of the study show that edutainment videos effectively and efficiently enhanced preschool children's cognitive and social skills development. The result of the study further showed that there is a significant positive effect of edutainment videos on cognitive and social skills development among preschoolers. That is, the difference between the mean rating of cognitive and social skills development of preschoolers taught using edutainment videos and those taught without edutainment videos was statistically significant. This implies that edutainment videos when properly used for lesson delivery among preschoolers have high tendency of developing the cognitive and social skills of the learners. This result is true because edutainment videos draw learners' attention through brightly colored animations, captivating sounds, and interactive pieces of software designed to engage and inspire them by fusing instructional content (Tuzun, 2004). The finding of this study agrees with Amory (2007) who noted that videos enable learners

to visualize the subject matter while feeling excited and acquiring the desired knowledge and skills. This result is also in line with the views of Sinor (2011), who revealed that the use of sound, images, texts, and animation in some multimedia or educational cartoons typically captures children's interests and helps them learn better. Furthermore, the finding lends support to some researchers (Discombe, 2016; Mustafaoglu, Zireck, and Razak, 2018; Ngwoke, Ezema, and Nwachukwu, 2021) who disclosed that digital or electronic devices like audio and video content can help children learn better than the traditional way. These therefore imply that, edutainment videos when properly utilized can help to promote preschoolers cognitive and social skills more than the conventional way of teaching children.

The findings of the study also revealed that the male preschool children demonstrated slightly higher mean cognitive and social skills development during the experiment than their female counterparts. However, the results further revealed that gender does not have a significant influence on the development of cognitive and social skills among preschool children using edutainment videos during classroom instruction. This shows that gender is not a significant factor in determining preschoolers' cognitive and social skills development. This finding is inconsistent with Nancollis, Lawrie, and Dodd (2005), who in their study, found that female preschool children did better in naming letters, connecting letters to sounds, and other literacy skills than their male counterparts. The findings, however, agree with Vlachos and Papadimitriou's (2015) report that gender was not a significant determinant in preschool children's reading performance. This means that both male and female preschool children have similar chances of developing their cognitive and social skills using edutainment videos as an instructional strategy during classroom instruction.

4 CONCLUSIONS

Based on the findings, the researchers concluded that edutainment videos have significant positive effect on the development of cognitive and social skills among preschool children in Gboko Local Government Area of Benue State. It was also concluded that gender is not a significant determinant of preschoolers' development of cognitive and social skills.

Based on the findings, the researchers recommended that edutainment videos should be employed by preschool teachers in teaching preschool children, and that school administrators and proprietors should provide the necessary facilities that will enable the use of edutainment videos in teaching preschoolers. It is also recommended that workshops and seminars be organized for the training of preschool teachers on the use of edutainment videos in teaching preschoolers.

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