Assessment of Attitude of Undergraduate Social Studies towards Cyber Phishing and Cyberbullying in North-West, Nigeria

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Abstract

The study was carried out on assessment of attitude of undergraduate social studies towards cyber phishing and cyberbullying in North-West, Nigeria. The study was guided by two specific objectives, two research questions and two hypotheses. Descriptive survey design was employed using a total population of 512 of 400 level Undergraduate Social Studies in Colleges of Education in North-West Nigeria where 217 were used as the sample size. Structured questionnaire was used for data collection. The data collected were analyzed using mean, standard deviation and one sample t-test. The two research questions were answered using mean and standard deviation while the two hypotheses were tested using one-sample t-test at 0.05 level of significance. Findings of the study revealed different attitudes of undergraduate social studies towards phishing as cybercrime in Northwest, Nigeria and social studies undergraduate have different attitude towards cyberbullying in North-West, Nigeria. Based on the findings of the study, it was concluded that students exhibit positive attitude towards cyber phishing and cyberbullying. The positive attitudes of the undergraduate social studies towards cyber phishing and cyberbullying indicate a promising foundation for cybersecurity awareness and proactive measures equipped by students with the necessary skills to safeguard themselves and others in an increasingly digital world in colleges of education in North-West Nigeria. The study recommended that the colleges of education and university authorities

should launch targeted education and awareness campaigns specifically tailored to undergraduate students of Social Studies. These campaigns should highlight the risks and consequences of phishing attacks, emphasizing the importance of skepticism towards unsolicited emails and messages. The management of Colleges of Education and Universities should establish peer support groups and counseling services within educational institutions to provide Social Studies students with a safe space to discuss their experiences with cyberbullying and seek support from their peers and trained professionals.

Keywords: attitude, undergraduate social studies, cyber phishing, cyberbullying

Introduction

The internet and computers arrival have opened many opportunities for the young and old in the global community to have access to the world from their homes, offices and cyber cafes. The coming of smartphones has also made internet access easier and faster even though this has been largely a positive development, there has also been a darker side to this development because virtually every advance made in the digital domain has been accompanied by a 'corresponding niche to be exploited for criminal purposes. In the past the ability to commit computer related crimes was largely limited to those with the access and skill sets; nowadays, technology is easily accessible, thus, making it available to both offenders and victims (Clough, 2016). The proliferation of information technology and the convergence of digital and communication devices, the internet has transformed the way in which we interact and conduct businesses across the globe which in turn which gave birth to cybercrime.

Cyber-crime involves criminal activities, in which a criminal offence is committed with the criminal intention to harm an individual using the contemporary communication systems available in internet services and mobile phones (Wall, 2015). Cybercrime is defined as the use of electronic devices or computers via information systems to facilitate illegal activities (McQuade, 2016). Cybercrime according to McGuire and Dowling (2013) could be cyber-dependent or cyber-enabled. While cyber-enabled crimes use computer and its related activities to carry out its illicit dealings, cyber-dependents rely on computer and its programs

to carry out its activities such as cyber phishing and cyberbullying. Cyber phishing is the primary selection among the cybercriminals to use many forms of crimes such as espionage and unlawful activities. Cyber phishing is used deceive a person for taking friend request and collect information about them from victims while a situation where a teen or younger child uses a computing device to threaten, humiliate, or otherwise harass a peer is known as cyberbullying.

Cyberbullying according to Smith, Mahdavi, Carvalho, Fisher, Russell and Tippett (2018) is a form of bullying or harassment using electronic means. Cyberbullying and cyber-harassment are also known as online bullying. It has become increasingly common, especially among teenagers and adolescents, due to the communication technology advancements and young people's increased use of such technologies. Cyberbullying is when someone, typically a teenager, bullies or harasses others on the internet and other digital spaces, particularly on social media sites. Cyberbullying is the frequent, intentional and habitually unspecified act done to upset different person via text messages, a cell phone, e-mail, instantaneous messaging and chat rooms. Cyberbullies can wreak havoc on their victims at any time, from virtually anywhere and because the act doesn't require face-to-face interactions like physical bullying, catching the perpetrators in timely fashion can be difficult. However, with the breakthrough in information technology through the use of Internet facilities, cyber phishing and cyberbullying can be approached through attitude.

Attitude is the persistent tendency to feel and behave in a particular way towards something (William, 2015). Attitude' describes the way in which a person perceives himself and the world, and forms the basis for his actions and thoughts. Attitudes are believed to be an essential determinant of behaviour, although a change in attitude will not necessarily lead to a change in behaviour. In an anomic society, great importance is giving to success with little or scarce means of achieving the success. As such, the society is unstable and imbalance. In such society, there is tendency of people particular students rejecting the rules of the game and to strive for success by any available means. When rules cease to operate, a situation of normlessness (anomie) emerges. In this situation, norms no longer direct behaviour and cybercrime such as cyber phishing and cyber bullying

are encouraged. However, to develop in the students a positive attitude to citizenship lead to introduction of social studies.

Social Studies is a subject in the school curriculum that is most suitable for transmitting the core societal values to the young generation. Social Studies objectives in Nigeria according to Ossai, (2014) have been stated to meet up with challenges prevalent in the society. It is also serve as a solution to emerging societal problems and bringing about national development and integration. In Nigeria today, young people mostly especially tertiary institution students are the ones who engage in this form of anti-social behaviour for the purpose of living a life of splendour. This menace has created a high level of disinterest in education and touting among young people. The internet has also become an environment where the most lucrative and safest crime thrives for the youths. As the study of 2018 indicate 93% of young people were online and spent many of their time on social media. Olaide and Adewole (2014), observed that a sizeable number of criminals in Nigeria fall within the youthful age. The youths therefore at present have discovered different ways of using the internet in doing different types of criminal activities and these age brackets are usually found in tertiary institutions in Nigeria. It is against this background that the researcher deems it necessary to conduct study on assessment of attitude of undergraduate social studies towards cyber phishing and cyberbullying in north-west, Nigeria.

Statement of the Problem

Internet usage in Nigeria has grown rapidly resulting in the explosion of Internet Service Providers (ISPS) and Internet Access Point creating an increase in the positive impacts on the socio-economic and educational developments in the country. Unfortunately, the country's image has suffered as a result of the unscripted activities of some Nigerians using the internet as a channel for the perpetration of criminal spamming activities. In Nigeria today, young people most especially tertiary institution students are the ones who engage in this form of anti-social behaviour through luring individuals into providing sensitive data such as personally identifiable information, banking and credit card details, and passwords. This menace has created a high level of disinterest in education and touting among young people. The internet has also become an environment where the most lucrative and safest crime thrives for the youths.

The researcher observed that so many persons have been harassed, threaten, humiliate, duped or fallen victims of cybercrimes such as cyber phishing and cyberbullying. The Individuals now hide under the faceless nature and the ease of access offered by the internet to perpetuate criminal acts. The researcher also observed that cyber phishing and cyberbullying has causes a lot of pain and shame to people because criminally minded individuals in the country are stealing and committing atrocity through the aid of the internet online business transactions. This is evidence by Sesan, Soremi and Oluwafemi who reported that cybercrime transaction worth £300 million, €200 million, and $500 million were stopped between 2003 and 2007, and recently it cost Nigerian consumers approximately $13.5 billion dollars in 2012. According to Oke, Nigeria is losing about $80 million (#11.2billion) annually to software piracy most of the transactions initiated online by Nigerian based consumers using the international debit/credit cards. A study by Zero Tolerance indicates that cyber criminals are usually within the age of 18 and 30 years and they indulge in the crime in order to survive and have a taste of good life. With these observed problems, the researcher is therefore prompted to carryout study on assessment of attitude of undergraduate social studies towards cyber phishing and cyberbullying in North-west, Nigeria

Objectives of the study

The following objectives were achieved in this study

i. Assess the attitude of undergraduate Social Studies towards cyber phishing in North-West, Nigeria.
ii. Assess the attitude of undergraduate Social Studies towards cyber bullying in North-West, Nigeria.

Research Questions

The following research questions were answered in this study:

i. What is the attitude of undergraduate Social Studies towards cyber phishing in North-West, Nigeria?
ii. What is the attitude of undergraduate Social Studies towards cyber bullying in North-West, Nigeria?

Research Hypotheses

The following hypotheses were tested in this study:

HO_1: There is no significant difference in the attitude of undergraduate Social Studies towards cyber phishing in North-West, Nigeria

HO_2: There is no significant difference in the attitude of undergraduate Social Studies towards cyber bullying in North-West, Nigeria.

Methodology

This study adopted descriptive survey design. Descriptive survey design sets out to describe and to interpret what is. It aimed to describe the state of affairs as it exists. The study population consisted of all 400 level Undergraduate Social Studies s in Colleges of Education in North-West Nigeria. The total population of 400 level Undergraduate Social Studies in Colleges of Education in North-West Nigeria was 512. The sample size of this study was two hundred and seventeen (217). This sample size was adequate based on the Research Advisors (2010), a sample size of 217 is adequate for population of 512. In order to achieve selection of the sample from the population, multi stage sampling technique which involve purposive sampling technique, Proportionate sampling technique and Simple random sampling technique. A structured questionnaire designed by the researcher on a four-point rating scale of strongly agreed (SA), agreed (A), disagreed (D) and strongly disagreed (D) was used as instrument for data.

The questionnaire was face and content validated by experts from the Department of Arts and Social Science Education, Faculty of Education, Ahmadu Bello University, Zaria. In line with the suggestion given, amendment was made to improve the clarity and relevance of the instrument. Twenty (20) copies of questionnaire were used as a pilot testing for the study to test the reliability of the instrument. A reliability coefficient value of 0.76 was obtained using the Cronbach alpha Coefficient. The data were finally collected by the researcher with the aid of three trained research assistants. The research questions were analyzed using mean and standard deviation. The null hypotheses were tested at 0.05 level of significant using one sample T-test.

Results and Discussion

Table 1: Mean score of respondents on attitude of undergraduate Social Studies towards cyber Phishing in North-West, Nigeria

S/N	Items	SA	A	D	SD	Mean	Std. Deviation
1	I have the responsibility to ensure my e-mail is protected from phishing	195	16	4	2	3.86	0.42
2	I believe there is a need for increased awareness about phishing in the local community	120	28	30	39	3.06	0.33
3	I don't pay attention to my text messages on threats coming through phishing	190	20	5	2	3.83	0.44
4	I am confident that I would be able to spot the signs of deceit from phishers	202	8	5	2	3.89	0.31
5	I am always online with access to all Internet services to monitor my e-mail against phishing	160	18	9	30	3.42	0.55
6	It would upset me if my email or other accounts were lure into phishing	150	14	23	30	3.31	0.52
7	I shop online with my credit card without concern about phishers	145	28	16	28	3.34	0.47
8	My device is protected against phishers	214	1	1	1	3.97	0.16
9	The topic of phishing has been adequately covered in my Social Studies coursework	98	43	49	27	2.98	0.96
10	I believe that educational institutions should play a role	150	20	29	18	3.39	0.49

	in educating students about phishing		
	Cumulative mean	**3.51**	**0.47**

Decision/benchmark mean = 2.50

Table 1 presented the result on attitude of undergraduate Social Studies students towards cyber Phishing in North-West, Nigeria. Item (1) indicated that, the mean score of 3.86 is higher than the rating scale of 2.50, which mean that the respondents agreed that they have the responsibility to ensure their e-mail is protected from phishing. Item (2) showed that mean score of 3.06 is higher than the rating scale of 2.5 which means respondents agreed that they believe there is a need for increased awareness about phishing in the local community. Item (3) showed that mean score of 3.83 is higher than the rating scale of 2.5 which means respondents agreed that they don't pay attention to their text messages on threats coming through phishing. Item (4) showed that mean score of 3.89 is higher than the rating scale of 2.5 which means respondents agreed that they are confident that they would be able to spot the signs of deceit from phishers. Item (5) showed that mean score of 3.42 is higher than the rating scale of 2.5 which means respondents agreed that they are always online with access to all Internet services to monitor their e-mail against phishing. Item (6) showed that mean score of 3.31 is higher than the rating scale of 2.5 which means respondents agreed that It would upset them if their email or other accounts were lure into phishing.

Item (7) showed that mean score of 3.34 is higher than the rating scale of 2.5 which means respondents agreed that they shop online with their credit card without concern about phishers. Item (8) showed that mean score of 3.97 is higher than the rating scale of 2.5 which means respondents agreed that their device is protected against phishers. Item (9) showed that mean score of 2.98 is higher than the rating scale of 2.5 which means respondents agreed that the topic of phishing has been adequately covered in their Social Studies coursework. Finally, Item (10) showed that mean score of 3.39 is higher than the rating scale of 2.5 which means respondents agreed that they believe educational institutions should play a role in educating students about phishing. From the analysis, the mean score of all the ten items were found to be higher than the index score of 2.50 for agree, this can also be seen in the aggregate mean value found to be higher than the index score for

agree (3.51 >2.50) with standard deviation of 0.46. This implies that undergraduate Social Studies have positive attitude towards cyber Phishing in North-West, Nigeria

Table 2: Mean score of respondents on attitude of undergraduate Social Studies towards cyberbullying in North-West, Nigeria

S/N	Items	SA	A	D	SD	Mean	Std. Deviation
11	I don't add people I don't know to my social media pages	201	10	4	2	3.89	0.39
12	I usually ignore any unfamiliar message on my social media	199	14	2	2	3.89	0.31
13	It is my responsibility to keep my social media account from people I don't know	9	37	91	80	1.88	0.48
14	I understand the various forms of cyberbullying, such as harassment and online intimidation	165	21	17	14	3.55	0.64
15	The topic of cyberbullying has been adequately covered in my Social Studies coursework.	45	55	50	67	2.36	0.75
16	I believe there is a need for increased awareness about cyberbullying in the local community.	207	4	4	2	3.92	0.28
17	I hardly disclose my information online to protect myself against bullying	144	25	25	23	3.34	0.53
18	I feel confident in recognizing signs of cyberbullying and supporting those affected	203	7	4	3	3.89	0.39
19	I believe in promoting a positive online environment and preventing cyberbullying	141	34	16	26	3.34	0.53

20	I feel adequately prepared to contribute to initiatives aimed at combating cyberbullying	24	33	84	76	2.92	0.69
	Cumulative mean					**3.99**	**0.50**

Decision/benchmark mean = 2.50

Table 2 presented the result on attitude of undergraduate Social Studies towards cyberbullying in North-West, Nigeria. Item (11) indicated that, the mean score of 3.89 is higher than the rating scale of 2.50, which mean that the respondents agreed that they don't add people they don't know to their social media pages. Item (12) showed that mean score of 3.89 is higher than the rating scale of 2.5 which means respondents agreed that they usually ignore any unfamiliar message on their social media. Item (13) showed that mean score of 1.88 is less than the rating scale of 2.5 which means respondents disagreed that it is their responsibility to keep their social media account from people they don't know. Item (14) showed that mean score of 3.55 is higher than the rating scale of 2.5 which means respondents agreed that they understand the various forms of cyberbullying, such as harassment and online intimidation.

Item (15) showed that mean score of 2.36 is less than the rating scale of 2.5 which means respondents disagreed that the topic of cyberbullying has been adequately covered in their Social Studies coursework. Item (16) showed that mean score of 3.92 is higher than the rating scale of 2.5 which means respondents agreed that they believe there is a need for increased awareness about cyberbullying in the local community. Item (17) showed that mean score of 3.34 is higher than the rating scale of 2.5 which means respondents agreed that they hardly disclose their information online to protect themselves against bullying. Item (18) showed that mean score of 3.89 is higher than the rating scale of 2.5 which means respondents agreed that they feel confident in recognizing signs of cyberbullying and supporting those affected. Item (19) showed that mean score of 3.34 is higher than the rating scale of 2.5 which means respondents agreed that they believe in promoting a positive online environment and preventing cyberbullying. Finally, Item (20) showed that mean score of 2.92 is higher than the rating scale of 2.5 which means respondents agreed that they feel adequately prepared to contribute to initiatives aimed at combating cyberbullying. From the analysis, the mean score of

nine items were found to be higher than the index score of 2.50 for agree, while the means score of three item were found to be less than the index score of 2.50. The aggregate mean value found to be higher than the index score for agree (3.99 >2.50) with standard deviation of 0.55. This implies that undergraduate Social Studies have positive attitude towards cyberbullying in North-West, Nigeria

Test of Hypotheses

The null hypotheses were tested using one sample t-test at 0.05 level of significance.

Hypothesis one: There is no significant difference in the attitude of undergraduate Social Studies towards cyber Phishing in North-West, Nigeria.

Table 3: One sample t-test on significant difference in the attitude of undergraduate Social Studies towards cyber Phishing in North-West, Nigeria

Variable	N	Mean	Std. deviation	t-value	Df	p-value	Decision
Knowledge of undergraduate Social Studies towards cyber phishing	217	3.51	0.47	42.227	216	0.000	Rejected

t (216) = 1.972, p <0.05

Table 3 showed the significant difference in the attitude of undergraduate Social Studies towards cyber Phishing in North-West, Nigeria. The observed t-value obtained at 216 degree of freedom (DF) for the test was 42.227 and it is higher than the critical value of 1.972 indicated at the bottom of the table. The observed level of significance (0.000) is less than the fixed level of 0.05 (P < 0.05). These observations provide enough evidence for rejecting the null hypothesis. This shows that respondents highly believed that there is significant difference in the attitude of undergraduate Social Studies towards cyber Phishing in North-West, Nigeria. Therefore, the null hypothesis which stated that there is no significant difference in the attitude of undergraduate Social Studies towards cyber Phishing in North-West, Nigeria is hereby rejected.

Hypothesis Two: There is no significant difference in the attitude of undergraduate Social Studies towards cyberbullying in North-West, Nigeria.

Table 4: One sample t-test on significant difference in the attitude of undergraduate Social Studies towards cyberbullying in North-West, Nigeria

Variable	N	Mean	Std. deviation	t-value	Df	p-value	Decision
Attitude of undergraduate Social Studies towards cyberbullying	217	3.99	0.50	29.322	216	0.000	Rejected

t (216) = 1.972, p <0.05

Table 4 showed the significant difference in the attitude of undergraduate Social Studies towards cyberbullying in North-West, Nigeria. The observed t-value obtained at 216 degree of freedom (DF) for the test was 29.322 and it is higher than the critical value of 1.972 indicated at the bottom of the table. The observed level of significance (0.000) is less than the fixed level of 0.05 (P < 0.05). These observations provide enough evidence for rejecting the null hypothesis. This shows that respondents highly believed that there is significant difference in the attitude of undergraduate Social Studies students towards cyberbullying in North-West, Nigeria. Therefore, the null hypothesis which stated that there is no significant difference in the attitude of undergraduate Social Studies towards cyberbullying in North-West, Nigeria is hereby rejected.

Discussion of findings

The result of hypotheses one revealed different attitudes of undergraduate social studies towards phishing as cybercrime in Northwest, Nigeria. The result of data analysis on hypotheses one shows that the t = 42.227, df = 217, p = 0.000, indicating that the probability value (p) is less than the alpha level (p < 0.05). This shows that there is different attitude of undergraduate social studies towards phishing as cybercrime in Northwest, Nigeria. This finding lay credence to the finding of Omar, (2013) who stated that attitude of phishing is a major antagonistic in which the criminals establish and controls a pseudocode website that seems a legitimate

one to motivate victims to share sensitive information by sign in. The findings is also supported by Jansson and von Solms, (2019) who stated understanding phishing attacks have become increasingly sophisticated and often transparently mirror the site being targeted, allowing the attacker to observe everything while the victim is navigating the site, and transverse any additional security boundaries with the victim.

The finding of hypothesis two found that social studies undergraduate have different attitude towards cyberbullying in North-West, Nigeria. The result of data analysis on hypotheses two illustrates that the $t = 29.322$, $df = 217$, $p = 0.000$, which indicates that the probability value (p) is less than the alpha level ($p < 0.05$). This showed that social studies undergraduate have different attitude towards cyberbullying in North-West, Nigeria. This finding corroborates with that of Smith, Mahdavi, Carvalho, Fisher, Russell and Tippett (2018) who stated that attitude of bullying or harassment using electronic means. The findings are also supported by Burger (2021) who stated there are few students who are bullied exclusively over the Internet; these cyber victims are often physically stronger students, which causes bullies to prefer online confrontations over face-to-face contact at school.

Conclusion

Based on the findings from the study, it was concluded that students exhibit positive attitude towards cyber phishing and cyberbullying. Therefore, the positive attitudes of the undergraduate social studies towards cyber phishing and cyberbullying indicate a promising foundation for cybersecurity awareness and proactive measures equipped by students with the necessary skills to safeguard themselves and others in an increasingly digital world in colleges of education in North-West Nigeria.

Recommendations

1. The colleges of education and university authorities should launch targeted education and awareness campaigns specifically tailored to undergraduate students of Social Studies. These campaigns should highlight the risks and consequences of phishing attacks, emphasizing the importance of skepticism towards unsolicited emails and messages.

2. The management of Colleges of Education and Universities should establish peer support groups and counseling services within educational institutions to provide Social Studies students with a safe space to discuss their experiences with cyberbullying and seek support from their peers and trained professionals.

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