Examining the impact of Social Media Usage on Academic Performance of Senior High School Students: A Study of Selected Senior High Schools in Ashanti Region, Ghana

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Abstract: *Social media is a common method of communication in Ghana among students. However, inappropriate use of social media may raise concerns about whether it influences academic performance. By surveying SHS students in Kumasi Metropolis, Ghana in terms of social media use and their academic results, the study explores this issue. The study also analyzed which of these platforms is the most common social network, the number of hours spent on using social media networks, and the impact of social media use on SHS students' academic results. The survey obtained 200 responses and the study questions were analyzed using frequency tables and pie charts. The findings revealed that the types of social media networks being used are WhatsApp, Facebook, Instagram, and YouTube. Of these four forms, all four were used by 18% of respondents. It was apparent from the results that Facebook and WhatsApp are the two most prominently subscribed or used social networking sites. Again, the report found that 21.5% of respondents spend less than one hour a day on social media, 37.5% spend 3 to 5 hours a day on social media, and the remainder spend 1 to 3 hours a day on social media. Therefore, it has been documented that most learners spend more hours on social media networks during the study period. The study also showed that the academic performance of respondents was negatively affected by the use of social media, with 46% of respondents demonstrating that the use of social media networks leads to a decline in their grades.*

Keywords: Social Media Network;Academic Performance;SHS Students;Kumasi Metropolis

1. INTRODUCTION

According to Mingle and Adams [1], in terms of sharing, speed, storage, and retrieval of information in any form regardless of the location of the user, the Internet revolution changed the information environment. Via the Internet, a variety of web technologies have arisen and social media networks are one technology that is making waves about knowledge sharing and communication. With its positive and negative consequences, social media evolution has cut through all aspects of society. Social networking has changed communication, learning, study, and education in general and has affected them. Because of this fact, it is evident in the world that modern communication technology has undeniably transformed the entire world into a "Global Village." But as it is, technology brings both negative and positive sides with it, like two sides of a coin. It allows people to be well educated, enlightened, and keep up with the evolution of the environment. Technology introduces us to a new way of doing things [2]. The darker side of technological innovation has resulted in dilemmas such as the reversal of real life, especially among students who use social networking sites to communicate with the majority of users.

The focus of online social networking sites is to create and represent social relationships between individuals who share interests and or activities. Students are tempted to neglect their homework and reading time to talk with friends online, with so many social networking sites shown on the internet. The online rave of the moment, with WhatsApp, Facebook, IMO YouTube, Instagram, Twitter, etc., is now addicted to many students [3]. Therefore, it appears that there may be a causal connection between the use of social media and the academic success of SHS students. The majority of SHS students in the real world have Facebook, WhatsApp, and Instagram accounts. In school, the reason most of them perform poorly might not be far-fetched. Since social media is a common method of communication among students in Ghana, it has raised questions about whether academic performance is impaired by excessive use.

1.1 Statement of the Problem

The quality of the educational system and its associated operations are in decline. This is partly attributed to the crop of representatives who are responsible for overseeing the education system [4]. Without any clear solution, the blame game as to what is behind or causing the dropping educational standards continues to differ in Ghana. Parents blame the government and teachers for failing to provide their children with quality education, the government blames teachers for not doing anything in providing quality education, and teachers are not pleased that government does not adequately provide the requisite teaching and learning resources to help them provide quality education [5].

According to Osharive [3], it is believed in some quarters that the academic output of students has faced a lot of neglect and difficulties since the advent of social media sites in the

1990s. The study concluded that the inappropriate and reckless usage of social media is more harmful and annoying, jeopardizing student academic results. During lectures and personal studies, Facebooking, Whatsapping, and uploading photos on Instagram are seen as a disruptive factor in the learning process for students. This condition is appalling and troubling for stakeholders, but it has not been recognized as a major cause of dropping academic performance levels. The advantages and risks associated with using any social network are present. There have been studies about its effect on the academic performance of students. According to Abdulahi, et al. [6], an investigation into the outcome of the usability of social networking among college students and their academic success found a low impact and effect when the internet is overused in such a way that the learning process is not improved academically.

San Miguel [7], [8, 9] are all of the views that when more contact hours are spent by students on social networking it reflects an adverse output on their performance in terms of their overall GPA as compared to fewer hours spent on social networking by students. While several studies have been performed, as they make up the majority of social media users, much has not been done regarding the impact or effects of social media on senior high school students. It is therefore imperative that this analysis be carried out to assess the effect of social media on the academic performance of senior high school students. In this paper, it is important to take note of the following goals and research questions that form the basis of the analysis.

Specific objectives

- ➤ To identify if senior high students use social media and the types they are conversant with.
- ➤ To explore the number of times and hours senior high students visits social media
- ➤ To ascertain how the use of social media influences senior high student's academic performance.

Research Questions

The research questions of this work will be as follows:

1. What types of Social Media are senior high students using?
2. How often and hours do senior high students of Kumasi spend on social media in a day?
3. Does the type of social media used and the hours spend influence student's academic performance?

2.0 Review of Literatures

2.1 Social Network Sites

"According to Boyd and Ellison [10], "Social networking sites are web-based services that enable individuals within a bounded framework to create a public or semi-public profile, articulate a list of other users with whom they share a link, and display and traverse their list of links and those made within the system by others. Online social networks (OSNs) have also been described by Helou and Rahim [11] as "virtual communities that allow individuals to connect and interact with each other on a particular subject or just "hang out" together online." Social media sites around the globe provide users with a variety of options through entertainment, chats, gossip, and games to interact with each other. Students can meet to communicate with each other on different topics and interests across these social network channels.

Social media technology (SMT) is referred to by Davis Iii, et al. [12] as "web-based and mobile applications that enable people and organizations to create, engage and share new user-generated or current content through multi-way communication in digital environments." On mobile and web applications, popular social networking platforms include Facebook, Twitter, YouTube, WhatsApp, Instagram, Snap chat, Google Plus, etc. Although their functions are mostly related, these platforms have specific roles, functions, and modes of communication. "This concerns the definition of Kaplan and Haenlein [13], who defined social media as "a community of internet-based applications that build on Web 2.0's ideological and technological foundations and allow user-generated content to be produced and shared. Ayiah and Kumah [14] summarised the definition of a social network as a web platform where people can connect and interact with each other from different environments.

2.2 Educational Use of Social Networks

Social networks have become an important part of social life for students [15]. These networks have become important as they serve as platforms for users to interact and relate with their peers. Social networks are now used as learning channels or groups that could be used to increase the interaction and success of students. Several studies have found some promising results among students and their peers in online group participation. Research by Tiene [16] found that "written cyberspace communication allows students to participate in discussions at a time that is convenient for them and to articulate their ideas in more carefully thought-out and structured ways." Deng and Tavares [17] also concluded in support of Tiene [16] results that "Web-based discussions can contribute to the development of reflective ability and critical thinking skills of students."

Students are often more able to share their opinions or even differences and are more attuned to the views of others in online conversations compared to face-to-face (F2F) contact. Students felt, according to Apeanti and Danso [18], that using social media would be enjoyable for their lecturers. Also, if they could contact lecturers through social media, their grades would be better and lecturers would hold lecture hours on social media. In their research among students of the

University of Education, Winneba, this was revealed. As a consequence of the involvement of social networks, several studies have outlined several student advantages concerning education. Yunus, et al. [19] show that, as a result of their involvement on social networks such as Facebook and Twitter, students learned more vocabulary and developed their writing skills.

The sharing of tasks, resources, and discussions on academic work and other issues on social networks between students was documented by [20]. Students can formulate group discussions to share thoughts and connect with their teachers, according to Salvation and Adzharuddin [21], as well as refer to their peers about SNS assignments. They suggested that teachers share with their students' course-related materials and create student groups to work on projects and interact via SNSs with their fellow lecturers from other universities, thereby promoting the process of teaching and learning and enhancing academic performance. English and Duncan-Howell [22], during their training program, also used Facebook as a method to strengthen peer support among business education students and discovered that student exchanges were mainly affective, promoting community cohesion through motivation and support.

2.3 Social Networks and Academic performance

Concerning the effects of social networks and how they influence academic results, there have been mixed reactions from academics and researchers. Studies have found that the involvement of students and young people in social networks, as well as their academic success, may have both a positive and negative effect on their studies. Amadi and Ewa [23] described the performance as "the obvious demonstration of a person's understanding, concepts, abilities, ideas, and knowledge and suggested that grades depict a student's performance." Therefore, their academic performance must be handled effectively, taking into account all the variables that can influence their educational performance positively or negatively. The use of technology such as social media networks and the Internet, according to Mehmood and Taswir [24], is one of the most significant factors that can positively or adversely affect students' educational results.

In several areas of their lives, today's college students are exposed to all sorts of technologies [25]. Desktop computers, notebooks, e-readers, tablets, and mobile phones are used regularly to actively participate in social networking, text messaging, blogging, content sharing, online learning, and much more [26]. Online social networks (OSNs) have penetrated all generations of Internet users, becoming, particularly in the student community, a prominent communication tool. Thus, social networking sites, such as Facebook and LinkedIn, are widely used by academic institutions and faculty to communicate with current and future students and to provide educational content [27].

In the United States, studies on student extracurricular activity, a research conducted by Roberts and Foehr [28]

proposed instead that new media, such as Facebook, Twitter, etc., substitute or improve other leisure activities but do not take away youth time. In other words, they believed that the time spent on social network sites by students is the same time that is typically used for extracurricular activities and thus does not take away their research productive time. Research in Ethiopia, by Negussie and Ketema [29], also showed that there is no meaningful correlation between times spent on social networks such as Facebook with the grade point average of students (GPA). This was also consistent with a survey of six universities by Ahmed and Qazi [30], who conducted a study in Pakistan. They found that there was no difference between the time spent on social media networks and the academic performance of students.

Conversely, a group of investigators and studies have also found that the involvement of social networks hurts the academic performance of students. In the research by Kirschner and Karpinski [31], a "significant adverse relationship between the use of Facebook and academic performance was found." Facebook users registered lower GPAs and also reported spending fewer hours a week learning on average than non-users of Facebook. Most students said they could use Facebook accounts at least once a day. Malaney [32] found that 8.9% of students indicated that their grades had suffered as a result of too much time spent on the Internet as well as on social media networks in 2000 and 4.4% in 2003.

In a post by Junco [33], he documented that the time spent on Facebook and updating Facebook was found to be adversely related to the overall GPA, and the time spent on Facebook is marginally adversely related to the time spent studying. Furthermore, the ability of time spent on Facebook to substantially predict the overall GPA suggests that students who use Facebook in some ways may have negative academic results. Also, Paul, et al. [27] revealed that there is a statistically significant negative association between the time spent on OSN by students and their academic performance. It is shown that the time spent on OSN harms academic success. The academic output of students is seen to deteriorate as time spent on social networking sites increases. This fits well with the results presented in Kirschner and Karpinski [31], which indicate that student over-involvement or fascination with social networking may have detrimental effects on academic success (Kirschner & Karpinski, 2010).

3.0 Methodology

Using the case study technique, this study followed the descriptive form. In social sciences, the choice is between approaches that are qualitative, quantitative, or mixed. The quantitative methodology was accepted in this research. The researcher used the descriptive nature of the survey to collect data on the effect of social media on actions, attitudes, and perceptions among young people. The purpose of a descriptive survey is to define the distribution of a phenomenon in a population and thus to determine the truth (percentages and frequencies).

Students from four SHS's randomly chosen in the Ashanti Region of Ghana were the target population of the study, namely: Asanteman SHS, Kumasi Wesley Girls SHS, Prempeh College, and S.D.A SHS. These schools were chosen because of proximity, as well as the willingness of the school authorities to enable the students and their corresponding registers to be accessed by the researchers. The population centered on students of the third year since they had been in school for more than two years, written tests amid the use of social media sites.

A total of 3669 out of two students were collected from the registry of schools. Additionally, to calculate the sample size for the study, the sample size calculator was used. With a 95% confidence level and a 5% margin of error, the required sample size was 348 students. This number was distributed equally amongst the four (4) classes, equivalent to eighty-seven (87) students per grade. Given this, in the collection of respondents at each grade, systematic sampling was used. In each classroom, the register of the students was obtained. As a total of 87 students from every school had to be interviewed, the population was divided by 87 in each school.

Data for this research was collected through the administration of semi-structured questionnaires from secondary schools to collect in-depth and first-hand information from students in the four selected schools and other related stakeholders. Taking into account both the subject under review and the essence of the case to be investigated, both open-ended and closed-ended approaches were used. This approach has made it possible to collect in-depth data from participants in natural environments. Secondary data was used to gather information on the subject from documented sources, such as journals, books, reports, and research findings.

Using the SPSS, the results were analyzed after data collection, and the results were shown in tables with the corresponding frequencies and percentages. All 200 questionnaires that were administered were returned after the questionnaire distribution, representing a 100% response rate. To complete the questionnaires, respondents were given between 20-30 minutes.

4.0 Results and Discussions

Table 1: Results of types of Social Media SHS students use

Types regularly used	Are you aware of the diverse social media?		Total
	Yes	No	
Frequency	30	2	32
% of WhatsApp	15.3%	50.0%	16.0%
Frequency	24	2	26
% of Facebook	12.2%	50.0%	13.0%
Frequency	2	0	2
% of Instagram	1.0%	0.0%	1.0%
Frequency	1	0	1
% of YouTube	0.5%	0.0%	0.5%
Frequency	73	0	73
% of Both WhatsApp and Facebook	37.2%	0.0%	36.5%
Frequency	28	0	28
% of WhatsApp, Facebook & Instagram	14.3%	0.0%	14.0%
Frequency	2	0	2
% of WhatsApp, Facebook & YouTube	1.0%	0.0%	1.0%
Frequency	36	0	36
% of WhatsApp, Facebook, Instagram, & YouTube	18.4%	0.0%	18.0%
Frequency	196	4	200
% Total	98.0%	2.0%	100.0%

Source: Field Study, 2018

What types of Social Media are senior high students using?

A brief observation in answer to the above query reveals that the forms of use of social media include WhatsApp, Facebook, Instagram, and YouTube. Of these four forms, all four were used by 18% of respondents. It is apparent from the results that Facebook is in direct competition with WhatsApp, the two most prominently subscribed or used social networking platforms that comply with a publication by Kallas [34] positing that new social media sites are coming and going, but with over 2.2 billion users, Facebook has stood the test of time.

Furthermore, Gameiro [35] adds that Facebook was the first to have 1 to 2 billion user accounts. It is acknowledged that Facebook is the top social network on the internet, according to [36]. With about 2 billion monthly active users and more than one billion who log in daily with WhatsApp trailing behind, it is a thriving beast of a social networking site on the internet, one of Facebook's mobile platforms, adds 200 million monthly active users to 1.5 billion [34]. As

people accept them in their daily lives, social networking apps are going to grow even bigger. But currently, Facebook's mobile applications predominate. The same can be said of these two social networking media from the data collected that they are the most frequently used by students who agree with the literature reviewed in this report.
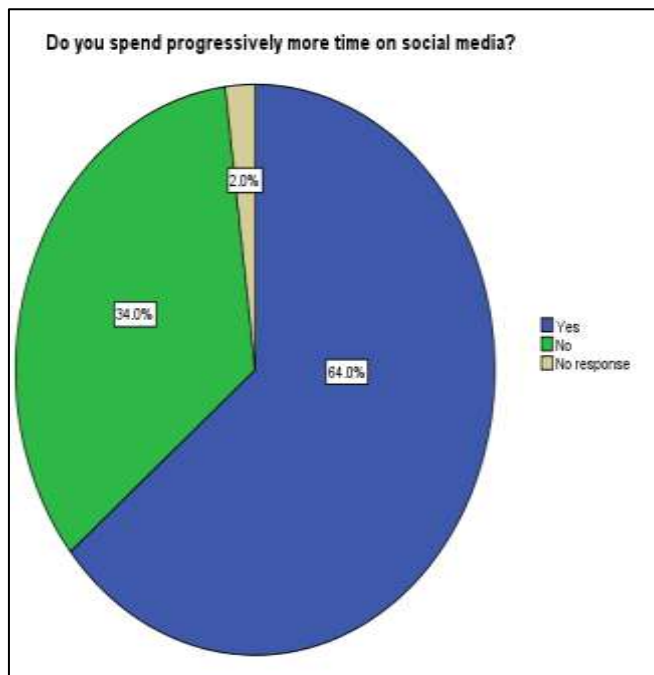

Figure 1: Results on Time spent on Social media Source: Field Study, 2018

How often and hours do senior high students of Kumasi spend on social media in a day?

The results of the data collected show that respondents are increasingly spending more time on social media to fulfil their curiosity to reach satisfaction. Therefore, knowing the actual time spent on desired satisfaction is significant. The study found that 21.5% of respondents spend less than an hour a day on social media, 37.5% spend 3 to 5 hours a day, while the rest of respondents spend 1 to 3 hours a day on social media.

Therefore, the findings show that about 78% of senior high school students spend more than an hour on social media. This suggests that respondents spent more than a large number of hours involving themselves in their study schedule on social media. Therefore, this result is consistent with the work of O'Keeffe and Clarke-Pearson [37], which postulates that 22% of adolescents log on to their favourite social networking site more than 10 times a day in a recent survey, and more than half of adolescents log on to a social media site more than once a day. Social media holds the stigma of a pointless time-consuming operation, according to Osterrieder [38], and due to lack of time, many scientists are hesitant to engage with it. As it is evident that 78% of respondents spend

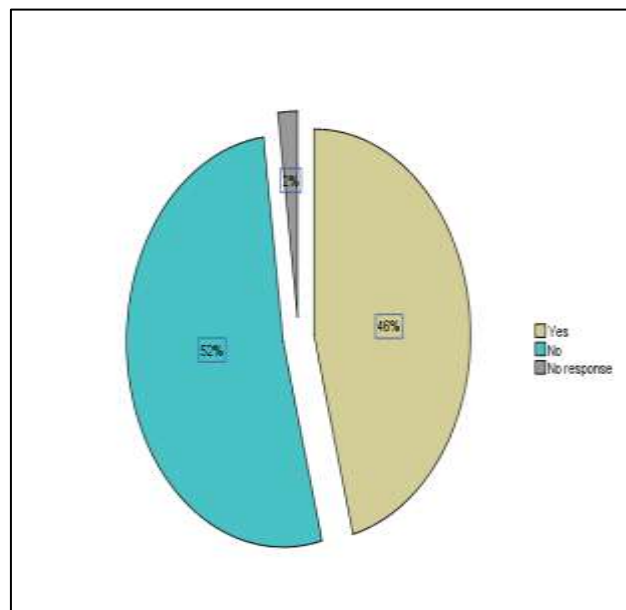more than an hour a day on social media, lending literature far-reaching support.

Figure 2: Results on Social Media and Academic Performance Source: Field Study, 2018

Does the type of social media used and the hours spend influence student's academic performance?

Such respondents whose academics are impacted in such a way that there is a drop in their grade constitute 46% of the respondents from figure 2 above, while most of the respondents suggested that there was no drop in their grades that can be related to time spent on social media. This does not mean that the respondents' grades do not decrease, but rather the decrease if any is not due to social media. However, with a percentage of 46% being those whose grades dropped as a consequence of social media, social media affects respondents' academic performance and can lead to a riskier role if not carefully monitored. He claimed, according to Karpinski and Duberstein [39], that the use of Facebook is connected to low academic success. In another study by Beland and Murphy [40], they concluded that student test scores increased by 6.41% of a standard deviation following a moratorium on phone use and its related social media. Furthermore, they added that the recent literature on the influence of technology in the classroom suggests that technology's unstructured impact has unclear effects on student achievement. The assumption is that this study is related to prior studies.

5.0 CONCLUSION

The study was conducted to analyze the effect of social media use on the academic performance of SHS students. The study showed that it could harm their academic performance if not used appropriately, despite the advantages

that come with the involvement of students on social media networks. The use of social media networks, such as exchanging knowledge and ideas, developing reading skills, etc., has several advantages. Despite the advantages of involving students on social media networks, their misuse could affect the student's academic life and their results. As Katz et al. (1974) claimed in their theory of gratification, the media selected by individuals must compete with other information sources. Social media networks, therefore, compete with academic work for the attention of students.

The results demonstrated that WhatsApp, Facebook, Instagram, and YouTube are the forms of social media network is used. Of these four forms, 18% of respondents used all four. It was clear from the findings that the two most prominently subscribed or used social networking sites are Facebook and WhatsApp. Again, the study found that 21.5% of respondents spend less than one hour a day on social media, 37.5% spend 3 to 5 hours a day on social media, and the rest spend 1 to 3 hours a day on social media. Therefore, it was documented that most students spend more hours during the study period on social media networks. Also, the study showed that respondents' academic performance was negatively influenced by the use of social media, with 46% of respondents showing that the use of social media networks contributes to a decrease in their grades. Furthermore, the study showed that most respondents use social media platforms for conversation rather than for academic purposes.

RECOMMENDATIONS

As a result of this observation taken from the study conducted, the following suggestions are made to curb the menace. The following recommendations are made to curb the hazard as a result of this finding taken from the study performed.

1. In our colleges, app developers and programmers should be engaged in the development of software with functionality that could limit or monitor student hours on social media. This is to guarantee that for needless things, learners do not miss precious hours.

2. To counter the negative influences of social media, policymakers should arrange workshops and awareness programs in schools. Vivid examples of people who have experienced academic failure due to inappropriate social media usage should, if possible, be encouraged to speak about their experiences.

3. To highlight some of the negative effects of social media on academic success, more analysis should be carried out and these studies should be made available to school leaders for further submission to students. These will produce awareness of the extent of the redress canker.

4. Students should be better aware of the time management and usage of leisure time by the authorities of different institutions.

5. Since social media is highly incorporated into our everyday lives, the creation of an App that will have comprehensive course notes and outlines and will also be able to solve questions will only be fitting and worthy of the education ministry. This can foster learning rather than just profile sharing and entertainment.

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