THE EFFECT OF WHATSAPP USE ON STUDENTS' SOCIO-EMOTIONAL DEVELOPMENT AND ACADEMIC ACHIEVEMENT

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Abstract:

This research investigated the impact of the use of WhatsApp on students' socio-emotional development and academic achievement. WhatsApp Messenger is a proprietary, cross-platform instant messaging subscription service for smart phones and selected feature phones which uses the internet for communication. The objectives of the study were to investigate how video chatting, online chatting and frequent communication through WhatsApp affect students' socio-emotional development in the University of Buea. It also sought to establish the relationship between socio-emotional development and students' academic achievement. This research adopted the quantitative research method and the survey research design. With the use of a structured questionnaire, data was collected and analyzed from a sample that consisted of 180 students of the Faculty of Education, University of Buea. The respondents answered the questions which were analyzed using Chi-square test. The relationship between socio-emotional development and students' academic achievement was established using the Pearson Product Moment Correlation analysis. The research found out that video chatting, online chatting through WhatsApp and frequent use of WhatsApp has a significant effect on students' socio-emotional development and academic achievement. These findings are clearly reflected in the responses of the respondents. Based on the findings, the research recommends that students should control the use of WhatsApp and other social media platforms.

Keywords: socio-emotional development, social media, academic achievement

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1. Introduction

Since the introduction of social network sites years ago, to communicate with friends and families has been easy and enjoyable once you have good access to the internet. The internet has given us the ability to connect with people from around the globe with a few clicks of a button, and also easily send information and received information through many of their applications such as WhatsApp, Facebook, YouTube, Viber etc. Social networking sites such as WhatsApp connect friends or family together which allow you communicate easily. According to Boyd & Ellison (2008) social networking sites such as the WhatsApp refers to a web-based service that allows individuals to construct a public or semipublic profile within a bounded system for the purpose of interaction and information sharing.

1.1 Background of the Study

Education is a structural form of socialization through which cultures, knowledge, skills and values are transmitted from one generation to another. Education can equally be carried out in school (classrooms) and out of school (homes) through various media. As formal education is evolving in its methods and procedures, to add more value to students' academic achievements, social networking is also evolving through development of new technologies. What would normally be expected is for students to take advantage of these technologies to improve the quality of their learning and access to academic information, but this is observed not to be the case.

Social network has long existed since 1978 beginning with the Bulletin Board System (BBS). The BBS was hosted on personal computers, requiring that users dial through the modem of the host computers, exchanging information over phone lines with other users. The coming of modern technology, has made the world a global village by facilitating the means of communication through the social web site WhatsApp that has turned to contribute to student's socio-emotional development. Smith & Regal (1999) started the importance of social media through the interaction of education and social communication thereby introducing a new paradigm which allows educators and students an alternative pathway for enhancing access to information.

Social as the word sounds, it deals with the way we communicate in our society in which you meet and spend time with people. According to William et al. (2009) social networking sites (SNS) are online communities of internet users who want to communicate with other users about areas of mutual interest, whether from a personal business or academic perspective.

Today, access to social networks in Cameroon is at its peak. One would expect that with the expansion in the use of these tools, access to and sharing of academic information would witness a spike. Unfortunately, we are witnessing no significant improvements in academic achievement seemingly because the stakeholders, from administrators through teachers to students are either ignorant of, or are unwilling to take advantage of the social media as is the case in other countries.

According to Che & Ngu (2014) WhatsApp was founded in 2009 by Brian Acton and Ian Koum, both former employees of Yahoo. After Koum and Acton left Yahoo in 2007, they did travel to South America as a break from work, at one point, they applied for a job at Facebook but were rejected. For the last of the following years, they worked together to exerts the social network site called WhatsApp. By 2015, statistics showed that WhatsApp had about 900 million users making it the most globally popular messaging application.

WhatsApp is a proprietary cross-platform instant messaging client for smart phones that operates under a subscription business model or under the educational model uses this social site to communicate with each other. Communication via WhatsApp has influenced clients of WhatsApp emotional anxiety at times when good news is been communicated or sent, it turns to increase happiness, and by the same token, when bad news is communicated it increases anxiety or poor emotional feelings.

When talking about communication, scholars have always emphasized that communication is the essence of science (Garvey, 1979) and that without communication there would be no science (Lacy & Bush, 1983). This means that communication is one of the basic tools to human sciences. The increase of the social network site has made the world smaller like a global village, and the reason being that one can be in Cameroon and communicate via audio video, words texting etc. described in recent times as the information super-speed highway.

According to Kuppuswamy & Shankar (2010), social network websites grab attention of the students and then diverts it towards non – educational and inappropriate actions including useless chatting whereas on the other hand, (Liccardi et al., 2007) revealed that the students are socially connected with each other for sharing their daily learning experiences and do conversations on several topics. Information sharing and chats have the potential of improving students' socio-emotional development and at the same distract them from their academic work.

Kysohaba (2009), opines that both academic performance, (which is measured by the examination results is one of the major goals of a school) academic achievement (the outcome of education, the extent to which a student teacher or institution has achieved their educational goals) are in serious peril because students are diverting their attention from traditional learning activities to near addictive obsession with social media. He further expatiates that, today most youths and students possess Facebook accounts and almost compete to possess accounts in the whole social media landscape. The reason most of them perform badly in school might not be farfetched. While many minds might be quick to blame the poor quality of teachers, they might have to think even harder, if they have not heard of the Facebook frenzy (Oche & Aminu, 2010) and WhatsApp is not far behind.

2. Statement of the Problem

The increase use of social networking websites such as WhatsApp has become a global phenomenon in the past decade. What started out of a hobby for some computer literate people has become a social norm and way of life for people around the globe. Teenagers and youths especially students have embraced this site as a way to connect with friends and make new ones. Students who are highly embraced or engaged with the using WhatsApp have change their perception and thinking as a result influence their socio-emotional development and hence their academic achievement and students who do not use WhatsApp at all feel not socialize and it turns to influence their emotional development and academic achievement. This is what has prompted the researcher to carry out a research on this topic. Questions have however arisen regarding the amount of time students spend on social media chats to the neglect of their academic work leading to more or less addiction tendencies.

2.1 Objectives
To find out the effects of:
1) Video chatting through WhatsApp on students' socio-emotional development in the University of Buea.
2) Online chatting through WhatsApp on students' socio-emotional development in the University of Buea.
3) Frequent communication through WhatsApp on students' socio-emotional development in the University of Buea.
4) Students' socio-emotional development on academic achievement in the University of Buea.

2.2 Hypotheses
The following hypotheses were tested in this study:
1) There is no significant relationship between video chatting on WhatsApp and students' socio-emotional development in the University of Buea.
2) Online chatting does not have a significant effect on students' socio-emotional development in the University of Buea.
3) There is no significant relationship between frequent communication on WhatsApp and students' socio-emotional development in the University of Buea.
4) Students' socio-emotional development has no significant effect on their academic achievement in the University of Buea.

3. Review of Literature

3.1 The Concept of Mass Media
Mass media can be defined as "*messages communicated through a mass medium to a large number of people*" (Bittner, 1980). Thus, the study of Mass Communication is the scientific

study of the mass media (machines), the messages they carry (information, ideas, attitudes), and the audiences (people) they transmit these messages to. A medium is called a mass medium if it meets two basic requirements: It must reach many people simultaneously (same time) and must use a technological device located between source and receiver (Whetmore,1985).

Nwosu (1992) in his opinion said that they are channels through which communication is addressed to a large heterogeneous and a cross section of the population. Facuconner (1975) quoting Fleur (1970) conceives mass media as a computer of stable, repetitive and patterned action that is in part, a manifestation of the psychological orientation of the actors. It is a powerful and respected phenomenon that lubricates the engine of self-rule, human dignity and emancipated polity. Mass media are all those media technology that are intended to reach a large audience by mass communication.

Social media on the other hand, according to Kietzmann (2012), is that means that employs mobile and web-based technology to create highly interactive platforms via which individuals and community share, co-create, discuss and modify users' generated content. Social media refers to the means of interaction among people in which they create, share, exchange and comment among themselves in different networks.

Andreas & Michael (2000) are of the opinion that social media is a group of internet-based application that builds on the ideological foundation and allows the creation and exchange of users – generated content. Social media has become one of the major channels of chatting through platforms such as 2go, We Chat, Face book and WhatsApp. There has been an increase in the mobile social media which has created new opportunity for browsing.

When social media is used in combination with mobile devices, it is called mobile social media. Social media is a group of mobile marketing applications that allow the creation and exchange of user generated content. Due to the fact that mobile social media runs on mobile devices, it differs from traditional social media as it incorporates new factors such as the current location of the user, time delay between sending and receiving.

According to Kaplan (2002), social media can be divided into four types:

- **Space – timers** (location and time sensitive) – exchange of message with relevance for specific location and time (Face book, 2go, BB chat)
- **Quick – time** (time sensitive) – transfer of traditional social media application to mobile services to increase immediacy (posting twitter messages, status update [2go], updating display picture (dp) [BBm] and WhatsApp.
- **Space – locators** (location sensitive) – exchange message with relevance for one specific location which are tagged to certain place (Yelp, Oype).
- **Slow – timers** (neither location nor time sensitive) – transfer traditional social media application to mobile devices (reading a Wikipedia entry).

3.2 Social Network and Education

Ellison & Boyd (2007) define social network sites as web – based services that allow individuals to construct profiles, display user connections and search and traverse within that list of connections. A social media is an online service or platforms that focus on facilitating the building of social network among people who share interest, activities and background on real life connections. In this case, the people with similar interests are students and their learning.

The advent of social network platforms may also be impacting the way in which learners engage with technology in general. For a number of years, Prensky (2001) dichotomy between digital natives and digital immigrants has been considered a relatively accurate representative of the ease with which people of a certain age range, in particular, those born before and after 1980, use technology. Social networking and their educational uses are of interest to many researchers.

Stone & Brake (2010) in their opinion said: "*social networking sites, like much else on the internet representing a moving target for researchers and policy makers*". Recent trends indicate that 47% of American adults use social network. A national survey in 2009 found that 37% of online teenagers use social networking sites which increased to 55% three years later (Len *et al*. 2010). It has also been shown that it provides opportunity within professional education but however; there are constraints in such areas.

3.3 WhatsApp Messenger

In general, a number of studies have demonstrated that WhatsApp was widely adopted by individuals as it allowed better accessibility and ease of communication offering real-time messaging, empowerment, sense of belongingness and sociability, enjoyment, quick information-sharing and cost benefits (Bere, 2012; Plana *et al.,* 2013; Church and Oliveira, 2013; Yeboah and Ewur, 2014). Studies have proved that WhatsApp is the most popular instant messenger service used by students today. Students who give more importance to friendship, social live and family relationships make use of WhatsApp in a large scale. The popularity of WhatsApp among students has brought a huge profit among service providers since it works on internet data plan even though the same may not be said about students' benefit in terms of learning opportunities.

The reason why WhatsApp is so popular among students is because, it allows them to send unlimited texts to their friends and family members without any cost other than their internet data plan that they already use in their smart phones. The application is so easy to use after downloading. It shows you all those using WhatsApp in your contact list and also helps to invite their friends who are yet to download and use. Then they can start messaging, sharing audio files, video files, updating status to name a few (Jisha & Jebakumar, 2014).

3.4 Emotional Development

Harris (1998) defined emotional development as the growth in child's ability to distinguish between and to express their emotions in socially acceptable ways and to be

able to understand the emotional content of other people's communication. Emotional development is a complex task that begins in infancy and continues into adulthood. The first emotions that can be recognized in babies include joy, anger, sadness and fear. Later, as children begin to develop a sense of self, more complex emotions like shyness, surprise, elation, embarrassment, shame, guilt, pride and empathy emerge (Commonwealth of Australia 2012-13). Primary school children are still learning to identify emotions, to understand why they happen and how to manage them appropriately.

As children develop, the things that provoke their emotional responses change, as do the strategies they use to manage them. Very young children's emotions are mainly made up of physical reactions (for example heart racing, butterflies in stomach) and behaviours. As they grow, children develop the ability to recognize feelings. Their emotions are also increasingly influenced by their thinking. They become more aware of their own feelings and better able to recognise and understand other people. Students fall under this category. Thus, an emotional reaction of a 20-year-old is likely to be far more complex than that of a 10-year-old (Commonwealth of Australia 2012-13).

3.5 Concept of Emotional Disorder

It is imperative to first explain the concept of emotional disorder before delving into the relationship with WhatsApp. The Jamaican National Association of School Psychology (2005), affirms that there is no single definition for the constructs emotional and behavioural disorders. In fact, there are a number of terminologies used with reference to emotional and behavioural disorders. Researchers in the field of psychology have used terms such as emotionally disturbed, psychotic, socially maladjusted and emotionally handicapped. Susan (2012) defined "*emotional and behavioural disorder*" as a disability that is characterized by behavioural or emotional responses in school programmes so different from the appropriate age, cultural, or ethnic norms that the responses adversely affect educational performance, including academic, social, vocational or personal skills. In light of this definition, it is easy to agree with research perspectives which continue to emphasize that students with behavioural and emotional disorders are those whose performance outcomes over a significant time span are grossly affected especially when such effects are substantial. Newman (2007) further explains that "*behavioural and emotional disorders are repetitive persistent patterns of behaviour that result in significant disruption of other students.*"

Susan (2012) enumerates the characteristics of emotional and behavioural disorder of students. They include: Attitudes showing the tendency to want to lord it over others and make them fear you, physically abusive of others, always cursing and wanting to take advantage of others, having no regard to other peoples' property, not caring about others or caring whether they suffer hurt, and indifferent to other peoples' feelings or not showing any apathy.

3.6 Concept of Academic Achievement

According to Nwachukwu (2004), achievement is accomplishing whatever goals you have set for yourself, which is doing what you want to do within the bounds of the law, overcoming obstacles and attaining a high standard. It is the pursuit of dreams without fear and unbelief. Achievement requires drive and single-mindedness and it is about completing goals one has set for one's self. As noted by Onyilo and Onyilo (2010), achievement is a term for a noteworthy act.

Achievement connotes final accomplishment of something noteworthy, after much effort and often in spite of obstacles and discouragements: a scientific achievement. Achievement connotes boldness, bravery, and usually ingenuity: the famous achievement of an aviator. Achievement of something difficult generally demands skills and strength. According to Barnes (2002), achievement is something accomplished, especially by superior ability, special effort and great courage. Achievement is a result gained by effort.

According to Pandey (2008), academic achievement is the performance of the students in the subjects they study in school. It is directly related to students' growth and development of knowledge in educational situation where teaching and learning take place. To Usman (2000), academic achievement is the measure of students' learning and acquisition of certain skills at the end of the teaching and learning activity. As observed by Devis and Mayuri (2003), academic achievement is excellence in all academic disciplines, in classes as well as in extracurricular activities. It includes excellence in sporting, behaviour, confidence, communication skills, assertiveness, arts and culture. An academic achievement is something one does or achieves at school, college or university in class.

As noted by Lassiter (2005), academic achievement or academic performance is the outcome of education. Academic achievement is the extent to which a student, teacher or institution has achieved their educational goals (Tomporowski, Davis, Miller & Naglieri, 2008). It must be emphasized that socio-emotional stability of students' is a key determinant factor in whether or not students effectively learn.

4. Methodology

The study adopted the quantitative research approach. The descriptive survey research design was used in this study which allowed for rapid collection of data about an issue over a large area, community or population within a short time using questionnaires.

4.1 Population of the Study

This study targeted all students of the University of Buea located in the South West Region of Cameroon enrolled during the 2018/2019 academic year. About 15000 students made up the target population of the study meanwhile the sample was drawn from students of the Faculty of Education.

4.2 Sampling

Data was collected from a total of 180 respondents using structured questionnaires. This sample was selected from the parent populations using the simple random sampling sampling techniques.

4.3 Instrument for Data Collection

Data for the study was collected using a WhatsApp and Socio-emotional Development questionnaire. The Questionnaire was constructed using the variables under investigation. A total of 28 items were constructed on the variables. A four-point Likert Scale was used in constructing the instruments.

4.4 Procedure for Data Analysis

The data analysis was done descriptively and inferentially to establish the relationship between the use of WhatsApp and students' socio-emotional development with the assistance of the SPSS. The hypotheses were verified using the Chi-Square test of independence meanwhile the relationship socio-emotional development and academic achievement was established using the Pearson Product Moment analysis.

5. Presentation of Findings

5.1 Demographic information

Table 1: Gender of Respondents

Gender	Number of Respondents	Percentage (%)
Male	102	56.70
Female	78	43.30
Total	**180**	**100**

Table 1 reveals that 56.70% of the respondents were male while 43.30% of them were female. This sampling was done using a carefully considered process of the enrolment statistics in the departments of the Faculty of Education.

5.2 Hypothesis-by-Hypothesis presentation of Findings

Four hypotheses were formulated for this study. The verification of each hypothesis is preceded by a description of the response patterns. They are each verified in the paragraphs that follow:

5.3 Hypothesis one

There is no significant relationship between video chatting on WhatsApp and students' socio-emotional development in the University of Buea.

To verify this hypothesis, seven (7) questionnaire items were constructed to find out how video chatting affects students' socio-emotional development. A summary of the responses got is presented in table 2.

Table 2: Video Chatting has a significant effect on students'
socio-emotional development in the University of Buea

Respondents' Opinion	Frequency	Percentage (%)
Strongly agreed	65	36.11
Agreed	83	46.11
Disagreed	22	12.22
Strongly disagreed	10	5.56
Total	**180**	**100**

The result in table 2 shows that more than three-quarters (82.22%) of the respondents generally agree that video chatting through WhatsApp affect their socio-emotional development while about a quarter of them (17.88%) disagree. The respondents, however, did not suggest that those who engage less in video chatting are emotionally underdeveloped.

The chi-square statistic that follows is to establish whether or not students' video chats on WhatsApp significantly affect their socio-emotional development in the University of Buea.

Table 3: Summary of Chi Square Statistic for Contingency

Df	$(3-1)(4-1) = 2 \times 3 = 6$	
χ^2_{crit}	12.592	Since χ^2_{cal} (**21.860**) $> \chi^2_{crit}$ (12.592), H_o is rejected and H_a is accepted.
χ^2_{cal}	21.86	

H₀: There is no significant relationship between video chatting on WhatsApp and students' socio-emotional development in the University of Buea.

Ha: There is a significant relationship between video chatting on WhatsApp and students' socio-emotional development in the University of Buea.

5.3.1 Conclusion

Since the alternative hypothesis is accepted (and the null rejected), it can be concluded that video chatting through WhatsApp significantly affects students' socio-emotional development in the University of Buea. Irrespective of the Faculty or Department enrolled in, this influence is significant at 0.05% level of confidence.

5.4 Hypothesis two

Online chatting does not have a significant effect on students' socio-emotional development in the University of Buea.

To verify this hypothesis, eight (8) questionnaire items were constructed to find out how online chatting affects students' socio-emotional development. A summary of the responses got is presented in table 4.

Table 4: Online chatting through WhatsApp affect students'
emotional development in the University of Buea

Respondents' opinion	Frequency	Percentage (%)
Strongly agreed	64	35.55
Agreed	79	43.88
Disagreed	21	11.70
Strongly disagreed	16	8.87
Total	**180**	**100**

The result in table 4 reveals that about four-fifths (79.43%) of the respondents generally agree that online chatting through WhatsApp affect their socio-emotional development while about one-fifth of them (21.57%) disagree. This agreement is comparatively more profound among female students (78.22%) and less so among male students (21.78%).

The chi-square statistic that follows is to establish whether or not online chatting through WhatsApp significantly affects the socio-emotional development of students in the University of Buea.

Table 5: Summary of Chi Square Statistic for Contingency

Df	$(3-1)(4-1) = 2 \times 3 = 6$	
χ^2_{crit}	12.592	Since χ^2_{cal} (**20.21**) $> \chi^2_{crit}$ (12.592),
χ^2_{cal}	20.21	H_o is rejected and H_a is accepted.

H_{02}: Online chatting does not have a significant effect on students' socio-emotional development in the University of Buea.

H_{a2}: Online chatting significant effects students' socio-emotional development in the University of Buea.

5.4.1 Conclusion
Since the alternative hypothesis is retained (and the null rejected), it can be concluded that online chatting through WhatsApp significantly affects students' socio-emotional development in the University of Buea. Irrespective of the gender or the Faculty, this influence is significant at 0.05% level of confidence because the critical value of the chi-square statistic (12.95) is less than the calculated value of 20.21.

5.5. Hypothesis three
There is no significant relationship between frequent communication on WhatsApp and students' socio-emotional development in the University of Buea.

To verify this hypothesis, six (6) questionnaire items were constructed to find out how frequent communication through WhatsApp affects students' socio-emotional development. A summary of the responses got is presented in table 6.

Table 6: Frequent communication through WhatsApp affects
students' socio-emotional development in the University of Buea

Respondents' Opinion	Frequency	Percentage %
Strongly agreed	70	38.90
Agreed	53	29.44
Disagreed	36	20.00
Strongly disagreed	21	11.66
Total	**180**	**100**

The findings in table 6 reveals that about two-thirds (68.34%) of the respondents generally agree that frequent communication on WhatsApp affect their socio-emotional development while about one-third (31.66%) of them disagree. This agreement is comparatively more profound among female students (68.02%) and less so among male students (31.98%). When quizzed further on the consequences of spending too much time on WhatsApp in particular and social media in particular, respondents unanimously agreed that this could lead to addiction and complete distraction from studies leading to poor academic achievement.

The chi-square statistic that follows is to establish whether or not frequent communication on WhatsApp significantly affects students' socio-emotional development in the University of Buea. The hypothesis is tested at 0.05% level of confidence.

Table 7: Summary of Chi Square Statistic for Contingency

Df	$(3-1)(4-1) = 2 \times 3 = 6$	
χ^2_{crit}	12.592	Since χ^2_{cal} (**138.630**) $> \chi^2_{crit}$ (12.592),
χ^2_{cal}	**138.630**	H_o is rejected and H_a is accepted.

H_{03}: There is no significant relationship between frequent communication on WhatApp and students' socio-emotional development in the University of Buea.

H_{a3}: There is no significant relationship between frequent communication on WhatApp and students' socio-emotional development in the University of Buea.

5.4.1 Conclusion

Since the alternative hypothesis (Ha) is retained (and the null (H0) rejected), it can be concluded that students' frequent communication on WhatsApp significantly affect their socio-emotional development in the University of Buea. This influence is significant at 0.05% level of confidence irrespective of gender or Faculty enrolled into because the critical value of the chi-square statistic (12.95) is less than the calculated value of 138.630.

5.5 Hypothesis four

Students' socio-emotional development has no significant effect on their academic achievement in the University of Buea.

This hypothesis was designed to establish the relationship between socio-emotional development and students' academic achievement in the University of Buea. To do this, respondents' attitudes relative to socio-emotional development was correlated with their academic achievement scores obtained from the end of Semester Examinations results for the course Measurement and Evaluation in Education (CST409). The statistical too used here is the Pearson Product Moment Correlation analysis.

Table 8: Pearson Product Moment Correlation analysis of the relationship socio-emotional development and students' academic achievement (N=180)

Variable	$\sum X$	$\sum X^2$	$\sum XY$	Γ_{xy}
Socio-emotional Development (X)	6412	124905	118513	-0.224**
Academic Achievement (Y)	6231	118083		

$p^* < 0.05$; df=180; critical Γ_{xy} =0.113.

The result of the analysis reveals that the calculated Γ_{xy} -value of -0.224 for socio-emotional development is greater than the critical Γ_{xy} -value of 0.113 at .05 level of significance with 180 degrees of freedom. With the result of the analysis, the null hypothesis (H_0) was rejected and the alternative hypothesis retained. This result therefore means that there is a significant relationship between socio-emotional development and students' academic achievement in the University of Buea.

Since there is a significant relationship between socio-emotional development and students' academic achievement, a further exploration of the result showed that the Γ_{xy} =0.224 was negative and high. This indicates that the more students' spend time on WhatsApp, the more negative their academic achievement will be.

6. Discussion of Findings

There is enough evidence to support the fact that WhatsApp chatting influences students' socio-emotional development in the University (and by extension their academic achievement) as reported by findings in this study and significant others conducted by other researchers. This relationship as reported by research is primarily negative with a few advantages reported as well. These findings tied with past writings and findings of other authors, as demonstrated below:

LaRose *et al.*, (2014) and Ellison *et al.*, (2007) in their research identified several positive effects of social media use among students. For example, social media helps to connect people with social resources and helps students to maintain relationships and develop and boost social capital. Social media use might also have a positive effect on young peoples' psychological and emotional wellbeing and help them to strengthen and nurture supportive relationships with family and friends (Bolton *et al.*, 2013).

Hackworth & Kunz (2010) further report that social media can have a positive effect on student's physical health as social media sites are an efficient way of communicating and possibly creating an interest in, for example, exercise and health information. These are evidenced by the respondents in this study who felt that using

WhatsApp and social media in general maintains their emotional stability by keeping them in contact with significant others in their lives.

On the other hand, research conducted by Pantic *et al.*, (2012) to investigate the relationship between WhatsApp and emotional disorder in Croatia found that time spent on social media by high school students was positively correlated with depression. These findings were mirrored by Rosen *et al.* (2013), who found that participants who spent more time online evidenced more clinical symptoms of major depression.

Lou *et al.* (2012) drawing inspiration from a study of American university students, found that more intense Facebook use predicted increased loneliness. Also, according to Kalpidou *et al.* (2011), college students who reported having higher numbers of WhatsApp friends experienced lower emotional adjustment to college life. Further, the same study found that college students who spent more time on social media reported having lower self-esteem than those who spent less time.

Students' time spent on WhatsApp is comparable to time spent on Facebook, a sister social media platform. Research has reported some of the negative outcomes that are related to Facebook use involving personality problems and unwanted behaviors such as stalking (Pearse, 2012). In a study conducted by O'Dell (2012), it was reported that students who use Facebook may feel depressed or lonely. Meanwhile, Gabre &Kumar (2012) notes that student who used Facebook while studying reported higher levels of stress and were less in control of things leading to up to poor academic output. Klingensmith (2013) also found high usage of Facebook to be positively related to feelings of loneliness, shyness, and "friend sickness", which is described as the distress one experiences at the loss of old friends. A study conducted by Schwartz (2010) found Facebook intensity, or high usage of Facebook, frequency of status updates, and update intensity to be negatively related to self-esteem. Other studies, however, opposes their findings saying that Facebook use can enhance self-esteem even linked it to an increase in overall life satisfaction (Gonzales, 2011).

Academic achievement on its part is a time intensive activity that demands most if not all of the students' time. In a survey conducted on students of the Higher Technical Teachers' Training College of the University of Buea in 2017, it was reported that students spend on an average eight (8) hours of every day on social media. The question arises as to how much time they dedicate to studies. This is to say that, inasmuch as WhatsApp use has the potential of boosting students' socio-emotional development, it also has the tendency of negatively affecting academic output of students who fail to manage their time properly.

7. Conclusion

This study investigated how WhatsApp use affects students' socio-emotional development in the University of Buea. Findings as discussed above revealed that the relationship between these variables is very significant and has strong implications for students' academic achievement. Socio-emotional development is an important

requirement in effective learning as reported by Maslow and Carl Rogers in their studies but must not be prioritized to the detriment of all other needed learning.

The researcher recognizes that there are other factors that influence socio-emotional development including gender, the environment, family background amongst others which are more naturalistic when compared to social media use. In this respect, it was important to highlight some of the advantages associated with using WhatsApp and as well as the impending dangers that may pop up and compromise the students' ability to learn.

7.1 Recommendations

Based on the findings of this study, the following recommendations have been made especially relating to social media use in general:

1) Students should privilege having "physical" than virtual friend with whom they can meet and discuss academic issues on how to learn better.
2) Students should be given more education on the need to limit their use of these social media platforms.
3) Students should also be weary of the kind and nature of information shared or received on WhatsApp and social media in general.
4) Teachers should take advantage of students' access to these different sites and assign learning tasks, assignments, through these sites so that continuous learning can take place.

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