IJAAR PUBLISHING®

International Journal of Research in Education and Sustainable Development | ISSN: 2782-7666
Vol. 5, Issue 3 (2025) | www.ijaar.org/ijresd

ASSESSMENT OF DIGITAL DETOXIFICATION STRATEGIES AMONG UNDERGRADUATE STUDENTS IN UNIVERSITIES IN RIVERS STATE

Uchechukwu-Amadi, Mabel U., Ph.D
mabel_uchechukwu-amadi@uniport.edu.ng
Department of Curriculum Studies and Educational Technology,
University of Port Harcourt, Rivers State, Nigeria.

&

Ibiede Sarah
sarahibiede2020@gmail.com
Department of Curriculum and Instructional Technology,
Faculty of Education
University of Benin.

&

Amadi, Uchechukwu, Ph.D
Amadiuche.au@gmail.com
Department of Educational Technology, Ignatius Ajuru University of Education,
Rivers State

Abstract

This study assessed digital detoxification strategies among students in the Faculty of Education in public Universities in Rivers State. Two research questions were answered, and corresponding hypotheses were tested at the 0.05 level of significance. A descriptive research design was adopted for the study. The population for this study comprised 8751 students in the Faculties of Education in the three public universities in Rivers State. The sample size comprised 2137 400-level undergraduate students in the Faculties of Education in three public Universities in Rivers State. The multistage sampling procedure was adopted to select the sample for this study. The instrument used for data collection was a researcher-structured questionnaire titled: Digital Detoxification Strategies Among Undergraduate Students Questionnaire. The instrument was validated by five experts and standardised through item analysis. The instrument's reliability was determined using Cronbach Alpha, which yielded a reliability estimate of 0.90. Data collected were analysed using descriptive statistics of mean and standard deviation to answer the research questions, while Analysis of Variance was used to test the null hypotheses at 0.05 level of significance. Findings revealed that the majority of the Faculty of Education students in public Universities in Rivers State often use technology and social media and were aware of digital detoxification strategies. However, the application and utilization of these strategies were to a low extent. The results also showed that majority of digital detoxification strategies tested did not differ significantly among the three public universities. The study concluded that many students have a low level

Uchechukwu-Amadi, M. U., Ibiede, S., & Amadi, U. (2025). Assessment Of Digital Detoxification Strategies Among Undergraduate Students in Universities in Rivers State. *International Journal of Research in Education and Sustainable Development. 5*(3), 84-93. DOI: 10.5281/zenodo.15311409

of awareness and engagement in digital detoxification strategies. It was recommended, among others, that the management of public Universities in Rivers State should organise workshops and seminars to educate students on the importance and techniques of digital detoxification; this would help increase their awareness, application and implementation of these strategies.

Keywords: Digital Assessment, Digital Detoxification Strategies, Undergraduate Students, Rivers State.

Introduction

Digital technology and mobile phones have profoundly influenced various aspects of life, including education, economics, social interactions, politics, religion, and culture. As technological advancements continue, mobile phone technology rapidly evolves, enhancing students' learning experiences and academic performance through advanced connectivity features. The past decade has seen mobile devices incorporate functionalities previously exclusive to computers, making them portable and easily accessible.The proliferation of digital devices has accelerated due to the COVID-19 pandemic, leading to increased reliance on online learning. Dhull and Sakshi (2017) define online learning as using various technologies, including computers and internet connectivity, to deliver educational content and lessons. In this context, students heavily depend on mobile technology and internet access, exposing them to the digital world's unpredictability and numerous cyber threats such as cyber-bullying, phishing, identity theft, and sexual exploitation.

In tertiary institutions, a notable generational gap exists between digital immigrants (those who grew up before the digital age) and digital natives, potentially leading to unintended gaps in online teaching and learning processes. Prensky (2001) defines digital natives as individuals born during or after the widespread integration of technology into classrooms, typically those born on or after 1980. However, researchers like Helsper and Eynon (2009) consider those born between 1980 and 1990 as the "first generation of digital natives".

Fomsi (2021) noted that digital natives are proficient in the language of the digital world, including computers, smartphones, tablets, the Internet, Web 2.0 technologies, and online video games. They are expected to follow ethical guidelines specific to their geographical area, which provide crucial information on acceptable behaviours for harmonious coexistence among all stakeholders. The digital realm of e-learning also has essential ethics and affordances.

Knowledge sources have diversified, with the internet being readily accessible via mobile phones. Technology has simplified internet access for various online activities without requiring a computer. Mobile phones and their features offer students opportunities to enhance their knowledge beyond classroom teachings, enabling proper time management and easy access to help in emergencies. Learning can continue outside the classroom or school environment.

However, researchers and education industry leaders have raised concerns about mobile phone misuse by students, particularly at the university level. Students often spend excessive time on their phones, negatively impacting their academic performance. Jocobson and Forste (2011) observed that students view cell phones as leisure devices, using them for social networking, internet surfing for pleasure, watching videos, playing games, taking inappropriate photos, and other non-academic activities. Morgan (2017) argued that students' reliance on mobile phones as a 'quick fix' for problems and information could hinder their

ability to think quickly in work situations. Stakeholders and educators have expressed concern about the increased use of mobile phones by students during lectures for non-academic purposes.

Excessive use of mobile phones by students has also led to harmful behaviours. According toMorgan (2017), four out of five university students experience anxiety, isolation, and stress when they try to disconnect from their phones or engage in digital detoxification for a day. The trend of 'sexting': sending explicit photos and text messages, is reportedly increasing among university students. These inappropriate behaviours distract them from their academic activities, preventing them from focusing on their academic goals and objectives to achieve the expected results.Lockie (2017) highlighted several negative impacts of mobile phone use on students' academic performance, including time and money wastage, cheating in exams, distractions during lectures and study time, and potential health risks due to vibrations and usage. As a result, educators and stakeholders are concerned about the potential future risks to the nation due to the decline in students' academic performance caused by the continuous and frequent use of mobile devices during teaching and learning activities.

Statement of the Problem

In the digital era, technology has become essential, especially for students. Global internet use among students is growing by over 7% annually, with users spending an average of 7 hours online daily. With 5.20 billion mobile phone users worldwide, nearly 90% use smart devices for internet access (Kemp,2023). Smartphone usage is increasing by 8% annually, with over 1 million new smartphones activated daily (Kemp, 2023). Social media usage is also growing, with 4.14 billion users worldwide and a 13% annual growth rate (Kemp, 2023). However, excessive device use can lead to decreased productivity, impaired social skills, and mental health issues. This has led to the concept of "digital detoxification" - periods of abstaining from electronic devices. Despite growing recognition of its importance, comprehensive research is lacking. This study aims to assess the effectiveness and prevalence of digital detoxification strategies among undergraduate students in Rivers State, Nigeria, exploring students' perceptions, employed strategies, and their efficacy.

Aim and Objectives of the Study

This study is aimed at assessing digital detoxification strategies among students in Faculty of Education in public Universities in Rivers State. Specifically, the objectives of the study were to:

1. Identify the frequency of technology and social media use among Faculty of Education students in public universities in Rivers State.

2. Find out the extent to which Faculty of Education students are aware of digital detoxification strategies in public Universities in Rivers State

Research Questions

The following research questionsguided the study:

1.What is the frequency of technology and social mediauseamong Faculty of Education studentsin public Universities in Rivers State?

2. To what extent are Faculty of Education students aware of digital detoxification strategies in public Universities in Rivers State?

Hypotheses

The following null hypotheses were formulated to guide this study and were tested at a 0.05 level of significance:

1. There is no significant difference in the frequency of technology and social media use displayed among Faculty of Education students across the three public Universities in Rivers State

2. There is no significant difference in the extent of awareness of digital detoxification strategies among Faculty of Education students across the three public Universities in Rivers State

Methodology

This study was conducted in Rivers State, which is located in the South-South part of Nigeria. The studyadopted a descriptive survey research design.The population of the study comprised eight thousand seven hundred and fifty-one (8751) students in the Faculties of Education in the three public universities in Rivers State. The sample for this study comprised two thousand one hundred and thirty-seven (2137) 400-level undergraduate students in the Faculties of Education in the three public Universities in Rivers State, representing 24.4% of the total population of the study. The multistage sampling technique was adopted to select the sample for this study.The instrument used for data collection was a researcher self-structured questionnaire titled: Digital Detoxification Strategies Among Undergraduate Students Questionnaire (DDSUSQ). The questionnaire contained two sections structured to elicit responses that answered the research questions posed to guide the study. To ensure both face, content and construct validity of the instrument, the draft questionnaire named: Digital Detoxification Strategies Among Undergraduate Students Questionnaire (DDSUSQ) was given to the three expertsfor observations, comments and recommendations which was incorporated into the final draft. The instrument was trial tested and Cronbach Alpha was used for reliability estimate which yielded a coefficient of 0.90. The instrument was administered to the students with the aid of three research assistants that were trained and briefed on the procedure for questionnaire administration. Copies of the instrument were administered to the students while they were seated in their lecture halls and classrooms. Direct delivery and retrieval systems were used. Data gathered was analysed using descriptive and inferential statistical tools. Mean and standard deviation were used to answer the research questions while Analysis of Variance (ANOVA) and Post-Hoc were used to test hypotheses.

Results

Research Question One: What is the frequency of technology and social media use among Faculty of Education students in public Universities in Rivers State?

Table 1: Mean rating and standard deviation of the frequency of technology and social media use among Faculty of Education students in public Universities in Rivers State

S/N	Items	Respondents (n=2137)		
		$\bar{x}$	SD	Decision
.1	How often do you find yourself spending more time on social media than you intended?	3.05	0.51	Always
.2	How often do you neglect schoolwork because of the amount of time you spend on technology and social media?	3.02	0.48	Always
.3	How often do you find yourself thinking about using social media or planning to use social media?	2.97	0.51	Often
.4	How often do you feel restless or troubled if you are unable to use technology or social media?	2.94	0.55	Often
.5	How often do you use technology or social media to forget about personal problems?	3.03	0.49	Always
.6	How often do you try to cut down the amount of time you spend on technology and social media and fail?	2.99	0.52	Often
.7	How often do you use technology or social media so much that it has hurt your job or studies?	3.00	0.52	Always
.8	How often do you feel preoccupied with the Internet (think about previous online activity or anticipate next online session)?	2.95	0.55	Often
.9	How often do you find yourself saying “just a few more minutes” when online	2.92	0.59	Often
.10	How often do you try to hide how long you’ve been online?	3.05	0.51	Always
	Grand Mean	**2.99**	**0.58**	

Criterion Mean = 2.50, Mean: 1.0-1.99 = Never, 2.0-2.49=Rarely, 2.5-2.99 = Often, 3.00-4.00=Always.

Table 1 shows the frequency of technology and social media use among Faculty of Education students in public Universities in Rivers State. The majority of the respondents indicated “Always” to items 1, 2, 7, and 10, with their mean scores greater than or equal to the criterion mean (2.5), and within the mean score range of 3.00-4.00. Also, majority of the respondents indicated “Often” to items 3, 4, 6, 8, and 9, with their mean scores greater than or equal to the criterion mean (2.5), and within the mean score range of 2.5-2.99. The grand mean of 2.99 for all the respondents indicates that majority of the Faculty of Education students in public Universities in Rivers State often use technology and social media.

Research Question Two: To what extent are Faculty of Education students aware of digital detoxification strategies in public Universities in Rivers State?

Table 2: Mean rating and standard deviation of the extent to which Faculty of Education students aware of digital detoxification strategies in public Universities in Rivers State

S/N	Items	Respondents (n=2137)		
		$\bar{x}$	SD	Decision
.11	To what extent are you aware of the concept of digital detoxification?	2.60	0.62	HE
.12	How much do you know about the benefits of digital detoxification for mental health?	2.52	0.67	HE
.13	How familiar are you with strategies for reducing screen time?	1.89	0.76	VLE
.14	To what extent are you aware of the negative effects of excessive technology use?	3.35	0.48	VHE
.15	How much do you know about the importance of setting boundaries for technology use?	1.83	0.71	VLE
.16	How familiar are you with the concept of designated tech-free zones or times?	1.90	0.77	VLE
.17	To what extent are you aware of the benefits of replacing screen time with physical activity?	2.00	0.80	LE
.18	How much do you know about the use of apps or tools to monitor or limit technology use?	1.91	0.71	VLE
.19	How familiar are you with the idea of taking regular breaks from technology throughout the day?	1.91	0.29	VLE
.20	To what extent are you aware of the benefits of disconnecting from technology before bedtime?	1.90	0.77	VLE
	Grand Mean	**2.18**	**0.66**	

Criterion Mean = 2.50, Mean: 1.0-1.99 = VLE, 2.0-2.49=LE, 2.5-2.99 = HE, 3.00-4.00=VHE.

Table 2 shows the extent are Faculty of Education students aware of digital detoxification strategies in public Universities in Rivers State. The majority of the respondents indicated "Very High Extent" to item 14 with their mean scores greater than or equal to the criterion mean (2.5), and within the mean score range of 3.00-4.00. Also, majority of the respondents indicated "High Extent" to items 11, and 12, with their mean scores greater than or equal to the criterion mean (2.5), and within the mean score range of 2.5-2.99. Furthermore, majority of the respondents indicated "Low Extent" to item 17, with their mean scores less than the criterion mean (2.5), and within the mean score range of 2.0-2.49. Lastly, majority of the respondents indicated "Very Low Extent" to items 13, 15, 16, 18, 19, and 20, with their mean scores less than the criterion mean (2.5), and within the mean score range of 1.0-1.99. The grand mean of 2.18 for all the respondents indicates that majority of the Faculty of Education students in public Universities in Rivers State are aware of digital detoxification strategies to a low extent.

Hypothesis One: There is no significant difference in the frequency of technology and social media use displayed among Faculty of Education students across the three public Universities in Rivers State.

Table 3a: Summary of ANOVA of difference in the frequency of technology and social media use displayed among Faculty of Education students across the three public Universities in Rivers State

ANOVA

Sources	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	3980.04	2	1990.02	564.45	0.00
Within Groups	7523.62	2134	3.53		
Total	11503.65	2136			

Table 3a shows that there is significant difference in the frequency of technology and social media use displayed among Faculty of Education students across the three public Universities in Rivers State (F_2, 2134 = 564.45, p = 0.00 < 0.05), hence null hypothesis one is rejected at the 0.05 level of significance.

Table 3b: Scheffe Post Hoc test of homogeneity of variance on thedifference in the frequency of technology and social media use displayed among Faculty of Education students across the three public Universities in Rivers State.

Multiple Comparisons

(I) Universities	(J) Universities	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
UNIPORT	RSU	2.78*	0.10	0.00	2.54	3.05
	IAUE	2.72*	0.10	0.00	2.47	2.97
RSU	UNIPORT	-2.80*	0.10	0.00	-3.05	-2.54
	IAUE	-0.08	0.12	0.83	-0.38	0.23
IAUE	UNIPORT	-2.72*	0.10	0.00	-2.97	-2.47
	RSU	0.08	0.12	0.83	-0.23	0.38

*. The mean difference is significant at the 0.05 level.

The result of Table 3b shows the result of the Scheffe Post Hoc test of homogeneity for the difference in the frequency of technology and social media use displayed among Faculty of Education students across the three public Universities in Rivers State. The responses from students in UNIPORT show a significant difference with RSU (mean difference = 2.78, standard error = 0.10, and p-value = 0.00 < 0.05) and a significant difference with IAUE (mean difference = 2.72, standard error = 0.10, and p-value = 0.00 < 0.05). The responses from students in RSU show a significant difference with UNIPORT (mean difference = -2.80, standard error = 0.10, and p-value = 0.00 < 0.05) and a non-significant difference with IAUE (mean difference = -0.08, standard error = 0.12, and p-value = 0.83 > 0.05).

Lastly, the responses from students in IAUE show a significant difference with UNIPORT (mean difference = -2.72, standard error = 0.10, and p-value = 0.00 < 0.05) and a non-significant difference with RSU (mean difference = 0.08, standard error = 0.12, and p-value = 0.83 > 0.05). The results suggest that there is a distinct difference in the responses of the students from the three universities on the frequency of technology and social media use displayed among Faculty of Education students across the three public Universities in Rivers State.

Hypothesis Two: There is no significant difference in the extent of awareness of digital detoxification strategies among Faculty of Education students across the three public Universities in Rivers State.

Table 4a: Summary of ANOVA on the difference in the extent of awareness of digital detoxification strategies among Faculty of Education students across the three public Universities in Rivers State

ANOVA

Sources	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	450.98	2	225.49	34.60	0.00
Within Groups	13905.74	2134	6.52		
Total	14356.72	2136			

Table 4.a shows that there is a significant difference in the extent of awareness of digital detoxification strategies among Faculty of Education students across the three public Universities in Rivers State (F_2, 2134 = 34.60, p = 0.00 < 0.05). The null hypothesis two is rejected at the 0.05 level of significance.

Table 4b: Scheffe Post Hoc test of homogeneity of variance on thedifference in the extent of awareness of digital detoxification strategies among Faculty of Education students across the three public Universities in Rivers State

Multiple Comparisons

(I) Universities	(J) Universities	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
UNIPORT	RSU	-0.18	0.14	0.43	-0.52	0.16
	IAUE	1.06*	0.14	0.00	0.72	1.40
RSU	UNIPORT	0.18	0.14	0.43	-0.16	0.52
	IAUE	1.24*	0.17	0.00	0.83	1.66
IAUE	UNIPORT	-1.06*	0.14	0.00	-1.40	-0.72
	RSU	-1.24*	0.17	0.00	-1.66	-0.83

*. The mean difference is significant at the 0.05 level.

The result of Table 4b shows the result of the Scheffe Post Hoc test of homogeneity for the difference in the extent of awareness of digital detoxification strategies among Faculty of Education students across the three public Universities in Rivers State. The responses from students in UNIPORT show a non-significant difference with RSU (mean difference = -0.18, std error = 0.14, and p-value = 0.43 > 0.05) and a significant difference with IAUE (mean difference = 1.06, standard error = 0.14, and p-value = 0.00 < 0.05).

The responses from students in RSU showa non-significant difference with UNIPORT (mean difference = 0.18, standard error = 0.14, and p-value = 0.43 > 0.05) and a significant difference with IAUE (mean difference = 1.24, standard error = 0.17, and p-value = 0.00 < 0.05).Lastly, the responses from students in IAUE show a significant difference with UNIPORT (mean difference = -1.06, std error = 0.14, and p-value = 0.00 < 0.05) and a significant difference with RSU (mean difference = -1.24, std error = 0.17, and p-value = 0.00 < 0.05). The results suggest that there is distinct difference in the responses of the students from the three universities on the extent of awareness of digital detoxification strategies among Faculty of Education students across the three public Universities in Rivers State.

Discussion of Findings

The study assessed the digital detoxification strategies among students in Faculty of Education in public Universities in Rivers State. From the data gathered and analysis carried out, the findings from the study are discussed in the following paragraphs.

Research question one revealed that the majority of the Faculty of Education students in public Universities in Rivers State often use technology and social media. Furthermore, the result of Hypothesis One showed that there is a significant difference in the frequency of technology and social media use displayed among Faculty of Education students across the three public Universities in Rivers State. Furthermore, the post hoc analysis result showed that there is a distinct difference in the responses of the students from the three universities on the frequency of technology and social media use displayed among Faculty of Education students across the three public Universities in Rivers State. The findings are consistent with the study by Danilo et al (2018), which revealed that regarding physical and social wellness, it was gathered that the intervention programme had a positive effect on lifestyle and health management as well as the interpersonal relationships of the participants. The study also concludes that the smartphone detoxification programme introduced to university students with smartphone addiction was generally effective in reducing the addiction rate and improving the students' well-being. The findings of the study are also supported by Oghenetega (2018), whose study revealed that social media, which is an integral part of the student's full life, took up most of their spare time; the time spent by the respondents on social media stressed that the impact on their academic performance ends up negative. So, social media, which also has a familiar name as a social network or web, chooses students as its potential victims. The present study is supported by Hossain (2019), who revealed that cell phones are undeniably convenient, helpful tools for study and can be a hurtful source of distraction depending on the attitude and use pattern of a student. This goes to say that learners tend to abuse their cell phones if allowed to use them always.

The findings of research question two showed that the majority of the Faculty of Education students in public Universities in Rivers State are aware of digital detoxification strategies to a low extent. Furthermore, the result of Hypothesis Two showed that there is a significant difference in the extent of awareness of digital detoxification strategies among Faculty of Education students across the three public Universities in Rivers State. Furthermore, the post hoc analysis result showed that there is a distinct difference in the responses of the students from the three universities on the extent of awareness of digital detoxification strategies among Faculty of Education students across the three public Universities in Rivers State. The findings are consistent with the study by Radtke et al. (2021) that revealed that the effects of digital detoxification interventions varied across studies on health and well-being, social relationships, self-control, or performance.

Conclusion

The study assessed the digital detoxification strategies among students in the Faculty of Education at public Universities in Rivers State. Based on the test conducted, overall, the study revealed that students in the Faculty of Education at public Universities in Rivers State often use technology and social media for academic and social purposes, indicating a need for effective digital detoxification strategies to be implemented. However, the study also found that many students have a low level of awareness and engagement in digital detoxification strategies. Based on the findings, the study concludes that there is a clear need for educational

institutions in Rivers State to prioritise the implementation of digital detoxification programmes to help students develop healthier relationships with technology.

Recommendations

Considering the findings, discussion and conclusions of this study, the following recommendations are made:

1. The management of public universities in Rivers State should implement digital literacy programs that educate students about the frequency and responsible use of technology and social media. These programs should cover topics like online etiquette, privacy, and the risks of oversharing personal information.

2. The management of public Universities in Rivers State should organise workshops and seminars to educate Faculty of Education students on the awareness, importance and techniques of digital detoxification.This would help increase their awareness and implementation of these strategies.

References

Danilo, B. B., Nami, K. & Kyung, E. P. (2018). Development and evaluation of smartphone detox programme for university students. *International Journal of Contents*, 14 (4), 33-41.

Dhull, I., & Sakshi, M. S. (2017). Online learning. *International Education and Research Journal (IERJ)*, 3(8), 32-34.

Fomsi, E. F. (2021). Digital native – digital immigrant continuum: The place of women in stemm. OWSD Nigeria National Chapter University of Port Harcourt Branch Series of Scientific Communications

Helsper, E., & Eynon, R. (2009). Digital natives: Where is the evidence?*British Educational Research Journal*, 1-18.

Hossain, M.M. (2019). Impact of mobile phone usage on academic performance. *An International Scientific Journal WSN*, 118 (2), 164-180.

Kemp, S. (2023). Digital 2023: Global overview report. https://datareportal.com/global-digital-overview

Lockie, J.M. (2017). *Examining students' achievement and motivation using inter-based inquiry in the classroom*. https://www.digitalcommons.unl.edu/cehsdiss/102

Morgan, K. (2017). *The pros and cons of cell phone usage in college*. https://www.education.seatle-upi.com/pros-con-cell-phone-usage-college-1578html.

Oghenetega, L. (2018). The impact of social media on the academic performance of university students in Nigeria. *International Journal of Advanced Information Technology* (IJAIT), 8 (4/5), 26-35.

Prensky, M. (2001). Digital natives, digital immigrants. *On the horizon*, *9*(5), 1-3.

Radtke, T., Apel, T., Schenkel, K., Keller, Jan. &Lindern, E. V. (2021). *Digital detox: An effective solution in the smartphone era? A systematic literature review*. https://uk.sagepub.com/en-gb/journals-permissions.