A Descriptive Analysis of Social Media Usage as Predictors of Study Habits among Students with Intellectual Disabilities in Calabar Metropolis: Implications for Inclusive Education

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Abstract: Aim: This study is a descriptive analysis of Facebook and WhatsApp as predictors of study habits among SSII students with disabilities in Public Secondary Schools of Calabar Metropolis of Cross River State, Nigeria: Implications for inclusive education. Two study objectives were stated to guide the study and achieve its goals. Two research questions were formulated. A literature review was carried out based on the variables under study, as research gaps were also stated.

Method: The study utilised the descriptive survey research design. The population of Senior Secondary School II (SSII) students with disabilities in Calabar Metropolis comprises 3,814 from 24 public Secondary Schools. The study used a stratified random sampling technique. Out of 3,814 respondents, 763 respondents were sampled for the study. A validated 15-item four-point modified Likert scale questionnaire was the instrument used for data collection. The face and content validity of the instrument was established by experts in Test and Measurement from the University of Calabar, Calabar-Nigeria. The reliability estimates of 0.82 for the instruments were established using the Cronbach Alpha method. A descriptive analysis of frequency, percentages, mean, and standard deviation was used to test the research questions posed for the study.

Results: The results obtained from the data analysis revealed there is a high extent of the impact of Facebook on study habits among SSII students with disabilities, and there is also a high extent of the impact of WhatsApp on study habits among SSII students with disabilities in Public Secondary Schools of Calabar Metropolis of Cross River State, Nigeria.

Conclusion: Based on the study's findings, it was concluded that Facebook and WhatsApp utilisation significantly impact study habits among SSII students with disabilities in Public Secondary Schools in the study area.

Recommendation: Based on the result of the study, it was recommended that there should be a continuity of inclusive education policies and social media usage in Cross River State and Nigeria at large.

Keywords: Facebook, whatsapp, study habits, students with intellectual disabilities, intellectual disabilities.

INTRODUCTION

Intellectual disability is a permanent condition of abnormality in the growth and development of the human brain, which has enormous implications on the general performance of an individual [1]. Of all categories of exceptional conditions, intellectual disability has been the most difficult one to manage. The disability does not only affect the persons with this disability but also the family and society. Intellectual disability is described as a below-average cognitive ability that grossly reduces the intellectual functioning of a child when compared with a typically developing child of the same age [2, 3]. This disability (previously termed "mental retardation") has been explained as a significant cognitive deficit that has been established through a standardised measure of intelligence. The occurrence of the disability cuts across all social strata, as children with this disability are born into rich, poor, literate, and illiterate families.

In the Calabar metropolis, several studies have established the relationship between the prevalence of intellectual disability and some risk factors such as sex, maternal age above 30 years, multiple pregnancies,
high birth order, low birth weight, preterm birth, iron and iodine deficiencies, brain injury, and malnutrition, as well as indirect factors, like low parental schooling, maternal depression, low socio-economic status, and inadequate stimulation for young children [4]. A review of studies on the prevalence of intellectual disability by McKenzie K et al. [5] revealed the incidence and prevalence of intellectual disability between 2015 and 2020 ranged from 0.05 to 1.55%. This indicates an upward increase.

Research has shown a drastic increase in the number of Nigerians with intellectual disability. McKenzie K et al. [5] noted that the high increase in the rate of intellectual disability could be attributed to various factors such as improvement in screening and diagnosis, ignorance about causes and preventive measures, genetic factors, maternal and childhood accidents, brain injury, maternal smoking, and consumption of alcohol during pregnancy, childhood malnutrition, lack of stimulating environment, maternal and childhood infections, premature birth and many others.

Other factors that affect the incidence of intellectual are variables such as sex, age of the mother, parental socio-economic, and educational status. McKenzie K et al. [5] emphasised that changes or differences in population characteristics, including the average parental age and parental socio-economic status, could influence the prevalence and incidence of intellectual disabilities. The increase in the number of children with an intellectual disability is troubling when viewed within the context of the challenges typically encountered by children with this disability and their families in a developing country like Nigeria and, specifically, the Calabar metropolis.

The use of social media has the potential to benefit people with intellectual disability in a range of ways. Research evidence shows that people with intellectual disability are at high risk of social isolation and loneliness and often have smaller social networks that consist primarily of family members and support staff [6]. It is possible that access to social media sites could enable people with intellectual disability to increase the frequency and quality of their social interactions, develop meaningful relationships, and reduce feelings of loneliness [7]. Social media can play an important role in supporting the empowerment and participation of individuals and groups by enabling networking, improving self-esteem [8], and enabling online campaigning among marginalised groups such as disabled people. Research has shown that people with intellectual disability can be supported to use the internet in their everyday lives [9]. There has been a recent growth in social networking services specifically for people with intellectual disability. These services are typically considered safer and more accessible than sites that have been developed for the wider community.

Evidence indicates that people with intellectual disability are less likely than the general population to have access to computers or the internet, and therefore, social media, and this may impact study habits [10]. Barriers to internet access for people with intellectual disability include financial and economic; societal attitudes and social exclusion; lack of government policy or strategy; support, educational, and training barriers (for example, carers’ expertise, time, and attitudes); individual cognitive, physical, and sensory impairments; the complexity of existing devices and internet sites: and the lack of involvement of people with intellectual disability in usability studies [11]. These barriers link back to the concept of social capital, which can also be conceived negatively when non-group members are excluded from having access to the same benefits as members [12].

Furthermore, the period students with various intellectual disabilities dedicate to learning, and their learning habits largely determine how educational goals for national development are met. Intellectual disabilities in the Calabar metropolis affect about 1% of the population, and of those, about 85% have mild intellectual disabilities [13]. There are an estimated 240 million children with disabilities worldwide. Like all children, children with disabilities have ambitions and dreams for their futures and need quality education to develop their skills and realise their full potential [13]. Yet, children with disabilities are often overlooked in policymaking, limiting their access to education and their ability to participate in social, economic, and political life. Worldwide, these children are among the most likely to be out of school. They face persistent barriers to education stemming from discrimination, stigma, and the routine failure of decision-makers to incorporate disability in school services. Males are more likely than females to be diagnosed with intellectual disability, and this is why there seems to be that glamour for inclusive education that can accommodate students with intellectual disabilities of one form or another [13]. According to [14], inclusive education is a teaching model whereby all students with disabilities, regardless of their ability, learn together in one classroom and environment.
A study habit is an action, such as reading, taking notes, or holding study groups, that students with disabilities execute on a regular and habitual basis to complete the job of learning. Disabled Students’ study habits differ from one another and from one location to the next. It is a crucial part of learning because the academic progress of students with disabilities is heavily reliant on their study habits. In many circumstances, such students are unsure of where to begin. Students with disabilities who perform well in school frequently study alone and use a study approach that they devise and that contains desired procedures [15].

It should be noted that certain study conditions are adverse. Napoleon AJ [16] revealed that poor study environments include, among other things, insufficient lighting, temperature extremes, subnormal physical conditions, mental instability, and humidity. Attending classes regularly, concentrating on one’s studies, taking notes, having a timetable, studying with the goal of getting meaning rather than cramming, following a timetable, having adequate rest periods, and so on are examples of good study habits that lead to higher academic achievement.

Excellent study skills can boost your confidence, competence, and self-esteem. They can also help with test and deadline anxiety. You may be able to reduce the number of hours you spend studying by learning good study abilities, giving you more time for other things in your life [17]. A lack of studying has a detrimental impact on the student; it leads to poor grades, low self-esteem, and a lack of values. The first thing that suffers when students with disabilities do not study is their grades. Students with disabilities can improve and learn more by studying than what they see or read at first look [17]. Most educators and students with disabilities are aware of the concept of study habits. While most professors are keen to recognise and instil good study habits in their students with disabilities, good students with disabilities are eager to acquire these habits in order to improve their academic performance. There are various forms of study habits. They include group reading, individual reading time allocation, note-keeping, and assignments, among other things.

Reading in a group, identified as one of the study habits in this study, can develop good personality adjustment since it gives a place for individuals to share their experiences, challenges selflessly, and struggles with others. Dengal DI [17] stated that a student who understands how to study properly in a group will undoubtedly outperform a great student who does not understand how to study effectively in a group. Because it is not limited by location or time, group reading is a very strong aspect of study habits. Again, students with disabilities can be expected to spend a significant amount of time studying independently outside their scheduled classes. A student may need to read in his subject area during this period, as well as organise his itinerary to complete assignments and other course-related activities.

One of the most important benefits of social media for students with disabilities is simple access to learning. Students with disabilities can use social media to browse through e-books, scholarly or research resources, sample examination papers, and prior question papers, among other things. They also have easy access to specialists, mentors, and resource people. Flexibility in this manner has increased the availability of just-in-time learning and provided learning opportunities for students with disabilities who were previously constrained by other commitments [18]. As established by this scholar, social media can be used to share best practices and best course material in education for better learning perspectives. This is because it permits pupils to increase their academic credibility and potential. As the world becomes more digitally driven, globalised, competitive, and competency-based, the roles of teachers in internet competence remain vital and clear, just as students with disabilities require media competence to handle knowledge autonomously. The rise of social media platforms has drastically altered teaching and learning, as well as disabled students’ study habits. Its application is more important to students with disabilities today than ever since its increasing power and capabilities are causing a shift in educational learning environments [19]. In other words, the use of social media facilities provides students with disabilities with powerful learning settings because it helps to modify their learning process as well as fully relate to autonomous information for constructive learning activities.

Facebook is the most well-known social networking platform of all time. Students with disabilities can utilise Facebook to gain more helpful information, interact with learning groups, and access other educational systems that make education more convenient. It provides numerous options for students with disabilities and institutions to improve learning methods. Students with disabilities have easy access to quality information on
the school environment, departments, faculties, rules, and regulations by using Facebook platforms. It has been observed that Facebook has a wider and speedier way of disseminating information not only to students with disabilities but also to the public. Despite this, another school of thought holds that Facebook is a hindrance to kids' academic lives [19].

WhatsApp is another social networking platform. It is more than just a way to search for and obtain information for academic purposes. It is utilised for academic purposes to engage with students with disabilities. It has evolved into the most recent example of new communication technology, which students with disabilities commonly utilise for engagement and the advancement of academic activities. The introduction of WhatsApp simplified the procedure because it does not necessitate advanced internet knowledge or experience. Working-class people do not just utilise it, but there is also a significant increase in the usage of social media by students with disabilities and the education society. The development of WhatsApp has enhanced social media usage. It allows students with disabilities to access academic information sites with a few mouse clicks [20].

The loss of good study habits and enthusiasm for learning among secondary school pupils in Cross River State's Calabar metropolis is an issue for the government, non-governmental organisations, policymakers, educational psychologists, and others. Records suggest that a significant percentage of pupils in secondary schools in the study region in Cross River State lack interest in reading, contributing to their poor academic performance in the 2021 external national tests. According to research and experience, the majority of students with disabilities' difficulty is a lack of suitable reading or study habits. Students with disabilities waste time on useless activities such as social media and procrastinate a lot when it comes to learning. Instead of taking advantage of the potential provided by social media for learning, it appears that students with disabilities have changed their focus to using it for other unprofitable objectives.

The Nigerian government has launched several projects and techniques to improve the study habits and academic performance of students with disabilities in schools. Some of the efforts include the implementation of universal basic education programs, Parent Teachers Associations (PTA), increased budgetary allocation to the educational sector, the prompt release of teachers' promotions, a stable welfare scheme, both financial and economic inducement, and so on. However, all of these efforts are not being reciprocated by students with disabilities. Over the years, researchers have observed that with all these efforts in place, the students with intellectual disabilities still exhibit poor study habits in Calabar Metropolis of Cross River State, Nigeria.

Research reports and articles revealed that teachers who are impatient and unprofessional lack the courage to deal with students with disabilities due to the notion that disabled students have difficulties in learning and, hence, poor study habits. A number of researchers have stated the need for the exclusive education of students with intellectual disabilities, while others have raised eyebrows against the exclusive education of children with intellectual disabilities, hence the glamour of inclusive education for all. Currently, the notion that students with intellectual disability (ID) should be schooled in general education classrooms is supported by international conventions, such as the United Nations Convention on the Rights of Persons with Disabilities Chibueze M [21] and the UNESCO Salamanca Statement on Principles, Policy, and Practice in Special Needs Education [22].

In addition, many countries have adopted legislation favouring inclusive education for children with disability. Nevertheless, considerable differences can be observed in implementing inclusive education across countries and regions of the same country [23]. Some countries have developed broad, inclusive practices; others educate most of the children with disability in separate settings [23].

Because of the nature of the disability, Kalu AO [24] has observed that the child with intellectual disability in Nigeria has for many years been a source of disappointment, unhappiness, and regrets. He stated that there is much ignorance by the citizenry of Nigeria and other African Countries surrounding children with intellectual disability, leading to human rights abuses, discrimination, lack of acceptance, and a generally negative attitude toward the child and the family. He noted that this reactionary tendency and unfavourable remarks have created more challenges for the child. The child with an intellectual disability has to battle with the congenital disability as well as, regrettably, the human and environmental factors of rejection. The challenges of children with disabilities require that necessary support be put in place by the government in the form of social services if children with intellectual disabilities must have good and comfortable study habits.
The evidence on the use of Social media such as WhatsApp and Facebook (information and communication technology) by people with intellectual disability has already been explored in other states and metropolis of Nigeria, but no such research has been carried out in Calabar metropolis and with the rising and constantly changing use of these platforms, it is timely to review the literature around WhatsApp and Facebook use by people with intellectual disability and to assess if these social networks predict study habits among SSII students with disabilities in Public Secondary Schools of Calabar Metropolis of Cross River State, Nigeria.

LITERATURE REVIEW

Facebook is a social networking site and service that allows users to post comments, exchange images and links to news or other interesting Web material, play games, talk live, and even stream live video. Shared content can be made publicly accessible or restricted to a small group of friends, family, or a single person [26]. Facebook is a social networking site that has become so popular among college students with disabilities that it is not unreasonable to imagine that such social networking could have a detrimental impact on college life. Most students with disabilities joined Facebook because it was linked with higher education.

As a social networking site, Facebook provides an online platform for students with disabilities to build profiles, promote and share information and material, and communicate with both known and unknown individuals. Excessive Facebook use has been connected to deleterious impacts on study habits [13]. Tai Solarin University of Education in Ogun State, Nigeria, investigated the relationship between Facebook usage, study habits, and undergraduate students with disabilities' academic achievement [20]. A descriptive survey design was used in the study. Using the simple random sampling technique, a sample of two departments from each of the four colleges that existed in the university during the 2012/2013 academic session was drawn. Additionally, a sample of 2905 students with disabilities out of 9692 students with disabilities in the university during the academic session under study was drawn using the purposive sampling technique. This included the total number of students with disabilities across all departments sampled. The questionnaire employed in the study was called the "Facebook Utilisation and Study Habits Questionnaire (FBUSHQ)" and had a correlation coefficient (r) of 0.79. The final year results of the sampled students with disabilities were used to evaluate their academic performance (2015/2016 session). The descriptive statistics of frequency count and simple percentage were used to generate research questions, while the inferential statistic of Pearson's Product Moment Correlation coefficient was used to analyse the data, and the null hypotheses developed for the study were tested at the 0.05 significance level. The data found that undergraduate students with disabilities had a high level of Facebook usage and a comparatively poor study habit pattern. Undergraduate students with disabilities' use of social media is substantially associated with their study habits. r =0.345; (p 0.01); social media use has a substantial association with undergraduate students with disabilities' academic performance r =0.547; (p 0.01); and study habits have a significant relationship with undergraduate students with disabilities' academic performance r = 0.448; (p < 0.01). It is consequently proposed, among other things, that the university administration hold seminars and conferences for students with disabilities on the importance of social media to academic attainment, as well as reaffirm the negative impact its abuse could have on undergraduate students with disabilities' academic performance. The university should also obtain the most recent electronic books and databases in many fields and provide sufficient orientation on using such media effectively. In a related study, Biesta G [27] discovered that teachers' variables significantly affect the use of instructional adjustments in teaching learners with dysgraphia. The quality of teachers and instruction, among other factors, influence the formal education of students with disabilities with this condition. This should be prioritised, especially when dealing with students with disabilities with unique requirements, such as dysgraphia, which is sadly underserved in Nigeria's school system, possibly due to a lack of study in the field.

WhatsApp is a popular application software that allows students with disabilities to send instant messages, videos, photographs, and music recordings. When students with disabilities are connected to the internet, they can also use WhatsApp to make free video and phone conversations. When students with disabilities participate in WhatsApp activities, they form new habits (habitual acts). Habits are subconscious beliefs that frequently encourage students with disabilities to use WhatsApp instead of focusing on their studying behaviour. After students with disabilities perform identical WhatsApp actions even once, habits arise. Personal or subjectification habitual acts [25, 26]
WhatsApp has transformed education into social learning. Through new, group-developed skills, this has established social habits that assist students with disabilities in addressing societal demands [27]. Despite the fact that socialisation habits drive learning, learning management systems (LMSs) such as Modular Object-Oriented Dynamic Learning Environments (Moodle) and others persist and continue with a content-centered strategy that develops discipline habits and addresses discipline demands. To put it another way, today's learning is controlled by a competition between social and disciplined habitual acts, which focuses on societal abilities (psychomotor domain) and/or academic achievements (cognitive domain). According to Anaraki and Babahaveaji [28], teachers in Calabar Municipality, Cross River State, Nigeria, frequently use WhatsApp as an educational medium in curricular content delivery.

The impacts of WhatsApp on the study habits of business education students with disabilities in cost accounting at Federal Colleges of Education in North-West Nigeria were explored in a study by Anakue et al. [29]. The study used a quasi-experimental design. Three specific aims and three research questions were proposed to accomplish this. The study investigated three null hypotheses. The study's population was 241 students with disabilities, and the sample size was 91. The data was collected using WhatsApp and a questionnaire about study habits. The instrument was divided into two pieces. The pre-test was section A, and the post-test was section B. The data collection process took five weeks. The mean and standard deviation were used to answer research questions one through three. Analysis of Covariance (ANCOVA) was used to evaluate null hypotheses one through three. At the 0.05 threshold of significance, all hypotheses were tested. The null hypothesis was rejected. However, hypotheses two and three were kept. According to the findings of the study, WhatsApp had a favourable impact on the academic performance of Business Education students with disabilities in Cost accounting. However, there was no significant gender difference in academic achievement between male and female students with disabilities who were taught cost accounting via WhatsApp. The study habits of business education students with disabilities taught Cost Accounting via WhatsApp differed significantly. According to the data, WhatsApp had an impact on the study habits of business education students with disabilities studying cost accounting. It was suggested that WhatsApp be used to teach cost accounting to Business Education students with disabilities in colleges of education, among other things. A related study by Näslund and Gardelli [9] recommends using multiple intelligences teaching methodologies in school.

Rilwan and Umoru [30] studied the impact of WhatsApp sites on the study habits and interpersonal connections of university students with disabilities. A convenience sample strategy was used to select 125 college students with disabilities from various universities in Hanoi. The research instrument used quantitative methods, and the study used a descriptive survey design. To collect data for the study, the researchers created questionnaires with Cronbach's alpha reliability coefficients of at least 0.84. Frequencies, percentages, averages, t-tests, and Pearson correlation statistics were used to analyse the data at the 0.05 alpha level. According to the findings, students with disabilities' use of social networking sites had a negative impact on their study habits and interpersonal interactions. According to the findings, it was suggested that students with disabilities receive regular orientations on how and when to use social media to improve their study habits or to spend time developing their interpersonal ties with their families, friends, and teachers.

Ekarika et al. [31] investigated the function of WhatsApp in improving students with disabilities' study habits in order to establish WhatsApp's acceptability and utilisation as a major instrument of learning, utilising 300 and 400-level students with disabilities of public communication at ABU Zaria as a case study. The study specifically investigates their amount of WhatsApp use, the relationship between WhatsApp use and academic performance, and whether they share material via the service. As justification for the investigation, the researcher used Connectivism and Uses and satisfaction theories. The survey approach addressed the study topic by distributing 200 copies of the questionnaire to chosen participants using a simple random selection methodology. According to the study's findings, undergraduate students with disabilities in mass communication utilise WhatsApp moderately. It also demonstrates that people use the application to distribute content among themselves, and it suggests that there is a link between academic performance and WhatsApp use. The association, however, was neither positive nor negative. The researchers advise students with disabilities to use the
application as much as possible to help them with their academic work rather than as a source of distraction.

Studies on Intellectual Disability, Diagnosis, and Treatment

A related study by Tuan VV [32] investigated the incidence of intellectual disability and treatment in Cross River State, Nigeria. Four research questions were raised to guide this study. The study adopted a survey design. Participants in the study included 5 general hospital matrons (Nurses), 21 hospital ward staff members and 7 school administrators. Two self-designed instruments, the Psycho-Educational and Developmental Milestone Assessment Form (r=8.53) and Parental Educational Status and Socio-Economic Variables Assessment Tool (r=7.65), were used for data collection. The finding indicates that there has been a steady increase in the incidence of intellectual disability in Cross River State from year 2015 to 2019. There are more male than female children with intellectual disability, with a 686:526 ratio in Cross River state. There is a connection between poverty and intellectual disability. Parental educational level has much influence on the incidence of intellectual disability in Cross River State. An effective record-keeping system on childhood disorders should be implemented in Cross River State. The government should establish child screening and identification centres in the 774 Local Government Areas in Nigeria.

Another study by Musa and Jinaidu [33] surveyed the challenges facing education of persons with intellectual disability, diagnosis, and treatment in Cross River State. The only public school for the education of all categories of persons with special needs in Cross River state, Special Education Centre Ibom layout, Calabar, was used for data collection. Four research questions were stated to guide this study. A survey research design was adopted. The population for this study covered all available teachers in the school used for the study. A self-designed inventory was used to collect data for the study. Data was analysed using frequency count, simple percentages, and charts. The result shows that challenges facing the education, diagnosis, and treatment of persons with intellectual disability in Cross River state range from staff personal factors (74.6%), personnel resource factors (68.0%), and funding factors (64.6%). The government of Cross River state should encourage inclusive education to create educational access for persons with intellectual disability and provide the necessary personnel and needed facilities through proper funding of special needs education in the state.

Challenges and Needs of Students with Intellectual Disabilities in Education

Of all categories of exceptional conditions, intellectual disability has been the most difficult one to manage. Intellectual Disability as a concept was defined by Ngechu [34] as a term used when a person has certain limitations in mental functioning and skills such as communication, taking care of self and social skills. To Ngechu M [34], Intellectual disability is characterised by significant impairment and deficits in adaptive functioning that occur in the developmental period and have adverse effects on education. The impact of the disability cannot be overemphasised because the disability affects the general learning ability of the affected person, consequently making life-skill acquisition more difficult, if not impossible.

Reviewed evidence indicates that a substantial majority of children with intellectual delays exhibit special problems in studying as well as in forming peer relationships in school [35], which might be related to the development of higher mental functions. The highest and most complex level of human cognitive activity is thinking. Unlike other mental processes, thinking allows a person to operate with abstract concepts, make inferences and solve certain problems without interacting directly with an object; that is, thinking allows a person to go beyond the framework of sensory cognition. Thinking processes like analysis, synthesis, comparison, abstraction, generalisation, and concretisation help people acquire new knowledge [36].

Gap in Research

Study habits are considered essential for the overall development of a human being. However, with the advent of modern digital technologies, especially the growing popularity of social media on the web, mobile phones, televisions, and other means of entertainment, the study habits of the public, especially the younger generation, are declining. However, related empirical studies on Facebook and WhatsApp and students with disabilities’ study habits were reviewed. Empirical studies revealed that many studies have been conducted on Facebook and WhatsApp and how it has affected students with disabilities’ study habits.

The gap that this study covers is that some of the studies carried out [2, 4, 19] were outside Cross River State and utilised inferential statistics such as Analysis
of Covariance, Pearson's Product Moment Correlation, Independent t-test in analysing the data for the research, but this study utilised the descriptive analysis of frequency count, percentage, mean and standard deviation in analysing the data. Again, some of the research used the Cronbach Alpha reliability method, while this study utilised the split-half reliability method in ascertaining the reliability of the instrument. A number of the empirical studies were carried out in Nigeria, and some outside the country, and there is no known study that explored Facebook and WhatsApp and the study habits of secondary school students with disabilities in the Calabar metropolis of Cross River State; thus, this study served to fill the gaps identified in the literature reviewed, and it contributed to the knowledge bank of Cross River State, Nigeria.

Objective of the Study

This study aims to investigate the relationship between social media usage and study habits of students with intellectual disabilities in the Calabar Metropolis of Cross River State, Nigeria.

Research Questions

The research question states: thus, what is the relationship between social media usage and study habits of students with intellectual disabilities in Calabar Metropolis of Cross River State, Nigeria?

Statement of Hypothesis

The hypothesis states that there is no significant relationship between social media usage and the study habits of students with intellectual disabilities in the Calabar Metropolis of Cross River State, Nigeria.

MATERIALS AND METHODS

Experimental Setting

The study utilised the descriptive survey research design. According to Orim et al. [26], descriptive research design is a scientific method that encompasses witnessing and defining a subject's conduct without manipulating it in any way. This study was carried out in the Calabar metropolis of Cross River State, Nigeria. Cross River State is located in the South-South geopolitical zone of Nigeria, and the Calabar metropolis is made up of two Local government Areas viz-a-viz Calabar Municipality and Calabar South Local Government Areas.

Participants/Sample

Diagnostic Criteria or Assessments are used to Identify Students with Intellectual Disabilities

The following diagnostic criteria were used for identifying students with intellectual disabilities and treatment.

1. Brief Problem Monitor (BPM) (Brief Problem Monitor-Teacher Form For Ages 6–18/BPM-T and (Brief Problem Monitor-Parent Form For Ages 6–18/BPM-P) [28]. This criterion assesses emotional and behavioural problems with three scales: internalising, externalising and attention problems. BPM-P and BPM-T are short-form versions of the Child Behavior Checklist For Ages 6–18/CBCL and Teacher's Report Form For Ages 6–18/TRF, respectively [22].

2. Medical evaluation. The student's account of medical history was obtained from parents to obtain information about the nuclear family, parental consanguinity, gestational history with scrutiny of 50 risk factors for fetal harm, milestones of the child development and health complications, up to the current age, observation of the child’s morphological phenotype, measuring head circumference and basic neurological factors such as communication, collaboration, understanding, locomotion, balance, and motor coordination.

The population of Senior Secondary School II (SSII) students with disabilities in Calabar Metropolis consists of 3,814 students from 24 public Secondary Schools [6]. The stratified random sampling technique was used in this study. First, the schools in the Local Government Areas were stratified. 30% of the Secondary schools were sampled, which gave a total number of seven secondary schools. From the seven schools sampled, twenty per cent of the population of SS II students with disabilities from the sampled schools was sampled for the study, giving rise to 763 respondents as a sample out of 3,814 respondents. After deciding on this sample size for the study area, a simple random sampling technique was used to select the schools and students with disabilities sampled for the study.

In carrying out the simple random sampling technique, the names of all schools from each Local Government Area were written on pieces of paper and put in a bag. After that, the bag was thoroughly shaken with the folded pieces of paper inside, and a research
assistant picked a folded piece from the bag; after which the paper was replaced by the research Assistant and another piece of paper was picked till the number of schools required for the study were completely chosen from the study area. This process was repeated to sample the schools and respondents used for the study.

**Statistical Analysis**

The instrument for data collection was the researcher’s self-developed questionnaire titled “Facebook and WhatsApp and Study Habit Questionnaire (FWASHQ). It consisted of three sections. Section A consisted of personal demographic data of the respondents, such as Sex, Age and Location of residence, while Section B consisted of five items, each measuring Facebook and WhatsApp. Section C also consisted of five items measuring study habits on a four-point modified Likert scale type of Strongly Agree (SA) Agree (A) Disagree (DA) Strongly Disagree (SD). The respondents were required to tick (√) options that appeal to them. The total items for the instrument were 15 items.

The instrument was subjected to a validity and reliability index of 0.86 using the Cronbach Alpha reliability method and with the help of experts in Educational Measurement and Evaluation. These items were generated from the literature reviewed during the research. The raw scores of all the items in each variable were summed together to reveal the outcome for each variable to evaluate the data. All hypotheses were presented in frequencies, percentages, mean, and standard deviation using SPSS version 20 IBM SPSS Statistics for Windows, IBM Corp., Armonk, N.Y., USA.

**Ethical Information**

Data was collected from the respondents through their voluntary participation with anonymity after obtaining informed consent from the heads or principals of the schools as well as support from class teachers. All information collected was treated confidentially and was used only for the purpose of this research, and the result was communicated accordingly.

**RESULTS**

Out of 763 questionnaires that were administered, only 701 questionnaires were retrieved and used for the study. The result in Figure 1 provided descriptive information of respondents based on Sex, Age, and location of residence of the respondents. The result indicates that out of 701 respondents, 394, representing 56.2%, are males, while 307, representing 43.8%, are females, showing more males in the study population than females.

![Figure 1: Sex of respondents.](image1)

The result further revealed that out of 701 respondents used in the study, 211, representing 30.1%, are 14 years and below, 215, representing 30.7%, are 15-16 years, while 275 respondents, representing 39.2%, are 17 years and above. This shows that there are more students with disabilities between 17 years and above than young students with disabilities between 14 years and below in the study area. The result is represented in Figure 2.

![Figure 2: Age of respondents.](image2)

The result in Figure 3 showed that out of 701 respondents used in the study, 567, representing 80.9,
reside in urban areas, while 134, representing 19.1, reside in rural areas. This result indicated that more people resided in urban areas than those residing in rural areas.

Figure 3: Location of respondents.

Test of Research Questions

The descriptive statistics of percentages (%), frequency counts, means (\( \bar{x} \)) and standard deviations (\( S^2 \)) were used to answer the research questions, while Multiple Linear Regression (MLR) statistical tools were used to analyse the hypothesis based on a four-point modified Likert scale were the lower real limit of the mean of 2.5 and above was accepted. This can be interpreted by comparing the calculated mean of the variables with the population mean of the instrument.

Research Question One

What is the extent of the impact of Facebook on study habits among SSII students with intellectual disabilities in Public Secondary Schools of Calabar Metropolis of Cross River State, Nigeria? This research question is interested in evaluating the extent of the impact of Facebook on study habits among SSII students with disabilities in the Public Secondary Schools of Calabar Metropolis of Cross River State, Nigeria. The result is presented in Table 1. Items 1, 2, 3, 4 and 5 had mean ratings of 2.58, 2.03, 2.51, 2.46 and 2.76, respectively, which are greater than the benchmark of 2.50. The grand mean of 3.09 indicates a very high extent of the impact of Facebook utilisation on study habits among SSII students with disabilities in the Public Secondary Schools of Calabar Metropolis of Cross River State, Nigeria.

Research Question Two

What is the extent of the impact of WhatsApp on study habits among SSII students with intellectual disabilities in Public Secondary Schools of Calabar Metropolis of Cross River State, Nigeria? This research question is interested in evaluating the extent of the impact of WhatsApp on study habits among SSII students with disabilities in the Public Secondary Schools of Calabar Metropolis of Cross River State, Nigeria. The result is presented in Table 2. Items 6, 7, 8, 9 and 10 had a mean rating 2.51, 2.59, 2.12, 2.71 and 2.76, respectively, which are greater than the benchmark of 2.50. The grand mean of 3.02 indicates a very high extent of the impact of WhatsApp utilisation on study habits among SSII students with disabilities in

Table 1: Descriptive Analysis of Facebook Utilisation as a Predictor of Students with Disabilities’ Study Habit

<table>
<thead>
<tr>
<th>S/N</th>
<th>VARIABLE ITEMS</th>
<th>SA (%)</th>
<th>A (%)</th>
<th>D (%)</th>
<th>SD (%)</th>
<th>( \bar{x} )</th>
<th>SD</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>My study time is insufficient because of Facebook</td>
<td>402 (57.3)</td>
<td>123 (17.5)</td>
<td>131 (18.7)</td>
<td>45 (6.5)</td>
<td>2.58</td>
<td>1.01</td>
<td>Agreed</td>
</tr>
<tr>
<td>2</td>
<td>Watching videos on Facebook makes me miss lessons</td>
<td>232 (33.09)</td>
<td>187 (26.7)</td>
<td>84 (11.10)</td>
<td>198 (28.3)</td>
<td>2.03</td>
<td>0.09</td>
<td>Disagreed</td>
</tr>
<tr>
<td>3</td>
<td>I do my assignments with information from Facebook</td>
<td>399 (56.9)</td>
<td>213 (30.4)</td>
<td>43 (6.1)</td>
<td>46 (6.6)</td>
<td>2.51</td>
<td>1.00</td>
<td>Agreed</td>
</tr>
<tr>
<td>4</td>
<td>Facebook helps me to study for a longer period</td>
<td>231 (32.10)</td>
<td>122 (17.4)</td>
<td>256 (36.5)</td>
<td>92 (14.0)</td>
<td>2.46</td>
<td>1.08</td>
<td>Disagreed</td>
</tr>
<tr>
<td>5</td>
<td>Time spent on Facebook makes me procrastinate my plans to read</td>
<td>381 (54.4)</td>
<td>124 (17.7)</td>
<td>46 (6.6)</td>
<td>150 (21.4)</td>
<td>2.76</td>
<td>1.32</td>
<td>Agreed</td>
</tr>
</tbody>
</table>

Grand mean = 3.09
Table 2: Descriptive Analysis of WhatsApp Utilisation as a Predictor of Students with Disabilities’ Study Habit

<table>
<thead>
<tr>
<th>S/N</th>
<th>VARIABLE ITEMS</th>
<th>SA (%)</th>
<th>A (%)</th>
<th>D (%)</th>
<th>SD (%)</th>
<th>X</th>
<th>SD</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>I postpone my reading time because of WhatsApp video calls</td>
<td>327</td>
<td>172</td>
<td>145</td>
<td>57</td>
<td>2.51</td>
<td>1.28</td>
<td>Agreed</td>
</tr>
<tr>
<td></td>
<td></td>
<td>-46.65</td>
<td>-24.54</td>
<td>-20.68</td>
<td>-8.13</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>I download useful materials for study via WhatsApp</td>
<td>245</td>
<td>212</td>
<td>162</td>
<td>82</td>
<td>2.59</td>
<td>1.09</td>
<td>Agreed</td>
</tr>
<tr>
<td></td>
<td></td>
<td>-34.95</td>
<td>-30.24</td>
<td>-23.11</td>
<td>-11.7</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>My mobile phone does not distract me during study time</td>
<td>234</td>
<td>202</td>
<td>154</td>
<td>111</td>
<td>2.12</td>
<td>0.96</td>
<td>Disagreed</td>
</tr>
<tr>
<td></td>
<td></td>
<td>-56.9</td>
<td>-30.4</td>
<td>-6.1</td>
<td>-6.6</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>I do share useful study materials with my peers via WhatsApp</td>
<td>452</td>
<td>211</td>
<td>21</td>
<td>17</td>
<td>2.71</td>
<td>1.16</td>
<td>Agreed</td>
</tr>
<tr>
<td></td>
<td></td>
<td>-64.48</td>
<td>-30.1</td>
<td>-2.1</td>
<td>(3,32)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>WhatsApp enables me to ask questions</td>
<td>157</td>
<td>218</td>
<td>222</td>
<td>104</td>
<td>2.16</td>
<td>1.04</td>
<td>Disagreed</td>
</tr>
<tr>
<td></td>
<td>Grand mean = 3.02</td>
<td>-22.39</td>
<td>-31.09</td>
<td>-31.66</td>
<td>-14.86</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

According to the descriptive statistics presented in Table 3, the mean of study habits of students with intellectual disabilities was 25.26 (SD = 3.469) based on a sample of 701 participants. The mean scores for Facebook and WhatsApp were 17.08 (SD = 2.389) and 17.01 (SD = 2.531), respectively. These statistics provide an overview of the central tendency and variability in the measured variables among the participants.

The ANOVA table displays the results of the analysis of variance, which examines the significance of the regression model in predicting the dependent variable, performance test scores. The regression model was found to be statistically significant (F(6, 701) = 34.216, p < 0.001), indicating that the predictors collectively accounted for a significant amount of the variance in the study habits of students with intellectual disabilities. The regression model explained 16.6% of the total variance in the dependent variable, as indicated by the regression sum of squares (SS = 2071.871) and the total sum of squares (SS = 12466.656). The mean square for regression was 345.312, suggesting that the predictors accounted for a substantial proportion of the variance in the study habits of students with intellectual disabilities. The residual sum of squares (SS = 10394.785) reflects the unexplained variance in the model. The results provide strong evidence of the predictive value of the included predictors in relation to the study habits of students with intellectual disabilities, leading to the rejection of the null hypothesis and the acceptance of the alternate hypothesis.

The table presents the model summary, indicating the relationship between the predictors and the outcome variable. The multiple regression analysis revealed that the model had a significant overall fit (R = 0.408, R² = 0.166, Adjusted R² = 0.161), suggesting that approximately 16.6% of the variance in the outcome variable can be explained by the predictors. The predictors included in the model were the constant term, Facebook, and WhatsApp. These predictors collectively contribute to understanding the outcome variable.

The coefficients table presents the unstandardised and standardised coefficients, along with their standard errors, t-values, and p-values, for the predictors in the regression model predicting the dependent variable, study habits of students with intellectual disabilities. The constant term was statistically significant (B = 34.482, SE = 1.523, t = 22.643, p < 0.000). All the predictors, Facebook and WhatsApp, showed a significant relationship with the study habits of students with intellectual disabilities (β = 0.351, SE = 0.042, B = -0.242, t = -8.390, p < 0.001), (B = 0.076, SE = 0.39, β =
0.055, t = 1.919, p < 0.000). These findings suggest that Facebook and WhatsApp are significant predictors of the study habits of students with intellectual disabilities.

**DISCUSSION OF FINDINGS**

Considering the grand means of 3.09 and 3.02 as against the expected mean of 2.5, the research questions can therefore be answered that there is a high extent of the impact of social media (Facebook and WhatsApp) on study habits among SSII students with intellectual disabilities in Public Secondary Schools of Calabar Metropolis of Cross River State, Nigeria showing a significant relationship between these two. The implication of this finding on intellectual disability is that social media has the potential to benefit people with intellectual disability in a way that people with intellectual disability are at high risk of social isolation and loneliness and often have smaller social networks that consist primarily of family members and support staff. Hence, access to social media sites could enable people with intellectual disability to increase the frequency and quality of their social interactions, develop meaningful relationships and reduce feelings of loneliness. Furthermore, social media can play an important role in supporting the empowerment and participation of students with intellectual disabilities by enabling networking, improving self-esteem and enabling online studies among marginalised groups such as disabled people, which aids in improving study habits.

The finding of this result is in tandem with [13] the fact that Facebook, being a social networking site, provides an online platform on which students with intellectual disabilities create profiles, promote and share information content, and have interactions with both known and unknown contacts; this way the excessive use of Facebook can be linked to negative effects on study habits. The outcome of the study also supports the finding of the study of George and Dellasega [20] on the correlation between Facebook utilisation and study habits of undergraduate students with disabilities' academic performance at Tai Solarin University of Education, Ogun State, Nigeria, which revealed that undergraduate students with disabilities when displayed a high level of utilisation of Facebook...
there was a relatively low study habit pattern of undergraduate students with disabilities.

Going forward, the outcome of the study further supports [5], [13] and [16] that when students with intellectual disabilities use WhatsApp activities, they develop new habits (habitual actions). Habits are subconscious thoughts that often drive students with disabilities to use WhatsApp without concentrating on their learning behaviour. Habits are formed after students with disabilities have repeated the same WhatsApp actions even once. Habits are categorised into socialisation or social, discipline or qualification, and personal or subjective habitual actions. The finding of the study also supports [37] that WhatsApp has changed learning to social learning. Such has promoted social habits that help students with disabilities address societal needs through new, group-developed skills.

**IMPLICATIONS TO INCLUSIVE EDUCATION**

Inclusive education entails bringing together people with and without disabilities to study in the same classroom with accessible facilities and equipment. With this system in place, assistive technology becomes an absolute necessity for children with special needs. It entails both governmental and private programmes as well as laws [4]. It also involves a variety of different people, including those in "helping" professions. Globally, three types of inclusion exist for people with disabilities, including the right to education, the right to work options in their social order, and the ability to participate in politics/administrative posts. According to Chibueze [21], inclusion is a significant break from the old, segregated method of educating children with disabilities, and it entails modifying standard school practices to meet the requirements of children with disabilities.

In a regular education school context, inclusive education could be partial or locational (proximity to resource facilities) and functional inclusion with all specialised facilities. Functional inclusion is one of the goals of special education in Nigeria today, with the goal of concretising the notion of equal educational opportunity for all students with disabilities, regardless of disability [19].

Social media platforms such as WhatsApp and Facebook can also help in the field of special education by providing instructor resources. Interacting and using forums and blogs to acquire new ideas for special education classrooms is good for all instructors at all school levels, particularly those in special education. Through the portal, special education teachers can also access webinars and other tools. Parents and educators must teach children that the values they acquire at home and school—kindness, empathy, and acceptance of those different—must extend to their interactions with peers on social media. We should teach our children to be inclusive of their peers with disabilities in the classroom, cafeteria, and playground, just as we teach them to be inclusive of their peers with disabilities on WhatsApp and Facebook.

**CONCLUSION**

The study revealed that using social media (Facebook and WhatsApp) significantly predicts the study habits of SS II students with intellectual disabilities in public secondary schools in Calabar Metropolis, Cross River State, Nigeria, and its significance to inclusive education. Access to social media sites could enable people with intellectual disability to increase the frequency and quality of their social interactions, develop meaningful relationships and reduce feelings of loneliness. Furthermore, social media can play an important role in supporting the empowerment and participation of students with intellectual disabilities by enabling networking, improving self-esteem, and enabling online studies among marginalised groups such as disabled people, which aids in improving study habits. Being disabled can be disastrous for persons who do not have appropriate social and cultural emancipation in their daily circumstances. It is more encouraging to include them in all forms of learning that use technology in the form of social media, such as Facebook and WhatsApp, as this may be another way of providing material support to people with intellectual disabilities who are ready to receive adequate education or skill acquisition training to work and earn a living. A study of this nature may be replicated in other Nigerian metropolises since the results of this study may not be generalised to other states due to variations in social media usage among students with intellectual disabilities.

**RECOMMENDATIONS**

Based on the findings of the study, it was recommended that,

1. The study suggests aggressive advocacy programmes by educators and policymakers to
encourage persons with intellectual disabilities to embrace social media usage and build a positive attitude towards its use in learning.

2. The state government should enter into a consulting agreement with the Ministry of Social Welfare, the Ministry of Education, the Department of Special Education at the University of Calabar, and the Heads of Special Education Centres/Schools in the state to conduct a head count of all persons with intellectual disabilities in Cross River State’s three senatorial districts and make provisions for gadgets as teaching materials.

3. In Cross River State and throughout Nigeria, inclusive education policy and social media usage should be maintained.

CONFLICTING INTERESTS

The authors hereby declare that there is no conflicting interest.

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The authors declare that they have no conflict of interest. It is to be noted that SPSS, which was used to carry out the statistical analysis, was purchased by the group of researchers. Odey Samuel Eburu, Virginia Emmanuel Ironbar and Effiom John Edwin carried out the study design and background to the study. Raymond Ogar and Doris Usie carried out the data collection. Effiom John Edwin, Akpa Stephen Ushie and Edmond Odock carried out the statistical analysis. Grace Edu, Victoria Abanyam, and Emmanuel Ahueansebhor prepared the paper. All other authors critically reviewed the paper and approved the final version submitted for publication. The authors thank the secondary schools and communities used for the study, and their special gratitude goes to all the groups of researchers. Odey Samuel Eburu, Virginia Emmanuel Ironbar and Effiom John Edwin carried out the study design and background to the study. Raymond Ogar and Doris Usie carried out the data collection. Effiom John Edwin, Akpa Stephen Ushie and Edmond Odock carried out the statistical analysis. Grace Edu, Victoria Abanyam, and Emmanuel Ahueansebhor prepared the paper. All other authors critically reviewed the paper and approved the final version submitted for publication. The authors thank the secondary schools and communities used for the study, and their special gratitude goes to all the groups of researchers.

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