
web 2. 0 platforms, problem solving skills as predictors of school adustment among undergraduates in rivers state

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Abstract

This study investigated Web 2.0 platforms and problem solving skills as predictors of school adjustment among undergraduates in Rivers State. Three research questions and three corresponding null hypotheses were used to guide the study. The study adopted correlation research design. The total population of the study comprised all undergraduates in public tertiary institutions in Rivers State. A sample of 500 undergraduates was drawn from the population using cluster sampling technique. One self-structured instruments titled: "Web Platforms and Help Seeking Behaviour Assessment, Scale" (WASBAS) were used for data collection. The reliability of the instrument was done using Cronbach Alpha method. The WASBAS yielded a coefficient of .79. The experts in the department of Educational Psychology, Guidance and Counselling (measurement and evaluation option) checked the instrument for face and content validity. The instrument was administered by the researcher and two research assistants and was retrieved at the spot. Simple linear regression analysis method was used to answer the research questions and test the null hypotheses at 0.05 alpha level of significance. Based on the findings of this study recommendations were made.

Keywords: *Web 2.0 platforms, school adjustment, problem solving skills,*

Introduction

Humans will continue to adjust to their environment because of the innate desire to be comfortable, maximize potentials and actualize goals. Humans adjust to many things, environment and persons. To students adjustment to scholarly activities and environment is pertinent as it is a yardstick through which academic and vocational goals can be acheived.

School adjustment is the process of adapting to the role of being a student and to various aspects of the school environment. Chi, et. al. (2018) opined that school adjustment is a multifacet ask that calls for students' flexibility and adaptability.

School adjustment is the degree of school acculturation required or adaptations necessitated for maximizing the educational fit between students' unique characteristics and the distinct nature and requirements of learning environments. Indeed, a student's school adjustment depends on the match between his or her competencies and needs and the demands of the school environment. School adjustment may fluctuate across schools and years or across different domains or classrooms within the same year and is influenced by a myriad of complex and interconnected factors like problem solving skills and Web 2.0 platforms.

Studies highlight the relationship between problem-solving orientation as a motivational component that improves students school adjustment and general well-being (Okello-Obura & Ssekitto, 2015; Evinson, 2017; Akin-Adaramola, 2014; Anuradha & Albina (2024). Undergradustes require problem solving skills to be able to adjust to their academic environment. Thus, lack of problem solving skills may also bring about school mal-adjustment, this is evident in (Senol, et. al., 2023; Dashti. et. al., 2021; Mohammed, et. al., 2021).

School adjustment is considered an outcome variable (Rodríguez-Fernández, et. al., 2016) that refers to the pattern individuals adapt to the demands and characteristics of the school, as well as their perception about educational activities. Consequently, given that school adjustment refers to several dimensions of campus life, studies assessing this multidimensional variable should not fail to include factors such as perceived academic achievement (Rodríguez-Fernández, et. al., 2018); social relations (McLeon, et. al., 2021); and emotional aspects, Web. 2. 0 platforms are improved version of the first worldwide web, characterized specifically by the change from static to dynamic or user-generated content. It refers to any Internet application that provide sharing and collaboration opportunities to users and help them to express themselves in their online community (Okello-Obura & Ssekitto, 2015).

Web 2.0 websites enable undergradates to create, share, collaborate and communicate their work with others, without any need for web design or publishing skills. In line with Wilson & Berckert (2023) web 2.0 examples include hosted services (Google Maps), web applications (Google Docs, Flickr), video sharing sites (YouTube), wikis (MediaWiki), blogs (WordPress), teaching learning and research (Qoura) social networking (Facebook) folksonomies (Delicious), microblogging (Twitter), podcasting (Podcast Alley), content hosting services and many more.

The internet is often used as an online learning resource, which has helped students improve their academic outcomes (Siraj, et. al., 2015). However, they would instead use web 2.0 platforms rather than use library and other traditional methods of learning (Akin-Adaramola, 2014). Problem solving skills are skills that help people to identifying existing problems, determine the root cause or causes of the problem and deciding the best course of action in order to solve the problem. Waren and Wood (2023) buttressed that problem solving skills are multifaceted and are crucial in personal and professional settings. Amponsah, et. al. (2022) in their study found out that internet access influences academic standards among students, as those with internet access have shown a higher improvement in academic performance than those without. In the same vein, Anuradha and Albina (2024) asserted that students with different technology usage and metacognitive awareness achieve equivalent learning outcomes. Sheela and Shangeeta (2017) revealed that there is no significant impact of social media on school adjustment among selected higher secondary student. In the same vein, Evinson (2023) showed that both Facebook usage Twitter usage are significant predictor of university students' school adjustment. A research carried out by Hyunjin, et. al. (2017) showed that level of social media use is positively associated with level of perceived social adjustment but not with level of perceived social support. Mohammed, et. al. (2021) indicated that

information seeking affects school adjustment positively and significantly, also they noted there is a significant relationship between information-seeking behaviors, IT ability, reading/writing capacities, and resilience capabilities and school adjustment. Similarly, Dashti, et. al., (2021) revealed that problem solving skills which includes help seeking behaviour and the zeal to solve problems enables social and school adjustment among students. In the same vein results of Faisal, et. al. (2023) showed that help seeking behaviour significantly predicted school adjustment among scholars.

Statement of the Problem

It is not uncommon in Rivers State and other states in general federation to find undergraduates who are unable to adjust to the school environment. The inability to adjust may be the reason for school irregularities such as examination malpractices, mass failure, school drop out, hooligan behaviour, risky sexual behaviour, youth restiveness and other behavior that is in contrast with societal validation. Undergraduates have been observed to have noticeable decline in their scholarly activities, this may be because of how they perceive themselves, what they think and how they behave as a result of environmental and biological factors. Undergraduate tend to display signs of poor school adjustment which was observed to be as a result of their perception about self, transition from home to school, environmental factors, teaching, learning and research platforms as well as help seeking behaviour. Efforts made by the government, cooperate organization, teaching and non-teaching staff and of course well mean individuals, in this direction are yet to yield fruits and has caused great concern to professional in education and concerned citizens. This present research in order to contribute immensely towards the solution of this worrisome problem deemed it necessary to investigate Web 2.0 platforms, problem solving skills as predictors of school adjustment among undergraduates in Rivers State.

Aim and Objectives

The aim of this study is to investigate web. 2.0 platforms and problem solving skills as predictors of school adjustment among undergraduates in Rivers State. The objectives of the study include:

1. To investigate the extent teaching, learning and research platforms predict school adjustment among undergraduates In Rivers State.
2. To examine the extent social networking platforms predict school adjustment among undergraduates in Rivers State.
3. To ascertain the extent help-seeking behaviour platforms predict school adjustment among undergraduates in Rivers State.

Research Questions

These research questions was formulated to guide the study:

1. To what extent does teaching, learning and research platforms predict school adjustment among undergraduates in Rivers State?
2. To what extent does the social networking platforms predict school adjustment among undergraduates in Rivers State?
3. To what extent does help-seeking behaviour predict scholastic adjustment among undergraduates in Rivers State?

Hypotheses

These hypotheses was used to guide the study and was tested at 0.05 significance level:

1. Teaching, learning and research platforms does not significantly predict scholastic adjustment of undergraduates in Rivers State.

2. Social networking platforms does not significantly predict school adjustment of undergraduates in Rivers State.
3. Help seeking behaviour does not significantly predict scholastic adjustment of undergraduates in Rivers State.

Methodology

The research design for this study was correlational design. The estimated population for this study was 110,000 undergraduates in Rivers State. This estimation was because as at the time of this study there was no accurate figure in the ministry of education on the entire number of undergraduates in Rivers State. Rivers state is a state in the Niger Delta region of southern Nigeria (Old Eastern Region). Due to observable decrease in school adjustment, the researcher deemed this area fit to carry out this study in Rivers State. A sample of 500 undergradates was drawn from the population using multi-stage sampling technique. Rivers State undergradates were divided into colleges, polytechnics and universities from each of these the sample were drawn according to states. One self-structured instruments titled: "Web Platforms and Help Seeking Behaviour Assessment, Scale" (WASBAS) questionnaire which comprised three sections and 30 items each. All the items were structured based on the four point modified likert rating scale of Very High Extent= VHE, High Extent = HE Low Extent= LE and Very Low Extent = VLE which were assigned numerical values of 4, 3, 2 and 1 for positively keyed items and 1, 2, 3 and 4 for negatively keyed items.

The instruments WASBAS was validated based on face and content validity by three experts; one in guidance and counselling and two others in measurement and evaluation. To establish reliability, a sample of 50 undergraduates at Niger Delta University were administered the questionnaire. The reliability of the instrument was done using Cronbach Alpha method. WASBAS yielded a coefficient of .79. The instrument was administered by the researcher and four research assistants and was retrieved at the spot. Simple linear regression method was used to answer the research questions and test the corresponding null hypotheses at 0.05 alpha level of significance.

Theoretical Review

The theory used in the current study is the stage-environment fit theory and the Bio-ecological model. The stage-environmental theory was propounded by Eccles and Midgley in 1989. The theory states that the development of any given behaviour or attribute depends on the degree of match between a person's existing abilities, characteristics and interests and the opportunities afforded to him/her in the immediate environment. Among undergraduates, fit is optimal when the environmental features experienced are structured according to undergradates current needs, individual characteristics, skills acquired and also their positivity level. Midgley et al., (2002) argues that students will adjust to the school environment when the environment suits their unique needs and provides them with support. The theory of mind was propounded by David Premack and Guy Woodruff in 1978. Theory of mind (ToM) is a very popular concept that can be defined as the understanding that all people possess mental states that cannot be directly observed but that can be used to make predictions about their behaviour and adjustment pattern (Wellman, et al. 2001). Haymard and Homer (2017) asserted that the theory of mind (ToM) depends on unique individual and social factors that influences helps seeking behaviour that can bring about school adjustment. Taking both models into account, it can be said that undergradates sustain and attain school adjustment when there is a synergy between innate or learnt adaptability characteristics and environmental facilities like web 2.0 platforms (Buhs et al., 2018).

Presentation of Data and Results

The results of this study were presented in the following tables:

Research Question One: To what extent does teaching, learning and research platforms predict school adjustment among undergraduates in Rivers State?

Hypothesis One: Teaching, learning and research platforms does not significantly predict scholastic adjustment among undergraduates in Rivers State.

Table 1: Simple Linear Regression Analysis Showing the Prediction of Teaching, Learning Platforms and School Adjustment among Undergraduates in Rivers State.

Model	R	R Square	Std. Error of Estimate	Decision
1	.584 ^a	.595	6.31825	Moderate Prediction

Source: SPSS Output, 2024

Table 1 shows that there is a moderate prediction between teaching, learning and research platforms and school adjustment among undergraduates in Rivers State $R=0.584$. The adjusted R square value = .595. This implies that 59.5% of school adjustment among undergraduates can be explained by teaching, learning and research platforms while the remaining 40.5 % can be due to other factors not included in this model.

Table 2: Summary of Simple Linear Regression Analysis on the Prediction of Teaching, Learning and Research Platforms and School Adjustment among undergraduates in Rivers State

Source	Sum of Squares (SS)	Df	Mean Square	F. Ratio	P-value	Remark
Regression	486.912	1	426.979	9.947	.003	S
Residual	18231.124	498	43.551			
Total	18718.036	499				

Linear R (r_p) = .584^a

R. Square (r^2) = .595

Standard Error of Estimate = 6.31825

Source: SPSS Output, 2024. a. Dependent Variable: school adjustment b. Predictors: (Constant), teaching, learning and research platforms

Table 2: shows that for every increase by 1SD in the teaching, learning and research platforms scores, there will be an increase of 0.15 SD in the scores of school adjustment among undergraduates in Rivers State. The coefficient table shows that the prediction is significant ($F=9.947$, $DF=1, 498$, $p<0.05$), hence H_0 which state that teaching learning and research platforms does not significantly predict school adjustment among undergraduates therefore is rejected.

Research Question Two: To what extent does the social media platforms predict scholastic adjustment among undergraduates in Rivers State?

Hypothesis Two: To what extent does the social networking platforms predict school adjustment among undergraduates in Rivers State?

Table 3: Simple Linear Regression Analysis Showing the Prediction of Social Networking Platforms and School Adjustment among Undergraduates in Rivers State.

Model	R	R Square	Std. Error of Estimate	Decision
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1	.892 ^a	0.87	6.72927	High Prediction
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Source: *SPSS Output*, 2024 a. Dependent Variable: school adjustment b. predictors: (constant), social networking platforms

Table 3: Shows that there is a high prediction of social networking platforms and school adjustment (R= .892). The adjusted R square value= 0.87 shows that only 87% of school adjustment among undergraduates in Rivers state can be explained by social networking platforms. The remaining 13% can be attributed to other factors not present in this model.

Table 4: *Summary of Simple Linear Regression Analysis on the Prediction of Social Networking Platforms and School Adjustment among Undergraduates in Rivers State.*

Source	Sum of Squares (SS)	Df	Mean Square	F. Ratio	P-value	Remark
Regression	429.8621	1	532.979	8763.27	.004	S
Residual	2012.117	498	53.551			
Total	2441.9791	499				

Linear R (r_p) = .892^a

R. Square (r^2) = .087

Standard Error of Estimate = 6.72927

Source: *SPSS Output*, 2024. a. Dependent Variable: school adjustment b. Predictors: (Constant), social networking platforms.

The coefficient table shows that the prediction is significant (F= 8763.27, DF=1, 498, $p < 0.05$). Therefore, H_0 is rejected, implying that social networking platforms significantly predicts school adjustment among undergraduates in Rivers State.

Research Question Three: To what extent does help-seeking behaviour predict school adjustment among undergraduates in Rivers State?

Hypothesis Three: Help seeking behaviour does not significantly predict school adjustment of undergraduates in Rivers State.

Table 5: *Simple Linear Regression Analysis Showing the Prediction of Help Seeking Behaviour and School Adjustment among Undergraduates in Rivers State.*

Model	R	R Square	Std. Error of Estimate	Decision
1	.648 ^a	.629	5.42893	Moderate Prediction

Source: *SPSS Output*, 2024 a. Dependent Variable: school adjustment b. Predictors: (Constant), help seeking behaviour

Table 5: shows that there is a positive moderate relationship between help seeking behaviour and school adjustment among undergraduates in Rivers State (R= .648). With an adjusted R-square value of .629. This implies that 62.9% of school adjustment process among undergraduates can be explained by help seeking behaviour while the remaining 28.1% can be due to other factors not included in this model.

Table 6: *Summary of Simple Linear Regression Analysis on the Prediction Help Seeking behaviour and School Adjustment among undergraduates in Rivers State*

Source	Sum of Squares (SS)	Df	Mean Square	F. Ratio	P-value	Remark
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Regression	8799.501	1	8947.539	327.575	.002	S
Residual	90724.823	498	27.117			
Total	99524.324	499				

Linear R (r_p) = .648^a
R. Square (r^2) = .629
Standard Error of Estimate = 5.42893

Source: *SPSS Output*, 2024. a. Dependent Variable: school adjustment b. Predictors: (Constant), help seeking behaviour

Table 6 shows that for every increase by 1 SD in the research and development platforms scores there will be an increase of 0.15 SD in the school adjustment scores among undergraduates in Rivers State. Table 6 shows that the prediction is significant ($F= 327.58$, $df=1, 498$, $p<0.05$), hence HO3 is rejected. This implies that help seeking behaviour platforms significantly predicted school adjustment among undergraduates in Rivers State.

Summary of Findings

The findings of the study are summarized as shown below:

1. It study revealed that teaching, learning and research platforms significantly predicted school adjustment among undergraduates in Rivers State.
2. It was found that social networking platforms significantly predicted school adjustment among undergraduates in Rivers State.
3. The study showed that help seeking behaviour significantly predicted school adjustment among undergraduates in Rivers State.

Discussion of Findings

The discussion of findings was based on summary of the findings of this study: The finding of research questions one and hypothesis one revealed that teaching, learning and research platforms significantly independently predicted school adjustment among undergraduates in Rivers State. This means that teaching, learning and research platforms may make students to adjust to the school environment and give them the opportunity to explore new and impactful ways of optimizing their educational and non-educational goals. This finding is not in contrast with Anuradha and Albinah (2024), Amponsah et al. (2022) and Akin-Adamarola (2014) who found out that teaching, learning and research platforms improves undergraduates teaching, learning and research experience and thus helps them to adjust to the school environment.

The finding of research question two and hypothesis two showed that social networking platforms significantly independently predicted school adjustment among undergraduates in Rivers State. This means that social networking platforms expose undergraduates to information that are very essential for their day to day school runs. It also enable them to converse and interact effectively, thereby helping them to navigate the school environment with ease. This finding is not in disagreement with that of Sheela and Shangeeta (2017) and Hyunjin et al. (2017) who revealed that social networking platforms significantly predicted school adjustment of undergradates. The findings is also in line with, Evinson (2023) who found out that social networking platforms allow undergraduates to communicate effectively. The finding of research questions three and hypothesis three indicated that help seeking behaviour significantly independently predicted school adjustment among undergraduates in Rivers State Nigeria. This means that help seeking behaviour which enables students to find solutions to all curricular and non-curricular activities helps them to address challenges on time and provide temporal or permanent solutions to problems. This finding of this study is in not in contrast with Mohammed et al. (2021) and Faisal et al. (2023) who revealed that help seeking

behaviour helps undergraduates to provide permanent or temporal solutions to school challenges which may cause poor school adjustment. It is also in line with the findings of Dashti et al. (2021) who found out that problem solving skills like help seeking behaviour brings about an impact of the scholarly accomplishment of undergraduates.

Summary of the Study

The study investigated web 2.0 platforms, problem solving skills as predictors of school adjustment among undergraduates in Rivers State. Three research questions were answered in the study, while three null hypotheses were tested in the study at 0.05 significance level. The review of related literature examined the views of scholars on the variables of the study. The related literature reviewed in this study was discussed under; conceptual, theoretical, empirical reviews and summary of literature. The study adopted a correlation research design for the evaluation of web platforms as predictors of school adjustment among undergraduates. The following showed that teaching, learning and research platforms, social networking platforms and help seeking behaviour significantly predicted school adjustment among undergraduates in Rivers State.

Conclusion

In line with the results of this study, the researcher concluded that Web 2.0 platforms and help seeking behaviour significantly predicted school adjustment among undergraduates in Rivers State. It was also concluded that teaching, learning and research platforms, social networking platforms and help seeking behaviour to a very high extent significantly predicted school adjustment among undergraduates in Rivers State.

Recommendations

In line with the findings of the study the researchers recommended the following:

1. Undergraduates should be educated and re-educated by the guidance counsellor and other Web 2.0 experts on how to utilize teaching learning and research platforms in order to adjust scholastically.
2. Guidance counsellor in tertiary institutions should encourage the school administration to carry out conferences, seminars and orientation programs that will expose students to the importance and dividends of using social networks platforms.
3. The school guidance counsellor and other Web 2.0 experts should sensitize undergraduates on the benefits of Web 2.0 platforms. This knowledge will help them to use these platforms to adjust to the school environment.
4. Undergraduates should be encouraged and admonished to develop help seeking behaviours as such skill will help them to meet the demands placed on them by the school and the society.

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