

Social Network Sites in Ghana: Efficacy of Social Media in Senior High Schools in Komenda Edina Eguafo Abirem Municipality in the Central Region

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Abstract

Social network sites (SNS) have become an integral part of student life as a result of their features and widespread usage. Against this backdrop, this study sought to examine student's views on the impact of social media usage on their learning and academic performance. The study employed a cross-sectional survey design with a sample size of 200 Senior High School (SHS) students from Komenda Edina Eguafo Abirem (KEEA) District. Stratified sampling technique was used to select the survey respondents. The main instrument used for data collection was the questionnaire. The results were presented using percentages and frequencies in addition to mean and standard deviations. The study found that majority of respondents use Facebook, WhatsApp, Twitter, YouTube, Instagram, Google + and Messenger. The study again revealed that SHS students mainly use social media network sites (SMNS) for exchanging educational information, sharing study materials, for communication and entertainment purposes. In addition, many students felt that SMNS had a negative effect on their academic performance as its entertainment aspects were addictive and distracted them their studies. A greater number again mentioned that their academic performance had dropped due to the time they spent on SMNS. Based on these findings, the study concludes that usage of SMNS among SHS students currently has more negative effects than positive ones though this can be turned around with better checks on usage. Against this backdrop, the study recommends that educational authorities should strictly enforce rules against the use of SMNS in SHS for entertainment purposes and instead promote its educational aspects. There should also be counselling and support for students who are addicted to SMNS.

Keywords

Social Network Sites, Efficacy, Social Media, Senior High Schools, Ghana

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1. Introduction and Background

Recent developments in computer and communication technologies have revolutionized society [1]. To measure a

country's progress up the technology curve, researchers and institutions have proposed various indicators that provide an insight into how technological infrastructures, skills, and experience contribute to a country's growth and development. The benefits of information technology have not filtered down to the lower strata of Indian society because

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of poverty, lack of education, and under-developments in other infrastructural sectors. Research in the development of IT and broader IT for development needs to be carried out side by side [1].

Social media has, in the past decade, transformed the way students and faculty communicate in the teaching and learning process. The teaching and learning process in higher education is currently experiencing a technological revolution. This is mainly because social media is recently used as a tool by faculty and administrators to communicate with students inside and outside of the classroom [2].

The digital age is upon us now and, as a result, it is becoming increasingly important for tertiary institutions to recognize this paradigm shift and adjust accordingly to take advantage of Social Media Technology (SMT) [2]. This is for the simple reason that SMT can serve as a valuable tool to improve faculty and students' immediacy. There need for tertiary institutions to support faculty and students in the use of SMT, not only for social purposes, but also for academic work. The right training and conscientisation (through research) will move faculty/student interaction and pedagogy forward towards the level where all major stakeholders within higher education will embrace this new phenomenon [2].

New social media platforms appear with such frequency that parents and other adults understandably fall behind their media savvy and connected tweens and teens in comprehending the new landscape. Stalwart Facebook, still the most used, most popular social media platform, has been joined by Instagram, Snapchat, Twitter, etc. Each offers unique features, more or less attractive to youth of different ages, maturity, and purpose [3].

It is estimated that there were 3,035,749,340 internet users globally, with a penetration rate of 42.3% as at June 2014. Also, the estimated population of Africa in 2014 was 1,025,721,038 of which 297,885,928 were internet users. In Ghana, the number of internet users as at June 2014 was 5,171,993 with 20% internet penetration. Out of the total Internet users in Ghana, 1,630,420 users were on Facebook [4]. The usage of social media platforms such as Facebook, Twitter, Instagram and WhatsApp is prolific among students at the tertiary and the secondary levels, for both educational and entertainment purposes.

Secondary education in Ghana has undergone numerous changes since 2000. It was previously known as 'secondary school' before being changed to 'senior high school' (SHS). The duration was three years, which was changed to four years and has now been changed to three years again. The central objective of these changes by successive governments was to raise educational standards and quality of students who graduate from SHS and factors such as the duration of

education and quality of teaching methods were seen as key to these objectives.

An equally important factor which was identified in all the changes was the role and use of necessary technologies and ICT facilities [5]. This has brought about ongoing debates about the place of social media sites in educational provision, quality and outcomes, in Ghana and across the world... Some studies have found a drop in students' grades and academic performance as a consequence of their social media participation [6]. Interviews with some teachers and students have revealed that social media usage poses a range of problems to students, such as limited amount of time for their studies, wrong usage of grammar and spelling due to colloquialisms and 'text speak' picked up from social media and difficulty in concentrating in class due to distractions by social media messages and chats. [6].

In Ghana specifically, research on this subject has been primarily focused on social media use in basic schools and the tertiary level [7, 8]. There is therefore a dearth of knowledge and understanding regarding the situation at the secondary school level. Hence, this study sought to assess the effects of social network participation on the performance of students in Senior High Schools in the Komenda-Edina-Eguafo-Abirem Municipality. The researchers believed this would revitalise the ongoing debates and make an original contribution to bridge the knowledge gap. The study sought to answer these research questions - 1. What social network sites are available for use by SHS students? 2. To what extent do students in SHS use social media?

2. Review of the Literature

The idea of "Social Networking" has existed for several decades as to the means through which people communicate in society and build relationships with others [9]. With the high increase of technology and the popularity of the Internet, there has been a growing interest in understanding how they facilitate or impair these communication and relationships [10]. The early trend was to believe that social media sites would negatively affect students' communication, but other researchers took the view that technological communication could benefit learners who had problems expressing their thoughts and feelings in face-to-face contexts [10]. These debates are still ongoing though research on the most popular websites show that social media platforms are greatly patronised or used by the youth for social networking..

"Social Networking" has become an activity that is done primarily on the Internet, with sites like MySpace, Facebook, Bebo, Friendster, and Xanga [11]. Social networking sites (SNS) may be defined as: Web-based services that allow individuals to (1) construct a public or semi-public profile

within a bounded system, (2) articulate a list of other users with whom they share a connection, and (3) view and traverse their list of connections and those made by others within the system [12]

Social networking sites are web-based services that allow individuals to construct a public profile within a bounded system to link up with other users [12]. Online social network (OSNs) are “virtual communities which allow people to connect and interact with each other on a particular network, helping to just “hang out” together online”. Social media sites provide their users with a number of options to interact with each other through entertainment, chats, gossips, and games [13]. For students they can be a means of interact with each other on various topics and interests.

Social media technology (SMT) can be defined as “web-based and mobile applications that allow individuals and organizations to create, engage, and share new user-generated or existing content in digital environments through multi-way communication” [2] Popular social network platforms include Facebook, Twitter, YouTube, WhatsApp, Instagram, Snapchat, etc. These platforms have specific roles, functions and modes of communication, although their functions are mostly related. Social media can also be explained as “a group of internet-based applications that build on the ideological and technological foundations of web 2.0, and that allow the creation and exchange of user-generated content” [14]. In sum social network is a web platform where people from different settings can connect and interact with each other [15].

Social Networking Sites (SNS) have been popular since the year 2002 and have attracted tens of millions of internet users [12]. Though only a few have gained worldwide publicity and attention, the Federal Bureau of Investigation estimated that there are over 200 different sites that are used for social networking [16]. Most people who are members of these sites, such as Facebook (over 400 million users) and MySpace (over 100 million users) participate in them on a daily basis [16]. Each person who becomes a member of a SNS has the opportunity to create his or her own webpage or “profile” which is supposed to be seen as a reflection of that person’s personality [17]. By using this personal profile, one can build an entire social network based on his or her own personal preferences [12]. The idea behind most of this is to help people feel socially connected and part of a community, even though they may be sitting home alone at their computer [11]. Participants may connect with other people they know through school, work, or an organization, or they may meet complete strangers from all over the world [11].

They do this by searching for people and adding them as “friends” with whom they may share information [12]. Being “friends” in the SNS world simply means that two profiles have

been linked together [17]. This, in turn, expands a person’s network greatly, so that they may meet and share information with even more members [11]. In addition, being “friends” with someone on a SNS allows a person to communicate in a variety of ways such as sending private and public messages, participating in on-line games, commenting on photos that have been posted, sharing music or movie preferences, responding to journal entries, and much more [18]. In one author’s opinion, “Creating and networking online content is becoming an integral means of managing one’s identity, lifestyle and social relations” [18]. A click of a button may mean the loss or gain of a friendship, and a friendship on a SNS may be with someone who is not a friend in “real life” [18].

Though there are several options for “privacy” on these sites, research has shown that the public aspect of sharing information is what draws many to join and participate [16]. Privacy has a new definition when referring to social networking sites since just becoming a member requires a person to give certain personal information [16]. Some sites, like Facebook, started as a way for college students to connect/ As such, having an “education” email address was required for signing up [17]. Now, this site is open for all users and some may even have multiple accounts one for private use and another for business or school use [17].

When conceptualizing why these sites appeal to so many people, it is important to note that each SNS focuses on the presentation of self and social status [17]. Each person who joins a SNS must choose a picture to post on their personal profile, which is the picture that will be used as a representation of themselves [19]. Some people use a recent picture of their face or a photo of a group of friends, while others choose a different image that they want to represent them or their values (Barker, 2009). Either way, this picture is significant when looking at a SNS because it shows how each individual would like to be seen by others [19]. Social status is also a very important part of SNSs because it plays a role in how each individual is viewed by others [17]. Most SNSs will show how many “friends” a person has, as well as their ‘posts’ and ‘likes’ or how many people have written to that person lately [17]. Because of this, many SNS members will seek out people to connect with, even though they may not personally want to be linked with specific people [17]. Adolescents and college-aged individuals are especially interested in having a lot of friends, because many worry about what others will think if they do not have as many friends as their peers [19].

Hence, joining and participating in SNS is not only seen as a means of gaining and preserving popularity, but selecting the perfect pictures to post, getting one’s posts liked or being the subject of many comments are all seen as important aspects of the experience [20]. According to a recent study on visual

impression management and social networking sites, approximately 60% of adolescents will spend more time selecting which pictures to post on their profile than actually communicating with others [20]. As such, SNSs are not just for keeping in touch with classmates and meeting new people, but they are also used for building identities [20].

Social networks have also become an integral part of student life [21]. They are now seen as learning platforms or communities that could be utilized to enhance student engagement and performance. A number of researchers have found several positive outcomes from online community engagement among students and their peers. Web-based discussions can contribute to the development of students' reflective ability and critical thinking skills [22]. Compared to face-to-face interaction, students are more willing to voice their views or even disagree and are more attuned to others' opinions in online discussions". Students believe that it will be good for their lecturers to use social media to deliver lectures. Also, their grades would be better if they could contact lecturers through social media or lecturers held on social media [8].

A number of researchers have outlined a number of student benefits in the use of social media networks for lectures. Students gain more vocabulary and improve their writing skills as a result of their participations on social networks such as Facebook and Twiter. Social network platforms enable students to exchange assignments, resources and discuss academic work and other issues among themselves [23].

However, students are able to articulate group discussions to exchange ideas and communicate to their teachers as well as appeal to their friends about assignments on SNSs [24]. They indicated that teachers share course-related materials with their students and create groups to collaborate on projects and communicate with their fellow lecturers from other universities through SNSs [24]. This facilitates teaching and learning processes and enhances academic performance. In a study of a business education course for which Facebook was used to enhance peer support and the researchers found that students' exchanges were more affective and facilitated group cohesiveness through encouragement and support [25]. In more general terms, students who are taught using the blended computer based learning method, of which social media can be a part, perform better than those who were taught by the traditional method of instruction [26].

3. Methodology

A descriptive survey design was adopted for the study. The population used for the study was two hundred (200) respondents studying Science and General Arts in third year and second year in Edinaman Senior High, Eguafo Senior High, Peter Hold Book Senior High and Komenda Senior

Technical Institute. Purposive and stratified sampling techniques were used to select the schools and respondents for the study. Four Senior High Secondary Schools (Edinaman Senior High School, Eguafo Senior High, Komenda Senior High Tech, School and Peter HoldBrook Senior High School. Edinaman SHS, Eguafo SHS and Komenda Senior High Technical school are public schools and Peter HoldBrook Senior High School is a private school.) were purposively selected for the study. Two hundred (200) students were stratified sampled in the study. As shown in table 1 below each Senior High school, was divided into two strata, namely, form 2 and form 3. Only the form 2 students and form 3 students were selected for the study because they had written senior high school exams as compared to the form 1s who are yet to write their terminal examination.

Table 1. Sample Distribution of Respondents according to School and Class.

School	Form 2	Form 3	Total
Edinaman Senior High	30	40	70
Eguafo-Abrem Senior Highs	20	30	50
Komenda Senior High Tech, Sch.	20	20	40
Peter HoldBrook Senior High	20	20	40
Total	90	110	200

Source: Field Data (2018)

Questionnaire was the main instrument used for the study. The questionnaire was developed by the researchers to account for all the research questions guiding the study and to provide quantitative data needed for the study. The validity of the study was ensured by giving the instrument to at least three different colleagues in same subject area for proofreading and rewording ambiguous questions. To ensure the reliability of the instrument for the study, a pilot study was conducted to measure the reliability coefficient of the instrument. The reliability y coefficient of the instrument (questionnaire), measured in Cronbach's alpha value provides basis to measure the internal consistency and trustworthiness of the items on the instrument [27]. The Cronbach's alpha test was run on closed-ended questions to determine their reliability.

The statistical Package for Social Science (SPSS) was used to analyze the data collected. The descriptive analysis tool in the SPSS was employed to develop tables and frequencies which was constructively analyzed. The researchers adopted Kendall's coefficient of concordance and factor analysis as analytical tools for the study.

4. Findings and Discussions

This section presents findings and discussions on the two (2) research questions for the study.

Research Question One: What social network sites are available

for use by the senior high students in Komenda-Edina-Eguafo-Abrem (KEEA) Municipality? The intent of this research question was to find out social network sites that are available for use by the senior high students in KEEA District. In doing that, items 4 to 15 of the questionnaire provided a list of some common emerging social media from which respondents were required to tick the ones that they were familiar with. The outcome of this research question is presented in Table 2.

Table 2. Social network sites available for use by SHS Students.

Social Network Sites	Number of Responses	Percent (%)
1. (Facebook)	197	99.5
2. (Twitter)	167	84.3
3. (Instagram)	162	81.8
4. (WhatsApp)	191	96.5
5. (YouTube)	163	82.3
6. (Vine)	47	23.7
7. (Google +)	177	89.4
8. (Snapchat)	148	74.7
9. (Messenger)	151	76.3
10. (Viber)	94	47.5
11. (WeChat)	80	40.4
12. (Reddit)	36	18.2

Source: Field Data, (2018)

As indicated in Table 2, the kind of social media that were used by majority of the students were Facebook and WhatsApp. Almost all students (99.5%) used Facebook and only 3.5% of them did not use WhatsApp. The other highly patronised social media were Twitter (84.3%), YouTube (82.3%) and Instagram (81.8%). More than 70% also

patronised Messenger (76.3%) and Snapchat (74.7%). Below 50% used Viber (47.5%), WeChat (40.4%) Vine (23.7%) and Reddit (18.2) – the least patronised social media. Therefore, the students were familiar with many social media sites. These findings confirm that most students use mobile devices in schools and homes in accessing several social media sites for learning and entertainment. As earlier noted, social networking sites have grown in popularity hundreds of millions of people use platforms such as Facebook and MySpace participate on a daily basis [16]. It can be seen from the current study (Table 2) that most of the students had used more than one social media site probably on a daily basis, which will either have a positive or negative effect on their academic performance.

Research Question 2: To what extent do senior high school students in Komenda-Edina-Eguafo-Abrem Municipality use social media? This research question sought to find out the extent to which students in KEEA Municipality use social media. Respondents were given some statements to indicate the time they spend on the use of this social media. The main social media that were presented to students were Facebook, WhatsApp and Twitter, as these were the common networks used by the vast majority of the respondents. Frequency (counts) and percentages were used in analysing the data obtained from this portion of the questionnaire. The results are shown in Tables 3, 4 and 5.

Table 3. Duration of time spent on some activities using Facebook.

	Always online N (%)	3 Hrs N (%)	2 Hrs N (%)	1Hr N(%)	0.5Hr N(%)
How often do I open Facebook account?	37(18.5)	26(13.0)	25(12.5)	53(26.5)	59(29.5)
How long do I use Facebook to receive educational information from friends?	19(9.5)	21(10.5)	39(19.5)	67(33.0)	54(27)
How often do I take part in Educational group and forums on Facebook?	16(8.0)	28(14.0)	28(14.0)	63(31.5)	65(32.5)

Source: Field Survey, Dennison (2018)

Most respondents (81.5%) spent half an hour to three hours on Facebook while 18.5% were always online (Table 3). Only 9.5% were always online for the purpose of receiving education material from friends, whereas the majority spent three hours. A greater proportion (33%) of them used hour for this activity compared to the others. Similarly, very few of them (16 or 8.0%) took part in educational groups and

forums online always. Most of them spent either 30 or 60 minutes for this activity daily. This finding is in line with a similar study conducted in the United States which found that most students spend between two to three hours on social media network sites such as Facebook, Twitter etc [28]. This shows that they may not have enough time to learn. They rather entertain themselves.

Table 4. Duration of time spent on some activities using WhatsApp.

	Always online N(%)	3 Hrs daily N(%)	2 Hrs daily N(%)	1Hr daily N(%)	30mins daily N(%)
It is my routine habit to use WhatsApp	51(25.5)	29(14.5)	20(10.0)	47(23.5)	53(26.5)
Usage of WhatsApp sites in my routine life provide me with current information	43(21.5)	24(12.0)	27(13.5)	55(27.5)	51(25.5)
I share study material on WhatsApp that help in studies to improve performance	44(22.0)	29(14.5)	41(20.5)	54(27.0)	32(16.0)
I prefer to share educational information and questions on WhatsApp	42(21.0)	34(17.0)	30(15.0)	57(28.5)	37(28.5)
My membership on WhatsApp put me on the stand to share and receive information in group WhatsApp.	46(23.0)	23(11.5)	28(14.0)	55(27.5)	48(24.0)

Source: Field Survey, (2018)

Table 4 displays findings on how students use WhatsApp. A greater proportion (74.5%) of the students reported that it was their routine habit to use WhatsApp between 30 minutes and 3 hours daily as it provides them with current information. This indicates that students spend more time on Internet connecting with others, using WhatsApp. A similar study supported the current study that students who spend more time on social media may have difficulty balancing online activities and their academic preparation [29]. Again, 22% were always online to share study material on WhatsApp that helped their studies to improve performance, whereas the majority used one hour. Very few students (23) used 3 hours for this activity. More than 75% also spend half an hour to 3 hours of their time on WhatsApp to share

educational information and questions (Table 4). Interestingly, 21% of the respondents were always online looking for and sharing relevant education information. This reveals that most students were interested in sharing and receiving likely examination questions from their friends. This activity is mostly predominant during examination periods and assignments. It was also observed that more than three-quarters of respondents (77%) made mentioned that their membership on WhatsApp put them on the stand to share and receive information more than 30 minutes daily. This implies that those that were not on WhatsApp are not likely to share and receive information and that could cause them to miss vital information that could help them improve their academic performance.

Table 5. Duration of time spent on some activities using Twitter.

Extent of Twitter Usage	Always online N(%)	3 Hrs N(%)	2 Hrs N(%)	1Hr N(%)	30mins N(%)
I do utilize educational messages pasted on my walls and pages	31(15.5)	28(14.0)	25(12.5)	46(23.3)	70(35.0)
Most of my followers share educational information	33(16.5)	25(12.5)	22(11.0)	54(27.0)	66(33.0)
I spend time on educational groups that I follow on Twitter	26(13.0)	20(10)	28(14.0)	58(29.0)	68(34.0)
How often do I utilize the information that I receive on Twitter	26(13.0)	17(8.5)	20(10.0)	65(32.5)	72(36.0)

Source: Field Data, (2018)

With Twitter usage, 70 respondents (35%) spent only 30 min online every day to utilize educational messages posted on their walls and pages. Majority of the students (49.9%) spent 1 to 3 hours for this activity daily, while only 15.5% were always online. Only a few students spent 30 min sharing education information, whereas the most of them (50.5%) spent an hour to three hours sharing education information daily. As high as 15% of the students spent the whole day doing this activity. However, compared to WhatsApp, fewer students spent the whole day on this activity. This indicates that Twitter is less popular among students compared to WhatsApp and Facebook. This could also mean that they have fewer friends on Twitter compared to WhatsApp and thus spent shorter times sharing educational information with them.

As indicated earlier, some studies have found a significant negative impact of social network participation on students' performance. Coursework suffered based on the frequency of visits to these sites. Most of the students' 372 (71.5%) submitted their assignments late due to the use of social media [29]. Majority (59%) of the students in study indicated that the low academic performance was due to the distraction caused by social media [29]. The low academic performance could also be due to psychological dependence and academic impairment caused by the use of the Internet and social media [30].

The participation in social networks takes students' time and leads to procrastination towards academic works [30]. Others indicated that social media networks, such as WhatsApp and Twitter, in particular, distract their academic life and affect

their concentration during classes. The findings from this study confirmed these findings because it was established that most students participate on social networks during school time, and the majority spend less time on education. Also, most students did not use social media network sites to enhance their academic performance but rather for social connection or entertainment [30]. A study confirmed that, in Utah about two-thirds of the students in the study reported using media whiles they in class, studying, or doing homework [31]. They argue that multitasking is likely to increase distraction among students, and this has been shown to be detrimental to student performance as revealed by earlier studies. Therefore, the time spent by students on social media sites in the current study, if not directed to educational agenda and materials, the time spent will be distractive to students' academic performance.

5. Conclusions and Recommendations

The study concludes that there are a lot of social media networks sites that are available for use by SHS students.. Therefore, if these media are used well by the students for educational purposes, such as exchanging of study materials, for research, reading and writing, then it is likely to have a positive effect or improvement on their academic performance.

It also concludes that if students only use social media sites for entertainment without restriction and monitoring, this will

have an adverse effect on their studies..

It is recommended therefore that there should be strict enforcement of the regulations on the use of electronic gadgets in Senior High Schools. This will promote the use of social networks by teachers and educators for academic purposes. It is also recommended that, regular counselling by school authorities and parents for students who participate on social media networks could help prevent improper use of social media and avoid addiction and its consequences.

References

- [1] Rai, L. P., & Lal, K. (2000). Indicators of the information revolution. *Technology in Society*, 22, 221–235.
- [2] Kumi-Yeboah, A., & Blankson, H. (2014). *Social Media and Use of Technology in Higher Education*. USA: Information Science Reference.
- [3] Hogan, M., & Strasburger, C. V. (2018). Social Media and New Technology: A Primer. *Clinical Pediatrics* 00(0), 1-12.
- [4] Boyd, D., & Ellison, N. (2007). Social network sites: Definition, history, and scholarship. *Journal of Computer-Mediated Communication*, 13(1), 1-11.
- [5] Koiranen, I., Keipi, T., Koivula, A. & Räsänen, P. (2019). Changing patterns of social media use? A population-level study of Finland. *Univ Access Inf Soc*. 1-15
- [6] Agyeman, K. O., Okyere, K., Enu-Kwesi, F. Ackah, K. J., & Majdoub, B. M. (2018). Computer Assisted and Traditional Method of Instructions in Integrated Science: The Case of Edinaman Senior High School in the Central Region of Ghana. *American Journal of Computer Science and Engineering*, 5 (6), 171-177.
- [7] Ndaku, A. J. (2013). *Impact of Social Media on the Students' Academic Performance in Ghana*. *Networking* 18, (5) pp.6, 275-285.
- [8] Amofah-Serwah, P., & Dadzie, P. (2015) Social media use and its implications on child behaviour: a study of a basic school in Ghana. *International Journal of Social Media and Interactive Learning Environments* 3(1), 49-62.
- [9] Apeanti, W. O., & Danso, E. D. (2014). Students' use of social media in higher education in Ghana. *Innovative Journal*, 3(1), 3-9.
- [10] Coyle, C., & Vaughn, H. (2008). Social networking: Communication revolution or evolution? *Bell Labs Journal*, 1(3), 13-17.
- [11] Bryant, J. A., Sanders-Jackson, A., & Smallwood, A. (2006). IM, text messaging, and adolescent social networks. *Journal of Computer-Mediated Communication*, 11(3) 2–16.
- [12] Kaitlyn, F. (2010). The Influence of Social Networking Participation on Student Academic Performance Across Gender Lines. *Counselor Education Master's Theses*. 31.
- [13] Ellison, N., Lampe, C., Steinfield, C., & Vitak, J. (2010). With a little help from my friends: How social network sites affect social capital processes. In Papacharissi, Z. (Ed.) *The Networked Self: Identity, Community, and Culture on Social Network Sites*. New York: Routledge.
- [14] Helou, A. M. and Ab. Rahim, N. Z. (2014). The Influence of Social Networking Sites on Students' Academic Performance in Malaysia. *International Journal of Electronic Commerce Studies* Vol.5, No.2, Pp.247-254.
- [15] Kaplan, A. M., & Haenlein, M. (2010). Users of the world, unite: The challenges and opportunities of Social Media. *Business Horizons*, 5(3), 59-68.
- [16] Ayiah, M. E., & Kumah, C. H. (2011). Social Networking: A tool to use for effective service delivery to clients by African libraries. *77th IFLA Conference* (pp. 1-14). Puerto Rico: IFLA.
- [17] Duven, C. & Timm, D. (2008). Privacy and social networking sites: New directions for student services. *Journal Internet and Higher Education* 12(4), 89-100.
- [18] Tufekci, Z. (2008). Grooming, gossip, Facebook and myspace: What can we learn from those who won't assimilate? *Journal of Information, Communication, and Society*, 11(20), 544-563.
- [19] Livingstone, S. (2008). Taking risky opportunities in youthful content creation: Teenagers' use of social networking sites for intimacy, privacy and self-expression. *New Media Society*, 3(5), 393-411.
- [20] Barker, V. (2009). Older adolescents' motivations for social network site use: The influence of gender, group identity, and collective self-esteem. *CyberPsychology and Behavior*, 12(3), 209-213.
- [21] Siibak, A. (2009). Constructing the self through the photo selection- Visual impression management on social networking websites. *Journal of Psychological Research on Cyberspace*, 3(1) 1-6.
- [22] Badria, M., Nuaimib, A. A., Guangb, Y., & Rashedi, A. A. (2017). School performance, social networking effects, and learning of school children: Evidence of reciprocal relationships in Abu Dhabi. *Telematics and informatics*, 34, 1433-1444.
- [23] Deng, L. & Tavares, N. J. (2013). From moodle to facebook: exploring students' motivation and experiences in online communities. *Computers and Education*, 6(8), 167-176.
- [24] Yunus et al. (2012).
- [25] Salvation, M. and Adzharuddin, N. A. (2014). The Influence of Social Network Sites (SNS) upon Academic Performance of Malaysian Students. *International Journal of Humanities and Social Sciences*, 4(10), 131-137.
- [26] English, R. M. & Duncan-Howell, J. A. (2008). Facebook goes to college: using social networking tools to support students undertaking teaching practicum. *Journal of Online Learning and Teaching*, 4(4), 596-601.
- [27] Okyere, K., Agyeman, K. O., & Enu-Kwesi, F. (2018). Evaluation of Blended Computer Based Learning on the Performance of Students in Pre-Technical Skills in the Junior High Schools in Ghana. *International Journal of Education and Information Technology*, 3(3), 60-72.
- [28] Creswell, J. W (2008). *Educational research: Planning, conducting and evaluating quantitative and qualitative research (3rd ed.)*. Upper Saddle River, NJ: Merrill.

- [29] Roberts, F. D., & Ulla G. Foehr, G. U. (2008). Children and Electronic Media. *The Future of Children*, 18(1), 11-37.
- [30] Rithika, M., & Selvaraj, S. (2013) Impact of Social Media on Student's Academic Performance. *International Journal of Logistics & Supply Chain Management Perspectives*, 2 (4), 636-640.
- [31] Yeboah, J., & Ewur, G. D. (2014). The impact of WhatsApp messenger usage on students' performance in tertiary institutions in Ghana. *Journal of Education and Practice*. 5, (6), 222-235.
- [32] Wade, C. J., & Renata, F. (2011) The Wired Generation: Academic and Social Outcomes of Electronic Media Use Among University Students. *Behavior and social networking* 14(5), 275-280.