Examining the Role of Edu-Cartoons in Imparting Reading Skills to Children. A Case of Selected Pre-Primary Schools in Tabora – Tanzania

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ABSTRACT

Educational cartoons have emerged as a prominent factor in developing pre-primary children. Video and mobile platforms facilitate the acquisition of various skills and promote early childhood preparedness. This study focuses on examining the role of Edu-cartoons in imparting necessary reading skills to pre-primary children while identifying the significance of Edu-cartoons in imparting reading skills to children as the specific objective of this study. The study is informed by the Social Learning Theory by Albert Bandula; Krejcie and Morgan’s formula was used to obtain a sample size of 200 participants, and a computer-aided koboTool program with cartoons giving instructions to children was used to solicit information on Edu-cartoons reading skills from 150 children. Further, 25 pre-primary teachers and 25 parents were also exposed to semi-structured interviews on Android phones aided with KoboTool programs. Data collected from Temihill, St. Francis, Westland, Greenlane, and Shauri Jema pre & primary schools were analysed using SPSS version 27.1. The findings reveal that, apart from website sources such as Ubongo Kids and Kilimani Sesame, children access the same content from local Television and TV cables. Moreover, the study finds that Edu-cartoons help improve children's pronunciation skills during reading, develop reading comprehension and increase vocabulary to children. The study recommends that parents and teachers guide children on where they can access relevant information resources to enhance reading competencies.

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INTRODUCTION

In recent years, Edu-cartoons have emerged as a substantial tool for enhancing teaching and learning in pre-primary educational environments. Due to technological progress, children now have access to YouTube platforms, social media and television channels that intend to impart valuable knowledge and abilities (Leeuw et al., 2018). Integrating technology within the educational sphere has recently strengthened children's motivation. Moreover, it has enhanced their learning, particularly regarding potential skill development and language, reading, and writing (Banchonhottakit et al., 2015). Edu-cartoons contain a variety of essential strategies for improving reading skills, including prediction, visualisation, connection, question, clarification, and evaluation. As defined in this study, pre-primary children are those between the ages of two and six years, normally in the third stage of human development, which is commonly known as childhood. The Edu-cartoons assist children in developing their reading abilities from the first stages, which include emergent reading, early reading, transitional reading, and fluency reading.

Seeing the importance of Edu-cartoon during learning among children, the government of Tanzania, in its development plan, known as Tanzania Vision 2025, pillar four, focuses on establishing a literate and knowledgeable society by providing superior education across all levels. The Tanzania education system endeavours to deliver high-quality education. This is achieved by guaranteeing pre-primary children access to quality education, which facilitates the development of literacy skills. It enables children to cope with contemporary technological advancements effectively (Moody, 2010). In adherence to goal four of the Sustainable Development Goals (SDG), the government of Tanzania has created an environment which facilitates educational learning applications. The implementation of the goal guarantees learners access to an inclusive and equitable education that fosters opportunities for lifelong learning. To ensure equitable access to high-quality early childhood development, care, and pre-primary education, the Tanzanian government has allowed all early childhood schools to use technology such as Edu-cartoon in learning endeavours (UNICEF, 2018).

This shows the commitment of the Tanzania government to the milestone of goal four of the SDG, which was to increase the enrolment rate from 94% in 2018 to 97% in 2021 (Institute of Statistics, 2022). The Tanzanian education system effectively advances SDG number four by implementing a curriculum that prioritises quality education and ensures that every pre-primary child acquires comprehensive literacy development skills. This is reflected in the pre-primary curriculum's overarching competence of ability to communicate, which instructs children on speaking, listening, pre-reading, and pre-writing (URT, 2023). Moreover, objective 2 of the Africa We Want by 2065 agenda stipulates that Africa should have a proficient populace and a skills revolution supported by science, technology, and innovation; this is to be achieved by increasing funding for early childhood education (AGENDA, 2015). All these highlighted efforts emphasise reading skill development in pre-primary schools is enhanced by implementing various Edu-cartoons platforms that facilitate knowledge transfer to children.

The government has reduced the number of illiterate in pre-primary schools by emphasising the development of literacy skills and promoting the 3Rs to all children (Ngussa & Mjema, 2017). Early experiences and exposure to print materials, watching television and social media platforms programs, more specifically to the educative cartoons and animations, especially during pre-primary and early grades of schooling, have a particularly critical role in children's acquisition and development of literacy skills (Rawle, 2015;
Ndijuye and Rao, 2018). Early years of education yield significant and long-lasting performance on future school results.

Pre-primary education as the foundation of children's future career development has brought several achievements in intellectual capability, emotional awareness, social interaction skills, and physical development, all of which can be achieved through direct interaction with Edu-cartoons. In Tanzanian education settings, private pre-primary schools have access to Edu-cartoon that can be accessed through their parents' telephones, television channels, iPads, laptops and computers, and projectors from their schools. The advancement of technology simplifies teaching and learning strategies, and teachers can facilitate the learning process easily. Reading skills are now developed through various media platforms, including the emergence of Ubongo Kids, which helps shape children's reading ability from the first to the final stage, fluency reading. With many challenges hindering the development of reading skills, the Ubongo Kids provides ample time for children to master all the steps in reading skills during home and school environments (Ubongo, 2020).

The Tanzanian literacy development has been growing from year to year; the statistics from the National Panel Survey in 2022 show that around 76% of Tanzanians were literate in 2020/21 compared to 69.8% in 2014/15, exhibiting improvements across all strata (NBS, 2022). The growth of the literacy rate has been the impact of the strategies used in teaching literacy skills in pre-primary schools. Moreover, according to the Tanzania Demographic and Health Survey and Malaria Indicator Survey findings conducted in 2022, Tabora exhibits a 7% lower education level than other Tanzanian regions. Thus, the Tabora region ranks 16% score on reading fluency and comprehension (URT, 2022). This is to say Tabora is one of the regions with the lowest reading proficiency.

The regional performance trends for children who met the benchmark in oral reading fluency from 2019 to 2021 are from 10.9 % in 2019 to 17.2 % in 2021 and from 36.7 % in 2019 to 34.4 % in 2021 in terms of oral reading comprehension. This demonstrates that while the trend for reading fluency skills has increased over the years, oral reading comprehension has declined from 36.7 % in 2019 to 34.4 %, representing a decline of -2.3 % (URT, 2022). Despite the variation in reading fluency and comprehension, private pre-primary schools have employed several strategies, including using technology to develop reading skills among pre-primary learners. To the best knowledge of the researcher, no studies have been conducted on the role of Edu-cartoons in imparting reading skills among private pre-primary schools in Tabora Municipal. The current study, therefore, intends to identify the significance of Edu-cartoons in imparting reading skills to children and to assess the accessibility of Edu-cartoons platforms utilised by children to develop reading skills.

**METHODOLOGY**

A descriptive research design was chosen to examine Edu-cartoons' roles in imparting reading skills to children. Sample sizes were selected from the private pre-primary schools for a research study. According to the report from Tamisemi (2023) on Basic Education data 2023, the population of pre-primary school children from private schools is 1,599 from 15 private schools in Tabora Municipality. The inclusion criteria of the selected schools were the schools with the availability of power supply, computers and internet system; this made the successful selection of five pre-primary schools, including Themihill, St. Francis, Westland, Greenlane and Shauri Jema, to represent the study. Krejcie and Morgan's (1970) formulae were adopted to select 150 children from the population, while 25 teachers and 25 parents were selected purposely, totalling 200 respondents.

The questionnaires addressed to 150 children were formulated through computer-aided KoboTool programs with cartoons giving instructions to children. The data were further collected from pre-primary teachers and parents through semi-structured interviews organised
through Android phones aided by the KoboTool program. The questionnaire formulated from the KoboTool collects observed validation criteria and skip logic as the inclusion and exclusion criteria for responding to the given questions. The collected data were analysed through SPSS version 27.1, and the study adhered to ethical issues throughout.

RESEARCH FINDINGS

This part presents the findings from the study respondents, including their demographic information and the findings based on the research objectives. The demographic information of study respondents was categorised into three groups: children, parents, and teachers.

Demographic Findings of Research Respondents

Among 200 research respondents from the study, 106 (53%) were female, and their counterparts, 94 (47%), were male. Specifically, out of 200 respondents, children were 83 (55.3%) boys; while their girls' counterparts were 67 (44.7%). Of the same total, 25 were parent respondents. The findings show that male parents were 7(28%), while their female counterparts were 18(72%). Further, male teachers were 4(16%); while their counterpart female teachers were 21(84%). The overall findings based on gender category show that female parents and teachers were the majority compared to their male counterparts. Contrary to parents and teachers, boys comprised the majority of children compared to girls.

Further, the results show the age cohort of study respondents where children ranging from 2-3 years scored 15 (10%) and 4-5 years scored 135 (90%); on the other hand, teachers who ranged from 22-25 scored 4(16%); 26-29 scored 10 (40%); 30-34 scored 9 (36%); 35-39 scored 2 (8%) while none of respondents range from 40 and above. Again, results show that parents range from 24-29 scored 12(48%); 30-34 scored 9(36%); 35-39 scored 2(8%); 40-44 scored 1 (4%); and 45 and above scored 1(4%). The result indicates that most research respondents are conversant with the Edu-cartoon as the means of imparting reading skills to children. Moreover, the results show that teachers 14 (56%) demonstrated having working experience from 3-6 years, 7(28%) ranged from 7-10 years, 3(12%) ranged from 2 years, 1(4%) range from 11 and above working experience.

Additionally, the education background among respondents, excluding children, was categorised into four groups whereby Diploma 18(72%) was the prominent education level among teachers in pre-primary school; Certificate 4(16%); and Bachelor Degree 3(12%) while none of them had Masters' degree. Similarly, parents' level of education was quite different from teachers', whereas certificates scored 7(28%); diplomas scored 6(24%); Bachelor's degree scored 10(40%); and Masters' degree scored 2(8%). According to the results, parents with a degree education level are more prominent than teachers.

Moreover, the results indicated that male parents 4(57.14%) were aware of the Edu-cartoons in learning, while 3(42.86%) were unaware. Similarly, their female counterpart seems to be more knowledgeable of the Edu-cartoon in learning, of which 16(88.89%) were aware and 2(11.11%) were not. Considering their gender differences, females were more aware of Edu-cartoons teaching their children than their male counterparts.

Role of Edu-cartoons In Imparting Reading Skills to Children

The results from teachers on Edu-cartoons' role in enhancing reading skills involved six variables: guiding tool, the foundation from emergent to fluency reading, strengthening pronunciation of words, increased vocabulary during reading, improvement of self-esteem and confidence during reading and retaining children's attention. Of the six variables, males show more emphasis on guiding tool 2(50%), strengthened pronunciation of words 1(25%) and improvement of self-esteem and confidence during reading 1(25%), while variables such as foundation from emergent to fluency reading, increases vocabularies and retain children attention were not highly considered by the male. Moreover,
female counterparts show high emphasis on variables such as strengthening pronunciation of words 10(47.62%), increasing vocabulary 4(19.05%), and guiding tool 3(14.29%). However, some variables, such as foundation from emergency to fluency reading 2(9.52%), retaining children's attention, and improving self-esteem and confidence in reading, had similar scores of 1(4.76%).

The findings from both genders indicated that Edu-cartoon has a significant role in enhancing reading skills in children in the area of word pronunciations 11(44%), acting as a guiding tool which points the proper place of the starting point of where to read 5(20%) and increases vocabularies 4(16%). Further, the variables such as foundation from emergent to fluency reading 2(8%), improvement of self-esteem and confidence during reading 2(8%) and retaining children's attention 1(4%) as significant variables when dealing with Edu-cartoon and reading skills among children.

Moreover, parents were also posed with the same variables as teachers, and the results indicated that, out of the six variables, male parents demonstrated strengthened pronunciation of words 3(42.86%) and increased vocabulary 3(42.86%) as among the variables involved with the role of Edu-cartoons in enhancing reading among their children. Meanwhile, variables of improvement of self-esteem and confidence during reading, retaining children's attention and foundation from emergent to fluency reading were not taken into consideration by male parents. Furthermore, female parents considered strengthening the pronunciation of words 10(55.56%) and guiding tool 3(16.67%). In comparison, two variables, foundation from emergent to fluency reading and increased vocabulary, received the same score for each 2(11.11%). However, the improvement of self-esteem and confidence during reading scored 1(5.56%), while no response was posed to the variable of retaining children's attention.

Therefore, responses from parents revealed that Edu-cartoons play a significant role in enhancing reading skills through strengthening pronunciation of words, scoring 52%, increasing vocabulary scores 20%, and Edu-cartoon as a guiding tool scored 16%. Thus, more emphasis should be placed on the variables such as foundation from emergency to fluency reading, 8%; improvement of self-esteem and confidence during reading, 4%; and retaining children's attention 0%.

Moreover, the study used an observation checklist with seven observed features, which include the ability to hold a book in the right direction, the ability to be fluent in reading, the ability to pronounce words correctly, the ability to pay attention when reading, ability to manage self-esteem and confidence when reading, ability to retain memory and ability to understand vocabularies when reading. Among the seven observed features, 22(26.51%) boys were observed with the ability to hold the book in the right direction; 15(18.1%) boys can pronounce words correctly, 14(16.86%) boys show the ability to fluency reading and 13(15.66%) boys shows the ability to pay attention when reading; In contrast, 3 (3.61%) boys show the ability to manage self-esteem and confidence when reading. Further, among girls children, 14(20.9%) show the ability to read fluency; 12(17.91%) show the ability to hold a book in the right direction; 11(16.42%) show the ability to pronounce words correctly; and 9(13.43%) shows the ability to retain memory. Contrarily, the ability to manage self-esteem and confidence when reading 6(8.95%) and understand vocabulary when reading 7(10.45%) receive low scores.

Based on the findings, it is evident that Edu-cartoons play a significant role in improving the reading skills of children in pre-primary schools as Edu-cartoons act as a guiding tool for children to understand the starting point when reading, improve fluency reading, word pronunciation and active paying attention while reading. However, the results noted that the ability to manage self-esteem and confidence when reading and understanding vocabulary when reading was noted as an area of improvement.
DISCUSSIONS OF THE FINDINGS

The following sub-section guides this section on discussion on the findings: edu-cartoons as a guiding tool, edu-cartoons strengthen the pronunciation of words, edu-cartoons increase vocabularies, edu-cartoons capture children's attention and retain memory, edu-cartoons improve self-esteem and confidence during reading, edu-cartoons act as a foundation for an emergency to fluency reading. More details as presented

Edu-cartoons as a Guiding Tool

The findings revealed that Edu-cartoons play a significant role in directing a starting point when reading. Once admitted to school, most pre-primary children confuse the book's direction when reading; they tend to place the book upside-down. Thus, watching Edu-cartoon, such as Akili and Me, clearly shows how to hold a book in the right direction (Ubongo, 2020). Children are guided to start reading from the top of the book's first page. Therefore, children are guided on the starting point of developing reading skills by watching Edu cartoons. Exposing children to media-based content stimulates their brain development. It helps them to master content in a variety of ways compared to exposing them to printed books.

As Buhori and Nyaisa (2024) pointed out, the technological advancement that has come along with learning platforms such as Edu-cartoons plays a significant role in guiding children on how to hold a book while reading and recognising the starting reading point among children.

Edu-cartoons strengthen the Pronunciation of Words.

Daily exposure to Edu-cartoons significantly impacts pronouncing words during reading among pre-primary children. The availability of media channels with cartoon sessions plays a significant role in strengthening the pronunciation of words among pre-primary children; drawing examples from Sesame Street, Akili and Me, Tumble Leaf, Super Why, and Word World are among the Cartoon channels directly associated with literacy development among pre-primary children. Pronunciation of words is highly connected with actively paying attention to what interests the child; then, the child starts to imitate the pronounced words from the watched cartoons. Children's direct exposure to the media content is highly connected with proper pronunciation of words when reading, as the cartoon content provides directions for articulating or pronouncing the words exactly as expected within that language. Thus, when children are exposed to cartoons that provide directions for reading among children, it provides them with the accessibility to understand the procedures for pronouncing words during reading.

Drawing attention from the study done by Alghonaim (2020) shows that early and continuous exposure to cartoons significantly strengthens children's pronunciation skills in the English language. Alghonaim (2020) highlighted that pronunciation skills are an essential aspect that should be considered among pre-primary children as they bridge the gap during oral communication among children. This study concurred with the results as it clearly shows a need for direct interaction between children and cartoons to improve the pronunciation of words among children. Moreover, Postic (2015) concurred with the results, stating that exposing pre-primary children to various cartoons during their early years results in excellent pronunciation and communication skills and more fluency than those not exposed. Additionally, Alexiou (2015) added that children exposed to cartoons could imitate a native-like pronunciation, accent, diction and even the character's behaviour.

Edu-cartoons Increase Vocabularies

Technological advancement has improved reading skills among pre-primary children. Watching Edu cartoons has a significant role in increasing the variety of vocabulary towards pre-primary children. Children who interact with cartoons-based content tend to capture new vocabulary and understand their meaning. Children require three aspects when learning to read: cognitive, physical, and psychological.
Understanding vocabulary during reading requires adults and teachers to provide relevant support to help children capture new vocabulary when reading. Children develop reading skills by watching Edu cartoons, paying attention to the cartoons they watch, and then starting to imitate the content displayed in Edu cartoons. Children discover new vocabulary and meanings by reading cartoons on Television or YouTube.

The results from this study concurred with the study from Zamzami & Zamzami (2023), who added the value of exposing children to cartoon media content as it improves children's vocabularies and understanding of those vocabularies—in the view of Seli and Santosa (2022) added that visual aids such as cartoons have proven to effective in facilitating language acquisition to children as they are more engaging and interactive. Moreover, Rasyid (2016) revealed that cartoons play a significant role in ensuring children master a variety of vocabulary quickly. They are visually engaging, and children are often attracted to bright colours and fun animations, making it easier for them to pay attention and retain new vocabulary taught. In addition, Khaliq and Nasution (2019) added that cartoon videos significantly increase children's vocabularies as they capture children's attention and make learning more enjoyable. More interestingly, Alghonaim (2020) added that children acquire basic vocabulary by imitating the character's speech from the watched cartoon using the same verbs.

**Edu-cartoons Capture Children’s Attention and Retain Memory**

The findings from this study revealed that pre-primary children enjoy watching cartoons as they are attracted to them due to the colour used, movements, and sound effects designed to capture children's interest and attention. Exposing children to Edu-cartoon helps improve their reasoning skills and memory due to the attractiveness of visualisation. Children who spend a lot of time watching television cartoons will likely improve their reading skills by paying attention to the cartoons displayed. Children's attention span is prolonged for almost 20 minutes, so pre-primary teachers are encouraged to involve various activities to capture children's attention during teaching and learning hours. Those activities may involve watching cartoons that involve visualising graphic movement to help them understand the lesson effectively.

The study done by Abraham et al. (2021) concurred with the findings from this study that children exposed to cartoons that are directly related to the education setting tend to have high attention skills due to the appearance of the cartoons with attractive colour, movement and sounds. Moreover, Skariah and Dhanya (2022) added that children who watch cartoons perform less than those who watch cartoons for shorter durations. They noticed a difference in children's attention span according to their age. For instance, young children are less stable in their attention than older children. However, cartoons have negatively impacted pre-primary children; too much exposure to cartoons has reduced social interaction skills among pre-primary children.

Teachers have noticed that children incredibly exposed to cartoons have trouble paying attention to their teachers as they consider television cartoons more interesting than listening to their teachers (ibid). On the other hand, Sudhakaran (2017) has discouraged cartoons by adding that children who watch cartoons are reinforced with negative behaviour, negativism, bad dreams, anxiety, stereotypes, and health problems.

**Edu-Cartoons Improve Self-Esteem and Confidence During Reading**

Exposing children to Edu-cartoons helps them understand their reading skills effectively, as understanding reading skills effectively makes it easy for children to be confident while reading. Children who struggle with reading in front of others or teachers create an incredibly daunting experience. Children need to read effectively individually and around; developing reading proficiency skills among pre-primary children requires various ways and strategies, including Edu-cartoons within classroom hours, which may help improve children's self-confidence. Children
who feel shy from reading will likely face more significant obstacles in their future lives. Their teachers and parents can build self-esteem and confidence among pre-primary children by being patient and encouraging them by giving them supportive learning materials to boost their confidence and self-esteem.

The findings from this study concurred with the study done by Aktepe (2021), who added that exposing children to cartoons helps build self-confidence and helps them improve their reading skills. Moreover, Alkan (2017) discussed the importance of children's access to cartoons as the foundation of future career development. Exposing children to Edu-cartoons helps them master relevant emotional, cognitive, social, and physical skills. Pre-primary education is a period that helps children gain self-confidence and affects their development positively by identifying their abilities, developmental characteristics, individual differences, and personalities from birth to the beginning of primary school. Therefore, when children fail to build self-confidence in reading comprehension at this stage, it will affect their future reading skills.

**Edu-cartoons Act as a Foundation for an Emergency to Fluency Reading**

The findings from this study revealed that Edu-cartoon plays a significant role in ensuring children recognise words correctly while reading. Children exposed to Edu-cartoons will be highly successful in reading fluently in the future. The watched cartoon allows them to recognise letter, words and their meanings while reading, which helps them speed up their reading performance. As children start from unknown to known, Edu-cartoons help to increase reading speed, from single words to entire sentences. Further, Edu-cartoon is a link for children with reading difficulties to improve their reading skills and interests. The growing trends of technological advancement have been observed to provide significant support in the area of pre-primary classes as Edu-cartoons and other animations have improved the reading skills among pre-primary children and have significantly helped children recognise letters and words and later on speed up the reading activity among them. Children start by listening to the watched cartoons and then start to imitate by reading together with the cartoons, which helps them master the pronunciation of words and understand vocabulary when reading.

Further, Edu-cartoons provide scaffolding that supports pre-primary children in developing emergent literacy skills (Buhori & Nyaisa, 2024). Edu cartoons allow fluent and struggling readers to enjoy and be interested in reading. It is essential that additional opportunities to explore Edu-cartoons in reading may assist with developing essential emergent reading among children. Moreover, Aerila and Merisuo-storm (2017) added that teaching children to develop reading skills in the early years may have a long-lasting effect on their future abilities. Children's ability to read fluently and comprehension skills have helped them understand different elements of texts; on the other hand, Suggate et al. (2013) added that children who do not learn to read fluently and comprehend different kinds of texts in the early years may have severe difficulties in school.

**CONCLUSION**

The findings revealed that Edu-cartoons play a significant role in ensuring children acquire the necessary skills for improving reading. The findings recognised that the selected schools strive to implement Sustainable Development Goal Four, ensuring inclusive and equitable quality education and promoting lifelong learning opportunities by applying technology in the school environment. Reading skills among pre-primary children can be improved with the availability of a friendly environment with technological advancement. Therefore, Edu-cartoons are used by the selected private pre-primary schools, which helps improve pronunciation skills, vocabulary, fluency in reading, and self-esteem and confidence during reading.
Recommendations

The study recommends that a comprehensive study on the role of Edu-cartoon in imparting reading skills among pre-primary schools should be covered in a wide area, specifically in Tanzania’s pre-primary schools. The finding recommends further study on Edu-cartoons' role in improving self-esteem and confidence during reading among pre-primary children; Edu-cartoon is the foundation from emergent to fluency reading and retaining children's attention and memory.

Further, the study recommends that the Edu-cartoons content creators design content that is aligned with the children's ability to improve self-esteem and confidence during reading and the reading skills from emergency to fluency. Children sometimes fail to read effectively due to a lack of confidence and fear of being laughed at by their fellow children.

Moreover, the study recommends that the government, through the Ministry of Finance and Planning, should subsidise the cost of electricity and reduce taxes on some of the technological facilities such as Television so that even children from remoteness areas can benefit from them in the case of improving reading skills among pre-primary children.

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