

The Relationship Between the Nature of Academic Use of Social Media and the Academic Performance among Secondary Students: A Case Study of Secondary Schools in Moshi Urban District

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Abstract

Obviously, we are living with new technological advances which affect our everyday life. On top of that, social media is becoming popular for culture, particularly for the graduates. This study sought to the relationship between the nature of academic use of social media and the academic performance, A case study of Mawenzi, Moshi Technical and Majengo secondary schools. This study used descriptive research design and both qualitative and quantitative approaches were adopted. The population of this study consists of students from Majengo, Moshi Technical and Mawenzi secondary schools. A total of 346 respondents were provided questionnaires, with 8 (2%) having incomplete questionnaires and so being eliminated from analysis, leaving 338 for analysis. The 338 respondents retained for analysis represented 98% of the total sample. This study employed simple random sampling. Also, this study used both primary and secondary data. Quantitative data collected through questionnaire was analysed using both inferential and descriptive statistics. Qualitative data was analysed using content analysis. The findings showed that, the nature of academic use of the social media found to have a positive and significant relationship with academic performance. Secondary students must work on making enjoyable social media helpful by marketing them as a tool for not only conversation and pleasure but also study. Furthermore, students must be aware of the possible harm from excessive social media usage and approach the learning process and academic achievement appropriately. Future studies could be conducted in different secondary schools located in rural and urban areas in Tanzania to see the situation of the academic performance of students.

Keywords: Social Media, Academic Performance, Secondary School, Network, Students

1.0 Introduction

This study aims at determining the relationship between the nature of academic use of social media and the academic performance. Globally, social media is becoming popular for culture, particularly for the graduates. (Subrahmanyam et al., 2019). Kaplan and Haenlein (2018) recognized social media as a category of web-based applications that are influenced by Web 2.0's technical and ideological traits, providing users with the ability to build and change content. Social media also grown with the introduction of a class in an Internet arena where people generate, upload, bookmark, or link content at a prodigious pace. Because of its ease of use, speed and reach, social media is fast changing the public discourse in society and setting trends and agenda in topics that range from the environment and politics to technology and the entertainment industry (Asur and Huberman, 2018). Past studies have found that students who spend more time on social media sites are likely to demonstrate poor academic performance. This is because they spend time chatting online and making friends on social media sites instead of reading books. This has a negative effect on their academic performance (Owusu-Acheaw and Larson, 2015, Abbas et al., 2019).

In Africa, it is not surprising that social media usage is one of the most common activities among children, adolescents, and emerging adults nowadays. It offers today's youth a portal for entertainment and communication and it is becoming one of the main platforms for accessing information and news. Social media provide tools by which people can communicate, share information, and create new relationships. With the popularity of social networking websites on the rise, our social interaction is affected in multiple ways as we adapt to our increasingly technological world. The way web users

interact and talk to each other has changed and continues to change. These users now socialize through the internet and it takes away from the person socialization that has been around forever. Social networking websites have affected our social interaction by changing the way we interact face-to-face, how we receive information, and the dynamics of our social groups and friendships (Asur and Huberman, 2020).

In the past years, social media websites have become common; giving young people a new way to interact with each other and communicate with the world. Social networking became popular between 2004 and 2006, after Facebook and MySpace were created. Facebook, for example has over 500 million members and it is still growing and approximately 85% of undergraduate students are Facebook users (Schneider, 2019). These numbers are expected to grow since Facebook users will continue to grow. And this is not only true for Facebook, numbers for YouTube users closely follow as well (University of New Hampshire, 2017).

In Tanzania, social media, a relatively new phenomenon has gained currency as a tool to be used for communication as technology is rapidly changing too. There are multiple platforms offered in the dissemination of information, and technology is at the disposal of highly demanding public. This media has changed the way in which information is produced, distributed and displayed. Broom (2019) observes that the internet is a manifestation of an ever-present means of communication considering that all the new forms of media rely on the internet. Social media sites include: Twitter, IMO, Instagram, Facebook, Whatsapp messenger, YouTube, Skype, WeChart, Tiktok, Telegram and Signal Messenger. These networking sites are used by most people to interact with old and new friends, physical or internet friends (Asemah and Edegoh, 2017). Using social media is an integrated component of the lives of many students, it revolutionized habits of students such as reading, research, shopping and communication. Studies revealed that among the various age groups of students, university students are among the most using social networking (Azizi et al., 2019). Social networking sites play a very important role in education. Indeed, students are afforded multiple opportunities to improve learning and access the latest information by connecting with learning groups and other educational systems (Greenhow and Robelia, 2009). Students can also exchange information by connecting with different individuals. This can have a positive impact on student learning outcomes (Yu et al., 2010). Social media also has an impact on student mental health; which refers to their emotional, psychological, and social well-being. Majority of the students spend a lot of their time on social media both during the day and at night, and it can be contended that such technologies play an important role in their daily lives. However, despite their tremendous contributions to knowledge acquisition, there is a need to determine whether such technologies are being used to gain knowledge or for other purposes that may lead to the harmful effects of technology misuse.”

Over the years, social media among students has been gaining popularity. It is a way to build relationships, not just on campus but with schoolmates. Social media gives people the impression that they are affiliates. Given its prevalence, economists and researchers question whether the level of education would not interfere with the cost of time spent on these sites. Choney (2019) and Kist (2020) consider the use of technology such as the internet to be one of the primary factors that can have a positive or negative impact on students' educational performance. Many parents and staff are worried that schoolchildren will spend too much time on Facebook and other social media networks and have too little time to learn, which may lead to poor performance. Poor performance is the problem. Although parents fear many students continue to reuse those sites on a periodic basis and get addicted to them, this has caused distractions for students and their school. Mane (2020) argues that excessive use of these sites has a long-lasting effect on the psyche of students and also affects the physical, mental, and social aspects of life. They further affect the academic achievement of the students because they don't want to leave that particular aura, and thus their concentration is divided. Many students have lost

interest in their studies as they spend most of their time on these sites (Pokaz 2019). Boyd (2019) states that what started as a hobby for some computer literate people has become a social norm and way of life for people all over the world. Thus, the current study sought to assess the nature of academic use of social media on their academic performance with special focus to Majengo, Moshi Technical and Mawenzi secondary schools. A comprehensive understanding and investigation study were conducted to help the students, teachers and parents to comprehend role of nature of academic use of social media on academic performance and to guide them to better social media usage upon academic performance. This study sought to answer the following question: What is the nature of academic use of social media on academic performance of students?

2.0 Literature Review

2.1 Social learning theory and the Web

The social learning theory (Bandura, 1977) refers to learning through social media settings, focusing on observation as an important aspect of learning, that model the behavior of learners accordingly. Optimum cognitive development depends on the learner's complete social interaction, according to Vygotsky (Baron et al., 2015). In addition, teaching is most effective when learners participate in operations in a supportive (social) learning setting and receive adequate guidance mediated by the instruments mentioned in. The outcome of placing learning in a setting of cooperative and social learning is an enhanced variety of skills compared to what can be achieved alone. In the past, achieving "complete social interaction" needed that youth and society be linked to a physical room like a traditional teaching technique within society. But as web-based and other techniques have developed, youth in synchronous and asynchronous web-based learning settings achieve many of the social benefits of social media network interactions. Social networking media offers the chance to take deeper social interaction and address learning styles rooted in digital techniques (Baron et al 2016). In the meantime, most social network users learn from others in the kind of social network they belong to because the application of the theory of social learning argues that since most people are raised in a family setting, we learn to rely on others for help, information, love, friendship and entertainment (Baron et al 2017). Because of social learning theory it is easy for a student to learn even immoral stuffs from his/her friends. This theory assisted the researcher in assessing the relationship between the time spent on social media and academic performance of students.

2.2 Empirical Literature Review

Mawdsley (2018) conducted a study to measure students' perceptions of social media in education, to consider how social media may be incorporated as a complementary learning tool. A cross-sectional study was conducted among 300, 17–29-year-old students at Prince Sattam bin Abdul Aziz University. A questionnaire was used to collect data. Chi-squared (Fisher's exact test) test was used to analyze the data. The finding unveiled that social media addiction was negatively associated to students' academic performance. Also, findings of the study revealed that exposure and usage to social media positively influenced the students' academic performance. Sarsar et al. (2019) conducted a single case study on 18 doctoral students at Ege University during Fall Semester in 2017-2018 to determine their opinions regarding usage of social media tools on teaching and learning process. The results outlined that all students met their expectations during the course and they had positive attitude towards using Facebook. However, only the half of students thought that Blogger is a useful tool for the course activities. In a Nigerian research study, Seyi (2020) focused on the negative impact of engaging excessively and undue attention to online socialization to the harm of academics. This study posits that the 21st century brought with it the advent of the new media with its fast tracking means of sending and receiving information via internet in our contemporary society, the new media has gained popularity as its been used for entertainment, networking and academics. It also pointed out that social networking was provided a boost due to ideas from young generation. The use of Facebook was associated with co-curricular activities, which might be considered a positive influence by social media (Junco, 2020).

3.0 Methodology

This study used descriptive research design be embraced as it enables the review of the relationship of the variables under study. Mixed research approach was utilized. This study was conducted at Majengo Secondary, Moshi Technical and Mawenzi Secondary located in Moshi Urban - Kilimanjaro. Also, Moshi Urban - Kilimanjaro is a domicile of the researcher. These schools are selected because, study on the role of nature of academic use of social media on academic performance has not conducted hence the research was in position to fulfil this void. Also, the area selected is in a position to provide views and insights concerning role of social media in academic performance. The population of this study consists of students of secondary schools. This study employed simple random sampling. Name of the students were numbered and selected randomly. Students from Majengo, Moshi Technical and Mawenzi secondary schools had an equal chance to be included in this study. 346 students from Majengo, Moshi Technical and Mawenzi secondary schools were numbered and picked randomly using the following formula;

$$n = \frac{N}{1+N.e^2} = \frac{2590}{1+2590.0.05^2} = 346$$

Primary data was collected using questionnaire and interviews. Open and closed ended questionnaires for this case were distributed to the selected respondents. Also, semi structured interviews were conducted to obtain information on the nature of academic use of social media upon academic performance. Secondary data was obtained from various sources including published sources and unpublished sources such as books, research reports, journal articles, dissertations, seminar, magazines, and newspapers regarding to the nature of academic use of social media on academic performance. Quantitative data collected through questionnaire was analysed using both inferential and descriptive statistics. Inferential statistics such as regression and correlation analysis were used in analysing the association between the study variables. Qualitative data was analysed using content analysis. This is because the content analysis technique allows the researcher to be able to handle massive amounts of data.

4.0 Findings

A total of 346 respondents were provided questionnaires, with 8 (2%) having incomplete questionnaires and so being eliminated from analysis, leaving 338 for analysis. The 338 respondents retained for analysis represented 98% of the total sample.

4.1 Nature of Academic Use of Social Media and the Academic Performance

This study determined the relationship between the nature of academic use of social media and the academic performance. Based on the mean values, the five-point scale ranges are as follows: mean scores of less than 1.5 represents no influence; mean scores of 1.5 but less than 2.5 represents small influence; mean scores of 2.5 but less than 3.5 represents moderate influence; mean scores of 3.5 but less than 4.5 represents big influence; mean scores of 4.5 to 5 represents very big influence. Low standard deviation means data are clustered around the mean, and high standard deviation indicates data are more spread out. A standard deviation close to zero indicates that data points are close to the mean, whereas a high or low standard deviation indicates data points are respectively above or below the mean. The responses were clearly summarized in the table 1 below.

Table 1: Nature of Academic Use of Social Media and the Academic Performance

	Mean	Std. Deviation
Searching review questions and answers	4.2875	.87430
Browsing	3.3125	.46644
Sharing of academic materials	3.0125	.80338
Book Searching	2.7875	.41166

Notes Searching	2.7000	.46115
Communication	2.5875	.84485
Storing of academic materials	2.5375	.76214

Source: Field Data (2022).

From the statistical table above, majority of the respondents asserted that the searching review questions and answers (Mean = 4.2875, Standard Deviation = .87430) had very big influence. During the interview, one of the respondents stated that:

“...There are certain benefits to using social media in a teaching-learning process, such as motivating instructors and learners to present topic contents, assisting learners to grasp subject materials, enabling learners in learning activities, and preventing learners from becoming bored” (Majengo Secondary School - Student)

Majority of the respondents indicated that browsing (Mean = 3.3125, Standard Deviation = .46644), sharing of academic materials (Mean = 3.0125, Standard Deviation = .80338) and book Searching (Mean = 2.7875, Standard Deviation = .41166) notes Searching (Mean = 2.7000, Standard Deviation = .46115) as well as communication (Mean = 2.5875, Standard Deviation = .84485) have had moderate influence. During the interview, one of the respondents stated that:

“Social networking platforms provide students and educational institutions with several options to improve learning techniques. Students can use these networks to add social media plugins that allow for sharing and engagement. Students can benefit from online lessons on YouTube, online courses given by colleges, and a variety of resources shared on social media” (Moshi Technical Secondary School - Student)

Also, results showed that storing of academic materials (Mean = 2.0375, Standard Deviation = .76214) had small influence academic performance of the secondary school students. Secondary school kids benefit from social media since it allows them to acquire and then practice creative talents. Another important influence of social media is the improvement of student academic performance and understanding through data and information collection. When students are assigned tasks in school, they use various internet platforms to gather knowledge and discover answers to their problems.

4.2 Correlation Analysis

The table below shows the correlation analysis between independent variable and dependent variable.

Table 2: Correlations

		Nature of Academic Use of Social Media	Academic Performance
Nature of Academic Use of Social Media	Pearson Correlation	1	
	Sig. (2-tailed)		
	N	338	
Academic Performance	Pearson Correlation	.526**	1
	Sig. (2-tailed)	.000	
	N	338	338

Source: Field data (2022).

The results summarized in a Pearson correlation matrix indicate that the nature of academic use of Social Media found to have a positive and significant relationship with academic performance ($r = 0.526$ $N = 338$). The correlations are significant at the 0.01 level.

4.3 Regression Analysis

Coefficient of determination (r^2) in the model summary explains 60.5% of the independent variables. This means that independent variables (Nature of Academic Use, Time Spent, Social Media Platforms), explain only 60.5% of the academic performance of the secondary school students. The coefficient of determination is very significant because only 39.5% of variations are brought about by characteristics not captured in the independent variables.

Table 3: Model Summary

Model Summary				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.778 ^a	.605	.589	3.01470
a. Predictors: (Constant), Nature of Academic Use of Social Media				

Source: Field Data (2022).

Table 4: ANOVA

ANOVA ^a						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	1057.483	3	352.494	38.785	.000 ^b
	Residual	690.717	334	9.088		
	Total	1748.200	337			

Source: Field Data (2022).

Given 5% level of significance, the numerator $df = 3$ and denominator $df = 337$, table 4.8 shows computed F value as 38.785. The P value from the model summary is 0.000 which is less than 0.05. This confirms that overall multiple regression model is statistically significant, in that it is a suitable prediction model for explaining how the selected independent variables affects the Academic Performance.

Table 5: Coefficients

Coefficients ^a						
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	3.415	1.691		7.932	.000
	Nature of Academic Use	.234	.128	.308	1.827	.002
a. Dependent Variable: Academic Performance						

Source: Field Data (2022).

Using the results above, we have the regression equation as:

$$\text{Academic Performance} = 3.415 + 0.234(\text{Nature of Academic Use of Social Media}) + 1.691\alpha$$

According to the regression equation established, taking all factors into account with constant at zero, outcomes will be 3.415. The data analysed also show that Academic Performance of the secondary school students is greatly contributed by nature of academic use, time spent, and social media platforms. Taking all other independent variables at zero, nature of academic use will increase academic performance by 0.234.

4.4 Discussion of Findings

Findings showed that the searching review questions and answers had very big influence on the academic performance. This finding supports the postulations of the social learning theory and the web which stipulates that social networking media offers the chance to take deeper social interaction and

address learning styles rooted in digital techniques. Students who seek review questions and answers as well as educational resources outperform those who do not. In general, the use of review questions and answers, as well as instructional resources, improves students' grasp of subjects and leads to high academic accomplishment.

Findings indicated that browsing, sharing of academic materials and book searching, notes searching as well as communication have had moderate influence on the academic performance. Also, results showed that storing of academic materials had small influence academic performance of the secondary school students. Moreover, the research findings coincided with the views by Mawdsley (2018) that exposure and usage to social media positively influenced the students' academic performance. It is important for students of Mawezi, Moshi Technical and Majengo secondary schools to enhance their relationship, improve learning motivation, offer personalized course material, and develop collaborative abilities using social media.

The study has indicated that, the nature of academic use have a positive and significant relationship with academic performance. The research findings coincided with the views of Sarsar et al. (2019) that students met their expectations during the course and they had positive attitude towards using Facebook. Also, Seyi (2020) pointed out that social networking was provided a boost due to ideas from young generation. The use of Facebook was associated with co-curricular activities, which might be considered a positive influence by social media (Junco, 2020). As a result, when utilizing social networks, extra consideration should be given to the nature of the use. In reality, the kind and use of social media affects kids' academic achievement.

5.0 Conclusion and Recommendations

This study concludes that nature of social use found to have a positive and significant relationship with academic performance. Secondary students must work on making enjoyable social media helpful by marketing them as a tool for not only conversation and pleasure but also study. Furthermore, students must be aware of the possible harm from excessive social media usage and approach the learning process and academic achievement appropriately. According to the study, the type of academic usage of social media has a favourable and substantial link with academic achievement. It is suggested that the topic of the nature of academic usage of social media be thoroughly explored and considered. To acquire a better grasp of this subject, more thorough research might be done in various secondary schools in Tanzania's rural and urban areas to assess students' academic achievement. Given the importance of social media addiction and its potential detrimental impact on students' academic performance, analogous research at other schools is urged in order to reach a more conclusive conclusion. In this sense, the use of mixed techniques can aid in better understanding the phenomena of social media addiction and its link to student academic performance.

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