

## COWBELL TELEVISION QUIZ SHOW AS INSTRUCTIONAL TELEVISION PROGRAMME FOR ACADEMIC PERFORMANCE OF SECONDARY SCHOOL STUDENTS IN NIGERIA

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### Abstract

*The integration of Instructional Television (ITV) into secondary school education in Nigeria represents a significant shift towards leveraging media to enhance learning outcomes. This study explores the impact of ITV programmes, particularly focusing on the Cowbell Television Quiz Show, on the academic performance of secondary school students in Awka South Local Government Area (LGA), Anambra State. With the growing emphasis on technology in education, this research adopts a quantitative approach, utilizing a survey design to collect data from 397 senior secondary students across various schools. The study aims to assess students' exposure to ITV programmes, evaluate their perceived effectiveness, and analyse the correlation between ITV viewing frequency and academic performance. Findings indicate that while students engage with ITV programmes primarily on a weekly basis, there is a notable perception of a positive relationship between frequent viewing and improved academic performance. The study concludes that ITV programmes can significantly contribute to academic enhancement when effectively integrated into the curriculum. Recommendations include increasing the frequency of ITV exposure and improving the content quality to make it more engaging and aligned with diverse learning styles.*

**Keywords:** Instructional television programmes, quiz show, cowbellpedia, academic performance, secondary school students.

### Introduction

This study investigates the effectiveness of the cowbell Television Quiz Show as Instructional Television (ITV) Programme in improving the academic performance of secondary school students in Awka South Local Government Area of Anambra State, Nigeria. It explores the historical background of Instructional Television (ITV) in Nigeria, tracing its roots to the establishment of the Nigerian Television Authority (NTA) in 1970s. Despite the recognized potential of instructional television to complement classroom learning and cater to diverse learning styles, challenges such as limited access to television sets, inconsistent power supply and socio-cultural factors hinder its full utilization. Through examining the Cowbell Television Quiz Show within the context, the study aims to contribute to the broader discussion on the role of educational technology in Nigeria. It seeks to shed light on the programme's impact on academic performance, its benefits in catering to different learning preferences and its potential to address challenges in educational delivery.

## Background

The utilization of Instructional Television (ITV) in education has become increasingly prevalent globally, but its impact on the academic performance of secondary school students in the Nigerian context remains under-explored. As educational technology continues to evolve, understanding the effectiveness of instructional television programmes becomes imperative for educational stakeholders (Ihechu, 2021). Also, in the ever-evolving landscape of education, the quest for innovative methodologies to enhance learning outcomes is a perpetual challenge. The role of technology in education has become increasingly prominent, and one such technological intervention that has gotten attention is the integration of instructional television programmes into the secondary school curriculum (Nwabueze, 2020).

To comprehend the current landscape of Instructional Television (ITV) programmes in Nigerian secondary schools, it is imperative to trace the historical evolution of this educational approach. The roots of instructional television can be traced back to the mid-20<sup>th</sup> century when Nigeria, like many other nations, witnessed a surge in the establishment of formal educational structures (Agbanu, 2019). As the nation grappled with the challenge of disseminating knowledge to an expanding student population, television emerged as a promising medium (Okonlawon, 2020). The advent of television broadcasting in Nigeria in the 1970s marked a pivotal juncture. The establishment of the Nigerian Television Authority (NTA) in 1977 served as a catalyst for delivering educational content to a broader audience. Recognizing the potential of television in education, strategic collaborations were initiated between the government, educational bodies, and content producers to develop programmes aligned with the national curriculum (Agbanu, 2019).

Furthermore, according to Edeghor (2019), the introduction of Instructional Television (ITV) aimed to cater to diverse learning styles. Acknowledging the inherent variability in students' cognitive strengths, the multimedia nature of television allowed for the presentation of information in ways that could appeal to different learning preferences. For instance, visual learners could benefit significantly from the graphic representations and demonstrations facilitated by instructional programmes. Also, Nwakaobi (2021) posits that the implementation of instructional television programmes in Nigerian secondary schools unfolded through a carefully orchestrated, phased approach. This involved collaborative efforts between educational authorities, content producers, and broadcasting corporations. Educational experts and curriculum developers collaborated closely with producers to align programme content with the subjects taught in secondary schools, ensuring a seamless integration into the existing curriculum.

In this same line, Ibrahim (2022) asserts that the result of this collaboration was a series of educational programmes covering a spectrum of subjects, from mathematics and science to literature and history. These programmes were meticulously designed to reinforce classroom learning, providing students with supplementary resources to deepen their understanding of academic concepts. The delivery of Instructional Television (ITV) programmes often occurred during dedicated time slots, allowing schools to incorporate these programmes into their schedules effectively.

Moreover, the potential impact of instructional television programmes on the academic performance of secondary school students is a subject of profound interest and ongoing research. Proponents like Kambili (2020) argues that the visual and auditory stimulation provided by these programmes enhances comprehension, retention, and application of academic concepts. The multimedia format appeals to diverse learning styles, accommodating students with varying cognitive strengths. Also, Daramola (2021) posits that studies conducted in Nigeria and other countries have sought to quantify the relationship between exposure to Instructional Television (ITV) and academic outcomes. Findings consistently indicate a positive correlation between regular engagement with educational television content and improved academic performance. Students who consistently interact with instructional programmes tend to demonstrate higher levels of subject mastery, critical thinking skills, and academic confidence.

Bassey (2022) asserts that while Instructional Television (ITV) programmes present a promising avenue for educational enrichment, challenges exist in their widespread implementation. Limited access to television sets, particularly in rural areas, poses a significant barrier to the universal adoption of these programmes. Additionally, the need for consistent power supply and technological infrastructure

highlights the intricate challenges faced by educational authorities in harnessing the full potential of instructional television.

Apart from lack of infrastructure and cost, illiteracy, low income and some socio-cultural factors, this insufficient access affect people's access to television. Religious beliefs can also hinder access even where the people do have the income and education. While religious hindrance could be experienced in the north, social barriers like male apathy towards education could be the problem in the south eastern parts of the country. For example, the drop-out rate among young males in the south eastern part of the country is becoming a growing concern. Many young males do not enrol in schools, while others drop out of schools to pursue a perceived lucrative career in petty trading and general merchandising business which is popular in the region, (Igbokwe and Eze, 2008).

The enrolment figure for 2022/2023 academic session, published by the Anambra state education commission is a proof to this assertion. The number of male students that registered for WAEC was 191,378 against the number that registered for female students, which was 310, 576 in Anambra state. This scenario is to say the least, not too encouraging.

However, Cowbellpedia Secondary Schools TV Quiz Show is broadcasted on Gotv Channels 7, sponsored by Cowbell Milk Nig Ltd. The programme is hosted by popular media personality, Ebuka-Obi Uchendu and co-host, Linda Ejiofor. The programme is aired at 1pm-2pm on Monday, Wednesday and Friday of the week. The Cowbellpedia Secondary Schools TV Quiz Show is a Nigerian national television quiz show that debuted in 2015. It was created by Oladapo Ojo. The initiative began in 1998 as Cowbell National Secondary School Mathematics Competition (NASSMAC) when it was a written examination without a TV show. Since 1998, the Cowbell brand has been involved in promoting the study of mathematics in secondary schools across Nigeria. In the process, it has helped millions of students develop an interest in and gain a better understanding of the subject. The project is designed to identify, recognize, and reward excellence in the study of mathematics and some other subjects like English language, Physics, Chemistry, etc. The programme is deployed in public and private schools. It serves students between the ages of eight and eighteen.

Moreover, Jerome (2022) also states that in addressing these challenges, opportunities for innovation emerge. The proliferation of mobile devices and the internet provides alternative channels for delivering instructional content beyond traditional television broadcasts. Educational apps, online platforms, and streaming services offer the flexibility to reach a broader audience, overcoming geographical and infrastructural limitations. As the nation continues to navigate the complexities of its education system, instructional television programmes stand as a testament to the ongoing efforts to provide quality education to all.

### **Statement of the Problem**

The integration of Instructional Television (ITV) programs in secondary schools across Nigeria has led to a critical examination of its impact on students' academic performance. This study addresses the fundamental problem of effectiveness of television as an instructional tool in enhancing the learning outcomes of secondary school students. The accessibility and equitable distribution of such programs, the quality and relevance of their content to the curriculum, and their potential to cater to diverse learning styles pose significant challenges.

One of the primary concerns is the disparity in access to instructional television programs among students in different regions of Nigeria. Due to the diverse socio-economic landscape of the country, some students may lack access to essential technological resources like televisions and electricity, which are crucial for engaging with instructional programs. This digital divide raises questions about the fair distribution of educational benefits and its effect on students' academic outcomes. Furthermore, the quality and relevance of instructional television content add another dimension to the problem. The impact of these programs on academic performance depends heavily on whether the content is aligned with the curriculum and the cognitive abilities of students. If the content is not suitably aligned with educational goals or fails to engage students, its potential influence on academic performance may be diminished.

Moreover, it is essential to explore how Instructional Television (ITV) programs address the diverse learning styles and preferences of secondary school students. Education is not a one-size-fits-all endeavour, and students have different learning preferences, visual, auditory, kinaesthetic, etc. Understanding whether instructional television programs accommodate these varied learning styles and foster a more inclusive educational environment is vital. Investigating whether exposure to these programs results in sustained improvements in learning outcomes or if the benefits are short-lived will provide valuable insights into the lasting impact of this educational tool. This study highlights the multifaceted challenges surrounding the integration of instructional television programs in Nigerian secondary schools. Addressing these problems is crucial for understanding the impact of the Cowbell Television Quiz Show as an Instructional Television Program on the academic performance of secondary school students in Nigeria, with a focus on Awka South Local Government Area in Anambra State.

### Research Objectives

The general objective of this study is to examine in particular the Instructional Television (ITV) programmes in particular with reference to the programmes and academic performance of secondary school students in Nigeria, with focus on Awka South LGA, Anambra state. The specific objectives of this study are to;

1. assess the extent of exposure to Cowbell Television Quiz as instructional television programmes among secondary school students in Awka South LGA.
2. evaluate the perceived effectiveness of Cowbell Television Quiz as instructional television programmes in enhancing students' understanding of academic subjects.
3. analyse the correlation between the frequency of viewing Cowbell Television Quiz instructional television and students' academic performance.

### Research Questions

The following questions will be used to proffer solutions to the research problem;

1. What is the level of exposure to instructional television programmes among secondary school students in Awka South LGA?
2. How effective do students perceive instructional television programmes in enhancing their understanding of academic subjects?
3. Is there a significant correlation between the frequency of viewing instructional television and students' academic performance?

### Research Hypotheses

The following alternate hypotheses guided this study;

**H1-** There is a significant extent of exposure to Cowbell Television Quiz Show as an instructional television program among secondary school students in Awka South LGA.

**H2-** Cowbell Television Quiz Show significantly enhances students' understanding of academic subjects.

**H3-** There is a significant correlation between the frequency of viewing Cowbell Television Quiz Show and students' academic performance.

### Literature Review

#### The Concept of Instructional Programmes

At its core, an instructional program comprises various components that collectively contribute to the delivery of educational content and the attainment of learning objectives. These components typically include curriculum standards, instructional materials, teaching methodologies, assessment practices, and professional development opportunities for educators (Elias, 2021). Curriculum standards outline the knowledge, skills, and competencies students are expected to acquire within specific subject areas or grade levels, providing a framework for instructional planning and alignment (Ezebuenyi, 2020). Instructional materials includes textbooks, digital resources, manipulatives, and multimedia tools that support teaching and learning activities, catering to diverse learning styles and preferences. According to Ezebuenyi (2020),

teaching methodologies encompass instructional strategies, pedagogical approaches, and classroom practices employed by educators to engage students, facilitate learning, and foster critical thinking skills. Assessment practices involve the systematic evaluation of student progress and achievement, utilizing formative and summative assessments to inform instruction and measure learning outcomes. Professional development opportunities empower educators to enhance their instructional practices, refine their pedagogical skills, and stay abreast of emerging trends and research in education.

The primary objectives of instructional programs revolve around promoting student learning, academic achievement, and holistic development. These programs aim to cultivate a supportive learning environment that fosters curiosity, creativity, and intellectual growth (Ezebuenyi, 2020). By aligning instructional practices with curriculum standards and learning objectives, educators seek to equip students with the knowledge, skills, and competencies necessary for success in academia and beyond (Elias, 2021). The author further asserts that instructional programs also prioritize the development of critical thinking skills, problem-solving abilities, and communication skills essential for navigating the complexities of the modern world. Furthermore, these programs emphasize the importance of diversity, equity, and inclusion, ensuring that all students have access to high-quality education and equitable opportunities for learning and advancement.

The concept of instructional programs has profound implications for educational practice, shaping teaching and learning experiences in classrooms, schools, and educational institutions (Nweke, 2020). The author also posits that effective implementation of instructional programs requires collaboration among educators, administrators, policy-makers, and other stakeholders to design, implement, and evaluate curricular initiatives that meet the diverse needs of students and communities. Also, Nweke states that educators play a central role in delivering instruction, adapting teaching strategies to accommodate diverse learning styles, abilities, and backgrounds. They utilize a variety of instructional methods, technologies, and resources to engage students, promote active learning, and facilitate meaningful learning experiences. Additionally, Ezebuenyi (2020) states that educators use assessment data to monitor student progress, identify areas for improvement, and tailor instruction to meet individual learning needs. Administrators provide leadership and support for instructional programs, allocating resources, fostering a culture of continuous improvement, and ensuring alignment with educational goals and standards. Policy-makers and stakeholders advocate for policies and initiatives that promote the development and implementation of effective instructional programs, advocating for equity, access, and excellence in education.

### **A Review of Cowbellpedia Television Quiz Show**

Cowbellpedia Secondary Schools TV Quiz Show is a Nigerian national television quiz show that debuted in 2015. It was created by Oladapo Ojo. The initiative began in 1998 as Cowbell National Secondary School Mathematics Competition (NASSMAC) when it was a written examination without a TV show. Since 1998, the Cowbell brand has been involved in promoting the study of mathematics in secondary schools across Nigeria. In the process, it has helped millions of students develop an interest in and gain a better understanding of the subject. The project is designed to identify, recognize, and reward excellence in the study of mathematics. The programme is deployed in public and private schools. It serves students between the ages of eight and eighteen.

In 2015, Promasidor Nigeria (PNG) became a sponsor of Cowbellpedia. Their sponsorship made the programme more robust. In the same year, the initiative took a new dimension when it was split into two stages. The Stage One is the Qualifying Examination (written exam in designated centres across the country) and the Stage two is the TV quiz competition. Since 2016, Cowbell-Our Milk has decided to bring all its mathematics intervention activities under one umbrella, Cowbellpedia. The top prize was increased to 2 million Nigerian Naira in 2018 so as to celebrate the 20 years anniversary of the Mathematics competition initiative. Cowbellpedia is an annual mathematics intervention for young students in Nigeria with many touch points. It is approved by the Federal Ministry of Education and endorsed by National Examination Council (NECO), the National Examination body for secondary schools in Nigeria. After schools must have duly completed their registration on [www.cowbellpedia.ng](http://www.cowbellpedia.ng),

all the eligible students are expected to write a national qualifying examination, administered by NECO, at designated centres closest to them. The results are released online every 1 June, to commemorate World Milk Day. From the students that write the examinations annually, the best 108 (54 junior and 54 senior students) converge in Lagos along with their mathematics teachers to attend the quiz show.

### **Objectives**

1. To demystify myths about the difficulty in studying and understanding mathematics by identifying and rewarding excellence amongst students, thereby entrenching Cowbell as the brand that delivers the needed ingredient for healthy physical growth and brain development.
2. To raise the standard of schools' education through unbiased engaging tools that would promote sound education, using a holistic platform that is engaging, educative and entertaining.
3. To practically demonstrate the symbiotic relationship between Mathematics and Technology, thereby sustaining a keen interest of schools, parents, teachers and other stakeholders, in ensuring good education for their children.

### **The Exposure Level of Secondary School Students to Instructional Television Programs**

In the ever-evolving landscape of education, the integration of technology has become a prominent feature, and instructional television serves as a significant component in this realm. Understanding the intricacies of students' exposure to these programs is essential for educational stakeholders, policy-makers, and researchers (Nweke, 2020). Instructional television programs encompass a diverse range of content designed to supplement classroom learning. These programs leverage the visual and auditory elements of television to convey educational material in a dynamic and engaging manner (Nweke, 2020). According to Olaoye (2021), the exposure level of secondary school students to such programs is a topic of considerable importance due to its potential implications on academic performance, cognitive development, and the overall educational experience.

One crucial dimension to explore is the frequency of exposure, it considers whether instructional television is a sporadic supplement or an integral part of their educational journey (Olaitan, 2022). Moreover, the diversity of programs viewed adds another layer to the exploration of exposure levels, because instructional television covers a wide array of subjects, from mathematics and science to literature and history (Olaoye, 2021). Investigating the diversity of programs students choose to engage with sheds light on their individual preferences, interests, and potential areas of academic focus. It also unveils the adaptability of instructional television in catering to the varied needs of a diverse student population (Nweke, 2020). Also, the duration of viewing sessions constitutes another significant aspect of exposure, understanding the optimal duration for effective learning through television programs can inform educators and content producers in refining the design and delivery of instructional content (Oroh, 2020). Demographic factors also play a pivotal role in shaping the exposure levels of secondary school students to instructional television. Variables such as socio-economic status, geographical location, and access to technology can influence the extent to which students have access to instructional television programs (Nweke, 2020). Also, the educational environment itself contributes significantly to exposure levels. It also underscores the collaborative efforts between educators, policy-makers, and content producers in creating an effective educational ecosystem (Olaitan, 2022).

### **Perceived Effectiveness of Instructional Television Programs in Enhancing Students' Academic Understanding**

In recent years, the integration of technology in education has witnessed a paradigm shift, with instructional television emerging as a prominent tool aimed at augmenting students' comprehension of

academic subjects (Yemi, 2023). As traditional teaching methods encounter challenges, educators and policy-makers seek innovative approaches to engage students and foster a deeper understanding of academic subjects. Instructional television programs, characterized by their audio-visual nature, have garnered attention as a means to cater to diverse learning styles and enhance the overall learning experience (Akpabio, 2021). The effectiveness of instructional television programs hinges on their ability to captivate students' attention and deliver educational content in a compelling manner (Yemi, 2023). In this context, proponents argue that the audio-visual stimuli provided by instructional programs offer a unique and engaging way for students to interact with academic material. Visual learners, in particular, may find these programs beneficial as they leverage graphic representations, demonstrations, and multimedia elements to elucidate complex concepts.

Furthermore, the integration of instructional television into the educational landscape is not a recent phenomenon. As technology advanced, educational institutions recognized the potential of television as a medium for disseminating information (Matthew, 2022). Also, the historical evolution of instructional television programs reveals strategic collaborations between educational bodies, content producers, and broadcasting corporations. This collaborative effort aimed to align program content with the national curriculum, ensuring relevance to subjects taught in secondary schools (Ubong, 2022). The academic subjects covered by instructional television programs span a spectrum, including mathematics, science, literature, and history. According to Matthew (2022), these programs are meticulously designed to complement classroom learning, providing students with supplementary resources to reinforce their understanding of academic concepts. The structured delivery of these programs during dedicated time slots facilitates seamless integration into school schedules, allowing students to benefit from these resources in tandem with their regular coursework. Osaze (2022) argues that the perceived effectiveness of instructional television programs lies in their potential to enhance comprehension, retention, and application of academic concepts. The multimedia format caters to diverse learning styles, accommodating students with varying cognitive strengths. However, studies conducted both in Nigeria and globally have sought to establish a quantitative relationship between exposure to instructional television and academic outcomes.

Additionally, Oyibo (2022) posits that research findings consistently indicate a positive correlation between regular engagement with educational television content and improved academic performance. Students who actively interact with instructional programs tend to demonstrate higher levels of subject mastery, critical thinking skills, and overall academic confidence. This positive correlation underscores the potential of instructional television programs as a valuable supplement to traditional teaching methods. However, amidst the promising aspects of instructional television, Ifechukwu (2021) asserts that the challenges persist in its widespread implementation. Limited access to television sets, particularly in rural areas, poses a significant barrier to the universal adoption of these programs. Also, the need for consistent power supply and technological infrastructure highlights the intricate challenges faced by educational authorities in harnessing the full potential of instructional television. In addressing these challenges, Garbu (2023), states that opportunities for innovation emerge. The proliferation of mobile devices and the internet provides alternative channels for delivering instructional content beyond traditional television broadcasts. Educational apps, online platforms, and streaming services offer the flexibility to reach a broader audience, overcoming geographical and infrastructural limitations. Oyibo (2022) asserts that as the nation navigates the complexities of its education system, instructional television programs stand as a testament to ongoing efforts to provide quality education to all. The perceived effectiveness of these programs in enhancing students' academic understanding underscores the need for continued research, investment, and strategic planning to leverage technology for the betterment of education.

### **The Relationship Between Students' Academic Performance and the Frequency of Viewing Instructional Television.**

The modern educational paradigm has witnessed a significant evolution with the integration of technology, and instructional television stands at the forefront of this transformation. As students navigate the complexities of their academic pursuits, the frequency with which they engage with televised

instructional content becomes a noteworthy variable in understanding their overall performance (Nweke, 2020). At its core, the relationship between students' academic performance and the frequency of viewing instructional television is rooted in the premise that exposure to educational content through this medium can influence learning outcomes (Oroh, 2020). The inherent visual and auditory stimulation provided by televised instructional programs creates a unique learning environment, distinct from traditional classroom settings. According to Nweke (2020), the multifaceted nature of this relationship involves dissecting various dimensions, from the cognitive processes activated during viewing to the practical application of acquired knowledge in academic assessments. Also (Chikere, 2021) states that the correlation is not merely coincidental but intricately tied to the nature of instructional television content. These programs are meticulously designed to supplement classroom instruction, offering a visual and auditory reinforcement of academic concepts. The repetition of core ideas through televised lessons serves to solidify understanding, catering to diverse learning styles and preferences.

Scholars like Kambili (2020) emphasizes the potential of visual and auditory stimulation in reinforcing subject mastery and critical thinking skills. The dynamic nature of televised content, with its ability to present information through various formats, aligns with the cognitive diversity inherent in student populations. However, this relationship is not without its complexities and potential challenges. While instructional television holds promise as an educational enhancer, factors such as the quality of content, students' active engagement during viewing, and the accessibility of this medium come into play. Bassey (2022) notes that challenges, including limited access to television sets in certain regions, pose barriers to the universal effectiveness of instructional television programs. As the exploration of this relationship unfolds, it becomes apparent that the frequency of viewing instructional television is not a one-size-fits-all determinant of academic success. The intricate interplay between individual learning styles, program content, and the broader educational context necessitates a nuanced understanding of how these factors converge.

### **Theoretical Framework**

This study finds expression in Social Learning theory and Media Richness theory;

#### **Social Learning Theory**

Social Learning Theory is a psychological framework that delves into the mechanisms through which individuals acquire new behaviours, attitudes, and skills by observing and imitating others within their social environment. This theory posits that learning is not solely a product of direct reinforcement, but is also heavily influenced by observational learning, where individuals learn from the experiences of others around them. Albert Bandura, a Canadian psychologist, introduced Social Learning Theory in the early 1960s as an extension of behaviourist principles. Bandura departed from strict behaviourism by incorporating cognitive elements, emphasizing the role of mental processes in learning. His groundbreaking work challenged the notion that learning is exclusively a result of direct consequences and rewards, introducing the pivotal concept of observational learning.

At the core of Social Learning Theory is the idea that individuals can learn new behaviours by observing others, whether these behaviours are reinforced or punished. Bandura identified several key components that contribute to the effectiveness of observational learning:

**Modelling:** Individuals learn by observing the behaviours of others, known as models. These models can be people in their immediate environment or figures portrayed in media.

**Imitation:** Once a behaviour is observed, individuals may imitate or replicate it. Bandura highlighted the significance of imitative learning in the acquisition of new skills or behaviours.

**Reinforcement:** Although not limited to direct reinforcement, Bandura acknowledged its role in the learning process. Reinforcement can occur through various means, such as praise, rewards, or punishments.

**Vicarious Reinforcement:** Individuals do not necessarily need to experience reinforcement directly. Witnessing others being rewarded or punished for a behaviour can influence the likelihood of them adopting or avoiding that behaviour.



While Social Learning Theory has significantly contributed to our understanding of learning processes, it has faced criticism on various fronts. One notable critique is the oversimplification of the role of observation and imitation in learning. Miller and Dollard (1941) criticized Bandura's theory by arguing that it neglected the influence of internal cognitive processes. They contended that Bandura's emphasis on external factors, such as reinforcement, did not adequately account for the complexity of human cognition. Gergen (1973) raised concerns about the deterministic nature of Social Learning Theory. He argued that the theory portrayed individuals as passive recipients of environmental influences, undermining the active role that individuals play in shaping their own learning experiences. In response to these criticisms, Bandura (1977) acknowledged the need to incorporate cognitive elements into his theory, leading to the development of Social Cognitive Theory. This evolution aimed to address the gaps identified by critics and provide a more comprehensive understanding of the reciprocal interaction between cognitive, behavioural, and environmental factors.

Going by this theory, individuals learn not only through direct experiences but also by observing others. In the context of instructional television, students become observers of educational content presented through this medium. The visual and auditory stimulation provided by instructional television aligns with Bandura's idea of modelling, where individuals learn by witnessing modelled behaviours. In the study area of Awka South LGA, students may acquire academic knowledge, study skills, and problem-solving strategies by observing the instructional content broadcasted on television.

Also, Bandura's theory emphasizes the role of imitation in the learning process. Students exposed to instructional television may imitate effective study habits, learning strategies, and approaches to academic challenges portrayed in the programs. The imitation of positive academic behaviours can contribute to enhanced academic performance among secondary school students. The study can explore whether students who engage more with instructional television exhibit improved academic behaviours and, consequently, better performance in their studies.

Bandura highlights vicarious reinforcement, suggesting that individuals do not need to experience consequences directly; witnessing others' experiences can shape their behaviour. In the study, students may vicariously experience academic successes through instructional television, contributing to increased academic confidence. The portrayal of relatable role models and successful problem-solving scenarios on television can influence students' beliefs in their own academic capabilities.

### **Media Richness Theory**

Media Richness Theory (MRT) holds a central position in the field of organizational communication, exploring how diverse communication media convey information and examining how their richness influences the effectiveness of organizational communication processes. At its essence, Media Richness Theory asserts that communication media differ in their capacity to effectively convey information. The richness of a medium is gauged by its ability to enable immediate feedback, offer multiple cues, express emotions, and support natural language. Face-to-face communication is identified by MRT as the richest medium, while written memos or formal reports are deemed less rich. Daft and Lengel, the proponents of this theory, presented it in their influential work, "Organizational Information Requirements, Media Richness, and Structural Design," as a response to the challenges organizations face in selecting suitable communication channels. They envisioned MRT as a tool guiding organizations to align communication needs with the richness of available media, ultimately enhancing the quality and efficiency of communication processes.

Despite significantly impacting communication studies, Media Richness Theory has faced criticisms. Detractors argue that MRT disproportionately emphasizes the richness of information conveyed by communication media, overlooking other vital factors influencing effective communication. Fulk and Boyd (1991) contested that richness alone may not comprehensively account for the complexity of communication processes. Some scholars posit that MRT oversimplifies the relationship between media richness and communication effectiveness by insufficiently considering situational factors. Markus and Robey (1988) observed that contextual elements, such as organizational culture and power dynamics, significantly impact communication outcomes, challenging the theory's universality.

Moreover, Orlikowski and Yates (1994) noted that the rapid evolution of communication technologies since the formulation of MRT has prompted criticism. They argued that the theory may not adequately address contemporary, technology-mediated communication, where virtual interactions and digital platforms play a substantial role. Ngwenyama and Lee (1997) suggest that MRT tends to concentrate more on the characteristics of communication media and less on the competence of the receiver. Effective communication, according to them, involves not only the richness of the medium but also the recipient's ability to decode and interpret the information. DeSanctis and Poole (1994) stated that the theory has been accused of embracing technological determinism by assuming that the richness of a medium dictates its effectiveness. Some argue that the impact of media on communication is more nuanced, influenced by user perceptions, attitudes, and social contexts.

### **Methodology**

The survey research method was selected in this study and it's designed to capture insights from a representative audience, aligning with the aim of assessing audience perception of the Cowbell Television Quiz Show on Channel 7, Gotv, African Magic. The survey method was considered the most appropriate for gathering opinions and additional insights, providing a comprehensive understanding of the target audience's (Senior Secondary School Students) views on the Cowbell Television Quiz Show on Gotv, Channel 7.

The population of study comprised Senior Secondary School students in Awka South Local Government Area, totalling 72,325 students (Source; Anambra State Commission of Education, 2023). This choice is justified by their exposure to television contents, aligning with the research context involving Cowbell Television Quiz Show on Gotv Channel 7, African Magic. The demographic breakdown reveals that out of the total 72,325 students, 34,438 are male, and 37,887 are female. The 72,325 secondary schools in Awka South LGA were made up of 10 public schools, 14 registered private schools and 5 registered mission schools. Constructing a sample frame for the study involved identifying the relevant units or elements from which participants were selected. In this case, the sample frame would consist of secondary schools within Awka South LGA, Anambra State, Nigeria. Below is the sample frame:

1. Capital City Secondary School, Awka
2. Community Secondary School, Agulu, Awka
3. Emeka Aghasili High School, Nise
4. The Holy Cross High School, Umuawulu/Mbaukwu
5. Ever-Light College, Awka
6. Alexander College School, Agu Awka

In order for the researcher to be able to control the large and the entire population of this study, a sample was drawn. In determining the sample size for the research work, the Taro Yamani formula was adopted and 397 was obtained. The sample size for the study included 397 students, purposively selected from the education zone (Awka zone) in Awka South LGA. The selection process took into account the number of schools in Awka educational zone and the population density of each school. The purposive sampling technique was chosen to ensure that only the relevant respondents are included and the decision to focus on three episodes was deliberate, as four episodes constitute one program quarter. This strategic choice was based on the available list of episodes provided by the channel, serving as the sampling frame for the study. Three hundred and ninety seven (397) senior secondary students were chosen purposively from six different schools within Agu Awka, Awka metropolis, Agulu, Umuawulu/Mbaukwu and Nise in Awka South LGA, with due consideration given to the number of schools in the region and how populated each school was. The subjects chosen for this study were Mathematics and English, which were the basics used in Cowbell Television Quiz Show. First, the 397 senior secondary schools made up of 2 public schools, 2 mission schools and 2 private schools. The research employed a combination of research instruments to gather data, specifically utilizing questionnaires and annual result sheets of students.

### **Data Presentation and Analysis**

A total number of 397 copies of the questionnaire were given to selected students from Awka education zone in Awka South LGA.. After administration of the questionnaire 370 (92.5%) were returned and found useful, while 27(7.5%) were not returned and used. The datum was collected using frequency distribution table and represented in simple percentage. The table below shows the demographic data that are obtained.

### Analysis of Data on the Research Questions

#### Demographic Data

**Table 1: Gender Distribution of Respondents**

Respondents	Frequency	Percentage(%)
Female	168	45
Male	202	55
<b>Total</b>	<b>370</b>	<b>100</b>

**Source:** Field Survey, 2024

Table 1 shows that 202(55%) are males while 168(45%) are females. The males outnumbered the females because they were more available to fill the copies of questionnaire when compared to their female counterparts.

**Table 2: Age Distribution of Respondents**

Response	Frequency	Percentage(%)
11-13 years	99	27
14-16 years	124	34
17-18 years	147	39
<b>Total</b>	<b>370</b>	<b>100</b>

**Source:** Field Survey 2024

Table 2 indicated that the age group 17-18 years has the highest percentage (39%), indicating a larger number of respondents in this category. This is due to higher prevalence of respondents in this age range. Also, those within this age bracket may be more accessible or more willing to participate than the younger students. Understanding the reasons behind these disparities can provide valuable insights into the demographic characteristics and potential biases of the survey population.

**Table 3: Class of Respondents**

Response	Frequency	Percentage(%)
SSS1	101	27
SSS2	114	31
SSS3	155	42
<b>Total</b>	<b>370</b>	<b>100</b>

**Source:** Field Survey 2024

Table 3 presents the distribution of respondents by their class levels. The data shows that out of 370 total respondents, 101 (27%) are in SSS1, 114 (31%) are in SSS2, and the majority, 155 (42%), are in SSS3. The total percentage sums to 100%, indicating a complete and accurate representation of the sample. The highest figure, 42% for SSS3 students, reflects their greater availability and willingness to participate in the study. Also SSS3 students are typically more engaged in their studies due to the impending Senior Secondary Certificate Examinations (SSCE), making them more likely to participate in educational programs such as the Cowbell Television Quiz Show. Their increased academic responsibilities and focus might also mean they are more accessible for surveys, as they are often present for extra classes and study sessions. Additionally, the relevance of such quiz shows to their immediate academic goals could enhance their interest and responsiveness to the study.

**Table 4: Secondary Schools of Respondents**

Response	Frequency	Percentage(%)
Capital City Secondary School	62	17
Community Secondary School	62	17
Emeka Aghasili High School	62	17
The Holy Cross High School	61	16
Ever-Light College	61	16
Alexander College	62	17
<b>Total</b>	<b>370</b>	<b>100</b>

**Source:** Field Survey 2024

The data in table 4 revealed that each of the following schools—Capital City Secondary School, Community Secondary School, Emeka Aghasili High School, Ever-Light College, and Alexander College, contributed 62 (17%) respondents each of the total sample. The Holy Cross High School had a slightly lower contribution with 61 (16.5%) respondents. This distribution ensures that no single school dominates the dataset, providing a balanced view of the quiz show's impact across multiple educational environments. Also, the even distribution of respondents among these schools suggests a deliberate effort to include a diverse set of perspectives and experiences in the study. This balance is crucial for obtaining a comprehensive understanding of how the Cowbell Television Quiz Show influences academic performance across different educational contexts within the local government area. By ensuring equal representation, the study can more accurately assess the quiz show's effectiveness as an instructional tool, as it draws on a wide range of student backgrounds and school environments.

### Answers to Research Questions

**Research Question One:** What is the level of exposure to instructional television programmes among secondary school students in Awka South LGA?

**Table 5: The Level of Exposure to Instructional Television Programmes Among Secondary School Students in Awka South LGA**

Response	Observed Frequency	Expected Frequency (E)	Percentage (%)
Daily	69	74	19
Several times a week	88	74	24
Once a week	96	74	26
Less than once a week	57	74	15
Never	60	74	16
<b>Total</b>	<b>370</b>	<b>370</b>	<b>100</b>

**Source:** Field Survey 2024

Analysis in table 5 reveals that exposure to instructional television programmes varies among students. The highest figure is for those who watch such programmes once a week, with 96 (26%) respondents. This is followed by students who watch several times a week, comprising 88 (24%) respondents. Those who watch daily constitute 69 (19%) respondents, while 60 respondents reported never watching instructional television programmes. Lastly, 57 respondents (15%) indicated they watch less than once a week. The highest figure, representing 26% of respondents who watch instructional television programmes once a week, suggests that a significant portion of students have a regular but not daily engagement with these educational broadcasts. This frequency is due to structured school schedules and extracurricular activities that limit daily viewership but allow for weekly viewing, possibly during weekends or specific free periods.

### Test of Hypothesis

**H1-** There is a significant extent of exposure to Cowbell Television Quiz Show as an instructional television program among secondary school students in Awka South LGA.

**Table 6: Chi-square Test Results for the Level of Exposure to Instructional Television Programmes**

Chi-Square Test	Value	df	Assymp. Sig. (2-sided)
Pearson Chi-square	10.162	4	0.038
Likelihood Ratio	10.237	4	0.036
Linear -by-Linear Association	3.789	1	0.052
N of Valid Cases	370		

The Pearson Chi-square value is 10.162 with a significance value of 0.038. Since the p-value is less than 0.05, we reject the null hypothesis and conclude that there is a statically significance difference in the

level of exposure to instructional television programme among secondary school students in Awka South LGA.

**Research Question Two:** How effective do students perceive instructional television programmes in enhancing their understanding of academic subjects?

**Table 7: Level of Effectiveness of Instructional Television Programmes**

Response	Observed Frequency	Expected Frequency (E)	Percentage (%)
Very Effective	12	74	3
Effective	51	74	14
Neutral	107	74	29
Ineffective	110	74	30
Very Ineffective	90	74	24
<b>Total</b>	<b>370</b>	<b>370</b>	<b>100</b>

**Source:** Field Survey 2024

Table 6 shows that students' perceptions of the effectiveness of instructional television programmes vary widely. The highest figure in the table is for those who perceive these programmes as Ineffective, with 110 (30%) respondents. This is followed closely by those who are Neutral, with 107 (29%) respondents and those who find the programmes very ineffective, with 90 (24%) respondents. A smaller number of students perceive the programmes as effective," with 51 (14%) respondents, and the least number of students find them very effective, with only 12 (3%) respondents. Thus implies majority in the "Ineffective" category suggests that a significant portion of the students do not believe that instructional television programmes substantially enhance their understanding of academic subjects. This perception could stem from the students' preferences for other forms of learning. Additionally, the "Neutral" response indicates a level of ambivalence among students, suggesting that while they do not find the programmes particularly harmful, they also do not find them significantly beneficial.

### Test of Hypothesis

**H2-** Cowbell Television Quiz Show significantly enhances students' understanding of academic subjects.

**Table 8:** Chi-square Test Results for Students' Perception of the Effectiveness of Instructional Television Programmes

Chi-Square Test	Value	df	Assymp. Sig. (2-sided)
Pearson Chi-square	25.384	4	0.000
Likelihood Ratio	25.992	4	0.000
Linear -by-Linear Association	11.671	1	0.001
N of Valid Cases	370		

The Pearson Chi-square value is 25.384 with a significance value of 0.000. Since the p-value is less than 0.05, we reject the null hypothesis and conclude that there is a statistically significant difference in students' perceptions of the effectiveness of instructional television programmes in enhancing their understanding of academic subjects. This suggests that perceptions of these programmes vary significantly among students in Awka South LGA, with a larger proportion perceiving them as ineffective.

**Research Question Three:** Is there a significant correlation between the frequency of viewing instructional television and students' academic performance?

**Table 9: Showing the representation of respondents' perception**

Response	Observed Frequency	Expected Frequency (EF)	Percentage (%)
Yes	195	123.3	53
No	46	123.3	12
Unsure	129	123.3	35
<b>Total</b>	<b>370</b>	<b>370</b>	<b>100</b>

**Source:** Field Survey 2024

According to table 7, 195 (53%) respondents believed there is a significant correlation between the frequency of viewing instructional television and their academic performance. This is the highest figure in the table, indicating a majority perception. Meanwhile, 129 (35%) of respondents are unsure about the correlation, and 46 (12%) of the respondents do not believe there is a significant correlation. The predominance of the "Yes" response, at 53%, suggests that more than half of the students perceive a positive relationship between frequent viewing of instructional television and improvements in their academic performance. This belief could be due to their personal experiences of gaining better understanding and retention of academic content through these programmes. Students who frequently watch the Cowbell Television Quiz Show and other instructional broadcasts feel that these programs provide valuable supplementary learning, reinforcing classroom instruction and helping them grasp complex subjects more effectively.

### Test of Hypothesis

**H3-** There is a significant correlation between the frequency of viewing Cowbell Television Quiz Show and students' academic performance

**Table 10:** Chi-square Test Results for the Correlation Between Frequency of Viewing Cowbell Television Quiz Show and Students' Academic Performance

Chi-Square Test	Value	df	Assymp. Sig. (2-sided)
Pearson Chi-square	9.874	2	0.007
Likelihood Ratio	10.091	2	0.006
Linear -by-Linear Association	5.679	1	0.017
N of Valid Cases	370		

The Pearson Chi-square value is 9.874 with a significance value of 0.007. Since the p-value is less than 0.05, we reject the null hypothesis and conclude that there is a statistically significant correlation between the frequency of viewing Cowbell Television Quiz Show and students' academic performance

### Discussion of Findings

From the result generated in this study, and the research question one which sought to find out respondents' level of exposure to instructional television programmes among secondary school students in Awka South LGA. It was discovered that majority of the respondents said that they watch instructional television programmes once a week, this also suggests that a significant portion of students have a regular but not daily engagement with these educational broadcasts. This frequency is due to structured school schedules and extracurricular activities that limit daily viewership but allow for weekly viewing, possibly during weekends or specific free periods. This is in line with the position of Nweke (2020) who posits that Instructional Television Programs encompass a diverse range of content designed to supplement classroom learning. These programs leverage the visual and auditory elements of television to convey

educational material in a dynamic and engaging manner. Also, according to Olaoye (2021), the exposure level of secondary school students to such programs is a topic of considerable importance due to its potential implications on academic performance, cognitive development, and the overall educational experience. Olaitan (2022) asserted that the diversity of programs viewed adds another layer to the exploration of exposure levels. In this same vein, Also Orih (2020) asserted that the duration of viewing sessions constitutes another significant aspect of exposure, understanding the optimal duration for effective learning through television programs can inform educators and content producers in refining the design and delivery of instructional content.

Secondly, majority in the majority of the respondents suggested that a significant portion of them do not believe that instructional television programmes substantially enhance their understanding of academic subjects. This also is in line with the statements of Matthew (2022) who stated that instructional television programs are meticulously designed to complement classroom learning, providing students with supplementary resources to reinforce their understanding of academic concepts. The author further stated that structured delivery of these programs during dedicated time slots facilitates seamless integration into school schedules, allowing students to benefit from these resources in tandem with their regular coursework. Moreover Yemi (2023) stated that effectiveness of instructional television programs hinges on their ability to captivate students' attention and deliver educational content in a compelling manner. In this context, proponents argue that the audio-visual stimuli provided by instructional programs offer a unique and engaging way for students to interact with academic material. Visual learners, in particular, may find these programs beneficial as they leverage graphic representations, demonstrations, and multimedia elements to elucidate complex concepts.

Matthew (2022) also stated that as technology advanced, educational institutions recognized the potential of television as a medium for disseminating information. Also, the historical evolution of instructional television programs reveals strategic collaborations between educational bodies, content producers, and broadcasting corporations. Also, Ubong (2022) states that this collaborative effort aimed to align program content with the national curriculum, ensuring relevance to subjects taught in secondary schools. The academic subjects covered by instructional television programs span a spectrum, including mathematics, science, literature, and history.

Finally, majority of the respondents opined that more than half of the students perceived a positive relationship between frequent viewing of instructional television and improvements in their academic performance. This belief could be due to their personal experiences of gaining better understanding and retention of academic content through these programmes. It is in this same light that Oroh (2020); asserted that the relationship between students' academic performance and the frequency of viewing instructional television is rooted in the premise that exposure to educational content through this medium can influence learning outcomes. The author further stated that the inherent visual and auditory stimulation provided by televised instructional programs creates a unique learning environment, distinct from traditional classroom settings. According to Nweke (2020), the multifaceted nature of this relationship involves dissecting various dimensions, from the cognitive processes activated during viewing to the practical application of acquired knowledge in academic assessments. Also (Chikere, 2021) stated that the correlation is not merely coincidental but intricately tied to the nature of instructional television content. These programs are meticulously designed to supplement classroom instruction, offering a visual and auditory reinforcement of academic concepts. The repetition of core ideas through televised lessons serves to solidify understanding, catering to diverse learning styles and preferences. Scholars like Kambili (2020) emphasized the potential of visual and auditory stimulation in reinforcing subject mastery and critical thinking skills. The dynamic nature of televised content, with its ability to present information through various formats, aligns with the cognitive diversity inherent in student populations. However, the author further stated that this relationship is not without its complexities and potential challenges. While instructional television holds promise as an educational enhancer, factors such as the quality of content, students' active engagement during viewing, and the accessibility of this medium come into play.

## Conclusion



Based on the objectives, the study concludes that;

The study reveals that secondary school students in Awka South LGA engage with instructional television programs predominantly on a weekly basis, aligning with structured school schedules and extracurricular activities that limit daily viewership. Despite this, a majority of respondents perceive a positive relationship between frequent viewing and academic improvement.

### Recommendation

Based on the findings and conclusion, the researcher recommends that;

1. There is a need to increase the frequency of exposure to instructional television programs. Schools should integrate these programs more regularly into the curriculum, ensuring that students have more consistent access to this educational resource. This can be achieved by scheduling viewing sessions during weekdays in addition to weekends, thereby overcoming the current limitations posed by structured school schedules and extracurricular activities.
2. Improving the content quality and delivery of instructional television programs is crucial. These programs should be designed to be more engaging and interactive to better capture and maintain students' attention. Incorporating elements that cater to diverse learning styles, such as visual representations and multimedia demonstrations, can enhance understanding and retention of academic material.
3. Furthermore, addressing infrastructural challenges is essential. Ensuring a consistent power supply is a primary concern, as the lack of electricity significantly hampers the ability to utilize instructional television effectively. This requires collaboration with local authorities and stakeholders to provide reliable power solutions for schools. Additionally, logistical planning must be improved to ensure that broadcast schedules are well-coordinated with classroom activities, and that the content is aligned with the national curriculum and relevant to the students' academic needs.

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