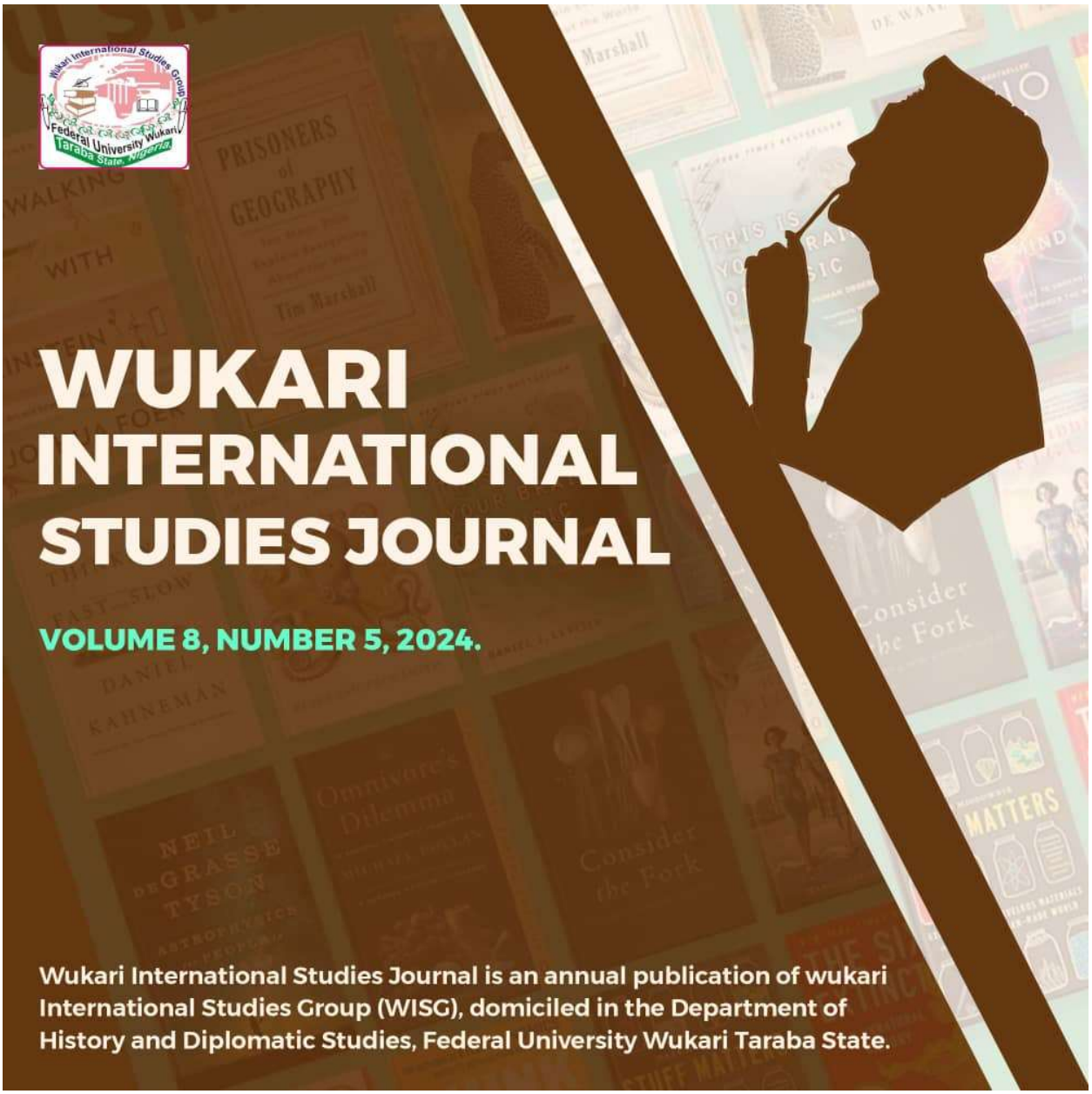
# WUKARI INTERNATIONAL STUDIES JOURNAL

## VOLUME 8, ISSUE 5, AUGUST 2024



# WUKARI INTERNATIONAL STUDIES JOURNAL

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# BOREDOM AND DEMOGRAPHICS AS PREDICTORS OF INTERNET ADDICTION AMONG POLYTECHNIC LIBRARY USERS IN SOUTH-SOUTH, NIGERIA

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**KEYWORDS**
Internet, Internet addiction, Library users, Boredom, Polytechnic students, Nigeria

**ABSTRACT**
*This study examined boredom and demographics as predictors of internet addiction among polytechnic library users in South-South, Nigeria. The study adopted the correlational research design. The population for the study was 3,302 library users from which a sample size of 412 library users in five federal polytechnics using the multi-stage sampling technique was selected. The instrument used for data collection was the questionnaire. The study found that the extent of boredom among polytechnic library users in South-South, Nigeria is great (3.56 > 3.00). It also emerged that there is strong relationship between boredom and Internet addiction among polytechnic library users in South-South Nigeria (r = 0.446, 0.000 < 0.05). Demographics (r = -.035, 0.484, < 0.05) have weak relationship and do not significantly predict internet addiction among the federal polytechnic library users. From the findings of the study, it was concluded that boredom apart from demographics of library users predict internet addiction among library users in federal polytechnics in South-South, Nigeria. Based on the findings from the study, it was recommended that polytechnic management and library administrators in collaboration with the guidance and counselling unit should organise an awareness campaign for students on the consequences of internet addiction and develop initiatives and policies that promote a healthier internet use among student populations.*

## Introduction

The use of the Internet has transformed the world in terms of information sharing, business opportunities, communication, learning, relationships, socialization, shopping, and entertainment, all accessible with a single click (Naughton, 2016). Internet addiction can be defined as spending too much time on the Internet, accompanied by psychological overdependence on its use (Hsieh, 2019). The use of the Internet is highly individualized. The healthy way of using it is to accomplish a planned objective within a reasonable period with no behavioural or intellectual distress. Some individuals succeed in limiting their Internet use, whereas others cannot regulate themselves (Diomidous, et al., 2016). Misuse of the Internet has become a health concern worldwide and is growing swiftly and steadily. The field of Internet addiction (internet addiction) has experienced significant debates over the years. At present, there are many uncertainties regarding the conceptualization of internet addiction as a disorder, including Internet gaming disorder (Wang, et al. 2019).

Tiamiya et al. (2024) refer to internet addiction as excessive or compulsive use of the internet, usually incorporating social networking, gaming, and online shopping. Campbell, (2021) described addiction as excessive thoughts about and desire to perform a behaviour, excessive time spent to plan and engage in the behaviour, and possibly recover from its effects (e.g. from hangovers), and less time spent on other activities. In general, at some point, negative consequences tend to ensue due to engaging in addictive behaviour (e.g.) physical discomfort, social disapproval, financial loss, or decreased self-esteem. Continuing to engage in addictive behaviour after suffering numerous negative consequences often has been a criterion of dependence on addictive behaviour (Goodman, 2021). The rapid integration of the Internet into global societies has posed new challenges related to the convenience of accessing aspects of the Internet that can be highly rewarding (e.g., gaming, and social networking). One such issue is a behavioural phenotype called Internet addiction (IA), which is conceptualized as an impulse control problem characterized by an inability to inhibit Internet use to the extent that the usage has an adverse impact on major life domains (e.g., interpersonal relations, physical health) (Cheng & Li, 2014). Some researchers have used different terms as IA correlates such as 'problematic Internet use,' 'compulsive Internet use,' and 'Internet-related addictive behaviour' (Billieux & Van-der, 2012).

Boredom, as described by Danckert et al. (2018), is a prevalent and unpleasant human experience associated with negative outcomes such as depression and substance abuse. It is characterized as a disengaged state where individuals strive to interact with their environment but consistently fail to do so, leading to attentional failures. Boredom involves restlessness stemming from unsatisfactory engagement, contrary to the notion of pathetic boredom. Historical observations support the characterization of boredom as a high-arousal state, although some debate associates it with low arousal. The state of boredom should be understood to be an emotion considered as a state and not as a trait, as a transient, multicomponent response to a situation (Van Tilburg & Igou 2012). Once a person appraises a situation to be boring, then the person undergoes changes in his or her subjective, felt experience (e.g., negative feelings, mental fatigue, feelings of constraint), cognition (e.g., inattention, perception of the slower passage of time, mind-wandering), behaviour (e.g., strong desire to escape situation, changes in posture), and physiology (e.g., low or high arousal, changes in brain waves) (Malik, et al., 2023). The bored student in this context is unable to articulate what it is that he or she desires academically. Boredom is seen as, a negative and low-arousal emotion that is widely experienced by individuals in many situations (Tam et al., 2021), was once thought to be a human "plague" (Pekrun et al., 2010), explained by the expressions "boredom like hell" (Maher et al., 2018). The contention that boredom is an emotion is correlated with the results of a study by Elhai, et al. (2018). The authors provided strong evidence in support of the claim that boredom is an emotion in its own right and can be distinguished from other related emotional states. They found that boredom has a unique experiential content and that manipulation of the state of boredom did not affect other emotional states (e.g., anger, sadness, or frustration).

In turn, Wang et al. (2022) found boredom to be distinct from three phenomenologically-related (apathy, anhedonia, and depression) states providing further evidence that boredom is an independent affective construct. In teaching and learning situations, boredom is typically experienced in class and can be referred

to as Class Boredom (CB), which has a significant negative impact on students 'learning processes and learning outcomes (Camacho-Morles et al., 2021; Mata et al., 2021). For example, Tze et al., (2016) found that (CB) is also negatively correlated with intrinsic goal orientation, task value, learning self-efficacy, intrinsic motivation, degree of effort, learning engagement, use of fine processing strategies, self-regulated learning, and academic performance. Additionally, CB is suggested to be a major antecedent of later learning weariness and dropping out of school (Sulea et al., 2015).

Demographic characteristics, including socioeconomic status, gender, age, and income, thus, play a vital role in internet addiction. The studies on the impact of gender are mixed. Some researchers found that males are more susceptible to Internet addiction. For example, Bisen and Deshpande (2020) found that male students use smartphones more frequently than females. Some researchers reported that males and females exhibit different behavioural patterns concerning internet addiction. Hence, it is more likely that there would be gender differences in the outcomes such as stress, and burnout (Liang et al., 2016). It is also interesting to note that males use the Internet for pleasure rather than for searching information when compared to females. How they spend time on the Internet results in internet addiction differs according to gender. The study by Zenebe, et al. (2021) showed that some online users were becoming addicted to the Internet in the same way that others became addicted to drugs, alcohol, or gambling, which resulted in academic failure, reduced work performance, and even marital discord and separation. Various types of online activities, such as online gaming, social networking, online gambling, online shopping, virtual sex, and information overload, are related to internet addiction (Wu et al. 2015). Although Internet addiction is reported to be associated with various personal, social and psychological factors in the literature, this study has been conducted to investigate the influence of boredom and demographics on Internet addiction among Polytechnic library users in South-South, Nigeria. To achieve this, the following questions were raised to guide the study:

## Research Question.

1. What is the extent of boredom among the polytechnic library users in South-South, Nigeria?
2. What is the extent of internet addiction among the polytechnic library users in South-South, Nigeria?
3. What is the relationship between boredom and internet addiction among polytechnic library users in South-South, Nigeria?
4. What is the joint relationship between demographics (gender, age, level of study) and Internet addiction among polytechnic library users in South-South, Nigeria?

## Hypotheses

1. Boredom will not significantly predict Internet addiction among polytechnic library users in South-South, Nigeria.
2. Demographics (gender, age and level of study) will not jointly significantly predict internet addiction among polytechnic library users in South-South, Nigeria.

## Literature review

**Boredom among the Polytechnic Library Users**

Researchers have defined boredom according to several different outcomes associated with boredom, including arousal (Mata et al., 2021), attention (Eastwood, et al 2012). Perhaps the most widely used definition of boredom is the "aversive experience of wanting, but being unable, to engage in a satisfying activity" (Eastwood, et al 2012, p. 482). Tze, Daniels and Klassen (2016, p. 120) described boredom as an "unpleasant, transient affective state, in which the individual feels a pervasive lack of interest" Mikulas and Vodanovich (2022, p.3) defined boredom as "a state of relatively low arousal and dissatisfaction, which is attributed to an inadequately stimulating situation". Cui et al (2021) explored the longitudinal mediation effects of students' perceived task value (PTV)between perceived teacher enthusiasm (PTE) and class-related boredom (CB) and found that controlling for the effects of boredom proneness and perceived task difficulty, students' PTE was a significant predictor of CB, and students' PTV played a significant mediating role in this causation relationship. As shown in the literature, boredom can lead to Internet

addiction among students. Boredom is a very common experience and has to be accompanied by numerous negative psychological, social, academic, occupational and interpersonal problems. Boredom which is a highly complex and multidimensional concept has been conceptualized differently within different paradigms throughout the ages. However, in modern psychology literature, some theorists define it as the opposite feeling of interest and an aversive negative feeling derived from low arousal or monotonous situational factors (Mikulas & Vodanovich, 2022). Boredom is a common experience that affects people on multiple levels, including their thoughts, feelings, motivations, and actions.

Loreta, et al. (2023) conducted a study on boredom and predicted internet addiction through the mediating role of attentional bias toward social networks. In that study, the authors examined the role of boredom susceptibility, as a personality trait, in predicting the risk of internet addiction. Sixty-nine young adults were administered a dot-probe task assessing internet-related attentional bias (AB) and questionnaires measuring internet addiction (IAT) and boredom susceptibility (BS-BSSS). Correlation and t-test analyses confirmed that the tendency to experience boredom and selective attention toward social network information was related to internet addiction. Consistent with a broader argument that boredom encourages the behavioural pursuit of alternative goals, Bench and Lench (2013) argued that, while bored, attention to the current task is reduced, the experience of boredom is negative and aversive, and that boredom increases autonomic arousal to ready the pursuit of alternatives. By motivating the desire for change from the current state, boredom increases opportunities to attain social, cognitive, emotional and experiential stimulation that could have been missed. Some individuals are more prone to engage in repeated experiences, such as watching the same movie, visiting the same places time after time, and eating the same kinds of food, while some individuals are eager to experience new things such as listening to new music, tasting new foods, travelling new to places and meeting new people. In the first case, these individuals easily become bored by repeated experiences. However, more or less, everybody experiences boredom (Bench & Lench, 2013). It occurs in various circumstances, sometimes while reading a paper, listening to a lecture, sometimes while doing household chores, and while having a relationship (Bench & Lench, 2013).

Studies have associated boredom with numerous negative outcomes such as psychological symptoms, depression, anxiety, obsessions, somatization, interpersonal sensitivity (Sommers & Vodanovich, 2020), negative personality traits (Vodanovich, Verner & Gilbride, 2021), sensation seeking, aggression, unsafe driving behaviour and impulsiveness (Sommers & Vodanovich, 2020), decreased academic achievement and loneliness, depression and general dissatisfaction with life (Mann & Robinson, 2021). Also, student boredom has been linked to decreased academic achievement and school dissatisfaction which mostly leads to maladaptive behaviours (Mann & Robinson, 2021). Boredom has been accompanied by a constellation of negative emotions such as sadness, depressive feelings, emptiness, hopelessness, meaninglessness, lethargy, feeling trapped, restlessness, frustration, anxiety, worry, and anger (Hill & Perkins, 2022). Subjectively monotonous activities could lead to a high degree of frustration whereas boredom disliked activities could lead to a low degree of frustration. Based upon the experience of the level of frustration, people may feel aggressive, worried or hostile, in order to cope with these aversive feelings, people could find alternative ways or stimulating processes to handle the onset of boredom and emotional distress (Sommers & Vodanovich, 2020).

Boredom is one of the common triggers of intensive Internet use (Li et al, 2021). The study by Cui et al. (2021) on dampening effects of perceived teacher enthusiasm on class-related boredom in college students provided evidence on the role of college students' perceived task value (PTV) as a longitudinal mediator and found that college students' perceived teacher enthusiasm (PTE) mediated the dampening effect of PTE on class-related boredom (CB) across time points. Wang (2018) explored the relationship between free-time management, leisure boredom, and Internet addiction in undergraduates in Taiwan. The study found that of all the influencing factors, boredom has been proven to be a common trigger for intensive Internet use and can result in particularly problematic Internet use behaviour. Results from the structural model revealed that free-time management decreases boredom during leisure time, and boredom during leisure time enhances Internet addiction. Furthermore,

leisure boredom was revealed to play a role as a distinct mediator between free-time management and Internet addiction. Due to the ease of access to networked mobile devices, students in tertiary institutions may find it difficult to remain on task and tend to switch between tasks, for example, likely, students who turn to the Internet to avoid academic tasks they find boring will suffer in terms of their academic performance (Junco, 2012). The study by Struk et al. (2017) demonstrated that the apparent two-factor solution is a product of the wording of the reverse-scored items instead of reflecting two actual latent constructs. After reversing these items and trimming the scale, they proposed an 8-item version with a single factor, suggesting boredom proneness as a unitary construct.

Skues et al. (2015) studied 'the effects of boredom, loneliness, and distress tolerance on problem internet use among university students 'and found that boredom proneness was significantly associated with problematic Internet use (PIU) and was a significant predictor of PIU in a model that included loneliness and distress tolerance. The study also found that higher levels of problematic Internet use (PIU) were associated with lower levels of academic performance, leading us to the conclusion that university students who are prone to experiencing boredom tend to use the Internet to seek out more stimulating and satisfying activities, which in turn can lead to problematic Internet use patterns that can negatively affect their academic performance. The study by Wegmann et al. (2018) found that people who have a higher susceptibility to experience boredom show higher expectancies to avoid negative emotions online, which promotes higher craving reactions when being confronted with specific cues (e.g. an incoming message) and could result in Internet-communication disorder (ICD) tendencies.

Blunt and Pychyl (2021) found that individuals with a heightened tendency for boredom perceive time as passing more slowly compared to those less prone to boredom. Weiss et al. (2022) asserted that boredom proneness is associated with noisy decision-making and a tendency to alternate between choice options regardless of risk level, rather than being attracted to risks (Tam et al., 2021). Boredom proneness is also connected to cheating behaviours during task performance, with state self-efficacy mediating this relationship (Feng et al., 2022). The text underscores that highly boredom-prone individuals are more likely to violate the rules of social isolation during the pandemic, emphasizing the importance of considering boredom proneness in efforts to encourage adherence to social isolation guidelines (Danckert et al., 2020). Thus, if an individual perceives that an activity lasts longer than its actual duration, this subjective interpretation can contribute to an increased sense of boredom. In simpler terms, the saying "time flies when you're having fun" suggests that when you forget about time, boredom tends to dissipate. Individuals with a high susceptibility to boredom tend to believe that they have been engaged in a task for a longer duration than it takes. As a result, they may feel more impatient with the task and undergo a heightened experience of boredom (Mugon et al., 2020). The literature reviewed shows that boredom is a significant predictor of students' Internet addiction.

**Influence of Demographics on Internet Addiction**

According to Abadina and Mba (2014), demography is the study of people's general placement in a social and economic environment. This includes work and compensation, educational attainment or level, and family structure or size. Demographic factors such as gender, age, sexual orientation, educational foundation, culture, and wage or income level play important roles in determining changing situations in research conducted. Gender refers to the socially classified hormones, characteristics that a given society considers appropriate for identifying people naturally; educational capabilities on the other hand, refer to the degrees, recognitions, declarations, and professional titles, among others, that an individual has obtained, whether through full-time study, part-time study, or private educational pursuit, whether within or outside the country of residence, and whether presented by educational experts or not (Adeyanju, et al., 2022).

Demographic characteristics have been critical factors in understanding the utilization of information technology, knowledge, library resources, and services especially in higher education across the globe. Demographic characteristics often provide important clues as to what factors contribute to undergraduates' use of online library resources (Quadri, 2013). The role played by demographic characteristics of library users is very important to the

utilization of the library. Usoro, et al. (2018) opined that student demographics are capable of influencing their use of the library. Demographic characteristics include age, marital status, gender, academic discipline, level of study, designation, race, social background, ethnicity, religion, etc (Mahmood, 2013). Ebijuwa and Mabawonku (2019) assert that age, gender, and academic discipline could be possible factors that exert influence on undergraduates' use of e-library resources in Nigeria. Demographic variables have long been acknowledged as important socio-economic elements of an organization's workforce that influence job performance and service delivery. The exploration of the general placement of persons in a social-economic sphere is the focus of demographic variables and research. Researchers are occasionally interested in learning more about how they affect organizational growth and development patterns (Adeyanju, et al., 2022). In this context, demographic factors can be defined as the socio-economic characteristics of employees, such as age, educational attainment, gender, marital status, and years of service, as well as their link to organizational productivity or service output. Hassan and Ogunkoya (2014), as well as Oyewole and Popoola (2015), identified demographic characteristics such as education, gender, marital status, and years of service as having an impact on employees' job performance or service delivery based on these criteria. Personal traits such as gender, education, years of service or work experience, and marital status, among others, could be considered demographic variables in the workplace and their effects on organizational or institutional growth and development.

**Internet Addiction among students in tertiary institutions**

There is inconclusive evidence regarding the exact magnitude of the problem of Internet addiction because the prevalence varies according to country and study context. Even within the same country, there is a marked difference in the prevalence of internet addiction due to diverse screening scales with inconsistent cut-off scores. For example, studies conducted across various parts of the Indian subcontinent revealed the prevalence estimates of internet addiction among university students (5% to 46.7%) (Balhara, et al. 2018). Mathew and Krishnan (2020) reported that internet addiction can reduce the young generation's productivity and cause cognitive dysfunction, poor academic performance, and physical, mental, and behavioural disturbances. Mathew and Krishnan added that internet addiction can reduce the young generation's productivity and cause cognitive dysfunction, poor academic performance, and physical, mental, and behavioural disturbances. Joseph, et al. (2021) conducted a study to estimate the pooled prevalence of internet addiction among Indian college students and found that the estimated prevalence of severe internet addiction was significantly higher in the Young Internet Addiction Test (Y-IAT) cut-off points of 70 than 80 (12.7% (95% CI: 11.2% to 14.3%) vs 4.6% (95% CI: 4.1% to 5.2%). The sampling method and quality of included studies had a significant effect on the estimation of prevalence in which studies using non-probability sampling and low risk of bias (total quality score ≥7) reported lower prevalence. The overall quality of evidence was rated as 'moderate' based on the Grading of Recommendations Assessment, Development, and Evaluation criteria.

Balasubramanian and Parayitam (2023) studied the consequences of Internet addiction among university students in India and found that time spent on the Internet every day is positively related to internet addiction and internet addiction is positively related to time spent on networking, video streaming, short video apps, educational apps, chat apps, online shopping apps, money involved apps, etc. The study by Raveendran, et al (2021) on Internet addiction among students of the medical college in North Kerala revealed that the prevalence of Internet addiction was 59%. Out of the number, 113 (49.8%) students were average online users (mild addiction), 19 (8.4%) students were experiencing occasional and frequent problems (moderate addiction) and 2 (0.8%) severely addicted students most of the study population-initiated Internet use between the ages of 16 -18 years, 89 (39%). The study also revealed that headache was the most common health problem in 102 (44%) followed by sleep disturbances in 40 (17.6%), back pain in 14 (6.1%), and anxiety, stress, and visual difficulties in 29 (15%) students. Mariavinifa, et al. (2021) studied the prevalence and associated factors of internet addiction among college students using smartphones in Tamil Nadu, India. The study adopted a cross-sectional method to collect data from five hundred students from various disciplines in Annamalai University from October 2019 to October 2020 using a questionnaire, convenient sampling technique was used to

collect data. The study found that the overall prevalence of internet addiction was 61.2% among them 37% had mild, 21% had moderate and 3.2% had severe internet addiction. The degree of internet addiction was significantly associated with age, time spent daily on the Internet, and using the Internet for social media, online communications, and playing online games. The study concluded that the prevalence of Internet addiction is high among college students.

## Methodology

The correlational research design was adopted to execute this study. The descriptive correlational research design research aims to provide static pictures of phenomena and also establish the relationship between different variables (Ivy, 2022). The correlational research design does not involve the manipulation of variables. This design is considered appropriate because it enabled the researcher to explore the relationship among boredom, resilience, sensation seeking and demographics as predictors of internet addiction among polytechnic library users in South-South, Nigeria. It enables the prediction of the changes in the dependent variables based on the value of the independent variables (Obasuyi, 2020). The population of this study is 3,302 registered library users of the federal polytechnics in South-South, Nigeria. These Polytechnics include Federal Polytechnic Ukana, Akwa-Ibom State, Federal Polytechnic Ekowe, Bayelsa State, Federal Polytechnic, Ugep, Cross River State, Auchi Polytechnic, Auchi, Edo State, and Federal Polytechnic of Oil and Gas, Bonny, Rivers State.

A breakdown of the population by institution is in Table 1.

**Table 1: Population of the Study**

| S/N | Federal Polytechnic in South-South, Nigeria | Location | Population (Registered library Users) |
|---|---|---|---|
| 1 | Federal Polytechnic, Ukana | Akwa-Ibom State | 612 |
| 2 | Federal Polytechnic, Ekowe | Bayelsa State | 531 |
| 3 | Federal Polytechnic, Ugep | Cross River State | 622 |
| 4 | Auchi Polytechnic, Auchi | Edo State | 1,108 |
| 5 | Federal Polytechnic of Oil and Gas, Bonny | Rivers State | 429 |
| **Total** | | | **3302** |

***Source**: Registered Library Users 2021/2022 in five Polytechnics.*

## Sample size

The sample size for this study is 412 library users in federal polytechnics in South-south, Nigeria. To select the sample size for the study, the researcher adopted the multi-stage sampling technique. In the first stage, the cluster sampling technique was used to select respondents from the different polytechnics who are registered library users. Subsequently, the proportional sampling technique was utilized to allocate a sample size for each stratum following its proportion to the total population. This approach ensures the representativeness of the sample across the entire population. Following this, the simple random technique was applied to randomly select samples from each stratum.

The research instrument used for data collection in this study was a questionnaire. The adapted questionnaire was based on a scholarly validated instrument: The Boredom Proness Scale (BPS), developed by Struk, and Carriere (2015), and Internet Addiction Scale (IAS),

developed by Young (1995). However, their items were modified to reflect the present study. A five-point ranking scale ranging from "very great extent", "Great extent", "Moderate extent", "Small extent" and "No extent" was adopted in this study. The questionnaire was divided into two parts. Part one was on demographics data, made up of four items which comprised, the name of the institution, gender, age and level of study. The demographics were used to answer research questions four and test hypotheses two. Part two of the questionnaire is made up of two sections. Section A, which was on the extent of boredom among polytechnic library users in South-South Nigeria was used to answer research questions one and test hypotheses one. Section B, which was on the extent of Internet Addiction among Polytechnic Library Users in South-South Nigeria, was used to answer research question two. The researcher, assisted by a research assistant in each of the polytechnic libraries being studied, distributed the questionnaire to the respondents. The administered questionnaires were collected from the respondents on the same day upon completion.

## Data analysis

The data obtained from the administration of the questionnaire were analysed using frequency and percentage for the demographics section of the questionnaire. Mean and standard deviation were used to analyse data generated from research questions one and two. While, Pearson's Product Moment Correlation Coefficient (PPMCC) was used to analyse data in research questions three to establish the relationship between two variables. Hypotheses 1 to 2 were tested with Linear Regression.

## Results

A total of 412 copies of the questionnaire were distributed and 410 (99%) copies were returned. The response rate of 99% is considered adequate for the study. Of the total 410 participants, 136 (33.2%) were from Auchi Polytechnic, 78 (19%) from Federal Polytechnic, Ugep, 76 (18.5%) from Federal Polytechnic, Ukana, 67 (16.3%) from Federal Polytechnic, Ekowe, and 53 (12.9%) from Federal Polytechnic of Oil and Gas, Bonny. It can be concluded that the majority of participants in the study are from Auchi Polytechnic. The majority of polytechnic library users are at the HND Two level, with 116 (28.3%) students, followed by 103 (25.1%) at the HND One level. 96 (23.4%) at the ND Two level, and 95 (23.2%) at the ND One level. This suggests a concentration of library usage among students in their HND two levels. There are 194 (47.3%) females and 216 (52.7%) males, indicating that the majority of library users are male. The distribution of library users by age is as follows: 140 (34.1%) fall within the 21-23 age bracket, 102 (24.9%) within 24-26, 85 (20.7%) within 18-20, 59 (14.4%) aged 27 and above, and 24 (5.9%) between 15-17 years old. Therefore, it can be concluded that the majority of library users belong to the 21-23 age group.

**Research Question 1: What is the extent of boredom among polytechnic library users?**

The data in Table 2 provide the answer to this question.

**Table 2: Extent of Boredom among the Library Users**

| S/N | Boredom | Very Great | Great Extent (4) | Moderate Extent | Small Extent (2) | No Extent (1) | Mean | Standard Deviation |
|---|---|---|---|---|---|---|---|---|
| 1 | It is easy for me to concentrate on my academic activities. | 193 | 137 | 57 | 14 | 9 | 4.20 | 0.95 |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| 2 | Frequently, when I am doing academic work, I find myself worrying about other things. | 132 | 112 | 80 | 59 | 2 | 3.64 | 1.25 |
| 3 | Time always seems to be passing slowly. | 124 | 113 | 88 | 51 | 3 | 3.59 | 1.26 |
| 4 | I often find myself at "loose ends," not knowing what to do. | 101 | 104 | 68 | 60 | 7 | 3.22 | 1.45 |
| 5 | I am often trapped in situations where I have to do meaningless things. | 102 | 87 | 71 | 72 | 7 | 3.15 | 1.46 |
| 6 | Many academic works I have to do are repetitive and monotonous. | 112 | 128 | 83 | 44 | 4 | 3.54 | 1.28 |
| 7 | It takes more stimulation to get me going than most people. | 102 | 131 | 100 | 47 | 3 | 3.56 | 1.19 |
| 8 | I am seldom excited about my work. | 155 | 117 | 83 | 33 | 2 | 3.85 | 1.17 |
| 9 | In any situation, I can usually find something to do or see to keep me interested. | 158 | 144 | 65 | 28 | 1 | 3.98 | 1.07 |
| 10 | Much of the time in school, I just sit around doing nothing | 77 | 86 | 71 | 83 | 9 | 2.93 | 1.44 |
| 11 | I am good at waiting patiently. | 162 | 111 | 91 | 22 | 2 | 3.89 | 1.16 |
| 12 | It would be very hard for me to find academic work that is exciting enough. | 101 | 97 | 91 | 67 | 5 | 3.30 | 1.35 |
| 13 | Among my friends, I am the one who keeps studying for a long time. | 127 | 110 | 106 | 40 | 2 | 3.66 | 1.20 |
| 14 | It takes a lot of change and variety to keep me really happy. | 112 | 132 | 91 | 37 | 3 | 3.59 | 1.24 |
| 15 | When I am in school, I find myself in monotonous and tiresome situations. | 101 | 90 | 90 | 70 | 5 | 3.25 | 1.38 |
| Grand Mean/Standard Deviation | | | | | | | **3.56** | **0.71** |

| | |
|---|---|
| Criterion Mean | **3.00** |

Table 2 showed a grand mean of 3.56 (Std. = 0.71), surpassing the criterion mean of 3.00. This suggests that the extent of boredom among polytechnic library users in South-South, Nigeria is great. This implies that there may be underlying issues within the polytechnic libraries in South-South Nigeria that may need to be addressed to improve user engagement and satisfaction within these libraries, such as inadequate resources, unengaging environments, or lack of stimulating activities, which contribute to the high levels of boredom among users. Addressing these issues could be crucial for enhancing user experience and library utilization.

**Research Question 2:** What is the extent of Internet addiction among polytechnic library users?

The data in Table 3 are used to answer this question.

**Table 3: The Extent of Internet Addiction among the Polytechnic Library Users**

| S/n | Internet Addiction | Very Great Extent (5) | Great Extent (4) | Moderate Extent (3) | Small Extent (2) | No Extent (1) | Mean | Standard Deviation |
|---|---|---|---|---|---|---|---|---|
| 1 | Do you stay online longer than you intended? | 147 | 66 | 95 | 56 | 46 | 3.52 | 1.39 |
| 2 | My longer stay online affects my academic work | 95 | 68 | 89 | 88 | 70 | 3.07 | 1.41 |
| 3 | Do you prefer the excitement of the internet to intimacy with your classmates | 105 | 76 | 86 | 86 | 57 | 3.21 | 1.39 |
| 4 | I form new relationships with fellow online users | 104 | 81 | 85 | 84 | 56 | 3.23 | 1.38 |
| 5 | People around me complain about the amount of time I spend online | 77 | 72 | 85 | 89 | 87 | 2.91 | 1.41 |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| 6 | The time I spend online affects my school grades. | 70 | 63 | 71 | 103 | 103 | 2.74 | 1.43 |
| 7 | I check my email before something else that I need to do | 92 | 72 | 90 | 76 | 80 | 3.05 | 1.43 |
| 8 | My academic work suffers because of the Internet | 83 | 61 | 73 | 80 | 113 | 2.81 | 1.49 |
| 9 | I become defensive or secretive when asked about what you do online | 82 | 87 | 92 | 75 | 74 | 3.07 | 1.39 |
| 10 | I block out disturbing thoughts about your life with soothing thoughts of the internet | 107 | 67 | 98 | 77 | 61 | 3.20 | 1.40 |
| 11 | I find myself anticipating when I will go online again | 86 | 72 | 102 | 94 | 56 | 3.09 | 1.34 |
| 12 | I fear that life without the internet would be boring, empty, or joyless | 120 | 84 | 76 | 67 | 63 | 3.32 | 1.43 |
| 13 | I snap, yell, or feel annoyed if someone bothers me while you are online. | 91 | 62 | 80 | 94 | 83 | 2.96 | 1.44 |
| 14 | I lose sleep due to late-night log-ins. | 82 | 74 | 92 | 81 | 81 | 2.99 | 1.41 |
| 15 | I feel preoccupied with the internet when | | | | | | | |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | offline or fantasize about being online. | 68 | 79 | 108 | 84 | 71 | 2.97 | 1.33 |
| 16 | I do find myself saying ''just a few more minutes'' when online. | 101 | 91 | 92 | 65 | 61 | 3.26 | 1.38 |
| 17 | I try to cut down the amount of time I spend online | 97 | 86 | 108 | 79 | 40 | 3.30 | 1.29 |
| 18 | I try to hide how long I've been online | 71 | 76 | 102 | 76 | 85 | 2.93 | 1.38 |
| 19 | I choose to spend more time online over going out with classmates | 95 | 82 | 83 | 76 | 74 | 3.12 | 1.42 |
| 20 | I feel depressed, moody, or nervous when you are offline, which goes away when I am back online | 94 | 72 | 88 | 76 | 80 | 3.06 | 1.44 |
| Grand Mean/Standard Deviation | | | | | | | **3.09** | **0.93** |
| Criterion Mean | | | | | | | **3.00** | |

Table 3 reveals a grand mean of 3.09 (Std. = 0.93), surpassing the criterion mean of 3.00. Consequently, it shows that the extent of Internet addiction among polytechnic library users in South-South Nigeria is moderate.

**Research Question 3:** What is the relationship between boredom and Internet addiction among polytechnic library users?

The data in Table 4 are used to answer this question.

**Table 4: Relationship between Boredom and Internet Addiction**

| | | Boredom | Inter.Addiction |
|---|---|---|---|
| **Boredom** | Pearson Correlation | 1 | .446** |
| | Sig. (2-tailed) | | .000 |

| | | | |
|---|---|---|---|
| | N | 410 | 410 |
| **Internet Addiction** | Pearson Correlation | .446** | 1 |
| | Sig. (2-tailed) | .000 | |
| | **N = 410** | | **α = 0.05** |

Based on the data from Table 4, the Pearson correlation coefficient (r = .446) indicates a positive correlation. With a significant value (Sig.2-tailed) of .000 (p < 0.05), it means that the relationship between boredom and Internet addiction among polytechnic library users in South-South Nigeria is strong.

**Research Question 4:** What is the joint relationship between demographics (gender, age and level of study) and Internet addiction among polytechnic library users in South-South Nigeria?

The data in Table 5 are used to answer this question.

**Table 5: Joint Relationship between Demographics (gender, age and level of study) and Internet Addiction**

| | | **Demographics** | **Internet Addiction Scale** |
|---|---|---|---|
| **Demographics** | Pearson Correlation | 1 | -.035 |
| | Sig. (2-tailed) | | .484 |
| | N | 410 | 410 |
| **Internet Addiction Scale** | Pearson Correlation | -.035 | 1 |
| | Sig. (2-tailed) | .484 | |
| | **N = 410** | | **α = 0.05** |

Based on the data from Table 5, the Pearson correlation coefficient (r = -.035) indicates

a negative correlation. With a significant value (Sig.2-tailed) of .484 (p > 0.05), it shows

that the relationship between demographics and Internet addiction among polytechnic

library users in South-South Nigeria is weak.

**Testing of the Hypotheses**

**1. Boredom will not significantly predict Internet addiction among polytechnic library users.**

The data in Tables 6-8 provide the answer to this hypothesis

**Table 6: Model Summary Table of**

**Relationship between Boredom and Internet Addiction**

| Model | R | R Square | Adjusted R Square | Std. Error of the Estimate |
|---|---|---|---|---|
| 1 | .446[a] | .199 | .197 | .83278 |

**a. Predictors: (Constant), Boredom Scale**

**Table 7: ANOVA Summary Table of Relationship between Boredom and Internet Addiction**

| Model | | Sum of Squares | df | Mean Square | F | Sig. |
|---|---|---|---|---|---|---|
| 1 | Regression | 70.398 | 1 | 70.398 | 101.507 | .000[b] |
| | Residual | 282.958 | 408 | .694 | | |
| | **Total** | **353.355** | **409** | | | |

**a. Dependent Variable: Internet Addiction Scale**

**b. Dependent Variable: Boredom Scale**

**Table 8: Coefficient Summary Table of Relationship between Boredom and Internet Addiction**

| Model | | Unstandardized Coefficients | | Standardized Coefficients | | |
|---|---|---|---|---|---|---|
| | | B | Std. Error | Beta | t | Sig. |
| 1 | (Constant) | 1.005 | .211 | | 4.766 | .000 |
| | Boredom Scale | .586 | .058 | .446 | 10.075 | .000 |

**a. Dependent Variable: Internet Addiction Scale**

The tables 6-8 provide the R (.446) and R-squared (.199) values. The R-value (R =

.446) indicates a moderate positive correlation between boredom and internet addiction. The R-squared value (R-squared = .199) indicates that approximately 20% of the variance in internet addiction can be explained by boredom. The ANOVA table suggests that the regression model predicts the dependent variable, internet addiction, significantly well ($F(1,409) = 101.507$, $p < 0.000$, which is less than 0.05), indicating that the overall regression model is statistically significant and provides a good fit for the data. Furthermore, the Coefficients table provides important information for predicting internet addiction from boredom. The coefficient ($\beta = .000$) indicates that boredom contributes statistically significantly to the model, supporting its role in predicting internet addiction. Therefore, the null hypothesis is rejected, suggesting that boredom significantly predicts internet addiction among polytechnic library users.

2. Demographics (gender, age and level of study) will not significantly predict Internet addiction among library users.

The data in Tables 9- 11 provide the answer to this hypothesis

**Table 9:** Model Summary Table of Relationship between Demographics and Internet Addiction

| Model | R | R Square | Adjusted R Square | Std. Error of the Estimate |
|---|---|---|---|---|
| 1 | .035[a] | .001 | -.001 | .93007 |

a. Predictors: (Constant), Demographics

**Table 10:** ANOVA Summary Table of Relationship between Demographics and Internet Addiction

| Model | | Sum of Squares | df | Mean Square | F | Sig. |
|---|---|---|---|---|---|---|
| 1 | Regression | .424 | 1 | .424 | .490 | .484[b] |
| | Residual | 352.932 | 408 | .865 | | |
| | Total | 353.355 | 409 | | | |

a. Dependent Variable: Internet Addiction Scale

b. Dependent Variable: Demographics

**Table 11:** Coefficient Summary Table of Relationship between Demographics and Internet Addiction

| Model | | Unstandardized Coefficients | | Standardized Coefficients | | |
|---|---|---|---|---|---|---|
| | | B | Std. Error | Beta | T | Sig. |
| 1 | (Constant) | 3.194 | .155 | | 20.553 | .000 |
| | Demographics | -.026 | .037 | -.035 | -.700 | .484 |

a. Dependent Variable: Internet Addiction Scale

The tables 9-11 provide the R (.035) and R-squared (.001) values. The R-value (R = .035) indicates a very weak positive correlation between demographics and internet addiction. The R-squared value (R-squared = .001) indicates that approximately 0% of the variance in internet addiction can be explained by demographics. The ANOVA table suggests that the regression model does not predict the dependent variable, internet addiction, significantly well ($F(1,409) = .490$, $p < 0.484$, which is greater than 0.05), indicating that the overall regression model is not statistically significant and does not provide a good fit for the data. Furthermore, the Coefficients table provides important information for predicting internet addiction from demographics. The coefficient ($\beta = .484$) indicates that demographics do not contribute statistically significantly to the model, thereby not supporting its role in predicting internet addiction. Therefore, the null hypothesis is accepted, suggesting that demographics do not significantly predict internet addiction among polytechnic library users.

## Discussion of Findings

Extent of boredom among the polytechnic library users

The finding revealed that the extent of boredom among polytechnic library users in South-South, Nigeria is great. It was agreed that time always seems to be passing slowly, they are often trapped in situations where they have to do meaningless things. The respondents asserted that the academic work they do is repetitive and monotonous. They agreed that most of the time in school, they sit around doing nothing, and as well find themselves in monotonous and tiresome situations in school. This finding is in harmony with that of Skues, et al (2015) on 'the effects of boredom, loneliness, and distress tolerance on problem internet use among university students and found that boredom proneness was significantly associated with problematic Internet use (PIU). They revealed that higher levels of problematic Internet use (PIU) were associated with lower levels of academic performance, leading to boredom. The finding of the study also agrees with Li, et al. (2021) which showed that loneliness, boredom proneness, and mobile phone addiction were significantly and positively correlated with each other, as well as significantly negatively correlated with self-control. Boredom proneness and self-control, when operating in parallel, partially mediated the relationship between loneliness and mobile phone addiction, and when occurring sequentially, they fully mediated the relationship between loneliness and mobile phone addiction.

Extent of Internet Addiction among Polytechnic Library Users

Finding from the study in table 3 revealed that the extent of Internet addiction among polytechnic library users in the South-South Nigeria is moderate. It was revealed that more than half of the respondents do agreed that they stay online longer than they intended, prefer the excitement of the internet to intimacy with your classmates, people around them complain about the amount of time they spend online, check their email before something else that they need to do, find themselves anticipating when they will go online again, lose sleep due to late-night log-ins, people around them complain about the amount of time they spend online, fear that life without the internet would be boring, empty, or joyless, and feel preoccupied with the internet when offline, or fantasize about being online. The above finding from the study corroborated the finding of Mathew and Krishnan (2020) who reported that internet addiction can reduce the young generation's productivity and cause cognitive dysfunction, poor academic performance, and physical, mental, and behavioural disturbances. Also, the finding is in agreement with Joseph, et al. (2021) who conducted a study to estimate the pooled prevalence of internet addiction among Indian college students and found that the estimated prevalence of severe internet addiction was significantly higher. In another study by Budak, et al, (2015), of 596 university students, 246 (41.3%) were mild addicts, 91 (15.2%) were moderate addicts, and 259 (43.5%) were not addicted to Internet use. This finding also supported the findings of Daniel (2019) on pattern of Internet use and prevalence of Internet addiction among interns of a medical college in Kerala and found that the prevalence of internet addiction among interns was 47.9% (Mild – 36.3%, moderate – 11.3% and severe – 1.3%).

The Relationship Between Boredom and Internet Addiction among Polytechnic Library Users

This finding of the study from Table 4 revealed that there is strong relationship between boredom and Internet addiction among polytechnic library users in South-South Nigeria. This study agrees with Wang (2018) finding which explored the relationship between free-time management, leisure boredom, and Internet addiction in undergraduates in Taiwan and found that of all the influencing factors, boredom has been proven to be a common trigger for intensive Internet use and can result in particularly problematic Internet use behaviour. Results from the structural model of Wang (2018), revealed that free-time management decreases boredom during leisure time, and boredom during leisure time enhances Internet addiction. Furthermore, leisure boredom was revealed to play a role as a distinct mediator between free-time management and Internet addiction. Also, this finding corroborated the finding of Skues, et al (2015) on 'the effects of boredom, loneliness, and distress tolerance on problem internet use among university students which showed that boredom proneness was significantly associated with problematic Internet use (PIU).

Relationship between demographics (gender, age and level of study) and Internet addiction among polytechnic library user

The finding of the study in Table 5 indicated that there is weak relationship between demographics and Internet addiction among polytechnic library users in South-South Nigeria. The finding of the study supported Shan et al. (2021) finding using a sample of 3380 first-year undergraduate students in China and reported that males showed higher scores of internet addiction when compared to females. Similar gender differences were noted among university students in the Slovak Republic (Rigelsky et al., 2021) as the study found that males tend to spend more time on the Internet for pleasure and search for information, whereas females prefer using the Internet for social networking. The finding of the study also confirmed Sulaiman et al. (2016) who explored the role of demographics (e.g., age, gender, and occupational position) in relation to Internet addiction and demonstrated that no significant differences in terms of Internet addiction between the genders. However, significant differences were found in Internet addiction depending on age and occupational position. The study also found a positive relationship between loneliness, shyness, proactiveness, and internet addiction. Ozkan and Ozkan (2023) in their study also revealed that demographic factors have association with internet addiction. Male gender, adolescent age group, separation of parents, high income, and being a student are identified as risk factors for gaming addiction.

Similarly, Terroso et al. (2022), in their study of the associations among Internet addiction, demographic, and cognitive variables, such as impulsivity, aggression, and depressive and/or anxiety symptoms showed that 19.1% of the participants presented moderate or severe internet addiction, with men having a higher prevalence (45.0%) in Brazil. Khubchandani et al. (2021) also discovered that internet addiction was more prevalent among males, young adults, and those with higher education levels.

Prediction between boredom and Internet addiction among polytechnic library users in South-South, Nigeria

The finding of the study from hypothesis 1 Tables 6-8 revealed that boredom significantly predicts internet addiction among polytechnic library users. It shows that boredom play a crucial role in predicting internet addiction. This finding is consistent with the finding of Loreta, et al. (2023) study on boredom and prediction of internet addiction through the mediating role of attentional bias toward social networks using correlation and t-test analyses which confirmed that the tendency to experience boredom and selective attention toward social network information was related to internet addiction. Furthermore, the mediation model according to them indicated that attentional bias (AB) fully explains the link between, boredom susceptibility (BS-BSSS) and internet addiction (IAT). The study highlighted the crucial role of selective attentional processing behind internet addiction.

Prediction between Demographics (gender, age and level of study) and Internet addiction among library users in South-South, Nigeria

The finding of the study from hypothesis 2 in Tables 9 - 11 indicates that demographics do not significantly predict internet addiction among polytechnic library users. The R-value (R = .035) indicates a very weak positive correlation between demographics and internet addiction. The ANOVA table suggests that the regression model does not predict the dependent variable, internet addiction, significantly well which is greater than 0.05), indicating that the overall regression model is not statistically significant and does not provide a good fit for the data. The coefficient (β = .484) from the data analysis in the table indicates that demographics do not contribute statistically significant to the model, thereby not supporting its role in predicting internet addiction. This finding is consistent with the finding of Sulaiman et al. (2016) who in their study, “exploring the role of demographics (e.g., age, gender, and occupational position) in relation to Internet addiction in terms of Internet addiction between the genders” found significant differences on Internet addiction depending on age and occupational position. The finding of the study is also in support Loreta, et al. (2023) who reported at the University of Benin, through data collected during the 2013/2014 academic session that the value of the library influenced its use and there was no significant difference in library use per faculty status or gender.

This finding is contrary to the position of Quadri (2013) who noted that demographic characteristics have been critical factors in understanding the utilization of information technology, knowledge, library resources, and services especially in higher education across the

globe. Khubchandani et al. (2021) also discovered that internet addiction was more prevalent among males, young adults, and those with higher education levels. Quadri (2013) opined that demographic characteristics often provide important clues as to what factors contribute to undergraduates' use of online library resources. The finding of the study above is consisted with the finding of Usoro, et al. (2018) who in their study found that student demographics include age, marital status, gender, academic discipline, level of study, designation, race, social background, ethnicity, religion, etc are capable of influencing their use of the library. Ebijuwa and Mabawonku (2019) in disagreement with this finding assert that age, gender, and academic discipline could be possible factors that exert influence on undergraduates' use of e-library resources in Nigeria. In related development in Nigeria, Onovughe and Ogbah (2013) established in their study that female students utilize the library more than male students in Delta State, South-south, Nigeria.

## Conclusion

Various variables in academic institutions determine the extent to which library users utilize the Internet. However, boredom and demographics are the different variables that determine the extent of internet usage and addiction among students (library users). The findings of this study underscore the intricate interplay between boredom, demographics, and internet addiction among polytechnic library users. By investigating these predictors, there is a deeper understanding of the complex psychological factors driving excessive internet addiction. The results clearly show that boredom is a strong predictor that may push people towards internet addiction. Furthermore, demographics (gender, age, and level of study) exhibit a weak correlation and do not significantly predict internet addiction among polytechnic libraries users in South-South Nigeria.

From the findings of the study, it can be concluded that boredom apart from demographics of library users individually and jointly predict internet addiction among library users in federal polytechnics in South-South, Nigeria. Thus, boredom, significantly have strong relationship and predict internet addiction among the polytechnic library users but demographics has a weak relationship with internet addiction and hence, do not significantly predict internet addiction among the federal polytechnic library users in South-South, Nigeria. In all, this study highlights the critical role that psychological dynamics (boredon, and demographics - age, gender and level of study) play in the development of internet addiction and advocates for comprehensive strategies that take into account each person's unique strengths and vulnerabilities among polytechnic library users.

## Recommendations

Based on the findings of the study, the following recommendations were made.

1. In order to avoid boredom which predicts internet addiction, the counselling unit in collaboration with the polytechnic management should help to counsel and organize an awareness campaign for students who are prone to boredom to explore and engage them in offline activities that are stimulating and fulfilling. This could include hobbies, sports, creative pursuits, or socializing with friends and family. They should also encourage and teach them to set clear boundaries around internet usage and encourage library users to limit their screen time, especially during periods of boredom.

2. Library administrators and polytechnic administration should educate and encourage library users to actively work towards minimising internet addiction and enhancing their general well-being by setting reasonable and achievable goals.

3. It is recommended to provide seminars and workshops for library users in order to raise knowledge about the dangers of internet addiction among polytechnic library users. These events will also help to enhance their ability to regulate themselves and control their online behaviour. This is so because, learning to regulate impulses and make conscious choices about online activities help to make library users reduce the risk of compulsive internet usage resulting to internet addiction driven by sensation seeking tendencies.

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