

*Addis Ababa*  
*University*  
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**COLLEGE OF EDUCATION AND BEHAVIORAL STUDIES  
SCHOOL OF PSYCHOLOGY**

**THE RELATIONSHIP BETWEEN FACEBOOK USAGE AND  
ACADEMIC PERFORMANCE OF BESHALE SECONDARY AND  
PREPARATORY SCHOOL STUDENTS IN BOLE SUB CITY**

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**A thesis submitted to the School of Graduate Studies of Addis  
Ababa University in partial fulfillment of the Degree of Master of  
Art in Developmental Psychology**

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**Addis Ababa**

## **Declaration**

The researcher hereby declares that this thesis on the title “the relationship between facebook usage and academic performance of Beshale secondary and preparatory school students in Bole Sub City” is my original work and that all sources of materials used for the thesis have been indicated and acknowledged with complete reference.

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This is to certify that the thesis prepared by Esubalew Almaw Yeneakal entitled “the relationship between facebook usage and academic performance of Beshale secondary and preparatory school students in Bole Sub City”. And submitted in partial fulfillment of the requirements for the Degree of Master of Arts in Developmental Psychology complies with the regulation of the University and meets the accepted standards with originality and quality.

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## **Acronyms and Abbreviations**

ANOVA	Analysis of Variance
DF	Degree of Freedom
M	Mean
MS	Mean Square
SD	Standard Deviations
SNSs	Social Networking Sites
SPSS	Statistical Package for Social Science
SS	Sum of Square

## ***Abstract***

*The main purpose of this study was to investigate the relationship between facebook usage and students' academic performance in Beshale Secondary and Preparatory School of Bole sub city. The data were collected from randomly selected three hundred fifty three students through self-reported questionnaire. The analysis was done by using SPSS version 20. This study used descriptive statistics, Independent t-test, and Analysis of Variance (ANOVA) and Pearson correlation to analyze the collected data. The finding of this study revealed that male students were relatively more users of facebook than female students and the age ranges between 18 -21 were more in using facebook than 14 -17 years old. Findings also show that majority of secondary and preparatory students used facebook for the purpose of entertainment, chatting with friends, making new friendships respectively. There was no statistically significant difference in scores of facebook usage between males and females students and also no statistically significant difference in scores of facebook usage among the age of 14 – 17and 18 -21 years. There was moderately negative relationship between facebook usage and academic performance of students. There was a statistically significant difference in academic performance scores for users and non users. Finally, there was a statistically significance difference between the low, moderate and high level of facebook users. To concludes that the usage of Facebook among student has negative effect to the academic performance on the students of the Beshale secondary and preparatory school. To this end, the researcher recommends that teachers and parents should work cooperatively together for the benefit of all students regarding safe social media use like facebook*

# CHAPTER ONE

## Introduction

### 1.1. Background of the Study

This age is an information and technology age. So technology is a vital part of everyday life for many people, and mobile networks as well as the Internet have enabled people to communicate globally in real time. Mobile phones, laptops, tablets and other technological devices have become inseparable part of our daily lives. Internet is used as a platform for creating new information collectively. Social network sites (SNSs) are web-based services that allow individuals to construct a public or semi-public profile within a bounded system, articulate a list of other users with whom they share a connection, and view and traverse their list of connections and those made by others within the system. The nature and nomenclature of these connections may vary from site to site (Boyd & Ellison, 2007, p. 211). The first social network site was launched in 1997 and currently there are hundreds of SNSs across the globe, supporting a spectrum of practices, interests and users (Boyd & Ellison *et al* , 2007).

Now a day, facebook is one of the most popular social network sit/es. First it was founded by Mark Zuckerberg and college cohorts in 2004. It was limited to Harvard University students (Croft, 2007). But currently above 2.23 billions of peoples are facebook users in the world (Internet World Stats, 2018). It allows people to collaborate with each other, create profiles, share pictures and information, write comments and likes or shares posts. People usually add and follow their friends, family, and browsing the flow of updates on their profiles. Similarly, even when people are a thousand miles away from their loved ones, they can still share their daily stories with others (Boyd and Ellison *et al*, 2007). Since facebook has made it so easy for students to present themselves as well as learn about another person online, exposure to this type of media has influences on student's academic performance positively or adversely (Banquil and Chua, 2009).

According to Tuckman (1975) Academic performance defined as the apparent demonstration of understanding, concepts, skills, ideas and knowledge of a person and proposed that grades clearly depict the performance of students. Hence, their academic performance must be managed efficiently keeping in view all the factors that can positively and negatively affect

their educational performance. For example, a study conducted by Moghavvemi, Aziz and Sulaiman (2017) examines how spending time on facebook affect students academic performance. They found that spending time on facebook has a positive effect on their academic performance, which indicated the time spent on facebook did not affect their education.

According to a study conducted by Hargitta (2008) there is no evidence correlating Facebook with academic achievement (as cited in Kirschner, Aryn & Karpinsk, 2010). Similarly Pasek (2009) found that there was no relation between facebook use and academic performance of students. In contrary of, Owusu-Acheaw, & Larson (2015) did a study to assess students' use of social media and its effect on their academic performance. The study revealed that majority of the respondents had mobile phones and visited their social media sites using their phones and spent between thirty minutes to three hours per day. In addition the study revealed that the use of social media sites had affected academic performance of the respondents negatively and that there was indirect relationship between the use of social media sites and academic performance (Owusu-Acheaw, & Larson *et al*, 2015).

In the context of Ethiopia, more researchers are interested in college and university students. For example, Negussie and Ketema (2014) examined the relationship between facebook practices on academic performance of students and found no significant relationship between times spent on social networks such as facebook with students. Similarly studies carried out by Bedassa (2014) to assess the impact of social networking sites i.e. facebook on students academic performance, administering a questionnaire on 384 regular under graduate Wollega University students, revealed that time spent on facebook and addiction to it negatively and significantly affects students' academic performance.

It is possible to realize that these and other researches focused on higher Education institutions (college and universities) rather than secondary and preparatory schools to study facebook usage and academic performance. That is why this research is keenly interested in the relationship between facebook usage and academic performance of Beshale secondary and preparatory school students in Bole Sub City.

## 1.2. Statement of the Problem

Today, a number of Ethiopians are joining and using facebook every day. It has been the largest visited social networking site in Ethiopia. According to the Internet World Stats (2018) Ethiopia has an estimated of 107,534,882 populations, out of which 16,437, 881 are internet users. Also, currently, there are more than 4,500,000 facebook users in Ethiopia, and this makes the 10<sup>th</sup> in the rank of Africa facebook statistics by country. But still Ethiopia has the least facebook penetration rate that is 15.3% (*Internet World Stats, 2018*). According to *Digital World Statistics (2017)* the total numbers of monthly active facebook users in Ethiopia are 3.3 million, and 22% of users are using facebook each day. Also 91% of users are accessing via mobile phone.

Regarding facebook usage a study by Lenhart and Madden (2007) indicated that 73% of adolescents between 12 to 17 years had their own profile in social network media sites. In the frequency of use, 59.4% of students visited a social networking site several times a day (Sponsil and Gitimu, 2012). In Ethiopia the largest age group proportions of facebook users are currently 25-34 followed by the users in the age of 18-24 and live in the urban areas of the country (social baker, 2018). Local researches, also revealed that compared to other youth sectors found in Addis Ababa, high school students are found to be the major facebook users .This revealed that more than half of the high school students were using social networking sites specially facebook (Gedion, 2011). Another study conducted by Mohammed (2014) indicated that secondary and preparatory school students of 15 – 21 age in general Addis Ababa, particularly in Bole sub city, using facebook whether at the internet café or via mobile phone.

According to Kuppuswamy and Shankar (2010), facebook grasps the total attention and concentration of the students and divert them towards non educational, unethical and inappropriate actions such as useless chatting and posting, time killing by random searching and not doing their jobs on time. Also, they use facebook for fun, posting photo, for entertainment, playing games and reading the news story in very short sentences (Ellison, Steinfield, and Lampe 2007). Similarly, Olubiyi (2012) noted that these days' students are engaged in the social networking sites that they are almost 24 hours online.

Since its existence, the numbers of users have been increasing day by day and especially among the students, they are facing a lot of neglect and challenges on their academic performance and have certainly brought about rapid decline in education (Kuppuswamy and Shankar *et al*, 2010). Students give more attention and time to facebook than they do to their studies and they spend their time chatting and making friends via facebook and this might definitely have influence on their academic performance, because when you do not read, there was no way you can perform academically (Osharive, 2015).

It was therefore of great importance to explore some of the issues facing students academic performance as a result of facebook usage. Thus, this study is investigating the relationship between facebook usage and the academic performance of the students.

### **1.3. Research Questions**

The study was focused on the following research questions:

- What is the prevalence of social media usage among government secondary and preparatory school students of Bole Sub city?
- What is the purpose of Facebook use for the students?
- Is there any significant difference by age and sex in Facebook usage among students?
- Is there a relationship between Facebook usage and academic performance?
- Is there any academic performance difference between facebook users and non users?
- Is there any significant difference between the levels of Facebook usage and academic performance of students’

### **1.4. Objective of the Study**

The main objective of this study is to investigate the relationship between facebook usage and academic performance of Beshale secondary and preparatory school students in Bole Sub City, Addis Abeba.

### **1.5. Significance of the Study**

The finding of this research helps the school community in general and secondary and preparatory school students in particular because it will provide information about facebook usage and its relationship with academic performance of students. It will also assist the

teachers to enlighten and create awareness among the students on the usages of facebook for educational purpose.

This study will help researchers with more information on the relationship between facebook usage and student's academic performance. It will also provide relevance material for students and other researchers undertaking similar research.

### **1.6. Scope of the Study**

This study was delimited to Bole Sub City in Addis Ababa City Administration. The participants of the study are Beshale Secondary and Preparatory School students in above mentioned sub city who attended their education in 2018 /2019 G.C academic year. The school was selected because the researcher worked in the selected school and the situations were assumed to be relatively convenient for data collection. Also this study focuses on facebook than other type of social media networking sites because today facebook is constantly available through portable mobile devices such as smart phones and has become an integrated part of adolescents' social life (Crone and Konijn, 2018). Besides, it was decided to explore adolescents' social media usage and their premarital sexual attitude. To achieve the objective of the study and make it manageable, in terms of coverage, the study was delimited to Beshale secondary and preparatory school.

### **1.7. Limitation of the Study**

There are a number of limitations in this study that should be further addressed in the future. First, this study will be limited to students in secondary and preparatory school in Bole sub city in Addis Ababa. It might difficult to generalize the study findings further than the study area in which the research was conducted because the rural area of the country has its own demographic profile and social norms that may influence student behaviour with regard to facebook usage. Second, the questionnaire format limited the researcher ability to be certain about what may have been meant by any individual respondent when answering close-ended questions.

## 1.8. Operational Definitions

- **Facebook use:** refers to web sites that are used by the selected secondary and preparatory school students. In this study, Facebook use is operationally defined as ratio/level measurement that depicted respondent mean score on the facebook usage questionnaire as measured during the data collection time.
- **Student:** is a learner, or someone who attends an educational institution in Bole Sub city.
- **Secondary School:** refers to a school which provides secondary education of grade 9 and 10 in Bole Sub city.
- **Preparatory school:** refers to a school which provides an education after secondary school and before higher education of grade 11 and 12 in
- **Academic Performance:** refers to students' academic efforts of 2018/2019 first semester average scores as obtained from the schools record and documentation office.

## CHAPTER TWO

### Review of Related Literature

#### 2.1. Social Media

Social Media is a form of computer mediated communication which runs through web 2.0 technology. Web 2.0 facilitate the creation and up gradation of online social network sites in digital environment. According to Kaplan and Haenlein, (2010) social media” are “a group of Internet-based applications that build on the ideological and technological foundations of Web 2.0 which allows the creation and exchange of user-generated content”. Social media refers to activities, practices, and behaviors among communities, who gather online information, knowledge, and feedback to share and it is based on web- based applications that provide the utility to create and transmit content in the form of text, picture, videos, and audios (Safko and Brake, 2009).

Therefore, social media are just like other media, a means of communicating and exchanging information. Most social media services provide features like chatting, commenting, voting, updating status and sharing of information for their users. The primary feature of the social media is staying connected continuously with more than one person at the same time. Social media made it easy to share photos, videos, ideas, likes and dislikes, with the world and also made it fast to know what people commented on them. Clearly the term ‘social networking sites’ and social media’ are used interchangeably (Boyd & Ellison, 2007).

Lenhart and Madden (2007) define *social networks* as “spaces on the internet where users can create a profile and connect that profile to others to create a personal network.” The first recognizable social network site was launched in 1997. Currently there are hundreds of social networking sites across the globe, supporting a spectrum of practices, interests and users. Social networking websites, such as Facebook, Myspace, Whatsapp, LinkedIn, Friendster, Live Journal, and Bubo, are member-based internet communities that allow users to post profile information such as a username and photography, and to communicate with others in innovative ways such as sending public or private online messages or sharing photos online (Ellison & Steinfield, 2007). Social networking sites have implemented a wide variety of technical features; their backbone consists of visible profiles that display an articulated list of

friends who are also users of the system. Profiles are unique pages where one can “type oneself into being” (Sunden, 2003). After joining a social networking site, an individual is asked to fill out forms containing a series of questions. The profile is generated using the answers to these questions, which typically include descriptors such as age, location, interest, and “about me” section. Most sites also encourage users to upload a profile photo. Some sites allow users to enhance their profile by adding multimedia content or modifying their profile’s look and feel. Others, such as Facebook, allow users to add applications that enhance their profile (Boyd, 2006)

## **2.2. Facebook**

The way human beings interact has rapidly changed over the last decade due to online social networking sites such as Facebook. These Web-based systems allow members to connect with other members electronically, while also allowing them to make these connections and interactions publicly. Facebook is the leading site among social media (Duggan, Ellison, Lampe, Lenhart & Madden, 2015).

Facebook was created and launched in February 2004 by Harvard students: Mark Zuckerberg, Eduardo Saverin, Dustin Moskovitz and Chris Hughes. At the time this site has begun its network only for Harvard University. Two months later, the site expanded to include other Ivy League schools. After that, the college network slowly grew and by the end of 2004, it had registered more than a million users. In 2006 Facebook opened up its membership access to the people worldwide who were over 13 years of age (Croft, 2007).

Facebook is the most popular of the social networking sites with 2.23 billion monthly active users. There are 101 languages available with over 300,000 users helping in translation on the site. And now with the influence of smart phones people are logging in when on the go; nowadays you do not need a computer to log in and check your site. Currently there are 1.54 billion daily active users accessing Facebook through their phone. Average facebook user has 155 friends. Facebook monthly active user has been increasing year over year. (Facebook by the Numbers: Stats, Demographics & Fun Facts, 2019).

Facebook users present themselves in an online profile, add 'friends' and can post information or comment to one another's profiles. Facebook also has sections for many different kinds of personal information; religious views, relationship status, political views and favorite music.

Users have freedom to post any information or pictures of their choice on their individual profile. (Ellison, Steinfield & Lampe, 2007) This results in a wide range of profiles with some showing more 'private' information than others.

### **2.2.1. Purposes of Face book Usage**

Students used facebook for a variety of purposes. The main purpose of using facebook was for chatting and wall posting followed by news and event reminder (Lubisa,H. &Ridzuan, Y., 2011). Similarly Madge (2009) revealed that majority of students used facebook for chatting purposes. According to Madge's study the reason for chatting is simply for social reasons and not academic purpose.

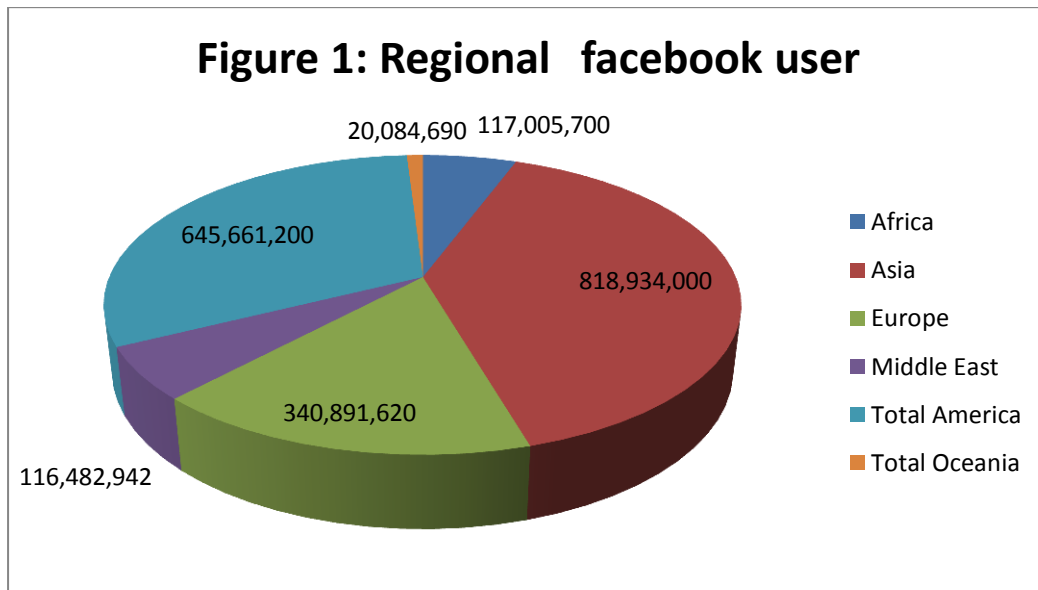
On the same line, Nazir (2014) conducted a study to investigate the use and purpose of accessing social Networking Sites (SNSs) by the students of Srinagar, Kashmir. The finding revealed that the main purposes of using SNSs Facebook are chatting followed by information sharing and making new friends. The purpose of using SNSs face book are mostly recreational than educational. On the contrary, Madhusudhan (2013) indicated that most students preferred the SNSs facebook for academic purpose. Also Eke, Omekwu and Odoh (2014) investigated the use of Social Networking Sites and found that students were using Social Networking Sites in interaction with friends, for online study, discussing national issues and watching movies etc.

On the other hand, Sponcill and Gitimu (2013) assessed the use of facebook by students in relationship to communication and self – concept and the result indicated that students are using face book to create new ways of communicating with friends and family. Other studies have shown that students mostly used facebook for entertainment and communication (Singh & Gill, 2015). Boyd (2007) also stated that teenagers and young adults have especially embraced Social Networking Sites as .a way to connect with their peers, share information, reinvent their personalities and showcase their social lives. However, a larger proportion of students go to face book to pass time and entertainment reasons. A smaller proportion of students use it to build up new relationships or to meet new people (Sheldon, 2008). Similarly Brahma and Verma (2018) revealed that the majority of students are using SNSs for entertainment, instant messaging, for academic communication, finding old friends, sharing information, to get opinion from others and to share experiences.

Other research done by Tayseer (2014) examined the effects of usage of social networks on students' engagement in both academic and social aspects. The study indicated that students consider social media like facebook as entertainment networks to reduces stress and make them forget about academics. Likewise, a study conducted by Kassahun (2014) showed that 41% of students used facebook for social utility such as to make relationships with family, friends, or desired groups, 32 % of students used facebook for the purpose of entertainment function, 11% of the students used facebook for educational purpose, and the rest 9% of students used face book for withdrawal purpose. Similarly researcher Mohammed (2014) carried out a study to assess the relationships among adolescents' social media usage, sexual behavior and risk perception. He found that the majority of students used facebook for entertainment, communication with people far away and making companionship respectively.

### 2.2.2. Regional Facebook Penetration

Based on the technical report of *internet world statistics*, Facebook has more than 2.23 billion active users (28 % of the world's population). It is the world's largest social network and has become an important part of many people's daily routines (Internet World Stats, 2018). Facebook users by regional level are as shown below:

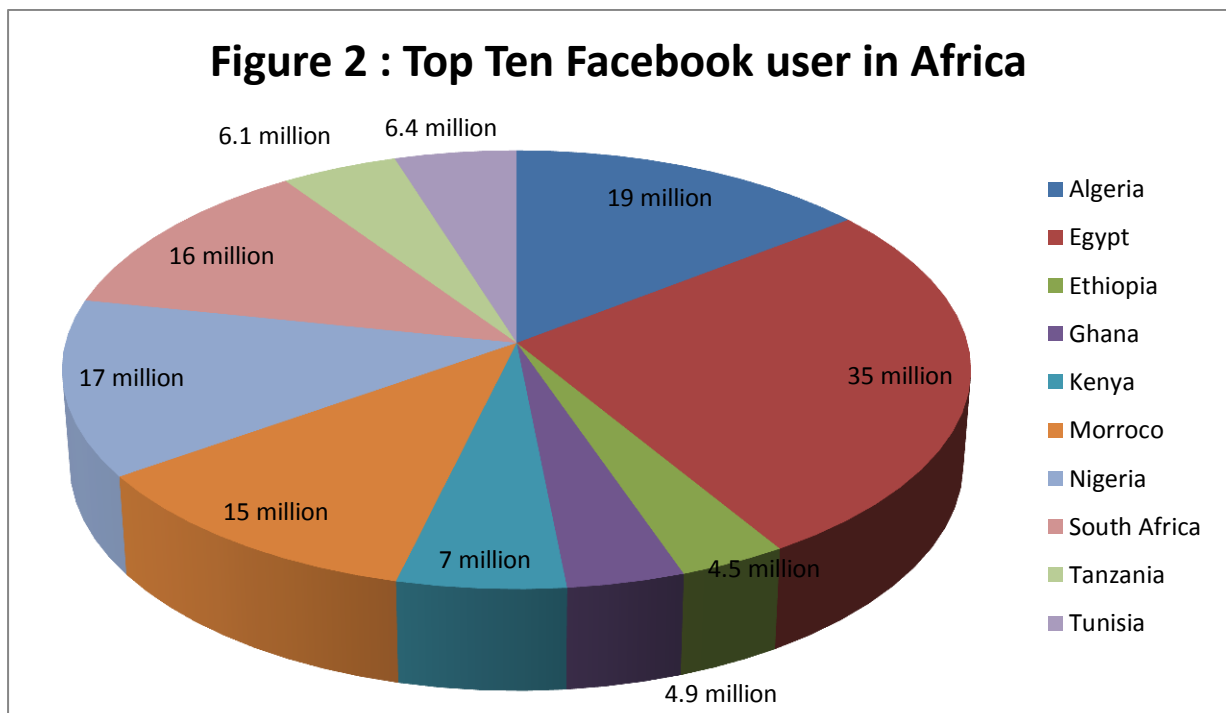


**Figure 1: Facebook user by the Regional level**

As indicated in the above figure , as of June 2018, 38.65 % Facebook users were in Asia, 16 % were in Europe, 30.45 were in America including North America, Latin America, Central America and Caribbean, 8.4% were in Africa , and 5.5% were in Middle East and 1% were in Oceania.

### 2.2.3. Facebook Use in Africa

As a whole, Africa contributes only 8.4 % of the world Facebook users mainly due to the continent’s comparatively low internet coverage. However, in recent years, the number of Facebook users in Africa shows an explosive growth. The majority of the users access the platform via mobile phone. For instance, as of June 2018, there were 177,005,700 people across the African continent with over 80% on mobile. Egypt with more than 35 million users is the leading country followed by Nigeria (17 million) and Algeria (19 million).



**Figure 2: Top ten Facebook Users in Africa**

### 2.2.4. Facebook Use in Ethiopia

There is contradicting information about when the internet technology was introduced to Ethiopia. On the one hand, the information from the Ministry of Transport and Communication and Ethiopian Telecommunication Agency 2005/06 Annual Statistics

Bulletin indicated that the Internet service has started in Ethiopia since 1997. At the time, the number of internet subscribers was not more than 1000. One year later, the number of subscribers rose by 98.5% and reached 2,068 subscribers (Agency, 2005; Worku, 2005).

Another release by the ITU (2002) as cited in Araya (2018) stated that the use of the Internet in Ethiopia began in 1993 by the UN Economic Commission for Africa (whose headquarter is in Addis Ababa). Since there was no service during that time, it was connected to GreenNet's Internet gateway in London. The users were mainly international organizations and NGOs as well as some academics, individuals and private companies.

However, Internet coverage has been improving in recent years. Several Internet cafes subsequently emerged, thereby increasing the popularity of the Internet (Tesfaye, 2013). In addition, the distribution of Internet enabled cell phones to increase in Internet users in the urban areas of the country (Ethio telecom, 2013/14).

In Ethiopia the number of internet users increased in recent years. According to internet world statistics (2018), there are currently 16,437,811 internet users in Ethiopia. It has increased by 164,278% since 2000 (Internet world states, 2018). Similarly, reports indicated that the number of people using SNS in general and Facebook in particular has been growing exponentially. According to Internet World Statistics (2018), In Ethiopia, there were about 4.5 million users of Facebook in Ethiopia with active accounts that made the country the tenth largest Facebook use in Africa. In Ethiopia the number of internet users increased in recent years. According to Internet World Statistics (2018), 69% were men and 31% were women. Data on Ethiopia shows that annual growth for internet is at 37 percent and the number of active social media users is growing by 20 percent. Findings show that majority of Ethiopians access the internet from mobile device (Digital, 2018).

### **2.3. Facebook Use by Adolescents**

As many researches across the globe depicted, adolescents are the main users of different media sources. Adolescents are also intense internet users. Subrahmanyam and Lin (2008) indicated that adolescent represents the largest and fastest growing demographic sector using the Internet, with the Internet becoming indispensable for instrumental purposes, such as schoolwork and information gathering, as well as for communication purposes.

Regarding social networking sites, different researches indicated that adolescents and young adults are the most prominent users of social networking sites (Sarah, 2012). Davies (2012) also described teenagers as the busiest users of Social Media applications. On the subject of facebook use, different researches disclosed that adolescents are the most frequent users. Lenhart (2011) also indicated that teenagers are among the dominant users of Facebook.

The emergence of social networking in Ethiopia changed many aspects of relationships and communication. Besides, it became a preferred way of communication and relationship by urban youngsters (Gedion, 2011). According to Gedion (2011) an increasing number of people, primarily the people living in Addis Ababa are engaging in these social networking activities. In addition, the usage of social networking sites has changed many aspects of their communication and relationship.

Concerning the age demographics of Facebook users found in Ethiopia, Ethiopian youths aged 13 to 24 constitute the highest Facebook users than other age groups. In addition the use of facebook by this age group has been increasing year over year and constitutes more than half of the total facebook users in the country (Internet World Stats, 2018).

Age related differences in social networking site usage have also been addressed by various research studies, as it is one of the important demographic variables in any social research. Internet use is nearly universal among youth, with 95% of those ages 12-17 reporting using the Internet; similar rates have been found for young adults (Lenhart 2011). The previous research of Lenhart (2010) indicated that 57% of social network users are 18-29 years old and have a personal profile on multiple social media websites. In more recent years, demographically, Facebook has seen a growth in users both under the age of 18 years and over 29 years. The current average age distribution demonstrates that people between the ages of 18 and 29 years utilize social networking sites more frequently overall, with this demographic representing 88% of Facebook users (Facebook by the Numbers: Stats, Demographics & Fun Facts, 2019).

#### **2.4. Facebook Use by Gender**

When assessing the literature related to gender and adolescents, results are mixed as to which group spends more time on social networking like facebook (Lin & Subrahmanyam, 2007). Studies have shown that boys have been online more than girls in previous decades because

of earlier forms of technology such as video or computer games (Lin & Subrahmanyam, 2007). Similarly Khan (2010) carried out a study on the impacts of social networking sites like facebook. The study used 168 (101 male and 67 females) participants as a sample. The result of the study showed that majority of male students' use social networking site particularly facebook than their female counterparts and their purpose is for searching knowledge. Aghazamani (2010) also carried out a study to explore how students who deal with SNSs, particularly facebook, spend their time on the site and what their motivations are. The data gathered from 595 students and the finding indicates that male facebook users spend more time on facebook during week days than female's facebook users. In addition, males spend more time on the site on weekends than female users.

Other researchers, Shen and Khalifa (2010) had undertaken a study on gender difference in relation to facebook among Arab students. The study revealed that Arab female students spend fewer hours on facebook than their male's counterparts as the females' belief that of too much time on facebook as time wasting.

In contrast, Omolayo, Balogun & Omole (2013) carried out a study on the influence of exposure to facebook on self esteem. Their findings showed that there is no significant difference between female and male usage of Facebook. This implies that gender does not determine the frequent use of Facebook.

In contrary, Giles & Price (2008) found that girls use social media for things like chatting and downloading music. According to Social baker (2018) 53% female and 47% male are facebook users. In addition to the latest Pew Research Center data, 76% of women, compared to 72% of men, use social media. Females went online for social networking sites more than males; males went online for entertainment and participation more frequently than females (Rudi & Dworkin, 2014). Some data suggest that females (77%) are more likely to use Facebook than males (66%) (Duggan, 2015)

Similarly, Kittinger, Correia, & Irons (2012) found that, a higher percentage of women use facebook more than once per day, spending more time on the site than men. Also Rosen (2011) found that women share more photos and spend more time on social networking sites than men. Burke (2010) carried out a study on social network activity and social well being and showed that females spend more time on social network sites and use them more actively

than males. A study conducted by Tufekci (2008) substantiated that the majority of women used social networking sites like facebook four to five times than men.

## **2.5. Facebook Users, Non users and Academic Performance**

There have been mixed results from academics and research reports with regard to the impact of facebook and how they affect academic performance. Studies have found that the participation of students and young people on facebook may have positive and negative impact on their studies and for that matter their academic performance.

A research done by Madge, Meek, Wellens and Hooley (2009) in United Kingdom students showed negative relationship between Facebook and the academic performance of students. Alexander (2012) also conducted a study to examine facebook usage and academic performance of high school students at Dollarway high school and used 72 students as a sample. The finding revealed that students with higher scores on the Facebook usage had significantly lower academic performance. According to Pasek, More and Hargittai (2009) studies, use of Facebook had a positive relationship with academic performance. According to their research, students with higher grades tend to spend more of their time on Facebook. Furthermore, Paul, Baker and Cochran (2012) suggested that a negative relationship exists between time spent by students on social networking sites like facebook and their academic performance. Students with higher scores on the Facebook usage had significantly lower academic performance. Similarly Mansfield (2009) found that the students with low level facebook users performed better in their studies and academic performance as compared to those students who were high level facebook users. Also, a research conducted by Tsitsika (2014) as cited in Kawsar (2017) reported that excessive use (two hours a day) of social networking sites was associated with lower academic performance.

According to Akhtar (2013), excessive usage of internet can become an addiction especially among students and it can cause academic problems. The author suggested that internet addiction can cause a fall in time spent on studies, major drop in grades, low interest in extracurricular activities and lack of interest in classes.

Other researchers have found that recreational Internet use is strongly correlated with impaired academic performance (Kubey, Lavin, & Barrows, 2001). Approximately 10-15% of study participants reported feeling not being in complete control of their Internet use, and

that it has hurt their schoolwork. Students who reported Internet-caused schoolwork problems were found to have spent five times more hours online than those who did not, and they were also significantly more likely to report their Internet use caused them to stay up late, get less sleep, and miss classes.

Conversely, Kolek and Saunders (2008) found that there was no correlation between Facebook use and academic performance of students. More recently, an exploratory survey study reported a negative relationship between facebook use and academic achievement and hours spent studying per week (Karpinski& Duberstein, 2009).

Also Junco (2012) examined the relationship between multiple indices of facebook use and academic performance. The result revealed that time spent on facebook has strongly and significantly negatively related to students academic achievement. For Junco, the time spent on social media networks like facebook has a negative impact on students' performance. Thus, the use of social media networks like facebook negatively impacts the productivity of students.

On the same line, Kirschner and Karpinski (2010) examined the impact of facebook as being a social media platform. They collected data from 1830 respondents to find trends in the frequency of facebook visits and activities, time spent on facebook, time spent on class preparation and academic achievements of the students under research. They found a significant negative relationship between Facebook use and academic performance. Facebook users reported lower academic performance and reported spending fewer hours per week studying on average than Facebook nonusers. A majority of students claimed to use Facebook accounts at least once day.

San Miguel (2009), focused on the relationship between time spent on facebook and the academic performance of students. The overall findings indicated "more time on facebook equals slightly lower grades". In his study, the facebook user had low academic performance while the non facebook user had a higher performance. Also, the average facebook user studies for 1 – 5 hours per week, while the non facebook user would study 11 – 15 hours per week

Pempek (2009) found that students spend approximately 30 minutes on Facebook throughout the day as part of their daily routine. Facebook was used most often for social

communication, mostly with friends with whom the students had a pre-established offline relationship. They discussed suggestions through the use of social networking sites for the development of identity and peer relationships.

## **2.6. Theoretical Framework**

### **2.6.1. Use and Gratification Theory**

Use and Gratification Theory is one of the theoretical foundations of this study. It was explained by Elihu Katz, Jay Blumler and Micahel Gurevitch in 1974.

Uses and Gratifications theory has been long used as an approach to understand how and why people actively seek out particular media to satisfy specific needs and to examine what people do with media as active participants as opposed to what it does to them. The basic principle of this theory argues that audiences are active audience and use media to fulfill their various needs and when their needs are fulfilled they get gratification. Uses and Gratifications theory views audience purposively select media to satisfy various needs. The theory argues that media choices are made by audience according to their needs (Whiting & Williams, 2013).

According to an analysis by Rossi, E. (2002), based on Katz, Blunder, and Gurevitch *Mass Communication Research book*, i.e. the use and Gratification theory has five basic assumptions.

The first assumption is that people are motivated and purposive in their communication behavior. This means audiences purposively select communication channels based on their motivations. Some recent studies have found that young people join social media platforms because their friends suggest to them and some people join social media platforms because, they help them keep in touch with friends ( Karimi, Khodabandelou, Ehsani& Ahmad, 2014).

The second assumption is that people actively select and use media to satisfy felt needs or wants. Depending on one's needs and wants, one media form may be preferred over another.

The third assumption is that people are influenced by social and psychological factors when selecting among communication alternatives. Depending on the state of mind of people, as well as the environment, they may select one communication channel over another. The fourth assumption says that the media have to compete with other forms of communication

for attention, selection, and use. The fifth assumption is that people are able to articulate their reasons for using media. This means that people are able to say their various reasons for choosing to use the media.

This theory is directly linked with this study since it can be assumed that adolescents' use of social networking media sites such as facebook, because students/ adolescents use media for relaxing entertainment, tension relief, information sharing, passing time, social interaction, learning about the world, sensation seeking and escape from loneliness their major reasons to use media (Whiting & Williams, 2013, Papacharissi & Mendelson, 2011). Therefore, the academic performance of students is as a result of the competition between facebook use and academic work. This implies that the amount of time invested in using facebook could affect the time allocation for studies by students and this affect their academic performance.

### **2.6.2. Social Learning Theory**

*“Learning would be exceedingly laborious, not to mention hazardous, if people had to rely solely on the effects of their own actions to inform them what to do. Fortunately, most human behavior is learned observationally through modeling: from observing others one forms an idea of how new behaviors are performed, and on later occasions this coded information serves as a guide for action.” (Albert Bandura, Social Learning Theory, 1977)*

According to social learning theory, three elements, including individual learners, peers, and situations, potentially affect individuals' learning outcomes (Bandura, 1997). For instance, social learning theory, states the importance of learning via observation and modeling. Ainin (2015, p 65), states that the Social Learning theory “basically explains how the environmental and cognitive components collaborate to affect an individual learning and behaviour pattern”. “Social learning theory views learning as a social process that individuals will self-initiate regulate learning and actively construct knowledge by acquiring, generating, and structuring information” (Yu , 2010, p. 1495).

In relation to the social learning theory as stated by Bandura (1997) individuals' cognition and behaviour are influenced through observation and interacting with peers and the situations. This theory emphasized that it is individuals' interaction with the environment that causes their behavioural consequence. Therefore, individual or student interactions (by using social networking sites like facebook) with friends (peers) and social support from peers on

various social networks platforms (situations) affect his or her academic performance (learning outcomes). This is supported by Ainin (2015, p. 65), who “emphasized that individuals' cognition and behaviour are influenced through observation and interacting with peers and the situations (e.g., learning the environmental norms, cultures, policies). It is the individuals' interaction with the environment that causes their behavioral consequences”. As a result, individual interaction with peers, social support from peers and their understanding of situations are important factors which affect individual learning outcome (DeAndrea, Ellison, LaRose, Steinfield, & Fiore, 2012). Therefore, when students interact with peers on social media platforms through observations, interaction and other activities, these may result in a behavioral outcome which might affect their academic performance positively or negatively.

## 2.7. Conceptual Framework

In this study, the researcher was examined the relationship between facebook usage and students academic performance. Academic performance is measured by using the mark if the student has persistently maintained his /her semester average result. Facebook usage is measured by using facebook usage questionnaires that adapted from Young Internet Addiction scale (2011).

The following diagram shows the relationships among the relevant variables and associated activities

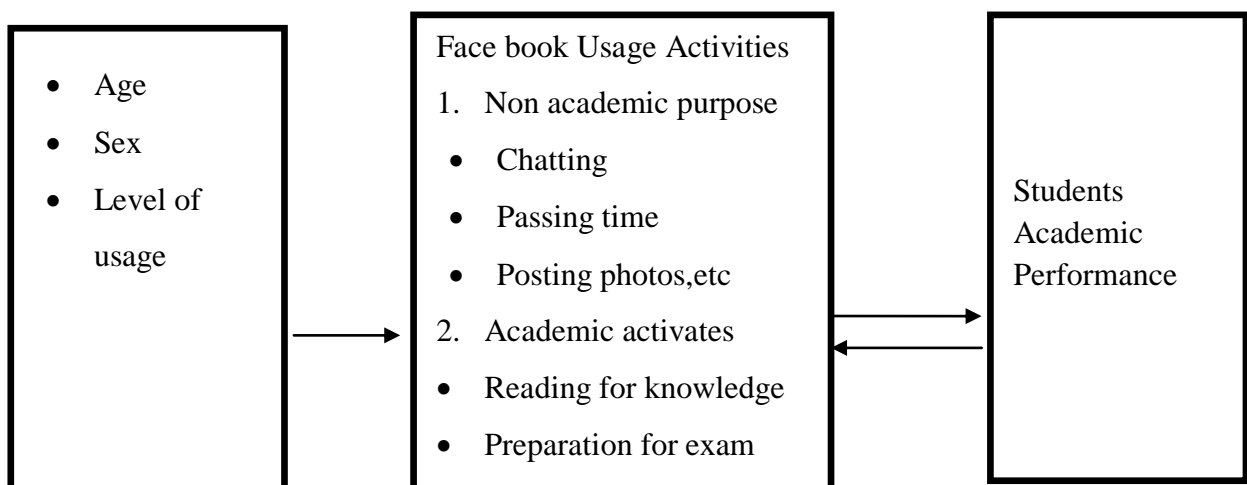


Figure 3: Conceptual Framework

According to the different literature confer with; it appears that age, sex influence use of facebook. Also, level of face book usage and time spent on facebook influences the academic performance of students. Use of facebook involves a variety of activities (e.g. entertainment, passing time, posting photos, communicating with people they know in facebook), which in turn influence the academic performance of students.

## CHAPTER THREE

### Research Design and Methodology

#### 3.1. Design of the Study

In this study, a quantitative method was employed to gather the data. It allows the researcher to investigate the relationship between variables and generalized real world settings and it also can analyze the data using mathematically based method, in particular Statistics (Muijs, 2004). The researcher used descriptive statistics with correlational method as a design because this study was aimed to describe the prevalence and purpose of facebook use, and also to examine the relationship between facebook usage and students academic performance.

#### 3.2. Study Area

The study was carried out in Addis Abeba City Administration. In the city there are 10 sub cities. From which, the study was employed in Bole sub city. Hence, Bole sub city is located in eastern parts of Addis Ababa. The researcher selected Bole Sub city as a study site because compared to other sub cities of Addis Ababa, Bole Sub City has a relatively better economic status (Central Statistical Agency, 2011). So, the students have better access to a smart phone, tablet and computers and also had more access to internet connection to search social networking medias especially facebook.



**Figure 4: The physical map of study area**

### 3.3. Population of the Study

There are three secondary, one preparatory and one secondary and preparatory government schools in Bole Sub city, out of which Beshale Secondary and Preparatory School was purposively selected. The reason why only Beshale secondary and preparatory school was included in the study was that, it is the only governmental school which provided secondary and preparatory education (grade 9 up to 12) in the sub city. Also, the researcher worked in the selected school and the situations were assumed to be relatively convenient for data collection. The total number of students in the selected school was 2025. In this study, the main participants were Secondary and preparatory school students because; they were the ones using facebook and the main concern of this study.

**Table 1:**

**The total population of the school**

School name	Grade Level	Sex		Total
		Male	Female	
Beshale S&P.S	9 <sup>th</sup>	289	305	594
	10 <sup>th</sup>	300	350	650
	11 <sup>th</sup>	142	182	324
	12 <sup>th</sup>	179	278	457
Sum		910	1115	2025

*Source: School Record and Documentation office*

### 3.4. Sample Size Determination

According to the record list of Beshale secondary and preparatory school, there are 2025 (male 910 and female 1115) students at the time of conducting this research. The study sample was determined based on the formula of sample size determination that suggested by Krejcie and Morgan (1970). The sample size was determined by using the following formula:

$$S = \frac{X^2 NP(1 - P)}{d^2 (N - 1) + X^2 P(1 - P)}$$

Where,

S = is the sample size

$X^2$  = the value of chi-square for 1 degree of freedom at 95% confidence level (1.96\*1.96 = 3.8416)

N = is the estimated study population 2025 students

P = the population proportion (assumed to be 0.50 since this provide the maximum sample size).

$d^2$  = the degree of accuracy expressed as a proportion (0.05)

Therefore, we can calculate the sample size by using the above formula;

$$S = \frac{3.8416 \times 2025 \times 0.5(1 - 0.5)}{0.05^2(2025 - 1) + 1.96^2 \times 0.5(1 - 0.5)}$$
$$S = \frac{1947.037}{5.06 + 0.96} = 324$$

The sample size of this study was 324 Students from the selected Beshale Secondary and Preparatory Schools.

### **3.5. Sampling Techniques**

In this study purposive sampling and stratified random sampling were used. The first, purposive sampling was used in the selection of Beshale secondary and preparatory school.

After selecting the school, the researcher used stratified random sampling. The stratified sampling is a sampling type under the probability sampling method where the population is divided into strata. The stratified sampling method is used to divide the population into non-overlapping sub groups called strata (Kothari, 2004). The sample size was 324 students. They were selected as a representative of the population from each stratum disproportionately on the bases of equal size determination. So that 81 (41 male and 40 female) students from grade 9<sup>th</sup>, 81 (40 males and 41 females) from grade 10<sup>th</sup>, 81 (40 males and 41 females) from grade 11<sup>th</sup> students and 81 (41 males and 40 females) from grade 12<sup>th</sup> students were randomly selected.

### **3.6. Tools for Data Collection**

In order to collect the data from the respondents the researcher used self-administered and self-reported questionnaires. The questionnaires consist of two parts.

The first part consists about demographic variables such as age, gender, grade level, section, Id number and whether they have a facebook account or not, time spent on facebook, students Academic performance result/ Average/, and purpose of using face facebook.

The second part consists of levels of facebook usage questionnaire. The measure of general Internet use was designed to demarcate low, moderate and high Facebook usage. This measure was based on Young's (2011) Internet Addiction Scale (IAS), which has a high Cronbach alpha (0.92). The higher the scores of the participant the greater her/his level of facebook usage. An adolescent who scores 15-29 points, 30 - 45 points and 46 – 60 points in facebook usage scale was low, moderate and high exposures respectively.

### **3.7. Pilot Study**

Before the pilot test was conducted, the instrument was translated from English language into Amharic version to avoid language barrier and attain the required information from the participants. The translation was made contextually by the researcher. The Amharic version was translated back into English language by the aid of one English language Post graduate student. After that, the researcher checked the translation by comparing the original items with the translate items. The Amharic version was edited and cleaned by two Amharic teachers. Then the pilot study was conducted on 30 (15 male and 15 female) students from another Secondary and preparatory school. The purpose of the pilot study was to check the feasibility of the study and to test the clarity of the questionnaire. The pilot test showed that the questionnaires were unambiguous and did not create any confusion. Therefore, all 30 students responded and accomplished the questionnaire.

The response of the participants was analyzed to calculate reliability. The reliability of the questionnaires (scale) was checked by scoring and tabulating the participants' response using SPSS version 20. In order to determine the reliability coefficient of the instrument, the Cronbach Alpha Reliability Coefficient was used. This value was found to be  $\alpha = .89$ . This coefficient value indicates that the instrument was reliable.

### **3.8. Procedure for Data Collection**

After the selection of the study site, a supportive letter was written by Addis Abeba University School of Psychology to Beshale Secondary and Preparatory school administrators to get permission and to conduct the research on condition that it would not affect the institutions hierarchical organization. The school administrator and teachers were cooperative and kind enough to arrange a convenient time to administer the questionnaires. Before administering the questionnaires, record of 2018/2019 first semester average score of student was sought and obtained from the school record and documentation office, so as to obtain a true report on students' academic performance.

At the time of inception of data collection, the consent of participants was asked. Following this, the purpose of the study was explained for participants and they were given orientation on how to respond to the questionnaire, and accordingly the questionnaire was distributed to all the participants. Next to the administration of the questionnaire, the researcher had collected questionnaire as immediately when the participant's finished. Finally, after the data was collected, the researcher had made it ready for scoring by giving code.

### **3.9. Method of Data Analysis**

After the data was collected, data entry and analysis was done using Statistical Package for Social Sciences (SPSS) version 20.

- The demographic characteristic of participants was computed by using simple descriptive statistics such as percentage and frequencies.
- Descriptive Statistics (Cross tabulation ) was used to show the prevalence of facebook use based on age and sex
- Descriptive Statistics was used to identify the purpose of Facebook Usage for students
- Pearson correlation test was used to determine the relationship between face book usage and academic performance
- Independent t-test was used to identify whether there is sex difference in facebook usage among students.
- Also Independent t- test was used to identify whether there is age difference in facebook usage among students'

- An independent-sample t-test was used to compare the academic performance of facebook users and non user groups
- One –way ANOVA was used to examine the academic difference between student’s levels of facebook usage.

## CHAPTER FOUR

### Data analysis and Interpretation

In this chapter, the results and interpretations of the analyzed data are presented. The response rate and demographic characteristics of the participants are discussed at the beginning of the chapter.

#### 4.1. Demographic Characteristic of Participants

**Table 2:**

**Demographic Characteristic of Respondents in Beshale Secondary and Preparatory School (N = 324)**

Demographic characteristics	Categories	Frequency	Percent
Sex	Male	162	50.0
	Female	162	50.0
	Total	324	100.0
Age	14-17	166	51.2
	18-21	158	48.8
	Total	324	100
Grade level	9 <sup>th</sup>	81	25.0
	10 <sup>th</sup>	81	25.0
	11 <sup>th</sup>	81	25.0
	12 <sup>th</sup>	81	25.0
	Total	324	100.0
Facebook	Users	227	70.1
	Non users	97	29.9
	Total	324	100.0
Level of Facebook usage	15- 29 points (Low )	103	45.4
	30 – 45 points (Moderate )	43	18.9
	46 – 60 points (High )	81	35.7
	Total	227	100

As indicated in the table 2 above, the total number of participants in the distributed questionnaire was 324 and all questionnaires were filled completely and consistently with a response rate of 100%. Among the total respondents who filled out the questionnaire, the two sexes were equally distributed with 162 (50%) males and 162 (50%) females. As the same table indicates, the study selected 324 (81 each 9<sup>th</sup>, 10<sup>th</sup>, 11<sup>th</sup> and 12<sup>th</sup>) students from each grade level because the researcher used an equal sample size distribution of participants. The majority of the respondents' 166 (51.2%) were found in age from 14- 17 years and 158 (48.8%) were found in ages from 18-21 years.

Furthermore, the majority of the respondents in Beshale Secondary and Preparatory school used facebook 227 (70.1%) and the rest 97 (29.9%) did not use facebook. These non user students completed only demographic variable (Age, sex, grade level, section, Id number and first semester average Score) because they were excluded from the items to measure facebook usage.

The level of facebook usage was expressed depending on the cut-off point. Therefore, according to the Young's (2011) Internet Addiction Scale, 15 – 29 points was categorized in low level facebook usage, 30 – 45 point was categorized under moderate level of facebook usage and the last score 46 - 60 was categorized under high level of facebook usage. With this regard, in Beshale Secondary and Preparatory School, there were 227students using facebook, out of which 103(45.4%) respondents were low level of facebook users and the rest 43(18.9%) were moderate and 81(35.7%) were high level facebook users.

**Table 3:**

**Descriptive statistics of the first semester academic performance of students**

Gender	N	M	SD	Minimum	Maximum
Male	162	71.95	11.04	48	98
Female	162	71.44	9.42	50	94
Total	324	71.70	10.25	48	98

As shown in table 3, first semester academic performance of students ranges from 48 to 98 with the mean score of 71.70 (SD = 10.25). First semester average score of male ranges 48 to

98 with the mean score of 71.95 (SD = 11.04) and also the semester average score for female students was ranges from 50 to 94 with the mean score of 71.44 (SD = 9.42).

## 4.2. Prevalence of Facebook Usage

To answer the prevalence of facebook usage based on sex and age, descriptive statistics were used and presented as follows

**Table 4:**

### Prevalence of Facebook Usage based on sex

Variable	Facebook usage				
	Yes	percent	No	percent	Total
Male	124	38.3	38	11.7	162
Female	103	32.8	59	18.2	162
Total	227	70.1	97	29.9	324

As displayed from the above table, the prevalence of facebook usage was revealed with their frequency and percentage. With this regard, 227 (38.3% males, 32.8% females) students reported that they used facebook and the rest 97 (11.7 male, 18.2 female) students reported that they did not use facebook. This finding indicates that, male students were more prone to use facebook than female students.

**Table 5:**

### Prevalence of Facebook Usage based on age

Variable	Facebook Usage				
	Yes	Percent	No	Percent	Total
14 - 17	101	31.2	65	20.1	166
18 - 21	126	38.9	32	9.8	158
Total	227	70.1	97	29.9	324

As the above table indicates that, cross tabulation was computed to show the prevalence of facebook use based on the two age levels. Hence, 227 students replied that they used facebook. Out of which 101(31.2%) were in the 14 -17 and 126 (38.9%) within 18 - 21 age ranges. The remaining 97 students reported that they did not use facebook. Among those, 20.1% were in the 14 – 17 and 9.8% were in the 18- 21 age ranges. This finding shows that, the age ranges between 18 -21 was more in using facebook than the age range of 14 -17 years old.

### 4.3. Purposes of Facebook Use for the Students

Descriptive statistics were used to answer the purpose of facebook usage by the school students. It is presented as follows:

**Table 6:**

**Descriptive Statistics on the Purpose of Facebook Usage for students**

<b>Alternatives</b>	<b>Frequency</b>	<b>Percent</b>
For entertainment	80	35.2
Education	26	11.5
Passing time	17	7.5
Chatting with friends	34	15
Making new friendship	17	7.5
Entertainment, passing time and chatting	22	9.7
Entertainment, education, passing time, chatting and making new friendship	11	4.8
Other reasons	20	8.8
Total	227	100

As it is displayed in the above table 4, a high number of the students stated that they use face book for entertainment, with 80 students (35.2%) citing this reason. Other 34 (15%) respondents reported using face book for communication chatting with friends and this is the second most stated purpose for using face book. The number of students who use facebook for education were 26 (11.5%) and 22 (9.7%) used facebook for Entertainment, passing time

and chatting, and 17 (7.5%) use it for Passing time. The number of respondents who sated that they used facebook for Entertainment, education, passing time, chatting and making new friendship were 11(4.8) and the last 20 (8.8%) were used facebook for other purposes.

#### 4.4. Difference in Facebook usage as a function of Demographic Characteristics

To answer differences in facebook usage as a function of demographic characteristics, independent sample t- test were used and presented as follows.

**Table 7:**

**Independent sample t-test for differences in the usage of facebook as a function of Gender Category (n = 162 males and 162 females)**

Variable	Sex	M	SD	<i>t</i>	<i>df</i>	<i>p</i>
Facebook usage				-.702	225	.484
	Male	33.19	11.16			
	Female	34.26	11.73			

As the above table shows that, an independent t-test was conducted to compare the facebook usage scores for male and females. There was no significant difference in scores for males (M = 33.19, SD = 11.16) and females (M = 34.26, SD = 11.73;  $t(227) = -.702$ ,  $p = .484$ , two-tailed). The magnitude of the difference in the means (mean difference = -1.068, 95% CI: -4.07 to 1.93) was very small (eta squared = .002).

**Table 8:**

**Comparison in the Usage of Facebook as a function of Age category**

Variable	Age	M	SD	<i>t</i>	<i>df</i>	<i>p</i>
Facebook usage				.064	225	.949
	14 – 17 (n= 101)	33.73	11.29			
	18 - 21 (n = 126)	33.63	11.55			

As indicated on the above, independent t-test was employed to compare the facebook usage scores for the two age intervals. The result has indicated that, there was no significance

difference in score for the age 14 – 17 (M = 33.73, SD = 11.29) and the age 18 -21 (M = 33.63, SD = 11.55;  $t(227) = 0.64, p = .949$ , two – tailed). The magnitude of the difference in the means (mean difference .09775, 95% CI: -2.91 to 3.1) was very small effect (eta squared = .001).

#### **4.5. Relationship between Facebook usage and Students Academic performance**

Pearson product-moment correlation coefficient was used to examine the relationship between facebook usage and students academic performance.

**Table 9:**

**Intercorrelations, Mean and Standard Deviations for Two variables (N = 227)**

<b>Variable</b>	<b>1</b>	<b>2</b>	<b>M</b>	<b>SD</b>
1. Facebook Usage	—	-.392*	33.68	11.41
2. Academic Performance	-.392*	—	71.7	10.25

\*\* . Correlation is significant at the 0.01 level (2-tailed).

As the above table indicates the relationship between facebook usages and academic performance of students was investigated using Pearson product-moment correlation coefficient. There was negative correlation between the variables,  $r = -.392, n = 227, p = .001$ , which indicates that academic performance is low when facebook usage is high. The two variables are moderately inversely related. This is a medium relationship according to Cohen (1988). This means that students with high level of facebook usage were associated with lower level academic performance. Facebook usage and students academic performance was 15% shared variance.

#### **4.6. Comparison between Facebook Users and Non users in their Academic Performance**

An independent-sample t-test was conducted to compare the Academic Performance Scores of facebook users and non users group

**Table 10:**

**Difference among face book users and non users N = 324)**

Variable	Facebook	M	SD	<i>t</i>	<i>df</i>	<i>p</i>
Academic performance				-3.89	322	.000
	User	70.28	10.61			
	Non user	75.02	8.50			

As the above table shows, an independent t-test was conducted to compare the academic performance of face book users and non users. There was statistically significant difference in academic performance scores for users and non users ( $M = 75.02$ ,  $SD = 8.50$ ;  $t(227) = -3.899$ ,  $p = .001$ , two-tailed). The magnitude of the difference in the means (mean difference =  $-4.744$ , 95% CI:  $-7.138$  to  $-2.350$ ) was very small ( $\eta^2 = .045$ ). So, only 4.5% of the variance in academic performance was explained by face book usage.

#### **4.7. Comparison of Low, Moderate and High Level of Facebook Usage and Academics performance of students**

**Table 11:**

**Mean and Standard Deviation of first semester average scores for the given Levels of Facebook usage**

Level of Facebook Usage	N	Mean	Std. Deviation
Low	103	74.89	10.01
Moderate	43	68.60	7.42
High	81	65.30	10.37

As indicated in table 11, the mean and standard deviation of the academic performance of low level facebook users were ( $M = 74.89$ ,  $SD = 10.01$ ) higher than moderate users ( $M = 68.60$ ,  $SD = 7.42$ ) and high level users ( $M = 65.30$ ,  $SD = 10.37$ ). Also, moderate users have better mean of academic performance than high level users.

**Table 12:****One - Way ANOVA Summary Table Comparing Students by their Level of Facebook Usage and Academic Performance**

	<b>df</b>	<b>SS</b>	<b>MS</b>	<b>F</b>	<b>p</b>
Between Groups	2	4322.67	2161.33	22.91	.000
With in Groups	224	21130.59	94.33		
Total	226	25453.26			

$P < .05$

A one- way between group Analysis of variance was conducted to explore the difference in academic performance among the levels of facebook usage. Participants were divided into three groups according to their level of facebook usage (group 1: Low, Group 2: Moderate and Group 3: High). There was statistically significant difference at the  $p < .05$  level in academic performance scores for the three levels of facebook usage groups:  $F(2,224) = 22.9, p = .01$ ). Despite reaching statistically significant, the actual difference in mean scores between the groups was quite small. The effect size, calculated using eta squared, was .02. Scheffe's post- hoc comparison was conducted in order to identify the exact difference.

**Table 13:****Post-hoc Tukey Test between Low, Moderate and High level facebook users**

(I) Levels of facebook usage	(J) Levels of facebook usage	Mean Difference (I-J)	sig
Low	Moderate	6.287*	.001
	High	9.595**	.000
Moderate	Low	-6.287*	.001
	High	3.308	.170
High	Low	-9.595**	.000
	Moderate	-3.308	.170

$P^* < .05, P^{**} < .001$

Post hoc comparisons using the Tukey HSD test indicates that the mean score for low face book user was significantly different from moderate and high level facebook users. Thus, from this post hoc result it is concluded that students who had low level of facebook usage are better in their academic performance than those students who had high level of facebook usage. Also it indicates that students who had moderate facebook using level are better in their academic performance than high facebook users.

**Table 14:**

**Descriptive statistics of the Academic performance of Non users, Low, Moderate, High facebook users**

Level of Facebook Usage	N	Mean	Std. Deviation
Low	103	74.89	10.01
Moderate	43	68.60	7.42
High	81	65.30	10.37
Non users	97	75.02	8.50

As indicated in the above table 14, the mean and standard deviation of the academic performance of students are indicated for the given levels of facebook usage. The academic performance score of low level facebook users (M= 74.89, SD = 10.01) was higher than moderate level users (M = 68.60, SD = 7.42) and high level users (M = 65.30, SD = 10.37). Also the mean score of non users (M= 75.02, SD = 8.50) higher than moderate level users (M = 68.60, SD = 7.42) and high level facebook users (M = 65.30, SD = 10.37). However, there was not much mean difference between low level facebook users and non users.

**Table15:**

**Non users, low users, moderate users and High facebook users**

	df	SS	MS	F	p
Between Groups	3	5852.12	1950.70	22.24	.001
Within Groups	320	28074.54	87.73		
Total	323	33926.67			

P < .05

According to the above table 15, Analysis of Variance (ANOVA) was used to see if academic performance differs by level of facebook users (i.e. Non user, low user, moderate user and High user). The ANOVA result indicates that there is statistical significant difference in academic performance among the level of facebook usage ( $F = 22.24, p < .05$ ). Post-hoc comparison further showed the following results.

**Table 16:**

**Post-hoc Tukey Test between Non users, low, moderate and high facebook users**

(I) Levels of facebook usage	(J) Levels of facebook usage	Mean Difference (I-J)	sig
Low user	Moderate	6.287*	.001
	High	9.595**	.000
	Non user	-.129	1.00
Moderate	Low	-6.287*	.001
	High	3.308	.242
	Non user	-6.416*	.001
High	Low	-9.595*	.001
	Moderate	-3.308	.242
	Non user	-9.724**	.000
Non users	low	.129	1.00
	Moderate	6.416*	.001
	High	9.724**	.000

$P < .05, P^{**} < .001$

As it is shown on table 16 above, the Tukey HSD Post hoc Comparison test was used. So it indicates that the non user group and high user group differ significantly in their academic performance. So that high level facebook user students had lower academic performance whereas the non users and low level facebook users had a higher performance.

## **CHAPTER FIVE**

### **Discussion and Results**

#### **5.1. Prevalence of Facebook Use based on Sex and Gender**

The first question of this study was focused on the prevalence of facebook usage based on sex, and age. Firstly, the finding of the present study revealed that male students were relatively more users of facebook than the female students. Thus, this finding is supported by Lin and Subrahmanyam, (2007) who conclude that boys have been online more than girls. Similarly, Hsu and Chuang (2008) conducted a study on secondary school students and reported that male students used social networking sites more than female students did. They also found that the male to female ratio for social networking use was almost five to one.

Conversely, this finding was not consistent with the findings of Duggan (2015) and the reports of Social baker (2018) which indicated that females were more users of facebook than males.

Moreover, when describing the prevalence of facebook use based on age, the finding of this study revealed that the age ranges of 18 – 21 were more of facebook users than 14 -17 years old. This result supports the findings of Lenhart (2010) which says that 57% of social network users are 18-29 years old. Similarly the reports of Facebook Statistics Demographics & Fun Facts, (2019) supports this finding which noted that people between the ages of 18 and 29 years utilize social networking sites more frequently overall, with this demographic representing 88% of facebook users.

#### **5.2. Purposes of Facebook Usage**

The second question of this study was focused on the purpose of facebook use by secondary and preparatory school students. In this study the majority of participants indicated using facebook for the following purposes such as entertainment, chatting with friends and education respectively. Hence, this finding supports the previous findings of Sheldon (2008) and Singh and Gill (2015) which studied that the main purpose of using face book for students was entertainment and to pass time. Similar results from a local study conducted by Mohammed (2014) also revealed that majority of students used facebook for entertainment,

communication with people far away and making companionship respectively. That means students used facebook for entertainment than educational purpose.

However, this finding does not support the previous findings of Kassahun (2014), Eke, Omekwu and Odoh (2014), Sponcil and Gitimu (2013), Nazir (2014) and Madhusudhanv (2013) who found that students use the facebook as a way to keep contact with friends and family, chatting with friends and academic related activities. The possible reasons for this difference might be the purpose that students using facebook are in line with Use and Gratification theory which says that audience purposively selects media to satisfy their needs. Therefore, adolescents used social networking sites like facebook because adolescents use media for entertainment, tension relief, information sharing, passing time, social interaction, learning about the world, sensation seeking and escape from loneliness as the major reasons to use media (Whiting & Williams, 2013, Papacharissi & Mendelson, 2011).

### **5.3. Demographic characteristics (Sex and Age) difference in Facebook**

#### **Usage among students**

The third question of this study focused on students' facebook usage difference based on age and sex. First, when comparing facebook usage between genders, the finding of the current study shows that there was no significant difference between females and male usage of facebook. This implies that gender does not determine facebook usage. This finding is in line with the finding of Omolayo, Balogun & Omole (2013) which noted that, there is no significant difference between males and females' usage of facebook.

However, this finding does not support the previous findings of Khan (2010), Aghazamani (2010), and Shen and Khalifa (2010) who found that male student's use facebook than females. Other researchers, Tufekci (2008), Rudi & Dworkin (2014), Kittinger, Correia, & Irons (2012) suggest that females are more likely to use facebook than males. This is also not consistent with the findings of the current study.

Second, when comparing facebook usage based on age, the finding of this study showed that there was no significant difference in facebook usage for the age 14 – 17 and 18 – 21 years. This finding goes in line with the reports of Internet World Statistics (2018) which stated that Ethiopian youth aged 13 to 24 constitute the highest facebook users than other age groups.

Similarly it is consistent with the finding of Lenhart (2010) which stated that facebook has seen a growth in users both under the age of 18 years and over 29 years.

However, this study does not support the earlier studies of Lenhart (2011) and Davies (2012) which noted that teenagers are the dominant users of Face book.

#### **5.4. Correlation between Facebook Usage and Academic Performance of Students**

The fourth question of this study was to see the relationship between facebook usage and academic performance of the students. So, the present study found that there is a negative relationship between facebook usage and academic performance of students. This means that academic performance is low when facebook is high. This study supports the previous finding of Madge, Meek, Wellens and Hooley (2009), Kirschner and Karpinski (2010), (Karpinski& Duberstein, 2009), and Junko (2010) who reported that there is a negative relationship between facebook use and academic performance.

Conversely, this finding is not consistent with the previous findings of Pasek, More and Hargittai (2009) who concluded that use of facebook has a positive relationship with academic performance. The other researchers Kolek and Saunders (2008) also found that there was no correlation between Facebook use and academic performance of students.

#### **5.5. Difference between Facebook Users and Non users in their Academic Performance**

To examine whether there is an academic performance difference between facebook users and non users was the fifth question of the present study. Hence, the present study revealed that there is a statistically significant difference in academic performance between facebook users and non users. This finding is in keeping with the study of San Miguel (2009) and Kirschner and Karpinski (2010) who found out facebook users reporting lower academic performance than face book non users. However, this finding does not support the previous findings of Pasek, More and Hargittai (2009) who noted that students with higher grades tend to spend more of their time on Facebook.

## **5.6. Level of Facebook Usage and Academics performance**

In the present study 45.4%, students are low level face book users, 18.9% are moderate face book users, and 35.7% are high level facebook users. The current study indicates that low face book user was significantly different from moderate and high level facebook users. That means students who had low level of facebook usage are better in their academic performance than those students who had high level of facebook usage. Also it indicates that students who had moderate Facebook using level are better in their academic performance than high facebook users.

This finding support the previous studies by Kubey, Lavin, & Barrows (2001), Junco (2012) and Akhtar (2013) who concluded that excessive usage of social networking sites can become an addiction and it can cause academic problems. Similarly the findings are in keeping with the study by Mansfield (2009) who found that the students with low level facebook users performed better in their studies and academic performance as compared to those students who has high level facebook users.

## **5.7. Non users, Low users, Moderate users and High Facebook Users**

According to Kirschner and Karpinski (2010) study, students who spent more time on face book resulting lower academic performances and reported spending fewer hours per week studying on average than Facebook nonusers. Also, Cochran (2012) and Alexander (2012) found that Students with higher scores on the facebook usage had significantly lower academic performance. Therefore, their study goes in line with the present finding; which indicates that there is a statistical significant difference in academic performance between low, moderate, high level facebook users and non users. That means the non user group and high user group differ significantly in their academic performance. The mean score of non users was significantly differing from moderate level users and high level facebook users. The result of this study was similar to the study by Tsitsika (2014) as cited in Kawsar (2017) who reported that excessive use (two hours a day) of social networking sites was associated with lower academic performance.

## CHAPTER SIX

### Summary, Conclusion and Recommendations

#### 6.1. Summary

Today, social networking sites like face book have attracted billions of users in the world, many of whom who have integrated these site into their daily lives. Students have especially embraced this new way of communicating with classmates and keeping in touch with friends, entertainment, passing time, sharing information, and for education. There may be benefits to keeping connected with others by use of these sites. However, there is also a risk that they may negatively affect students' academic performance. Therefore, the objective of this study is to identify the prevalence of face book usage, purpose of using face book, and investigate the relationship between face book usage and students' academic performance etc.

In the study, descriptive with correlational method was adopted as a design. Bole sub city and Beshale Secondary and preparatory school was chosen purposively; and a sample of 324 participants was selected from a population of 2025 regular students by using the formula of Krejce and Morgan (1970) sample size determination. A stratified random sampling technique was used for the selection where 324 students were selected as representatives of the population from each stratum disproportionately on the base of equal sample size determination.

In order to collect the data from the respondents the researcher used self-reported questionnaires. The questionnaires consisted 21 questions and was divided in two main parts. The first part was designed to collect data related to students' demographic variables. The second part of the questionnaire consisted 15 especially designed Likert-type items adopted from Young (2004) which represented to measure the levels of facebook usage of students. Prior to the main data, a pilot test was conducted on 30 students to check the reliability and validity of the instruments. Based on the pilot test and its feedback, all the questionnaires were used without any change when the main data was collected. Then the questionnaires were administered on 324 students in Beshale Secondary and Preparatory school. The collected data was analyzed by using Statistical Package for Social Science (SPSS) version 20. This study used Descriptive statistics like percent and frequency and inferential statistics

like Independent t-test, and Analysis of Variance (ANOVA) and Pearson correlation to analyze quantitative data.

Based on the analysis, the following major findings were obtained:

- The majority of the respondents in Beshale Secondary and Preparatory school used facebook 70.1% and the rest 29.9% do not use facebook. Out of 227 (70.1%) facebook users 38.3% were males and 32.8% were female students who reported that they use facebook. The result indicates that, male students were relatively more users of facebook than the female students.
- Also 101(31.2%) students in the age ranges 14 -17 and 126 (38.9%) students in age ranges 18 - 21 used face book. This finding shows that, the age ranges between 18 -21 was more prevalent than 14 -17 age groups.
- The majority (35.2%, 15% and 11.5%) of respondents' used facebook for the purpose of entertainment, chatting with friends, making new friendships respectively.
- Independent sample t-test showed no significant difference in facebook usage between males and female face book users;  $t(227) = -.702, p = .484$ , two-tailed). Similarly, there was no statistically significant facebook usage difference between the age of 14 – 17 and 18-21 year old;  $t(227) = 0.64, p = .949$ , two – tailed).
- Moderate negative correlation was found between face book usage and academic performance [ $r = -.392, n = 227, p < .01$ ].
- Statistically significant difference was found between facebook users ( $M = 70.28, SD = 10.61$ ) and non users ( $M = 75.02, SD = 8.50$ ) in academic performance scores:  $t(227) = -3.899, p = .001$ , two-tailed). Therefore, non users had a better academic performance than low level, moderate and high level users
- Statistically significant difference was found between low level users ( $M= 75.02, SD = 8.50$ ), moderate users ( $M = 68.60, SD = 7.42$ ) and high level face book users ( $M = 65.30, SD = 10.37$ ). Therefore, high level users and moderate users were lower in academic performance than low level users.

## 6.2. Conclusions

The purpose of this study is to investigate the relationship between facebook usage and students academic performance in Beshale Secondary and Preparatory Secondary Schools, Addis Abeba, Bole sub city.

The current study had six research questions. The first question aimed to find out the prevalence of face book usage based on sex and age. The findings show most students 227 (70%) had a face book account, out of which 38.3% male and 32.8% female students reported that they use face book. So, the finding indicates that,

- Male students are relatively more users of facebook than female students and the age ranges between 18 -21 was more prevalent than 14 -17 age years.
- The Majority of secondary and preparatory students used facebook for the purpose of entertainment, chatting with friends, making new friendships respectively.
- In this study, there was no statistically significant difference in score of facebook usage between males and females students. Also there was no significant difference in score for the age 14 – 17and the age 18 -21
- There was moderate negative relationship between face book usage and academic performance of students,  $r = -.392$ ,  $n = 227$ ,  $p < .01$ , which indicates that academic performance is low when facebook usage is high.
- There was a statistically significant difference in academic performance scores for users and non users. It implies that facebook user students had lower academic performance than the non users.
- The present finding concludes that there was statistically significant different between the three levels of facebook usage (low. Moderate and high). Hence, students who had high level of facebook usage are lower in their academic performance than those students who had low level of facebook usage.
- Finally, there was a statistically significance difference between the three levels of facebook users and non users. That means non user groups are better academically than moderate and high level users. However, there was no significant difference between non users and low level facebook users and moderate and high facebook users.

### **6.3. Recommendation**

Based on these main findings of this study, the researcher forwarded the following suggestions:

#### **Recommendation for Government**

- Seminars should be organized in the school to enlighten students more about the possible implications of facebook usage on their academic performance.
- Governmental organizations like Ministry of Education and Ministry of Child, Youth and Women Affairs should work in cooperation to create awareness for the community about safe internet use and harm minimization

#### **Recommendation for Schools, Parents and Peers**

- Parents should advise students to limit the time they spend on facebook per day and encourage them to rather substitute those hours with reading novels and relevant academic books to improve their knowledge.
- Parents should give encouragement for their adolescent students to participate in other creative activities beyond facebook use.
- Teachers and parents should critically monitor the students' activities of social networking sites to create a balance between facebook use and academic performance of students.
- Teachers and parents should work cooperatively together for the benefit of all students regarding safe social media use like facebook
- Students should be encouraged to use phones and internet for educational purposes rather than the usual chatting with friends all the time.
- Students should manage their time properly and should give very little time for the social network sites.
- Peers should advise high level facebook users to pay more attention to their studies and to listen and respect the wisdom of their parents.

#### **Recommendation for Further Research**

- Further study should be done by covering wide range of sample from different schools in different geographical locations and by including variables that were not included in this study like religion, socio economic status,

- Research should be conducted to study using quantitative and qualitative measures in order to gain better understanding of the relationship between facebook usage and academic performance among secondary and preparatory school students.

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## Appendices

### Appendix A: Questionnaire for Student English Version

#### Questionnaires

I am a third year postgraduate student at Addis Abba University at college of education and behavioral studies. I am doing my thesis on *The Relationship between facebook usage and students academic performance of Beshale Preparatory Schools in Addis Ababa*. This questionnaire aims to get your exact feeling for each question, which makes my study sound and complete. Hence, I kindly request you to fill this questionnaire honestly. Personal details are not needed.

I thank you very much for your time and consideration in advance.

#### Part One

Questions Developed to Assess the Demographic Information of Preparatory Students.

1. Age \_\_\_\_\_ Sex -----
2. Level of education  
Grade 9  Grade 10   
Grade 11  Grade 12
3. ID Number \_\_\_\_\_ Section \_\_\_\_\_
4. First Semester average \_\_\_\_\_
5. Do you access/use Facebook?  
Yes  No
6. What is the purpose of using face book?(You can choose more than one)
  - A. Entertainment
  - B. education
  - C. passing time
  - D. chatting with friends
  - E. to make new friend ship

**Part Two**

**Level of Facebook Usage Scale**

No	Items	Never	Rarely	Often	Always
1	How often do you find that you stay on Facebook longer than you intended?				
2	How often do you prefer the excitement of Facebook to intimacy with your partners?				
3	How often do others in your life complain to you about the amount of time you spend on Facebook?				
4	How often does your education achievement suffer because of Facebook?				
5	How often do you check Facebook before something else that you need to do?				
6	How often do you become defensive or secretive when anyone asks you what you do on Facebook?				
7	How often do you block out disturbing thoughts about or life with soothing thoughts of Facebook?				
8	How often do you find yourself anticipating when you will go to Facebook again?				
9	How often do you fear that life without Facebook would be boring, empty and joyless?				
10	How often do you snap, yell, or act annoyed if someone bothers you while you are using Facebook?				
11	How often do you lose sleep due to late night logins?				
12	How often do you feel preoccupied with Facebook when off-line, or fantasize about being on-line?				
13	How often do you find yourself saying just “a few more minutes” when you are using Facebook?				
14	How often do you try to cut down the amount of time you spend on Facebook and fail?				
15	How often do you feel depressed, moody or nervous when you are off-line, which goes away once you are back to Facebook?				



**ክፍልሁለት**

የመሰናዶ ተማሪዎችን የፌስቡክ አጠቃቀም ደረጃ ለመለካት የተዘጋጁ ጥያቄዎች፡፡

ተ. ቁ	ጥያቄ	በጭራሽ	አልፎ አልፎ	ብዙግዜ	ሁልጊዜ
1	ካሰብከው/ሽው ግዜ አሳልፈህ/ሽ ፌስቡክ ተጠቅመህ/ሽ ታውቃለህ/ሽ?				
2	ከጓደኞችህ/ሽ ጋር ይበልጥ ለመቀራረብ ፌስቡክን አማራጭ ታደርጋለህ/ሽ?				
3	ፌስቡክ ላይ የምታውለውን/ይውን ግዜ በተመለከተ ከማህበረሰቡ ትችት ተሰንዝሮብህ/ሽ ያውቃል?				
4	ጊዜህን/ሽን ለፌስቡክ በማዋልህ/ሽ ትምህርትህ/ሽ ላይ ችግር ተፈጥሮ ያውቃል?				
5	ቅድሚያ መስጠት ከሚገባህ/ሽ ሃላፊነት ይልቅ ፌስቡክን ታስቀድማለህ/ሽ?				
6	ፌስቡክ አጠቃቀምህን/ሽን በተመለከተ ለሚቀርብልህ/ሽ ጥያቄ ተከራክረህ/ሽ ወይም ድብቅሆነህ/ሽ ታውቃለህ/ሽ?				
7	ፌስቡክ አሉታዊ ተፅእኖዎችን በተመለከተ የሚነሱ ሃሳቦችን በቸልታ ታልፋለህ/ሽ?				
8	በሌላ ስራ ላይ ሳለህ/ሽ ፌስቡክ ለመጠቀም ጉጉት አድሮብህ/ሽ ያውቃል?				
9	ህይወት ያለ ፌስቡክ አሰልጅና ባዶ ናት ብለህ/ሽ ታምናለህ/ሽ?				
10	ፌስቡክን በምትጠቀምበት/ሚበት ወቅት ሰዎች ሲረብሹህ/ሽ ትበላጭለህ/ሽ?				
11	ፌስቡክ ለመጠቀም ስትል/ይ እንቅልፍህን/ሽን ሰውተህ/ሽ ታውቃለህ/ሽ?				

12	ፌስቡክ መጠቀም ከሌሎች ነገሮች በላይ ደስታን ይሰጥሁል/ሻል?				
13	ምን ያህል ጊዜ ፌስቡክ ለመጠቀም ስትል/ዩ ጓደኞችህን/ሽን “እባክህ/ሽ/ ትንሽ ደቂቃ ስጠኝ/ጩኝ” ብለህ/ሽ ታውቃለህ/ሽ?				
14	ለፌስቡክ የምታውለውን/ዩውን ጊዜ ለመቀነስ ሞክረህ/ሽ ሳይሳካልህ/ሽ ቀርቶ ያውቃል?				
15	ፌስቡክ በማትጠቀምበት/ሚበት ወቅት ድብርት ወይም ጭንቀት ተሰምቶህ/ሽ መጠቀም ስትጀምር/ሪ ይህ ስሜት ይለቅሁል/ሻል?				

## Appendix C: Results of the Pilot Study

### Reliability Statistics

Cronbach's Alpha	N of Items
.893	15

### Item Statistics

	Mean	Std. Deviation	N
VAR00001	2.5333	.89955	30
VAR00002	2.2333	1.16511	30
VAR00003	1.6000	.77013	30
VAR00004	1.9667	1.21721	30
VAR00005	1.7333	1.04826	30
VAR00006	1.5667	.89763	30
VAR00007	2.0333	.92786	30
VAR00008	2.2000	.84690	30
VAR00009	1.5000	.93772	30
VAR00010	2.0667	.82768	30
VAR00011	2.3333	1.15470	30
VAR00012	2.3333	.88409	30
VAR00013	1.7333	.94443	30
VAR00014	1.7000	1.08755	30
VAR00015	1.6333	1.09807	30

**Appendix D: Results of the Independent T-Test ( facebook usage difference among sex)**

**Group Statistics**

	Sex	N	Mean	Std. Deviation	Std. Error Mean
FUT	Male	124	33.1935	11.15790	1.00201
	Female	103	34.2621	11.73311	1.15610

**Independent Samples Test**

		Levene's Test for Equality of Variances		t-test for Equality of Means						
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
									Lower	Upper
FUT	Equal variances assumed	2.908	.090	-.702	225	.484	-1.06859	1.52277	-4.06931	1.93213
	Equal variances not assumed			-.698	213.08	.486	-1.06859	1.52990	-4.08426	1.94708

**Appendix E: Results of the Independent T-Test (Face book usage difference among Age)**

	Age	N	Mean	Std. Deviation	Std. Error Mean
FUT	14-17 age	101	33.7327	11.28795	1.12319
	18-21 age	126	33.6349	11.55066	1.02901

**Independent Samples Test**

		Levene's Test for Equality of Variances		t-test for Equality of Means						
		F	Sig.	T	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
									Lower	Upper
FUT	Equal variances assumed	.339	.561	.064	225	.949	.09775	1.52718	-2.91165	3.10715
	Equal variances not assumed			.064	216.371	.949	.09775	1.52330	-2.90465	3.10015

## Appendix F: Results of the Descriptive statistics Frequencies

### What is the purpose of using face book?

	Frequency	Percent	Valid Percent	Cumulative Percent
	98	30.2	30.2	30.2
Entertainment	79	24.4	24.4	54.6
entertainment, education and chatting	7	2.2	2.2	56.8
entertainment, chatting and establish new friendship	5	1.5	1.5	58.3
entertainment, passing time and chatting	10	3.1	3.1	61.4
entertainment, education, passing time and chatting	2	.6	.6	62.0
education, education, passing time, chatting and establish new friendship	11	3.4	3.4	65.4
Education	26	8.0	8.0	73.5
passing time	17	5.2	5.2	78.7
chatting with friends	34	10.5	10.5	89.2
establish new friendship	17	5.2	5.2	94.4
entertainment and education	4	1.2	1.2	95.7
entertainment and passing time	7	2.2	2.2	97.8
entertainment and chatting with friends	5	1.5	1.5	99.4
passing time and chatting	2	.6	.6	100.0
Total	324	100.0	100.0	

## Appendix G: Results of the Frequency Table

### Do you access/use Facebook?

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid yes	227	70.1	70.1	70.1
Valid no	97	29.9	29.9	100.0
Total	324	100.0	100.0	

### Age

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid 14-17 age	166	51.2	51.2	51.2
Valid 18-21 age	158	48.8	48.8	100.0
Total	324	100.0	100.0	

### Sex

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid male	162	50.0	50.0	50.0
Valid female	162	50.0	50.0	100.0
Total	324	100.0	100.0	

### Level of education

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid grade 9	81	25.0	25.0	25.0
Valid grade10	81	25.0	25.0	50.0
Valid grade 11	81	25.0	25.0	75.0
Valid grade 12	81	25.0	25.0	100.0
Total	324	100.0	100.0	

## Frequencies

### levels of facebook usage

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	low	103	31.8	45.4	45.4
	moderate	43	13.3	18.9	64.3
	high	81	25.0	35.7	100.0
	Total	227	70.1	100.0	
Missing	System	97	29.9		
Total		324	100.0		

## Appendix H: Results of One-way ANOVA Descriptive

2018/19 first Semester average

	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Minimum	Maximum
					Lower Bound	Upper Bound		
					low	103		
moderat	43	68.60	7.420	1.132	66.32	70.89	51	87
high	81	65.30	10.369	1.152	63.00	67.59	48	90
Total	227	70.28	10.612	.704	68.89	71.66	48	98

### Test of Homogeneity of Variances

2018/19 first Semester average

Levene Statistic	df1	df2	Sig.
5.214	2	224	.006

### ANOVA

2018/19 first Semester average

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	4322.676	2	2161.338	22.912	.000
Within Groups	21130.590	224	94.333		
Total	25453.266	226			

### Robust Tests of Equality of Means

2018/19 first Semester average

	Statistic <sup>a</sup>	df1	df2	Sig.
Welch	21.251	2	125.469	.000
Brown-Forsythe	25.655	2	207.926	.000

a. Asymptotically F distributed.

## Multiple Comparisons

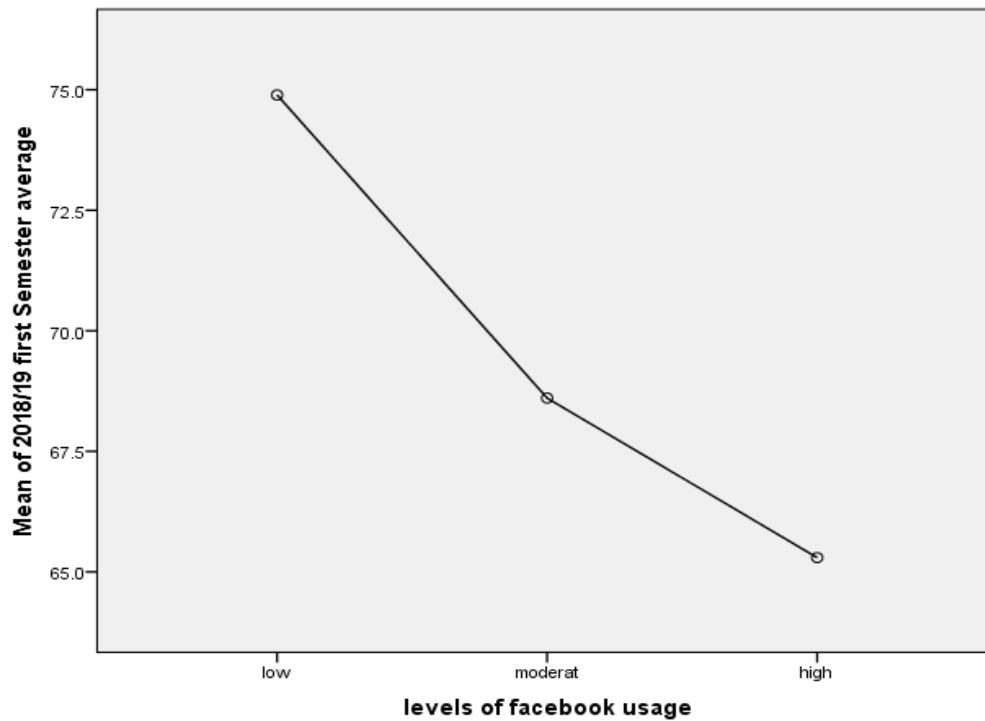
Dependent Variable: 2018/19 first Semester average

Tukey HSD

(I) levels of facebook usage	(J) levels of facebook usage	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
Low	moderat	6.287*	1.763	.001	2.13	10.45
	high	9.595*	1.442	.000	6.19	13.00
moderat	low	-6.287*	1.763	.001	-10.45	-2.13
	high	3.308	1.833	.170	-1.02	7.63
high	low	-9.595*	1.442	.000	-13.00	-6.19
	moderat	-3.308	1.833	.170	-7.63	1.02

\*. The mean difference is significant at the 0.05 level.

## Means Plots



## Appendix I: Results of Facebook user and Non- user T-Test

Group Statistics

	Do you access/use Facebook?	N	Mean	Std. Deviation	Std. Error Mean
2018/19 first Semester average	yes	227	70.28	10.612	.704
	no	97	75.02	8.505	.864

## Independent Samples Test

	Levene's Test for Equality of Variances	t-test for Equality of Means								
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
									Lower	Upper
2018/19 first Semester average	Equal variances assumed	3.567	.060	-3.899	322	.000	-4.744	1.217	-7.138	-2.350
	Equal variances not assumed			-4.257	224.103	.000	-4.744	1.114	-6.940	-2.548

## Appendix J: Results of One-way ANOVA for Non user, Lower, Moderate, Higher

### Descriptive

2018/19 first Semester average

	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Minimum	Maximum
					Lower Bound	Upper Bound		
Low	103	74.89	10.009	.986	72.94	76.85	60	98
moderate	43	68.60	7.420	1.132	66.32	70.89	51	87
High	81	65.30	10.369	1.152	63.00	67.59	48	90
non users	97	75.02	8.505	.864	73.31	76.73	57	94
Total	324	71.70	10.249	.569	70.58	72.82	48	98

### Test of Homogeneity of Variances

2018/19 first Semester average

Levene Statistic	df1	df2	Sig.
4.767	3	320	.003

### ANOVA

2018/19 first Semester average

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	5852.128	3	1950.709	22.235	.000
Within Groups	28074.549	320	87.733		
Total	33926.677	323			

## Multiple Comparisons

Dependent Variable: 2018/19 first Semester average

Tukey HSD

(I) levels of facebook usage	(J) levels of facebook usage	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
low	moderat	6.287*	1.701	.001	1.89	10.68
	high	9.595*	1.391	.000	6.00	13.19
	non users	-.129	1.325	1.000	-3.55	3.29
moderat	low	-6.287*	1.701	.001	-10.68	-1.89
	high	3.308	1.767	.242	-1.26	7.87
	non users	-6.416*	1.716	.001	-10.85	-1.98
high	low	-9.595*	1.391	.000	-13.19	-6.00
	moderat	-3.308	1.767	.242	-7.87	1.26
	non users	-9.724*	1.410	.000	-13.37	-6.08
non users	low	.129	1.325	1.000	-3.29	3.55
	moderat	6.416*	1.716	.001	1.98	10.85
	high	9.724*	1.410	.000	6.08	13.37

\*. The mean difference is significant at the 0.05 level.

## 2018/19 first Semester average

Tukey HSD

levels of facebook usage	N	Subset for alpha = 0.05	
		1	2
High	81	65.30	
moderat	43	68.60	
Low	103		74.89
non users	97		75.02
Sig.		.150	1.000

Means for groups in homogeneous subsets are displayed.

a. Uses Harmonic Mean Sample Size = 71.917.

b. The group sizes are unequal. The harmonic mean of the group sizes is used. Type I error levels are not guaranteed.

## Mean Plot

