Assessment of Social Media Usage among Physics Students in Federal College of Education, Kontagora, Nigeria.

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Abstract

This study investigates social media usage among Physics students at the Federal College of Education, Kontagora, Nigeria. Four (4) research questions and three (3) hypotheses were formulated and tested at a significance level of 0.05. The questionnaire was administered to a sample of 116 Physics students out of a population of using a random sampling technique. Utilizing a quantitative research approach, data were collected through a structured Questionnaire. The questionnaire was administered to a sample of 116 Physics students using a random sampling technique. Comparison of means, Chi-Square, and ANOVA statistics were employed for data analysis. The findings of the study indicated that Physics students were average users of social media and that its proper utilization could positively impact the learning of Physics concepts. Furthermore, the results revealed a weak but significant level of association between social media usage and students' study level. Based on these findings, it is recommended that teachers receive training on the effective integration of social media into the teaching and learning process. Also, students are encouraged to engaged in the positive use of social media platforms like YouTube that will enhance their studies of Physics among others.

Keywords: Social Media, Kontagora, Physics students, Academic Performance

Introduction

In recent years, the widespread adoption of social media platforms has transformed various aspects of daily life, including the way students engage with academic content. While social media offers numerous benefits in terms of connectivity and information dissemination (Alalwan, 2022), concerns have been raised regarding its potential impact on student's academic performance (Chen & Xiao, 2022; Oliver, et al., 2023).

This prevalent use of Social media by students has also affected those studying science, including Physics. Physics education often demands rigorous understanding and application of complex concepts, making it crucial for students to maintain focus and dedicate sufficient time to their studies. However, with the omnipresence of social media in the education system, particularly during and Post-COVID19 era (Azer et al., 2023; Yan et al., 2021), these platforms have served as a valuable teaching and learning aids. Nonetheless, they also present a potential source of distraction that could impede students' academic progress (Oliver et al., 2023). Understanding the dynamics between social media usage and academic performance is particularly pertinent in the context of physics education, given the discipline's demanding nature. By exploring how social media affects students' learning experiences and outcomes in physics, this study seeks to provide insights that can inform educational strategies and practices.

Boateng and Amankwaa (2016) highlighted that social media has significantly influenced instructors, students, and other academic stakeholders, fostering collaboration in knowledge construction within teaching and learning environments. This sentiment is echoed by McLoughlin and Lee, who assert that social media platforms have had a positive impact by facilitating diversity among various groups (McLoughlin & Lee, 2007). The pervasive use of social media is evident globally, with platforms such as Facebook, WhatsApp, Twitter (now X), YouTube, Instagram, MySpace, LinkedIn, Tik-Tok, and Google Plus, among others.

Institutions and academics are continuously exploring social media technologies to enhance collaboration and knowledge sharing. Today, social media serves as a vital platform within educational institutions, enabling students to connect not only with their instructors but also with fellow students and scholars worldwide. The seamless integration of social media into educational practices has transformed traditional learning paradigms, fostering greater connectivity and access to resources across geographical boundaries.

Despite these numerous advantages that Social Media platforms present to the educational system, it has the tendency of making the student addicted to it thereby spending productive hours on other content that is not focused on their course on study. This study therefore assesses the perceived influence of students on social media usage in FCE Kontagora.

Research Problem

The utilization of social media in education offers students the opportunity to access a wealth of information, connect with learning communities, and engage with educational resources, thereby enhancing the convenience of learning. Social networking tools also present students and educational institutions with numerous opportunities to improve learning methodologies (Abbas, Aman, Nurunnabi, & Bano, 2019; Dabbagh & Kitsantas, 2012; Teras, 2022). However, in contrast to these benefits, some students have redirected their use of social media towards non-educational, unethical, and inappropriate activities. It appears that certain students, instead of harnessing the educational potential of social media, have shifted their focus towards other purposes (Al-Rahmi & Zeki, 2017; Junco ,2012). Omeodu and Daniel (2021) conducted a study revealing the significant influence of social media platforms such as Facebook, WhatsApp, and Google on students' study habits in physics. Their findings indicated that students benefited positively from the use of Facebook for peer and instructor interaction, leading to enhanced subject knowledge and learning abilities. Similarly, Temaugee, Wariebi and Olaniran (2020) examined the impact of YouTube media-enhanced instructional modes on senior secondary school students' physics practical learning outcomes, finding that YouTube had a beneficial effect on student performance.

Another study by Kurnaiti, Andra and Distrik (2020) reported that 48.2% of sampled students preferred chatting on social media over studying physics, with 72.3% expressing a preference for discussing physics through social media chat. The researchers concluded that social media plays a significant role in contemporary physics learning. Conversely, approximately 43% of teachers stated that they regularly integrated social media to support physics learning in the Lampung province of Pakistan. Research indicates that among various age groups, students of tertiary institutions are among the most avid users of social networking platforms (Azizi, Soroush & Khatony, 2019). Apart from the benefits of facilitating connectivity, collaborative learning and information sharing mentioned above, social media has been associated with several adverse effects to students of tertiary education especially those of science extraction (Woods & Scott, 2016). Social media serves as a potential distraction of coordinated studies arising from the constant notifications, updates, messaging, pop-ups that are continually received by users of the platforms. There is usually a temptation to scroll through the feeds and engage in online interactions which proves irresistible, leading to procrastination and a decline in productivity (Bekalu, McCloud .& Viswanath, 2019; Hettiarachchi, 2014). Consequently, students who are constant users may struggle to meet academic deadlines, complete complex scientific concepts that demand their attention since much time is spent on the social media networking platforms. This could lead to poor performances in examinations.

Excessive usage of social media platforms can also constitute unhealthy competition, fake news, remour mongering, false and misrepresentation of ideas that distort scientific facts and principles. Sometimes, the curated content showcased on these platforms often creates unrealistic standards and perpetuates a fear of missing out (Kolhar, Kazi & Alameen, 2021). Students may find themselves comparing their academic achievements, research progress, or career trajectories with their peers, leading to feelings of inadequacy and self-doubt this maligns the integrity of academic pursuits in their hearts leading to a loss of interest. Moreover, the addictive nature of social media could disrupt students' sleep patterns, increase fatigue and impair their cognitive response and mental health, leading to anxiety and depression which limits their overall academic achievement.

While social media holds the potential to facilitate student learning through collaborative interactions, it also poses negative implications which bothers more on the cognitive and affective domains of learning. With the foregoing, it is pertinent to understand the usage of social media networks among students of Physics as this will give a baseline data for informed decisions on how to navigate the learning experiences of students into improved learning outcomes in Physics education. Hence, this study aims to investigate the usage and impact of social media on Physics students in colleges of education, particularly at the Federal College of Education Kontagora.

Research Questions

The following research questions (RQ) were addressed in the study:

i. What is the level of social media usage among Physics students in Federal College of Education, Kontagora?
ii. What is the perceived influence of social media usage on the academic performance of physics students at FCE Kontagora?
iii. What is the social media platform frequently used by Physics students in Federal College of Education, Kontagora?

Hypotheses

To make valid inferences, the following hypotheses were also tested in the study

i. There is no significant difference in the perceived usage of social media platforms among Physics students at different levels of study in FCE Kontagora.
ii. There is no significant difference in the perceived effect of social media on the academic performance of physics students at different levels of study in FCE Kontagora.

Methodology

The research design chosen for this study was survey research. This design aligns with the positivist quantitative research paradigm and is deemed suitable because it allows the researcher to gather data from large and diverse populations systematically and efficiently using standardized collection procedures (Singleton & Straits, 2009; Ponto, 2015). These procedures are facilitated by well-structured research instruments that encompass study concepts and related variables relevant to the questions and hypotheses raised in the study to be quantitatively analysed. The target population in this study constituted Two hundred and seventy-three (273) full-time N.C.E and undergraduate students of the Physics department at the Federal College of Education, Kontagora. To ensure a good representation of the student population, 30 students were selected randomly for NCE1 to NCE3 and 26 from the undergraduates programme making a total sample size of one hundred and sixteen (116) students.

The researchers developed a questionnaire (see appendix A) which was the instrument used to collect data from the students. The questionnaire was structured into two sections, denoted Section A and Section B. Section A focused on eliciting from the respondents their biodata, while Section B comprised 23 items aimed at soliciting responses from the participants. Some of the items bothered their perceived usage of social media platforms and other items of the question sought to elicit from the respondents the perceived influenced on social media networks on their academic performance. Response options for Section B included Strongly Agree (SA), Agree (A), Disagree (D), and Strongly Disagree (SD). The designed instrument was subjected to face validation by experts in Physics and measurement and Evaluation. Reliability refers to the consistency of results with equal values in a measurement (Blumberg, Cooper, & Schindler, 2014). It encompasses aspects such as consistency, precision, repeatability, and trustworthiness of research findings (Chakrabartty, 2013). To assess the internal consistency of the items, a reliability analysis was conducted on the proposed questionnaire. The reliability was measured using Cronbach's alpha statistics, resulting in a coefficient of 0.65. According to (Pallant, 2011), a Cronbach's alpha value exceeding 0.60 is considered acceptable for unidimensionality. In this study, the instrument demonstrated an internal consistency of at least 65.0%. Most items appeared to be reliable, as indicated by a decrease in alpha when deleted, as observed in the Inter-Item Correlation Matrix.

To quantitatively analyse the data, responses from the questionnaire were analysed using descriptive statistics of frequency, percentages, and comparison of means, while t-test, Analysis of Variance (ANOVA), and Chi-Square tests were utilized for inferential statistics to test the hypotheses at the 0.05 level of significance using the IBM Statistical Product and Service Solutions (SPSS) version 23. Scores were awarded to responses with SD=1, D=2, A=3, SA=4. On the usage of Social media platforms a scale of 1-4 indicating 1 for poor users, 2 for fair users, 3 for good users and 4 for very good users was used. Mean values by comparison of means obtained for such items were judged based on the ratings.

Results

This section presents the results derived from the data collected from the structured questionnaire and analyzed based on the research questions and hypotheses in this study.

Participants Profile

The data collected was analysed to present the demography of the participants in Table 1 using simple percentages.

Table 1. Participants' Demographic Characteristics

Variable	Frequency	Percentage (%)
Age Range		
13-19	36	31.0
20-25	49	42.2
26-35	30	25.9
36-above	1	0.9
Total	116	100
Gender		
Male	64	55.2
female	52	44.8
Total	116	100
Level		
NCE1	30	25.9
NCE2	30	25.9
NCE3	30	25.9
Undergraduates	26	22.4
Total	116	100

From Table 1, 64 (55.20%) were male students, and 52 (44.8%) were female students across all levels. Approximately 36 (31.0%) fell within the age range of 13-19, while 49 (42.2%) were aged 20-25, which represented the highest proportion. The lowest number of respondents, 01 (0.9%), belonged to the age range of 36 and above. In terms of educational level, there were 26 (22.4%) undergraduates, while Nigerian Certificate in Education (NCE) students, including NCE1, NCE2, and NCE3 level students, totaled 30 (25.9%).

RQ1. What is the level of social media usage among Physics students in the Federal College of Education, Kontagora?

To provide valid answers to research question 1, frequencies and comparisons of means were employed, and the result is presented in Table 2.

Table 2. Comparison of means on social media usage among Physics students

Level		Please rate yourself on how well you use social media (6)	I spent about 1-3hs on social media everyday (4)
NCE1	Mean	2.57	2.40
	N	30	30
	Std. Deviation	1.006	.932
	% of Total Sum	24.1%	24.2%
NCE2	Mean	2.83	2.47
	N	30	30
	Std. Deviation	.913	.937
	% of Total Sum	26.6%	24.8%
NCE3	Mean	2.70	2.70
	N	30	30
	Std. Deviation	1.022	.988
	% of Total Sum	25.3%	27.2%
Undergraduates	Mean	2.96	2.73
	N	26	26
	Std. Deviation	.999	.919
	% of Total Sum	24.1%	23.8%
Total	Mean	2.76	2.57
	N	116	116
	Std. Deviation	.984	.944
	% of Total Sum	100.0%	100.0%

1.0-1.99 Poor Users, 2.0-2.99-Average Users, 3.0-3.49 Good users, 3.5-4.0-Very Good Users

Responses of students to item 6 of the questionnaire contained in the third column of Table 2, the mean score of students ranged from 2.57 for NCE1 to 2.96 for undergraduate students. This shows that the perceived social usage by the undergraduates is higher compared to their NCE counterparts. Conversely, NCE1 students, with a mean score of 2.57, are characterized had the lowest usage time of the social media. In summary, the overall mean response of 2.76 suggests that approximately 31.90% of physics students across different levels at FCE Kontagora can be classified as average users of social media platforms. The response of students to item 4 of the questionnaire contained in column 4 of Table 2 shows that about 51% of the students use at least an average of 1-3 hours in a day.

RQ2; What is the perceived influence of social media usage on the academic performance of physics students at FCE Kontagora?

To address the research question 2, items 17 and 18 of the questionnaires were utilized. A comparison of means was employed to assess students' perceptions regarding whether social media enhances their academic

performance. The results of this analysis of items 17 and 18 are presented in columns 3 and 4 respectively in Table 4.

Table 4. Comparison of Means on use of social media and academic performance

Level		Social media platforms have improved the performance of students in physics	Social media has aided the understanding of physics concepts
NCE1	Mean	2.27	2.50
	N	30	30
	Std. Deviation	.691	1.075
	% of Total Sum	23.5%	24.9%
NCE2	Mean	2.57	2.60
	N	30	30
	Std. Deviation	1.006	.855
	% of Total Sum	26.6%	25.9%
NCE3	Mean	2.47	2.63
	N	30	30
	Std. Deviation	.937	.964
	% of Total Sum	25.6%	26.2%
Undergraduates	Mean	2.69	2.65
	N	26	26
	Std. Deviation	1.011	.892
	% of Total Sum	24.2%	22.9%
Total	Mean	2.49	2.59
	N	116	116
	Std. Deviation	.918	.942
	% of Total Sum	100.0%	100.0%

Agreed>2.5, Disagreed< 2.5

From Table 4, the mean responses of students across different academic levels ranged from 2.27 to 2.69 for the item that social media platforms improve student performance, and from 2.50 to 2.65 for the item that social media enhances understanding of Physics concepts. These values suggest that the majority of students agreed with the notion that social media platforms contributed positively to both student performance and understanding of Physics concepts.

It is noteworthy that NCE 1 and NCE 3 students disagreed with the statement in the items only NCE2 students agreed that social media improved their performances in Physics. The total mean score of 2.49 across the levels shows that student disagree that social media improved performances of students in Physics. From item 18, social media is perceived to have aided their understanding of Physics concepts judging by the mean score of

2.57 obtained. This total mean score is also just slightly above the boundary hence there was no clear-cut perception of students as to whether social media enhances the performance of students in Physics.

RQ3. What is the social media platform frequently used by Physics students in Federal College of Education, Kontagora?

Item 7 of the questionnaire was used to answer research question 3. Mean responses were analysed and compared. The result is presented in Table 3 The rating scale ranged from 1 to 5, with 1 representing the lowest and 5 indicating the highest level of usage.

Table 3. Comparison of Means on the variation of usage of social media platforms

Level		FB*	WA	YT	Tt (X)	IG	TG	Zm
NCE1	Mean	3.27	3.30	3.17	3.10	3.03	3.27	3.17
	N	30	30	30	30	30	30	30
	Std.	1.258	1.149	1.020	1.213	1.351	1.258	1.147
NCE2	Mean	3.67	3.37	3.27	3.30	3.13	3.33	2.73
	N	30	30	30	30	30	30	30
	Std.	1.028	1.273	.868	1.149	1.137	1.093	1.048
NCE3	Mean	3.17	3.37	3.13	3.47	3.13	3.27	2.90
	N	30	30	30	30	30	30	30
	Std.	1.117	1.129	1.196	1.167	1.074	1.112	1.185
Undergraduates	Mean	3.15	3.35	3.54	3.50	2.92	2.77	2.69
	N	26	26	26	26	26	26	26
	Std.	1.047	1.164	1.174	1.105	1.412	1.107	1.289
Total	Mean	3.32	3.34	3.27	3.34	3.06	3.17	2.88
	N	116	116	116	116	116	116	116
	Std.	1.124	1.165	1.066	1.157	1.232	1.152	1.166

*FB-Facebook, WA-Whatsapp, YT-YouTube, Tt-Twitter, IG-Instagram, TG-Telegram, Zm-Zoom

From Table 3, Whatsapp and Twitter received the highest mean score of 3.34, followed closely by Facebook with a mean score of 3.32. The lowest mean response score of 2.88 was recorded for Zoom. The Zoom platform is mostly used for meetings on class interactive lessons therefore the lowest score for Zoom is expected. These mean responses indicate that Whatsapp and Twitter are the most frequently used platforms by Physics students across various levels at FCE Kontagora. The utilization of YouTube was highest among the Undergraduates students. Furthermore, the mean scores suggest that all Physics students, regardless of their academic level, fall within the average range in terms of usage level across these platforms, with the exception of Zoom, which received a lower rating.

Hypothesis 1

To test whether or not there exists a difference in the perceived usage of Social Media Platforms among students of Physics in FCE Kontagora presented in research question 1, the Analysis of Variance (ANOVA) test was employed. Results of the mean and sum square differences between and within the groups are presented in Table 6 and 7

Table 4: Test of Homogeneity of Variances for Hypothesis 1

Levene Statistic	df1	df2	Sig.
.311	3	112	.817

In Table 4, the assumption of homogeneity of variance using Levene's test of equality of variances was examined. This condition is crucial when comparing three or more independent groups on a continuous outcome with ANOVA. Homogeneity of variance is evaluated using Levene's Test for Equality of Variances yielded a p-value p = .817(>.05), which exceeds 0.05, indicating that the assumption of homogeneity of variance has not been violated. Therefore, ANOVA can be utilized.

Table 5. Analysis of variance for Hypothesis 1

	Sum of squares	Df	Mean square	F	Sig
Between groups	0.398	3	.133	.247	.863
Within groups	60.154	112	.537		
Total	60.552	115			

From Table 5, the output of the Analysis of Variance (ANOVA) yielded F(3, 112)= .247, with a p-value of p = .863(> .05). Since the p-value is greater than .05, it is not statistically significant. This suggests that there is no significant difference in the responses between the groups. Therefore, there is no statistically significant difference in the usage of social media platforms by Physics students based on different levels in FCE Kontagora. Consequently, we retain the null hypothesis that "*There is no significant difference in the perceived usage of social media platforms among Physics students at different levels of study in FCE Kontagora*".

Hypothesis 2

To test whether there exists a significant difference in the perceived effect of social media platforms on the academic performance of students, items 17 and 18 analysed in research question 2 were transformed into one

item by computing the two variables based on statistical median. An Analysis of variance (ANOVA) test was used results are presented in Tables 6 and 7.

Table 6. Test of Homogeneity of Variances for Hypothesis 2

Levene Statistic	df1	df2	Sig.
1.514	3	112	.215

From Table 8, the Homogeneity of variance is evaluated using Levene's Test for Equality of Variances yielding a p-value p = .215(> .05), which is above .05, indicating that the condition of homogeneity of variance has not been violated.

Table 7. Test of Homogeneity of Variances for Hypothesis 2

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	.211	3	.070	.284	.837
Within Groups	27.746	112	.248		
Total	27.957	115			

The results from Table 9 present the results of the Analysis of Variance (ANOVA), which was utilized to assess the variability of responses from Physics students on the effect of Social Media usage on academic performance of students. The ANOVA was conducted at a significance level of 0.05 and yielded an F-value of 0.840 with associated degrees of freedom (3, 112), (F(3, 112) = .247) and a p = 0.475(> .05). Since the p-value exceeds the significance level, indicating a lack of statistical significance, it suggests that there is no notable disparity in responses across the groups. Therefore, it can be concluded that "*There is no significant difference in the perceived effect of social media on the academic performance of physics students at different levels of study in FCE Kontagora.*". Consequently, the null hypothesis is retained.

Discussion

The findings from research question 1 and hypothesis 1 suggest that students in the Physics department at FCE Kontagora are average users of various social media platforms. In research question 1, the level of social media usage among Physics students at FCE Kontagora was found to be average. Many of these students come from low socio-economic backgrounds, which presents challenges in accessing good mobile phones and internet connectivity. Consequently, their engagement with social media is limited.

There was no significant difference in the level of usage among the groups, as indicated in Hypothesis 1. Therefore, Physics students at FCE Kontagora can be classified as average users of social media networks. This

indicates a shared perception among the students regarding their social media usage. Manehrii (2009) highlighted challenges faced by students in Makhan, a rural community in India, including financial constraints, power shortages, internet connectivity issues, and time constraints, which hindered their efficient utilization of social media platforms. These challenges, akin to those in Kontagora, could explain the average usage of social media observed among Physics students at FCE Kontagora.

Moreover, the perceived usage of social media among Physics students was observed to decrease from 58.2% to 41% across different levels of study (from NCE1 to Undergraduates), with undergraduates claiming to spend fewer hours on social media platforms compared to first-year NCE students. This decrease could be attributed to the broader coverage of Physics courses and the increased academic workload at higher levels of study. However, further research is needed to draw conclusive findings, considering factors such as students' maturity levels. The average level of usage will have a positive effect on the mental and psychological balance of students since issues of addiction to the use of social media platforms are not prominent among the students.

The results obtained from research question 2 and hypothesis 2 suggest that there is no clear indication in the students' perception that social media positively influences their understanding of Physics concepts and overall academic performance, despite some groups showing a level of agreement. This could be a result of the limited time students spent using social media networks. Hypothesis 2 validates that there is no significant difference in this perception among students across different study levels. Previous studies conducted by Omeodu and Daniel (2021) and Kurnaiti et al. (2020) have emphasized the role of social media in enhancing teaching and learning outcomes in Physics. Additionally, Temaugee et al. (2020) reported the positive effect of YouTube on the performance of Senior Secondary School Physics practicals in Kontagora, Nigeria.

It is noteworthy that various social media networks exist, and their influence on academic performance cannot be measured uniformly. Networks like YouTube have been effectively shown to enhance learning outcomes for students, as reported by Temaugee et al. However, not all social media platforms offer the same educational experiences. Many are primarily for entertainment rather than education.

In research question 3, the platforms predominantly used by these students include WhatsApp, Facebook, YouTube, Twitter, and Instagram. Notably, platforms like Zoom, which facilitates remote learning, were found to be less utilized. This suggests that students may not have been adequately exposed to remote learning, even during the COVID-19 pandemic when Zoom was widely used for remote lectures. This observation is not unique to FCE Kontagora Physics students but is a widespread phenomenon across public institutions in Nigeria, even in the post-COVID-19 era. Students in private tertiary institutions had more remote instructions via Zoom and other platforms. There was a significant disparity between students of private institutions and their counterparts

in public schools (Adebayo, Quadri, Igah, & Azubuike, 2023). Studies have also highlighted the impact of school closures during the pandemic, which left millions of students without access to remote learning resources in many public tertiary institutions in Nigeria (Adebayo et al., 2023; Anyika, Anikelechi, & Thobejane, 2021; Obiakor & Adeniran, 2020).

The implications of students' perceptions regarding the usage and influence of social media on academic performance suggest a lack of recognition of the educational potential inherent in certain platforms, particularly YouTube (Temaugee et al., 2020), for enriching their cognitive learning experiences in Physics. Consequently, there arises a pressing need to steer students towards social media platforms that offer tangible benefits to their study of Physics. Moreso, there is an opportunity to leverage remote learning platforms such as Zoom to augment the learning process in FCE Kontagora. By harnessing these technologies effectively, educators can facilitate a more comprehensive and engaging approach to teaching Physics, ensuring that students derive maximum benefit from both traditional and digital learning resources

Conclusion

This study investigated the perceived usage of social media by physics students at the Federal College of Education in Kontagora, Nigeria, utilizing a survey research design. The findings revealed that the perceived social media usage among students of physics at FCE Kontagora was average. This moderate level of usage may not likely give rise to issues related to mental health, such as anxiety or other psycho-social disorders.

Regarding the perceived effect of social media on students' academic performance, it was noted that social media aids in the understanding of concepts in Physics. However, there was little or no positive effect perceived by the students on academic performance. Among the social media platforms commonly used by students, WhatsApp and Facebook were predominant, which are primarily for social interaction and entertainment purposes. Notably, undergraduate Physics students exhibited elevated usage of YouTube which hosts more science education content.

Recommendations

Based on the findings of this study, the following recommendations were made:

- The usage of social media is moderate among students' of Physics in FCE Kontagora this is good in manging their social behaviour but on the other hand the type of media engaged by the students are of less educational benefits to them. Hence, students are encouraged to engaged in the positive use of social media platforms like YouTube that will enhance their studies of Physics.
- There is a need for Physics educators to incorporate modules that leverage social media platforms (especially YouTube, Telegaram and Zoom) into their teaching methods. Utilizing collaborative

learning techniques can help maximize the educational potential of social media and engage students more effectively. This will direct the students to positive usage of the social media platforms.

- Educational managers should provide training sessions for teachers on effective ways to utilize social media as instructional media for instructional purposes in Physics education. This training will equip teachers with the necessary skills and strategies to integrate social media into their teaching practices.
- There is a need for more quasi-experimental research studies to investigate the impact of social media platforms on the teaching and learning of Physics. These studies can provide valuable insights into the effectiveness of various social media interventions in enhancing educational outcomes since a survey research is only based on perception and opinions of students.

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Competing interest

I declare that the authors have no competing interests, or other interests that might be perceived to influence the results and/or discussion reported in this study.

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