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**SOCIETY OF
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Types of Social-Media and Academic Performance of Students in Primary School Teachers' Training Colleges in Vihiga County, Kenya

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Abstract

The study examined the influence of types of social media on academic performance of students in primary school teachers' training colleges in Vihiga County in Kenya. The Technological determinism theory by McLuhan Marshall (1964) guided the study. Correlation survey research design was utilized with the aid of mixed method approach. It involved 6 Teachers' Training Colleges. The target population of 1584 consisted of 6 principals, 1478 students and 100 tutors. Purposive sampling technique was used to sample the 6 colleges and the 6 principals. Simple random sampling technique was used to sample 306 students and 80 tutors giving a total sample size of 392. Questionnaires and interview guide were used to gather data. Piloting was done in 2 teachers' training colleges in Kakamega County to test validity and reliability. Validity of the tools was also tested using experts at Kisii University. Cronbach's alpha coefficient was used to test the reliability of the tools. The questionnaires issued to tutors and students gave acceptable values of 0.78 and 0.80 respectively. Frequencies and percentages were used to analyze quantitative data descriptively. It was also analyzed inferentially using Regression, ANOVA and Pearson Product Moment Correlation to test the existence of a correlation. The findings showed that a positive correlation which was statistically significant existed between the variables in the firsts null hypothesis since the p-value got (0.000) was less than 0.05. The rejection of this hypothesis concluded that types of social media affected students' academic performance. The study recommended that students should use the various types of social media positively to bolster their academic performance.

Key words: *Social media types; Academic Performance*

1. Introduction

One of the key focus of the education sector is the academic achievement of students. This is best attained through teachers who have been professionally trained to mould learners. Teachers' Training Colleges (TTCs) are some of the institutions that are mandated to train teachers. These colleges facilitate learning by instilling professional skills in students which they use to teach learners since according to DeMonte (2013), the education standards in any nation depend on the quality of training that teachers receive from these colleges. Hilburn and Ruth (2003) alluded that the ability of learners to acquire key knowledge, attitudes and behaviours that they can use in the society depends on the capacity of teacher to mould and impart in them the necessary 21st century skills through education. That is why Etkina (2011) noted that teachers must be equipped with the right attitudes and competencies to aid them to produce skilled and independent-minded people. One of these skills is socialization.

Socialization is currently happening via social media. The types of social media used by people to socialize have risen rapidly in the recent past. Various scholars have indicated that many people globally are currently using many types of social media for communication. Social media has changed the mode of communication to online from oral communication via technology. For instance, Annapoorna, Reshma and Sawad (2015) noted that the effect of social media on the life of youths is higher since many of them are moving quickly into social media from electronic media like being television viewers and radio listeners.



It has been noted that social media has undergone many changes since its inception. According to Carly and Anna (2016), email was the first social media to be used. The social media used in the late 1990s are Chatrooms, instant messaging and instant communication platforms like blog communities. They were followed by Facebook, Twitter, MySpace, Instagram and LinkedIn, Snapchat which were developed in the early 2000s (Carly & Anna, 2016). The data reported by Mediabistro (2014) indicated that the top ten social media used for communication were Facebook, WhatsApp, Google +, LinkedIn, Twitter, Tencent QQ, TencentWeibo, Ozone, Wechat and Tumblr. As such, the types of social media used by students in TTCs was an area of interest in the present research.

Social media is used by various people and institutions in different ways. For example, it is used for administrative and student support services at Anadolu University in Turkey (Bozkurt, Karadeniz & Kocdar, 2017). This university used it administratively to communicate with students, get feedback from them, run university marketing campaigns and make institutional announcements. It was also used by these students to communicate among themselves, keep in contact with the university, and connect with friends or family. Students said Facebook was their favourite site followed by Twitter, YouTube and Instagram in that order (Bozkurt et al., 2017). This study concurred with the argument by Rap and Blonder (2017) who reported that social media are used for administrative purposes and more so to hasten communication in some learning institutions.

Acheaw and Larson (2015) noted that the extent of using social media was high among university learners in Jordan. These learners use social media to communicate with other members of the society like friends, siblings and parents. Hameed, Maqbool, Aslam, Hassan and Anwar (2013) study found a positive significant link between types of social media and behaviour of university learners in Pakistan since they mostly use Facebook and Twitter. The study by Iffat (2016) revealed that Facebook was an integral part of the life of women in Pakistan since they access it many times daily to communicate, get information and interact. This was because their society do not allow females to mingle with males in gatherings. This agreed with Manasijević, Živković, Arsić and Milošević (2016) who argued that learners utilize Facebook in their learning process to communicate and interact with others. Similarly, the study by Aslam and Nazim (2016) revealed that most people daily use Facebook followed by Twitter, Google+, MySpace, Fliker and Bebo to communicate with other people. Archana and Jyotsna (2015) observed that learners in India are heavy users of social media like Facebook, Twitter, Google+, WhatsApp, Myspace and gaming sites. Shukor, Musa and Shah (2017) said that WhatsApp was the most popular social media in Malaysia.

A study in Nigeria by Omoye (2014) explored how social media is used in advertising. It observed that Facebook, Twitter, Blogs and YouTube were mostly used in the advertising industry in Nigeria to communicate via Internet. It also noted that online sites reduce the problem of distance and time by aiding people who are far apart to advertise products, communicate and give instant feedback via social media. This was noted further by Moshi, Ndeke, Asatsa, and Ngozi (2018) who showed that online sites have not gone without major consequences on learning behaviour of secondary school students in Tanzania since the irresistible attraction to social media has encroached into the habits of students making them to be less productive. This makes them to waste their study time downloading materials, chatting with friends and family members on Facebook and WhatsApp. as teachers and parents cannot control their use of Internet and smartphones. They also use Twitter, Skype, Instagram and LinkedIn but not very frequently.

A study by Mutua (2011) opined that over 35% of youths aged 7 to 24 years in the three main East African nations had access to Internet with Kenya leading at 49% followed by Tanzania at 30% and Uganda at 26%. The study by Koross and Kosgei (2016) revealed that social media negatively impact the communication and academics of youths in Kenyan public university because they use it more than television, newspapers, radio and face to face. These Kenyan public university students use Facebook, WhatsApp, Instagram and YouTube. These concurred with the Internet World Statistics report of the year 2020 on the use of Internet in Africa which showed Internet use in Kenya was 85.2% (Internet World Stats, 2021). The 2019 report by Social Media Lab Africa (SIMElab Africa, 2019) on social site use in Kenya showed that WhatsApp (88.6%) was most popular followed by Facebook (88.5%), YouTube (51.2%) and Google+ (41.3%) in that order. LinkedIn (9.3%) and Snapchat (9.0%) are rarely used by Kenyans.

These literature reveals that a lot has been done in relation to types of social media used by various people to communicate globally. However, there exists a gap in literature in relation to the same issue in reference to TTCs in Vihiga County in Kenya. This was because the use of social media has been rising exponentially globally, Kenya included. This rise is common among teenagers and youth most of whom are students at different levels in various



learning institutions. Records also shows that students' academic performance in Primary Teacher Examination (PTE) was low in the last five years from 2015 to 2019. To this end, the conduction of this study was justified by the little previous evidence on the subject of social media and academics of students in TTCs. Hence, the current study addressed this literate gap via the study objective in order to examine the relationship between types of social media used by students in TTCs to communicate and their effect on their academic performance in Vihiga County. The study intended to reveal if this low academic performance was partly attributed to this irresistible use of the various types of social media with the aim of identifying whether social media encroaches into the study habits and learning time of learners as most of them spend a lot of their study time on social media socializing and communicating.

The key objective which guided this study was to examine the relationship between types of social media used for communication and the level of academic performance of students in TTCs. The null hypothesis (**H₀₁**) which was tested at 0.05 significance level stated that; there was no significant relationship between type of social media used for communication by students and level of their academic performance in Teachers' Training Colleges. It was worth to explore the effect of using various types of social media on the academic performance of students as necessitated by the rapid exponential rise in the usage of social media globally and Kenya in particular. This would in turn guide the administration of the various colleges to set appropriate strategies on the use of social media in their respective colleges.

The study was anchored on technological determinism theory by McLuhan Marshall (1964). It states that technology and specifically media shapes the way people think, feel, act and how societies operate and organize themselves. McLuhan linked technology to their effect on society. The theory's proposition states that technology is key to society since the use of technology affects the direction and pace of social change. Social changes are caused by technological revolutions. Social media was the technology that was considered in this study while the effect of technology on society was its influence on academic performance of students in TTCs in the county since technology varies the way users communicate and relate globally. For instance, social media has penetrated in all aspects of human life including students' academics. The rapidly varying social media has made students to use various online sites like Facebook, WhatsApp, Twitter and others to enhance their academic performance.

2. Methodology

Correlation survey research design was used with the help of mixed methods approach to assess the correlation between types of social media and academic performance (Creswell & Plano Clark, 2010). The target population was 1584 comprising of 1478 students, 6 principals and 100 tutors in six TTCs. The sample size of 6 principals, 80 tutors and 306 students was obtained using the table developed by Krejcie and Morgan (1970). It was adequate since a minimum sample of 100 is adequate for a study (Kothari, 2014). Both probability and non-probability sampling techniques were used to sample the informants. Probability sampling procedures that were used are stratified and simple random sampling due to heterogeneous nature of the target population. Non-probability sampling technique that was used to give each member an equal chance to be represented in the study was purposive sampling (Kothari, 2014). The sample sizes for students and tutors were got using purposive and simple random sampling techniques. Questionnaire and interview guide were used to gather data for better understanding of the study (Neubauer, 2019). Questionnaires were administered to students and tutors while the principals were interviewed. It was piloted in two TTCs in Kakamega County to detect the limitations of the tools (Kombo & Tromp, 2011). The piloting sample size was 10% of the sample size that was used in the study (Ondiek, 2008). It included one principal; 9 tutors; and 34 students to give 44 respondents. Experts at Kisii University scrutinized the tools to establish validity and reliability. Reliability of questionnaires was got using Cronbach's alpha value (Ganti, 2020). The α -value got of 0.79 meant that the tool was reliable. The reliability of a tool is adequate if the alpha value is over 0.7 (Plano and Ivancova, 2015).

The data collected was analyzed quantitatively using SPSS software Version 20. Descriptively, it was analyzed numerically using frequencies, percentages and presented in tabular form. Inferential statistics was used to analyzed the data inferentially to test the null hypothesis and draw conclusions. The hypothesis was tested using Regression Analysis, Pearson Product Moment Correlation and Analysis of Variance (ANOVA). Pearson Product Moment Correlation predicted if there was a correlation between the variables in the hypothesis. ANOVA and Regression were used to determine the effect of types of social media on academic performance. The Adjusted R Square value explained the value of the regression analysis since it tells how well data points fit on a regression line. A multiple regression equation was used to test each hypothesis. Unstandardized Beta (β) coefficients were got from the model for each



dependent variable. Beta coefficient shows the degree to which academic performance varied when social media varied by one-unit. Unstandardized beta coefficients showed how much the dependent variable varied with an independent variable when all other independent variables are held constant. This regression coefficient gave the expected change in the dependent variable for a one-unit rise in the independent variable. The significance level of testing the null hypothesis was 0.05 as it was the most preferred level in a social science study (Gunby & Schutz, 2016). The null hypothesis was rejected if the P-value was less than 0.05 leading to acceptance of the alternative hypothesis implying that a significant correlation existed. If the P-value was over 0.05, the null hypothesis was accepted. Hence it was concluded that a significant correlation did not exist (Molina & Cameroon, 2015).

3. Results and Discussions

3.1 Frequency Analysis of Types of Social-Media and Academic Performance

The study required the participants to indicated the type of social sites which they thought students use frequently. Their views were as described in the analysis shown in Table 3.1.

Table 3.1: Types of Social Sites used by Students

Type of Social Sites	Students		Tutors	
	F	%	F	%
Facebook	112	37.1	21	28.0
Twitter	5	1.7	3	4.0
WhatsApp	162	53.6	45	60.0
YouTube	20	6.6	5	6.7
Instagram	3	1.0	1	1.3
Total	302	100.0	75	100.0

Table 3.1 shows that over a half of students (53.6%) used WhatsApp, followed by Facebook at 37.1% then YouTube at 6.6%; Twitter at 1.7% and Instagram at 1%. Tutors agreed that WhatsApp was majorly used by students (60%). Facebook was second at 28% followed by YouTube at 6.7%; Twitter was at 4% and Instagram was the minority at 1.3%. Hence, this report revealed that WhatsApp was the favourite and most popular social site of students followed by Facebook. Bozkurt et. al. (2017) argued Facebook was the most popular social media among distance education students in Turkey followed by YouTube and Instagram. Aslam and Nazim (2016) study noted that most library information professionals in India access Facebook, Twitter, Bebo, Google+, Fliker and MySpace daily to talk with other people. Also, Hameed, Maqbool, Aslam, Hassan and Anwar (2013) noted that social media is used often by university learners in Pakistan to share with their colleagues. The study by Shukor, Musa and Shah (2017) showed that Facebook was a popular social media in Malaysia. This research was also in agreement with the findings of the survey by Balogun et. al. (2017) which showed that the main social media platform which most undergraduate university students in Nigeria used frequently were Facebook and WhatsApp. The same was said by Moshi, Ndeke, Asatsa, and Ngozi (2018) who found out that Facebook, WhatsApp, LinkedIn, Skype and Academia were the social media which were used by Tanzanian secondary school learners. The results of the present study were consistent with the report of 2019 by Social Media Lab Africa which noted that WhatsApp was the popular social media in Kenya followed by Facebook, YouTube, Google+, LinkedIn and Snapchat in that order (SIMELab Africa, 2019). This happened because that social media is one of the biggest platforms for sharing real time information in the world. This is because it is an interactive and Internet driven site that can promote academics when used well.

3.2 Likert Scale Analysis on Types of Social-Media and Academic Performance

A five-point Likert scale was used in the questionnaires to determine if students use social media to support their studies positively. In the scale, SA meant strongly disagree; A meant agree; N meant not sure; D meant disagree; and SD meant strongly agree. The degree of disagreement or agreement of students were shown on Table 3.2.

Table 3.2: Rating of Students on Type of Social-Media and Academic Performance

Response on social media use to promote studies positively	N= 302	SA	A	N	D	SD	Mean	St.Dev
Students use social media to discuss with colleagues	F	162	130	8	2	0	1.50	0.586
	%	53.6	43.1	2.6	0.7	0.0		
	F	100	173	21	5	3	1.80	0.720



Students use social media to ask tutors questions	%	33.1	57.3	7.0	1.6	1.0		
	F	111	184	4	3	0	1.67	0.557
Students use social media to attend classes online	%	36.8	60.9	1.3	1.0	0.0		
	F	162	131	5	2	2	1.51	0.635
Students use social media to seek support from college administration	%	53.6	43.4	1.6	0.7	0.7		
	F	202	97	1	2	0	1.35	0.524
Students use social media to text messages	%	66.9	32.1	0.3	0.7	0.0		
	F	251	48	1	1	1	1.19	0.469
Students use social media to post images	%	83.2	15.9	0.3	0.3	0.3		
	F	264	35	2	0	1	1.14	0.419
Students use social media to share videos	%	87.4	11.6	0.7	0.0	0.3		
Average score							1.45	0.559

It is evident from this table that majority of students strongly agreed and agreed that they use social media to do assignments and discuss with their colleagues; to ask tutors questions; to attend classes online; to seek support from college administration; to text messages; to post images; and to share videos. It was therefore generally concluded from the results got from students that most students use social media to promote their studies positively as supported by the average mean score value of 1.45 and an average standard deviation value of 0.559. This response was in agreement with the findings of the study by Bozkurt et. al. (2017) who reported that sharing of learning content via social media rises the interest of learners in the courses they undertake by 49.5%.

3.3 Inferential Statistics on Types of Social-Media and Academic Performance

Inferential statistics were used to test the null hypothesis at a significance level of $\alpha = 0.05$. The hypothesis would be rejected if the P-value was less than 0.05. The alternative hypothesis would then be accepted to imply that a significant correlation existed and vice versa. The statistical tools used to make an inference are Pearson Product Moment Correlation, Regression Analysis and Analysis of Variance (ANOVA). They are discussed below.

3.3.1 Correlation between Types of Social-Media and Academic Performance

The study sought to establish if there was a correlation between the two variables in the objective. A correlation analysis was done using Pearson Product Moment Correlation to aid in making this inference about the correlation between these two variables. The results of this correlation analysis in the SPSS output are shown in Table 3.3.

Table 3.3: Correlation Analysis between Types of Social-Media and Academic Performance

		Social sites visited by students frequently	Performance in end of semester exam
Social sites visited by students frequently	Pearson Correlation	1	.774**
	Sig. (2-tailed)		.000
	N	302	302
Performance in end of semester exam	Pearson Correlation	.774**	1
	Sig. (2-tailed)	.000	
	N	302	302

** . Correlation is significant at the 0.05 level (2-tailed).

Table 3.3 shows there was a positive statistically significant moderate correlation between the social sites visited by students frequently on social media and their performance in end of semester examination ($r = 0.774$, $n = 302$, $p = 0.000$) at 0.05 level of significance. This result meant that the more students use the various types of social media sites, the more their academic performance improve. Based on the findings of this study, it was evident that the types of social media used for communication by students correlates positively with level of their academic performance. The results shown in Table 3.3 shows that the null hypothesis (H_0) was rejected because the p-value got (that is 0.000) was less than 0.05. Hence, the alternative hypothesis was accepted implying that there existed a significant correlation. Consistent with the current results, Bozkurt et. al. (2017) said that there was a positive correlation between types of social media used by students and their academic performance.

3.3.2 Regression Analysis on Types of Social-Media and Academic Performance



A linear regression analysis at a confidence level of 95% was done to determine the effect of types of social media used by students on the level of their academic performance in order to establish the magnitude of the significant positive correlation between the independent variable and the dependent variable. The results are in Tables 3.4.

Table 3.4: Model Summary of Regression Analysis on Types of Social-Media and Academic Performance

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.475 ^a	.225	.207	0.453

The Adjusted R Square value of 0.207 in Table 3.4 show that the variations in dependent variable (academic performance) can be explained by 20.7% of the independent variables (use social media to share videos, use social media to chat / text, use social media to attend lectures online, use social media to ask tutors questions, use social media to seek support from administration, use social media to post images, use social media to discuss or do assignments with fellow students). This means that the remaining 79.3% of other factors not discussed in this study affect academic performance of students in TTCs in the county. This shows that types of social media used by students to communicate had a fairly low effect on their academic performance. This weak relationship between the two variables was supported by the R value of 0.475. These facts noted in Table 3.4 further supported the rejection of the null hypothesis of this study at a threshold of $P < 0.05$. However, in order to determine if the types of social media used by students was indeed a significant predictor of academic performance, the researcher tested the null hypothesis using Analysis of Variance (ANOVA) based on the views of Creswell (2014).

3.3.3 ANOVA Results on Types of Social-Media and Academic Performance

ANOVA was used to establish the effect of types of social media on academic performance. The ANOVA results obtained from the respondents was as shown in Table 3.5.

Table 3.5: ANOVA Results on Types of Social-Media and Academic Performance

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	17.552	7	2.507	12.225	.000 ^b
	Residual	60.302	294	.205		
	Total	77.854	301			

Table 3.5 shows that there was a statistically significant effect of the predictor (independent variables) on the dependent variable (academic performance) as observed in the ANOVA result [$F(7, 294) = 12.225, p = 0.000$, Adjusted R Square = .207] at 0.05 significance level. This output showed that the regression model statistically predicts the dependent variable significantly well since the p-value (0.000) got was less than 0.05. This further supported the rejection of the null hypothesis (H_{01}) leading to the acceptance of the alternative hypothesis (H_{A1}) which stated that there was a significant relationship between types of social media and level of academic performance of students in TTCs in Vihiga County.

4. Conclusion and Recommendations

4.1 Conclusion

The key purpose of this study was to find out if a correlation existed between types of social media and academic performance of students in Vihiga County. According to the study findings, it was concluded that types of social media used for communication affect the level of academic performance of students in TTCs in the county based on the rejection of the null hypothesis (H_{01}) formulated. This was because the correlation result got (that is, $p = 0.000$) was less than the level of significance set (that is, 0.05) meaning that the two variables had a positive statistically significant correlation.

4.2 Recommendations of the Study

This study derived the following recommendations based on the conclusion made:



- i. Since social media used by learners affects their academics, learning institutions should enact regulations that will govern the proper and positive use of the various types of social media sites among learners in learning institutions to promote their academics.
- ii. The government should formulate policies that will enhance the surveillance of the kind of social or interpersonal interactions that occur on social media among learners.

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