

Study Aids and Scholastic Adjustment among Public Senior Secondary School Students in Rivers State: Implications for Counselling

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Article History	Abstract
Original Research Article	<p><i>The aim of this study was to analyze study aids and scholastic adjustment among public senior secondary school students in Rivers State, Nigeria. A correlational research design was used to examine the relationships between the study variables, based on three research questions and corresponding hypotheses. Records from the Rivers State Senior Secondary Schools Board (RSSSSB, 2024) indicate the target population is 948,406 senior secondary school students who were present in the classroom throughout the 2024/2025 academic session. The sample size was first calculated using the Taro Yamane formula which gave a sample of 399 but this had been further increased by stratified random sampling technique to extract a total sample of 495. Data were collected using Study Aids and Scholastic Adjustment Questionnaire (SASAQ), which was adjusted for both validity and reliability. Test-retest reliability testing confirmed instrument stability with coefficients of 0.75 and 0.76. The data that were obtained were analyzed by using Pearson’s Product Moment Correlation with the help of SPSS at 0.05 significance level. The results showed that textbook use was significantly positive and strong related to academic adjustment, while internet use was moderated positive associated with academic adjustment. Although concept maps were significantly associated with scholastic adjustment, the magnitude of association was relatively low. From these results, the study recommended that parents should provide textbooks and internet services for their children for better scholastic adjustment and achieve academically. Also, that teachers should provide comprehensive explanation when concept maps is used in teaching and learning process to promote higher scholastic adjustment of students.</i></p> <p>Keywords: Study Aids, Scholastic Adjustment, Textbooks, Concept Maps, Internet Use.</p>
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Introduction

Scholastic adjustment refers to the extent to which students successfully adapt to the academic, social and emotional demands of school life. It involves not only performing well in learning tasks but also maintain positive peer and teacher relationships, demonstrating emotional stability, showing resilience in the face of school transition. Maclean and Nwachukwu (2025) asserted that school adjustment refers to students’ ability to cope effectively with the internal and external demands that students are exposed to within the school environment. School environment could lead to emotional, psychological, social and academic stress. Students who

are well-adjusted cope better and demonstrate higher level of academic preparedness. Students who are not display poor antisocial behaviours such as fighting or aggression, anxiety, poor attention span and withdrawal syndrome. Longobardi Badenes-Ribera, Gastaldi, and Prino (2019) conceived scholastic adjustment as the ability of a student to manage various classroom related activities in order to attain a desirable academic achievement. Scholastic adjustment is the student’s ability to cope with academic demands by maintaining focus, engaging in class activities, relating well with others, and demonstrating behaviours consistent with school expectations. Wong and

Power (2019), asserted that, scholastic adjustment is packaged as a student's capacity to relate well with others, satisfy academic demands, remain attentive, participate in class activities adhere to school expectations, and adapt to academic-appropriate behaviours.

Adjustment is the ability of an organism to change efficiently and fit into environment-related behavioural patterns based on varied settings at home, school, industrial or social dynamics. It helps people control impulses, believe that they can do things and reach their goals. Man grows and evolves continually as he learns, in the level of intellectual effort, emotional kudos, social interaction, bodily activities or vocational progress. In the educational context adjustment is depicted as adaptation in several spheres, psychological- social- or academically. The successful progress of students at school does depend on the effort they have put in and their willingness to learn, but also on a number of factors connected with educational context (Amalu & Oyoita, 2022). Thus, students who successfully adapt to the demands and expectations of the school environment are more likely to be successful in their schooling.

Definition and Importance Scholastic adjustment specifically relates to the process by which students adapt to the academic, social, and emotional needs of school life. Here, we show how effective school adjustment is important for academic achievement as well as psychological functioning and personal development. It includes students' manage academic stress, cope with educational demands, build peer relations and involvement in school activities (Uzoeshi 2013). Scholastic adjustment itself is an integral and primordial aspect in a development of children—an idea where through what it once was, the future success from their experience will flourish (Lukman, 2023). It relates not only to academic achievements but also to school willingness, anxiety, loneliness experienced, social support and motivation for learning. The relationship quality, such as interactions with peers and teachers, is the key aspect that affects students' academic motivation and engagement. Collaborative, participatory, and socially connected learning environments are important for the quality of educational experiences. The studies show that loneliness and social distress were the most negative predictors of school adjustment, meanwhile, having supportive friendships and positive experiences at school are some of the key factors to ensure students adapting well in their new environment (Dike & Maclean, 2024; Tom, 2020). Moreover, academic adjustment involves a combination of multiple factors including individual characteristics, family background and relationships with peers, social support systems, school climate, social skills and

psychological relish; as they collectively explain how adeptly students cope with the challenges associated with academic life (Iwundu 2020).

Symonds, D'Urso and Schoon (2022) advanced that good school adaptation not only enables the development of academic-professional skills and subjective social and financial independence but is also closely linked to the development of social-emotional competencies and higher levels of satisfaction (Mella, Pansu, Batruch, Bressan, Bressoux-Tomás, Gutiérrez, Pastor, & Sancho, 2020). Kiuru, Wang, Salmela-Aro, Kannas, Ahonen, and Hirvonen (2020) disclosed that school adjustment changes rapidly during adolescence. It is therefore imperative to investigate the variables that may contribute to this development. Leon, Musitu, Cañas, Estevez and Callejas (2021) reported that parental support, study habit and study aids may be linked to scholastic adjustment in our contemporary society.

Study aids are materials or resources used to support and enhance learning, understanding, and retention of information. They can be physical or digital tools, techniques, or resources that help students: Organize and review notes, prepare for exams or tests, reinforce understanding of concepts, develop study skills and strategies, stay motivated and focused, supplement teaching and learning (Uzoeshi, 2013). The study-aids considered in this study include; textbooks, concept maps and the internet. Clarke (2020) espoused that textbooks are a type of study aid that provides comprehensive coverage of a subject or course material. They are typically written by experts in the field and offer a structured and organized presentation of the content. Textbooks usually include: Clear explanations of concepts and theories, examples and illustrations to aid understanding, chapter summaries and review questions, practice problems and exercises, glossaries of key terms and references for further reading (Zhou & Lin, 2016).

Study aids are tools or materials used by students to improve learning, comprehension, and retention of information. These aids come in various forms, such as digital applications, notes, flashcards, and audio-visual materials, each designed to address different learning styles (Uzoeshi, 2013). The use of study aids has become increasingly prevalent, especially with the rise of technology and e-learning platforms. Anderson, Jackson and Waller (2023) advanced that study aids, in the broadest sense, refer to any tools, resources, or strategies that assist learners in acquiring, organizing, and retaining information. These aids can take many forms, ranging from physical materials like books and flashcards to digital resources such as apps, websites, and multimedia content.

The primary purpose of study aids is to enhance learning by improving comprehension, memory retention, and the ability to recall information during exams or practical applications. Study aids are usually designed to address the cognitive and metacognitive needs of learners. Mayer (2022) espoused study aids are intended to scaffold learning, facilitating processes like encoding, retrieval, and application of knowledge. The concept of study aids is rooted in cognitive psychology, which posits that learners benefit from structured support that enhances their ability to process and retain information.

Study aids function across various cognitive domains, including, memory (memorizing facts, figures, and concepts, such as flashcards, and mnemonic devices), understanding (help learners make sense of complex information, like summaries, diagrams, and concept maps), application (help learners apply knowledge in real-world or problem-solving scenarios, such as practice exams, simulations, and interactive software (Bui, Nguyen & Tran, 2023). Dehghani and Tavakol (2023) informed that over time, the term "study aids" has expanded to include not only traditional tools like textbooks but also modern digital technologies that offer personalized, interactive, and dynamic learning experiences. As the nature of education continues to evolve, so does the definition and scope of what constitutes a study aid.

Study aids can be categorized into several types, each catering to different student needs and preferences. These include; digital study aids which offer interactive study aids, allowing students to engage with content in diverse formats (Bui et al., 2023). Digital study aids encompass a wide range of platforms and tools designed to address various learning needs, making education more efficient and engaging.

Concept maps are powerful tools for organizing, exploring, and connecting knowledge. Nguyen, Duong, Dinh, Nguyen and Nguyen (2021) stated that concept maps are visual diagrams that represent relationships between ideas, concepts, and information. Concept maps consist of: Nodes or boxes representing concepts, ideas, or entities, lines or arrows connecting nodes to show relationships and keywords or labels describing the relationships or connections. Some benefits of concept maps include: visual representation of complex information, holistic understanding of relationships and connections, increased creativity and problem-solving skills, improved memory and retention, enhanced collaboration and communication, flexible and adaptable to different contexts (Nguyen et al., 2021).

Yang and Li (2023) espoused that concept mapping, while similar to mind mapping, is a more structured and formal

method of diagramming knowledge. It focuses on representing relationships between concepts through labeled arrows that describe the connections. Concept maps typically contain nodes (representing concepts) and connecting lines (representing relationships), which are often annotated with words or phrases that explain the nature of the relationship. Attributes of Concept Mapping, include, (a) hierarchical structure (hierarchy allows for a clear representation of how one concept leads to or influences another), (b) linking phrases which described and link one concept to the other, (c) multiple connections between various concepts, (d) focus questions which ensures that the map remains targeted and helps learners stay focused on the key concepts (Kang, Lee, & Cho., 2023).

The use of the internet has become an essential academic tool, providing students with access to vast information. Pellerone, Iacolino, Mannino, Formica, and Zabbara (2017) informed that the internet is a vast and powerful tool that has revolutionized the way humans' access and share information. It has become an essential study aid, offering a wealth of resources, including: online textbooks and educational websites, search engines such as Google, Bing, and Yahoo, online libraries and academic databases, e-learning platforms and online courses, research articles and academic journals, online communities and forums, educational videos and tutorials on YouTube and other sites, online dictionaries and knowledge bases such as Wikipedia (Pellerone et al., 2017). Mbaba and Maclean (2025) stressed the need for teachers to create online facilities help students in achieving higher academic performance.

This study is anchored on Person-Environment Fit Theory by Holland (1959). Holland (1959) propounded the Person-Environment (P-E) Fit Theory. The theory focused on the compatibility between individuals and their educational or work environments. Holland's theory, posited that students achieve better scholastic adjustment and academic success when their personal characteristics (e.g., interests, values, and abilities) align with the demands and values of their educational environment. According to the theory, students experience less stress, higher motivation, and better academic outcomes when they are in an academic environment that fits their personality type. For example, an "Investigative" personality would likely thrive in a science-based curriculum. Holland (1959) argued that people gravitate toward environments that reflect their interests and personalities, and when these match, they are more likely to experience satisfaction, engagement, and success in their careers. Conversely, a mismatch between an individual's personality and their work environment can

lead to dissatisfaction, stress, and burnout and academic failure.

Several empirical works have investigated different study support to leverage students' academic performance and adjustment in school contexts. As an example, in China Li and Lei (2024) examine textbook usage and its relevance for dramatically enhancing students' academic performance. They then found a statistically significant positive correlation between students' chemistry textbook engagement and the students' interest, attitudes and motivation towards chemistry, which in turn increased their aspirations to do better academically. Dockx, Bellens and Defraigne (2018) did also investigate to what extent textbooks promote reading comprehension outcomes. While textbooks did not exert a significant influence on overall learning progress in reading comprehension, this study uncovered a strong relationship between textbook use and fourth- and sixth-grade student achievement in Flanders. To measure the effect of concept mapping approach on Ngor Okpala Local Government Area of Imo State secondary school students Mathematics achievement, Nwoke (2015) used similar methodology in a research. Results showed that concept mapping had a statistically significant influence on those students' abilities to perform mathematics, indicating there was a positive relationship between employing concept maps and student adjustment in school esteem. In support of this, Maker and Zimmerman (2020) conducted an exploratory study on the use of concept maps as assessments for expertise and found that students participating in concept-mapping strategies achieved higher levels in both domain-specific skills as well attendance rates. The paper also mentions that concept maps are capable of performing well as stand-alone assessment tools or are likely to work better if used in conjunction with other methods of evaluation, but further exploration with larger sample sizes and different educational environments would be beneficial.

There has been quite a lot of scholarly interest in the role of internet use in students' academic experiences. Amponsah et al. A recent study conducted by Gustave et al. They discovered that students who had access over the internet repositioned in terms of harvesting educational facilities and interactive learning materials. Additionally, those with access to the internet fared better academically than those without, proving a correlation between higher internet availability and learning attainment. Conversely, Sampasa-Kanyinga et al. Abstract Purpose Growth area: (2022) used data on problematic technology use, academic achievement and school connectedness among adolescents. According to the study, more than one in three participants reported ≥ 5 hours per day on screen-based

devices and about one-fifth experienced moderate or severe symptoms of problematic technology use. It identified a higher prevalence among female students than male students. Researchers also found that spending too much time on technology was related to lower academic performance and less school connectedness in both males and females. These results indicate that whilst access to internet is important, uncontrolled or excessive use of technology may negatively affect students' academic adaptation and school experience.

Statement of the Problem

There is an increasing rate of poor scholastic adjustment among students in recent time. Students who demonstrate effective scholastic adjustment are more likely to engage meaningfully in academic activities, exhibit appropriate classroom behaviour, and achieve satisfactory academic outcomes. Conversely, students with poor scholastic adjustment often experienced reduced academic achievement, low learning motivation, behavioural challenges, and difficulties in social interactions, which may negatively influence their overall educational development in the long term.

Educators express poor attention span, increase truancy, low academic expectation, poor social skills, emotional instability, and social competence within the school environment. Some students struggle to maintain concentration during lessons and showed low interest in academic work. Others frequently exhibits poor study commitment, examination anxiety, absenteeism, unfinished assignments, and difficulties interacting socially. These challenges if not properly managed will hinder the achievements of Sustainable Developmental Goals (SDGs 4). It may lead to low manpower to pilot the development of our economy. On the side of the students, it could lead to poor self-esteem, academic stress, increase out of school children, anxiety and other psychological issues such as depression, personality disorders and Post Traumatic Stress Disorders (PTSDs).

There are limited literature on the link between study aids and scholastic adjustment and non has been carried out in Rivers State to examined the two variables. This gap limited the development of comprehensive educational interventions. Therefore, this study examined study aids and scholastic adjustment among secondary school students in Rivers State.

1.3 Aim and Objectives of the Study

The aim of the study was to investigate study aids and scholastic adjustment among public senior secondary school students in Rivers State. Specifically, the study objectives were to;

1. find out the relationship between use of textbooks and scholastic adjustment among public senior secondary school students in Rivers State.
2. examine the relationship between concept maps and scholastic adjustment among public senior secondary school students in Rivers State.
3. investigate the relationship between the internet use and students scholastic adjustment among public senior secondary schools in Rivers State.

1.4 Research Questions

The following research questions guided the study:

1. What is the relationship between use of text books and scholastic adjustment among public senior secondary school students in Rivers State?
2. What is the relationship between concept maps and scholastic adjustment among public senior secondary school students in Rivers State?
3. What is the relationship between the internet use and scholastic adjustment among public senior secondary school students in Rivers State?

1.5 Hypotheses

The following hypotheses guided the study:

1. There is no significant relationship between use of text books and scholastic adjustment among public senior secondary school students in Rivers State.
2. There is no significant relationship between concept maps and scholastic adjustment among public senior secondary school students in Rivers State.
3. There is no significant relationship between the internet use and scholastic adjustment among public senior secondary school students in Rivers State.

Methodology

The current study used a correlational research design to explore the relationship between aids and academic adjustment among students. Accordingly, the design was considered appropriate because it allows for investigation of associations between variables without their manipulation. Correlational research (Ogidi, 2018): It is a non-experimental determination of whether a relationship exists between variables and how strong that relationship

is. The target population consisted of 948,406 Senior Secondary School Three (SS3) students in public secondary schools in Rivers State during the 2024 academic year with statistics from Rivers State Senior Secondary Schools Board (RSSSSB, 2024). The students came from schools that were owned by the state which provided Science, Arts and Social Sciences programmes. The study involved a sample of 495 students. Thus, Taro Yamane formula yielded a group of 399 respondents but was adjusted to obtain representativeness by selection of more subjects, allowing wider coverage area for the study. This study employed a stratified random sampling method that involves division of the population into relatively homogeneous subgroups followed by proportional representation. Administratively, the State is grouped into three (3) senatorial districts. They are Rivers East, Rivers West and Rivers South-East. A total of nine (9) LGAs was used with three Local Government Areas randomly selected from each district. From each of the selected local government areas, one public secondary school was then selected, and 55 students in SS3 were randomly sampled from each (selected) school. This process resulted in 165 subjects per senatorial district, and a total sample of 495 students for the study.

Data were collected using a researcher-developed tool entitled as Study Aids and Scholastic Adjustment Questionnaire (SASAQ). The first half of the instrument was aimed at measuring study aids and the other half to measure scholastic adjustment. Responses were made in a four-point Likert scale with responses being Strongly Agree (4), Agree (3), Disagree (2) and Strongly Disagree (1). Both valid and reliable procedures were carried out in order to generate the quality of instrument. Test-retest method by means of 30 students who were not used in the main study (from selected private secondary schools in Rivers State were employed for carryout reliability test). The instrument was delivered on two occasions, separated by a two-week interval. The scores for the two exercises were coded and analyzed using Pearson's Product Moment Correlation. Its procedure produced reliability coefficients of 0.75 and 0.76 for sections — figures that suggest an acceptable level of consistency and stability over time for the instrument. The questionnaires were handed out individually by the researchers with the support of trained research assistants. Of the 495 copies undertaken, 450 were correctly filled and returned (91 per cent response rate). An additional 45 questionnaires were not collected for reasons such as absenteeism, incomplete responses (shortness of time and lack of interest), and no due to damage; all duly recorded during data collection.

The Pearson & Product Moment Correlation coefficient was used along with SPSS to analyze the research

questions and the related hypotheses. The significance level used was 0.05 for statistical decisions. In terms of relationship strength interpretation correlation coefficients between 0.10 and 0.30 were regarded as weak, values between 0.40 and 0.60 moderate, other words; coefficient values within ranges from around +/-20 to +/-30 reflect a strong relationship (Hwang et al.,2018). Each of these could be positive or negative relationships, depending on the correlation direction between the variable being examined.

Table 1: PPMC Analysis (r) of the Relationship between Use of Textbooks and Scholastic Adjustment among Public Senior Secondary School Students in Rivers State

Correlations			
		Use of Textbooks	Scholastic Adjustment
Use of Textbooks	Pearson Correlation	1	.711**
	Sig. (2-tailed)		.001
	N	450	450
Scholastic Adjustment	Pearson Correlation	.730**	1
	Sig. (2-tailed)	.000	
	N	450	450

** . Correlation is significant at the .05 level (2-tailed).

The results for Research Question one, which are summarized in Table 1, investigated the connection between textbook use and school climate among neutral public senior secondary school students in Rivers State. The correlation results showed a significant positive association score between textbook use and students' academic adjustment, $r = .711$. This result suggests that higher use of textbooks can also greatly help students make academic transitions and effectively cope with school demands. Basically, students who consume more of textbooks are likely to show greater adjustment academic here at school environment.

Similarly, the result of hypothesis nine (presented in Table 1 as well) confirmed that there is a significant relationship between textbook and scholar adjustment. Obtained probability value ($p = .$ Since the p-value of Coefficient 0001 is less than the pre-selected significance level (0.05),

Table 2: PPMC Analysis (r) of the Relationship between Concept Maps and Scholastic Adjustment among Public Senior Secondary School Students in Rivers State

Correlations			
		Concept Maps	Scholastic Adjustment
Concept Maps	Pearson Correlation	1	.276**
	Sig. (2-tailed)		.000
	N	450	450
Scholastic Adjustment	Pearson Correlation	.276**	1
	Sig. (2-tailed)	.000	
	N	450	450

** . Correlation is significant at the .05 level (2-tailed).

Results

Research Question 1: What is the relationship between use of text books and scholastic adjustment among public senior secondary school students in Rivers State?

Hypothesis 1: There is no significant relationship between use of text books and scholastic adjustment among public senior secondary school students in Rivers State.

we had sufficient evidence to reject the null hypothesis which postulated that use of textbook did not significantly relate to scholastic adjustment among public senior secondary school students in Rivers State. The study, therefore, concludes with a significant positive relationship between the use of textbooks and integration into school. Implying that the extent to which textbooks are available and effectively utilized plays a significant role in students achieving academic adaptation and broader school adjustment.

Research Question 2: What is the relationship between concept maps and scholastic adjustment among public senior secondary school students in Rivers State?

Hypothesis 2: There is no significant relationship between concept maps and scholastic adjustment among public senior secondary school students in Rivers State.

The result of research question two as indicated in Table 2 above shows the extent to which concept maps relates to scholastic adjustment among public senior secondary school students in Rivers State. An over view of the Table revealed that concept maps has a low positive relationship ($r = .276$) with scholastic adjustment. What this means is that concept maps is associated with a low increase in scholastic adjustment.

The result of hypothesis two as given in table 2 above demonstrates that the relationship between the idea maps and scholastic adjustment is statistically significant as the calculated p-value of .000 is below .05 level of

significance. Thus, null hypothesis which states that idea maps does not significantly link to scholastic adjustment among public senior secondary school students in Rivers State is rejected. The implication is that concept mapping is highly related to scholastic adjustment of public senior secondary school pupils in Rivers State.

Research Question 3: What is the relationship between the internet use and scholastic adjustment among public senior secondary school students in Rivers State?

Hypothesis 3: There is no significant relationship between the internet use and scholastic adjustment among public senior secondary school students in Rivers State.

Table 3: PPMC Analysis (r) of the Relationship between Internet Use and Scholastic Adjustment among Public Senior Secondary School Students in Rivers State

Correlations			
		Orientation Services	Scholastic Adjustment
Internet Use	Pearson Correlation	1	.568**
	Sig. (2-tailed)		.000
	N	450	450
Scholastic Adjustment	Pearson Correlation	.568**	1
	Sig. (2-tailed)	.000	
	N	450	450

** . Correlation is significant at the .05 level (2-tailed).

The result of research question Three as indicated in Table 3 above shows the extent to which internet use relates to scholastic adjustment among public senior secondary school students in Rivers State. An over view of the Table revealed that internet use has a moderate positive relationship ($r = .568$) with scholastic adjustment. What this means is that internet use is associated with a moderate increase in scholastic adjustment.

The finding of hypothesis three as given in Table 3 above reveals that the amount to which internet use connects to scholastic adjustment is statistically significant as the calculated p-value of .000 is less than .05 threshold of significance. The null hypothesis originally stated that internet use is not significantly related to scholastic adjustment among public senior secondary school pupils in Rivers State is rejected. This implies that there is significant relationship between internet usage and scholastic adjustment among public senior secondary school students in Rivers State.

Discussion of Findings

Use of Textbooks and Scholastic Adjustment

Data Analysis, Results and Discussion The results related to Research Question One (RQ 1) and the Hypothesis One (Ho 1) are shown in Table 1 a Histogram showing students Textbook utilization on their adjustment. Their results imply that the better students are at exploiting textbooks, the easier a time they will have in adapting to academic demands and school duties. This positive relationship might be because textbooks help students acquire knowledge, develop concepts and understanding in the context of their academic activities, and provide them with guided independent preparation prior to classroom instruction. When students practice with assigned readings, they develop academic readiness, classroom performance, and other learning skills to help them adjust to the rigors of school. A consistent finding of the current result is Li and Lei (2024); as well as our data, chemistry textbooks proved to be significantly related with students' interest and attitudes toward studies. The introduction of new textbooks also helped make the classroom a more dynamic place with higher levels of student engagement and richer participation in learning activities, their study showed. Nonetheless, this finding here contradicts with its original counterpart by Dockx et al. First, textbooks use of

fourth- and sixth-grade learners in Flanders did not have an effect on the average progress level in reading comprehension or changes in engagement levels (2018). Differences in results such as these may be due to differences in educational contexts, subject areas, instructional methods and student populations between their studies.

Concept Maps and Scholastic Adjustment

The results for Research Question Two and Hypothesis Two are as shown in Table 2 which indicates that concept mapping has a positive correlation with scholastic adjustment of students in public senior secondary schools in Rivers State; but the relationship is weak although statistically significant. The weak strength of association could imply that many students have had little access to concept maps as instructional and learning tools, which it is likely given that few teachers use them during classroom instruction. The association is modest but, the finding suggests that concept mapping has a favorable role in academic adjustment through better knowledge organization, comprehension and meaningful learning. This finding is in part in agreement with (Nwoke 2015) that found students taught with the concept mapping approach as compared to traditional methods had improved Mathematics achievement and reduced learning gender gaps. The current outcome also corroborates the work of Maker and Zimmerman (2020) who found that concept maps identified and improved domain-specific competencies in students of various educational backgrounds. Results indication that learners who engage in concept mapping have good domain knowledge, reach performance levels similar to conventionally identified gifted students, and performed well in research opportunities and scholastic presentations. These results highlight the importance of concept maps as both flexible assessment tools and instructional techniques that can be employed on their own or in conjunction with other assessment and learning strategies to promote proficiency and other academic skills.

Internet Use and Scholastic Adjustment

Results of research question three and hypothesis three (Table 3) showed that there is a substantial moderate positive link between internet use and scholastic adjustment among public senior secondary school students in Rivers State. The results imply that the internet with its interactive and engaging aspects encourages students to conduct continuous individualised study and evaluation. This finding aligns with the study of Amponsah et al. (2022) who found that internet access affects academic standards in pupils as students with internet access have showed a higher

improvement in academic performance than students without internet access. However, the conclusion is contrary to the findings of Sampasa-Kanyinga et al. (2022) which shown that heavy technology use was differentially related to lower academic achievement and lower levels of school connectedness in males and females. Moderate-to-serious issue technology use was linked with lower academic achievement among males (AOR = 0.68; 95% CI = 0.53–0.87) and girls (AOR = 0.66; 95% CI = 0.52–0.84). It was also linked with reduced school connectivity among boys (AOR = 0.65, 95% CI = 0.50–0.86) and girls (AOR = 0.63, 95% CI = 0.51–0.78).

Conclusion

Based on the findings of the study, the researcher concluded that study aids are integral to scholastic adjustment among public senior secondary school students in Rivers State. When teachers and parents support students with study aids and good home environment, students are better equipped to adjust to school environment. Teachers should constantly use good instructional materials. Parents should provide study aids that will stimulate learning for the children. The study revealed that text books, concept maps and internet use have high correlation with scholastic adjustment. The study provide the need for intervention by Government to provide study aids for teacher's use to boost teaching and learning in the secondary schools in Rivers State and extension Nigeria.

Implications for Counselling

The following were some of the implications for counselling:

- School Counsellors should organize workshops for school administrators, teachers and parents on the need for the provision of adequate study aids to foster higher learning engagement. When students are properly engaged, distractions will be reduced.
- School Counsellors should help parents to create home conducive environment with study aids that will stimulate learning for the children. Parents can foster good relationship with children. Counsellors should provide counselling sessions for parents whose children are not meeting up academically.
- School Guidance Counsellors should educate students through guidance services on the effective use of study aids to enhance scholastic adjustment of students.

Recommendations

Based on the findings of the study, the researcher recommended as follows:

1. Parents, caregivers and significant others should strive to provide students with needed textbooks as use of textbooks for private studies has a high positive link with scholastic adjustment.
2. Teachers should strive to integrate the use of concept maps into their instructional procedures to sustain attention and increase scholastic adjustment.
3. School administrators, teachers, parents and Non-Governmental Organisations (NGOs) should provide internet facilities to enable students have access to the internet for instructional enrichment and higher scholastic adjustment.

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