

**LECTURERS' KNOWLEDGE COMPETENCIES IN THE USE OF MULTIMEDIA AND  
HYPERMEDIA TECHNOLOGIES FOR INSTRUCTIONAL DELIVERY OF BUSINESS  
EDUCATION IN SOUTH-SOUTH UNIVERSITIES, NIGERIA**

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**ABSTRACT**

*The study investigated the extent of lecturers' Knowledge competencies in the use of multimedia and hypermedia technologies for instructional delivery of Business Education programmes. The study was anchored on five theories ie constructivism theory representing pedagogy competence, connectivism theory representing human relations competence, adaptive theory representing knowledge competence, technology acceptance model representing skills competence and process virtualization theory representing ability competence. The findings includes that there are differences in male and female lecturers' knowledge competence in the use of multimedia and hypermedia technologies for instructional delivery of Business Education programme but that both male and female lecturers indicated low pedagogy competence in the use of multimedia and hypermedia technologies for instructional delivery of Business Education programme. This study recommended that Business Education programme curriculum designers should emphasize the re-education and reorientation of female lecturers to emancipate them from their stereotype mindset and that individual lecturers should endeavour to undertake personal and self-sponsored upskilling and reskilling efforts in order to stay abreast with current innovations and skills requirements relevant in the instructional delivery of Business Education programme. This study concluded that re-education, reorientation and consolidation of multimedia and hypermedia technology use competencies is a necessity for all Business Education lecturers for effective instructional delivery.*

***Keywords: Lecturers Knowledge competence, Multimedia, Hypermedia, Technology***

**INTRODUCTION**

The proficiency of a Business Education program lecturer in using multimedia and hypermedia technologies for instructional delivery is always changing and developing. This is due to the ever-changing nature of technology advancements in the workplace, which continuously imposes new requirements on graduates and the Business Education program, along with its anticipated results.

The Business Education curriculum is focused on developing practical skills. The reason for this is that Business Education is anticipated to equip its beneficiaries with the requisite abilities and competences that are indispensable in the contemporary labour market. According to Ikpesu (2017), Business Education imparts attitudes, information, skills, and values that are necessary for the professional environment. Business Education is a structured educational program that provides learners with a systematic learning experience and enhances their career prospects. Business Education is a component of vocational technical education that focuses on the acquisition of scientific skills, attitudes, and knowledge necessary for employment or self-employment. This suggests that Business Education encompasses not only the acquisition of skills and competences for personal growth, but also for the betterment of society and its applicability. Aliyu (2010) supports this perspective, defining Business Education as the educational process that fosters the acquisition of skills, competences, attitudes, and qualities essential for the effective functioning of the economic system.

Business Education is a fundamental component of Vocational Education. The prevocational curriculum is available at secondary schools, whereas the vocational course with a professional

undertone is given at the university education level. The Business Education curriculum provided at universities offers graduates with the necessary skills and knowledge to pursue employment or entrepreneurship. This is achievable because they possess the ability to learn the requisite skills that allow them to effectively operate in the job environment.

They provide a range of courses including management, office technology and management (also office and information management and office technology and management education and secretarial studies), marketing, entrepreneurship, and more. The Business Education course options include a diverse array of abilities, which enables the beneficiaries of the program to be highly adaptable and flexible. They possess a range of skills and competences that empower them to get work, advance in their careers, and even establish their own businesses. Business Education encompasses a range of versatile skills such as critical thinking, problem-solving, analytical abilities, interpersonal connections, collaboration, accounting, bookkeeping, information management, opportunity identification, office administration, dexterity, and communication skills. One of the main goals of Business Education is to provide graduates with the essential skills, information, abilities, and competences needed to become self-employed individuals who can effectively use both human and material resources to achieve optimal results. The dynamic changes in the work environment need graduates who can incorporate effective practices in the Business Education curriculum and can effectively use their theoretical knowledge in real-world situations while performing their job responsibilities. In order to achieve success in receivers of the Business Education course, it is crucial for instructors in the programme to have a high degree of proficiency in using new technologies for instructional delivery, particularly in the utilization of multimedia and hypermedia during lectures.

### **Aim and Objectives of the Study**

The research determined the level of proficiency that lecturers had in using multimedia and hypermedia technologies to offer instructional content for Business Education programs. More precisely, the objective of this research was to:

Ascertain the mean rating on the extent of male and female lecturers' knowledge competence in the use of multimedia and hypermedia technologies for instructional delivery of Business Education in South-South Universities, Nigeria.

### **Concept of Competence**

The idea of competence encompasses several and divergent interpretations, sometimes lacking clarity as to whether it pertains to abilities or visible behavioural patterns. Competence may be defined as the aptitude to do a task with success and efficiency. Scope refers to the extent of an individual's or a group's knowledge, capabilities, and competencies. Anttiroiko (2001) saw competence as a phenomenon that arises from different research methodologies that are in competition with each other. From a rational perspective, competence may be seen as a collection of enduring qualities that people possess, or as a set of specific traits required for a particular job. Attirioko's interpretation of competence emphasizes the significance of how people perceive their work environment and set goals related to its contents. This perspective aligns with Hepworth's (2000) views, which also consider competence as encompassing two dimensions: knowledge, which involves understanding the composition and dynamics of the everyday world, and skills, which involve the practical application of knowledge in a real-life context, whether consciously or unconsciously. From this perspective, skills might be seen as the practical components of proficiency. Highlighting the cognitive components of seeing and doing practical tasks. According to Sanchez (2011), competences may be described as a collection of interconnected information, qualities, attitudes, and abilities that have a significant impact on many elements of an individual's profession. It is positively associated with work performance that may be quantified according to approved criteria and enhanced via training and professional growth. Competence may be characterized as a broad statement that encompasses the application of

desirable information, skills, behaviours, and abilities. Competence is often attributed to those who possess specialized knowledge and practical abilities that enable them to effectively carry out prescribed tasks or duties in a professional or academic setting. Abouchara categorized competences seen in educational or professional settings into three distinct groups, which are: Core skills and abilities: Functional competencies refer to the skills that are required for regular usage, including cognitive, methodological, and technical abilities. Interpersonal competencies refer to the skills and abilities that individuals possess in order to effectively interact and communicate with others. Interpersonal competencies include abilities in oral, writing, and visual communication, as well as the aptitude for collaborative teamwork. Essential Skills for Critical Thinking: Critical thinking competences refer to the skills necessary for successful reasoning, using systems thinking, and making well-founded judgments and conclusions in order to address intricate situations. The word "competence" may be inferred to be a fusion of skills, knowledge, talents, and interpersonal interactions. Competence encompasses a wide range of an individual's distinctive strengths, including not just skill sets but also knowledge and talents that contribute to successful performance. Competency encompasses a combination of skills, abilities, and knowledge. It has several aspects. Competencies are acquired by extensive practice and accumulated experience over an extended duration. Competence, as defined by Olaitan (2003), encompasses the essential elements of knowledge, abilities, attitudes, and judgment that are necessary for achieving effective performance in a given activity. The successful execution of a task requires the effective use of a mix of skills, talents, and knowledge. This entails translating particular competencies into on-the-job behaviours that demonstrate the capacity to meet the job criteria. Competencies are essential prerequisites for achieving success in a job, as supported by Kanu (2010), who stated that competency is a determining factor for success. Additionally, Moore, Cheng, and Dainty (2002) describe competencies as a collection of concepts widely utilized in the field of human resources development to evaluate job performance of employees.

### **Principles of Competence**

1. Competence is linked to a domain and dependent on context. Implying that competence is function specific and relies on an existing body of knowledge that has been accumulated over a period of time from repeated practice.
2. Competence is a holistic concept. Implying that, competence is a combination of other aspects of intelligence and does not function in isolation as a concept. It combines with skills, knowledge, abilities and other intangible but observable behaviours such as human relations.
3. Competence is about consistent performance across context within a domain which supports predictions of future performance. It implies that competence is not a one time off occurrence but a phenomenon that is repeatable under similar activities and takes place within a subject area, field or specialization that is in tandem with that knowledge and its re-occurrence under similar circumstances is very possible.
4. Competence involves applying contextually – appropriate knowledge and skills. It implies that one can be said to be competent when the individual is able to apply expertise that are related and relevant to the field of knowledge or area of coverage of the skill or expertise that is similar to the problem that requires solution. Any knowledge outside the skill area or problem area, no matter how appropriate it is in solving the particular problem is not competence because it may not be effective in the next try.
5. Competence involves psychological factors, which affects performance and influence learning. Implies that there are other factors beyond skills, knowledge and abilities that can influence an individual's expert exhibition of his abilities under certain situations. So competence also requires sound state of mind, emotion and thoughts to be optimally exhibited.

Competence is connected to a specific level of learning or ability. Implying that Competence encompasses more than simply the basic skill or understanding to accomplish a task. It involves the

capacity to demonstrate a high level of mastery and expertise that beyond the standard, remains constant, and continually seeks to surpass previous achievements. Competence is a vast and complicated notion that encompasses several interrelationships with other actionable ideas. However, all of these concepts are related to the theory of habit formation.

The function of it regularly exhibits the traits of competence and is both predictable and capable of attaining anticipated results under favourable circumstances. Therefore, a person who is considered proficient in one work may not be seen as equally capable when given a new assignment that requires distinct skill sets, talents, and knowledge. These attributes include the skills and abilities that an individual must possess in order to effectively do a job. According to Lasse (2015), workers must possess the capability to execute certain activities at a given degree of competency in order to display competence. Competencies are essential for evaluating an individual's capacity to effectively do a certain activity. Competence encompasses a wide spectrum of domains, including an individual's knowledge, skills, attitudes, and actions. According to Hornby (2010), competency refers to the specific skills required for a given profession or activity. Ojukwu and Ojukwu (2002) defined competence as the combination of knowledge, skills, and behaviour that guarantees a worker's ability to fulfill specified performance objectives. Competence refers to the combination of knowledge and skills required to accomplish a job effectively. Ekpeyong (2006) categorizes competency into three types: actual, perceptual, and expected. While actual competence can be measured in various fields of expertise, measuring perceptual competencies, especially those of groups, can be challenging due to the selective gathering, interpretation, and storage of perceptions. Sanchez and Aleman emphasized that competence is comprised of knowledge, skills, and capacities. According to Mwasalwiba (2010), this definition considers competence in terms of its impact on educational goals, target audience, course material design, teaching methods, and student evaluation processes. Competency in an education environment is demonstrated by a teacher's proficiency in interpreting course content, designing relevant material, selecting appropriate teaching methods, utilizing instructional technology to enhance learning, achieving instructional objectives, and developing an effective evaluation model to assess student performance.

According to Jamel, Lopez, Dasilva, and Ribeiro (2015), competence is a blend of practical and theoretical knowledge, cognitive skills, behaviour, and values. It is used to enhance performance and refers to being sufficiently qualified and capable of doing a certain task. Competence refers to an individual's capacity to effectively and skillfully carry out a job. A competence set may be seen as a collection of behaviours that serve as a structured guide, facilitating the identification, assessment, and growth of these behaviours in each person. Competence in action may be defined as the efficient use of an individual's extensive knowledge, cognitive abilities, and practical skills, including social and behavioural factors such as attitudes, emotions, values, and motivation. Therefore, when a person demonstrates a suitable blend of knowledge, abilities, and attitudes that sufficiently fulfill the requirements of a certain situation or setting, and can consistently replicate this performance in comparable scenarios, they are considered competent in that specific domain.

An individual's degree of competence must align with the requirements of their profession and be directly applicable to their unique workplace. However, the idea of competence has a much longer history of technical definitions compared to other areas. The reason for this is that competency has broadened in terms of disciplinary views and across different systems.

Ashworth and Saxton (1999) expressed uncertainty on whether competence is a human trait, an act, or the result of an activity. There are two distinct meanings of competence with different conceptualizations. Mitchelmore and Rowley (2010) define competence as the conduct that a person should be capable of demonstrating.

Moreover, proficiency in a certain field must be anticipatory, recurring, and unwavering. This research defines competence as the capacity of an individual to effectively fulfill personal, group, and societal requirements or to do a particular activity or job. This statement is a confirmation that is based on the specific activities carried out by the main individuals involved in the work or endeavour.

The idea of competence is comprehensive, and most scholars have examined it from a holistic perspective. Competence may be assessed and measured via several aspects. This is due to the fact that a someone may have proficiency in one aspect but lack it in another, rendering them incapable of being considered competent. This research will examine and assess competency from several perspectives, including knowledge competence, skill competence, ability competence, pedagogy competence, and human relations competence. Arikwendu, et al (2016) define competence as the aptitude to effectively use knowledge, skills, talents, and personal traits to proficiently carry out essential activities, specialized duties, or fulfill the requirements of a certain role. In order to effectively provide the Business education course, it is necessary to demonstrate a range of competencies that help students enhance their knowledge, abilities, attitudes, and values. Business Education instructors must possess extensive knowledge and unwavering confidence in their proficiency to use multimedia and hypermedia technologies for the purpose of delivering teaching in a manner that is both efficient and effective.

### **Knowledge Competence**

The precise definition of the idea of knowledge is very elusive and troublesome due to its abstract nature and the many interpretations it receives from various viewpoints. Nevertheless, this research aims to examine the notion of knowledge and knowledge competency from a practical standpoint, enabling easy application in specific situations. Knowledge is the cognitive understanding of concepts, articulations, and mental processes, which are inferred by an individual or a collective of persons, and serve as a foundation for decision-making and behaviour. It refers to the complete use of individuals' knowledge, potential, abilities, competences, ideas, intuitions, commitments, and motivation.

According to Prusak (2010), knowledge is a dynamic combination of structured experience, values, contextual information, and expert insight. This combination serves as a framework for assessing and integrating new experiences and information. It is derived and implemented in the brains of learners. Knowledge competency refers to the capacity to thoroughly evaluate various educational resources such as instructional media, software applications, and tools like spreadsheets and simulations. In Ubande's (2018) perspective, knowledge is defined as a comprehensive and profound acquaintance, consciousness, or comprehension of a person or thing, including facts, information, descriptions, or abilities. This knowledge is obtained by the process of perceiving, discovering, or learning, either through personal experience or formal education. Knowledge may be defined as a practical and usable comprehension of a certain topic. It encompasses the capacity to manipulate ideas and engage in innovation, as stated by Drucker in Garfield (2018). Knowledge competency refers to the capacity to effectively use knowledge in the process of teaching and learning. It also entails examining and recommending the most appropriate methods of using media for optimal outcomes and commendable teaching and learning results. Knowledge competency refers to the capacity to accurately anticipate a favourable result, as determined by the level of effectiveness in which the process is conveyed.

Knowledge competency refers to the capacity to demonstrate profound understanding and perception. Expertise refers to the ability to demonstrate a knowledgeable and insightful comprehension of an idea or issue. Kante in Wendell (2015) defines knowledge competency as the ability to apply intuitive comprehension of ideas in a manner that establishes a link between cognitive receipt and active understanding. Knowledge competency aims to achieve a balance between theoretical knowledge and practical comprehension of a subject. The person has the ability to effectively communicate to others how abstract knowledge may be applied and used to produce significant outcomes. The teacher's knowledge competency in instructional delivery allows them to demonstrate a deep mastery of important ideas, terms, and theoretical applications of different instructional instruments. This helps them to create a harmonious and engaging learning environment for the students.

### **Concept of Business Education and Business Education Programme**

The definition of Business Education has been subject to several and diverse interpretations, both in terms of its functions and from different perspectives of its aim. This research aims to include all the different viewpoints on the subject of Business Education into the definitions. Kren-Ikidi, and Emmanuel (2017) provided a definition of Business Education as an instructional program including of two primary components.

- a. Office education which is a vocational programme for office careers through initial, refresher and upgrading education leading to employability and advancement in office occupation.
- b. General business education which is a programme to provide students with information and competencies that are needed by all in managing personal and business activities and in the use of services of the business world. Business Education is an education that equips individuals for and about business. This is in line with the objectives of National Policy on Education (NPE, 2014) which includes that Business Education is a conglomerate of subjects/courses that is concerned with the acquisitive, development and inculcation of the proper values for the survival of an individual in the society. Development of the intellectual capacity of an individual to understand and appreciate his environment. The acquisition of both physical and intellectual skills that will enable individuals to develop into useful members of the community. It is the acquisition of an objective view of local and external environments. Business Education is an integral part of vocational and technical education. Business Education is a form of Vocational Education which is directed at developing the learner to be productive in teaching, paid employment and self-employment. According to Aliyu (2006) Business Education is an education given for the acquisition and development of skills and competencies, attitudes and attributes that are necessary for efficiency in an economic system. These definitions are buttressed by that of Osuala (2004) who conceived Business Education to include the sum total of the knowledge, skills and aptitude that are required for successfully promoting and administering a business enterprise.

He explains that the main goal of Business Education is to provide individuals with the necessary skills and abilities to effectively use various resources and establish cooperative relationships, resulting in the creation of products and services that meet the requirements and desires of society. Based on the criteria provided above, it can be inferred that Business education provides individuals with the essential skills and knowledge to effectively adjust to their economic and social surroundings. The program provides the participants with the necessary skills and knowledge to get employment in a society that is constantly advancing technologically. Business Education encompasses the curriculum of business courses taught at the secondary school level, serving as a prevocational course that equips students with the necessary skills and knowledge to enter the corporate world. The Business teacher education program specifically trains teachers to become in-service education personnel for secondary and post-secondary school business instructors.

The Business Education curriculum is available at several levels and kinds of higher education institutions, including universities, teacher training institutes, and polytechnics. According to Garb, Jah & Dahiru (2014), Business Education at the Post-Secondary level equips students with the necessary skills and knowledge to pursue and progress in business-related careers. It also enables them to effectively manage their own business affairs and make informed decisions as customers and members of the business community. Business Education is an educational discipline that equips learners with the necessary abilities to effectively address challenges in business and office-related professions. It generally equips students with the necessary skills and knowledge to pursue a job in business or a similar industry, or to become a teacher in an academic setting. According to Esene (2012), business education refers to the education and training that focuses on business-related knowledge and skills, particularly in office vocations.

### **Concept of Multimedia Technologies**

Multimedia is a tele-service concept that offers integrated and simultaneous services using many communications providers. Gunawardhana and Palanlappan (2016) describe multimedia as the integration of computer hardware and software to create compelling presentations using video, animation, audio, graphics, and text resources on inexpensive devices. Multimedia refers to the mix of texts, music, animation, and video transmitted by computer and other electronic devices, or digitally modified methods. According to Vin-Mbah (2016), examples of multimedia technologies include websites, video conferencing, video on demand or live streaming, interactive TV, interactive movies, electronic publications and journals, groupware, digital video editing, and online commerce. Multimedia encompasses several elements such as texts, films, music, graphics, animation, simulation, and more. A repository is a place where diverse information may be gathered, categorized, kept, and sent, whether in digital or conventional format. Multimedia technologies may be classified into several categories, including audio visuals, multimedia software, multimedia hardware, storage devices, and networking. Efficient utilization of multimedia content is achieved when users can seamlessly navigate between web pages containing either related (linear) or unrelated (non-linear) content. This navigation is facilitated by hyperlinks, which can be in the form of text, graphics, videos, and other media, and is commonly known as hypermedia.

### **Adaptive Evolution Theory: Charles Darwin 1859 in West – Eberhard (2003)**

The idea of adaptive evolution was formulated by Charles Darwin in the 1800s and cited in Fullan's work in 1983. Adaptation, in the context of evolution theory, refers to the biological process by which organisms modify themselves to suit new or changing circumstances. The theory acknowledges that innovations may be changed throughout their implementation. This theory asserts that it is morally wrong, not socially approved, and practically unachievable to address the implementation issue by providing extensive explanations of the expected procedure. Repeating the process of influencing the person involved and turning the idea into a tangible form using a planned or organized set of instructions for the goal of carrying it out may not provide the intended result. However, innovators must provide their invention, such as curriculum, and engage practitioners to refine it according to the unique conditions in which they are operating. The objective should be to encourage practitioners to use their practical situational expertise to adapt the original innovation models based on their specific requirements and resources in their local context. The primary actors in this context are practitioners, specifically teachers and lecturers. They bear the responsibility of implementing innovations in the instructional delivery process. It is their duty to adapt these innovations to the curriculum and seamlessly integrate them into the instructional process. Their expertise in the knowledge, skills, and handling of such innovative devices during instructional delivery is crucial in ensuring the desired outcome is achieved. Teachers should be able to take into account their unique conditions, such as the pupils they teach, the setting they work in, and the social requirements of their community. This will allow them to create and evaluate a local curriculum that can be easily adapted to yield good results.

### **CONCLUSION**

The study's results indicate that both male and female instructors possess competences in using multimedia and hypermedia technologies. These competencies include knowledge. Nevertheless, when considering all the variable indicators, the male lecturers had a greater display of skills in using multimedia and hypermedia technologies. The proficiency of male lecturers in using multimedia and hypermedia technologies may be strengthened by providing them with assistance and incentive. This will enable them to fully use these technologies in delivering the Business Education curriculum. The study also found that female lecturers demonstrated lower competencies compared to male lecturers.

## **RECOMMENDATIONS**

In line with the findings and conclusion from this study, this study makes the following recommendations

1. Institutions offering Business Education programme should emphasize the upskilling of Business Education lecturers' competencies in their pedagogical competence in using multimedia and hypermedia technologies to enhance their productivity.
2. Faculties and departments of Business Education programme should ensure regular seminars and workshops on the need for the acquisition and utilization of multimedia and hypermedia technologies of all its lecturers to reduce the job specific skills gap between the male lecturers and their female counterparts.
3. Designers of Business Education programme curriculum should emphasize the re-orientation and reeducation of female lecturers to emancipate them from their feminine mindset.

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