

THE EFFECT OF USING SOCIAL MEDIA AS A LEARNING MEDIA ON THE COGNITIVE LEARNING OUTCOMES OF ACCOUNTING EDUCATION STUDENTS, FACULTY OF TEACHER TRAINING AND EDUCATION UMSU

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Abstract: This article is based on the situation and conditions of Accounting Education students at FKIP UMSU, that many students use gadgets to access social media, so it needs to be utilized optimally to develop cognitive learning outcomes. This research is quantitative with a regression analysis model. The sample of this research was 60 students of Accounting Education FKIP UMSU. The instrument used was a questionnaire with a scale model. From the results of the validity test at a significance level of 5%, N = 60 people with a critical value of 0,25, 25 valid items were obtained. For the reliability test, an alpha coefficient of 0.807 was obtained, which means that the instrument reliability is high. From the results of a simple linear regression test with a significance level of 5%, the significance value obtained in the anova table was 0.000 which means that there is an influence of the use of social media as a learning medium on students cognitive learning outcomes. The correlation value is 0,672, which indicates a strong and positive relationship between the independent variable and the dependent variable. The r Square value is 0,452, which means the influence of the variable use social media as a learning media for students cognitive learning outcomes 45,2%. Based on the results of this study, it is recommended that study program leaders increase the effectiveness of using social media as a learning medium by improving lecturers skill in developing online-based learning modules and increasing students digital literacy.

Keywords: Social media, learning media, cognitive learning outcomes.

Introduction

In the current era communication technology is increasingly developing in various fields. One of, the development of communication technology today is the use of internet-based devices (Gadget), or indonesian is a device or instrumen that has a practical purpose and function that is specifically designed to be more sophisticated than previously created technology. The difference between gadgets and other technology is the smaller element of novelty. The use of gadgets has now become a personal necessity, good for just looking for information, communication, digital transactions, even a means of earning a living. In general, millennials use gadgets more often to access social media such as Facebook, Twitter, WhatsApp, You Tube, Telegram. Social media is a tool to increase users' ability share, collaborating among users and taking collective action, all of which are outside the institutional or organizational framework.

Social media users in indonesia reach apporoximately 150 million people or 56% of the total population. Meanwhile, social media users reach 130 million or around 48% of the population. Nowadays almost the majority of teenagers, especially students who have personal devices, one of which is a smartphone that is connected to various social media accounts. The presence of smartphone which should be able to support the communication process and search for information to support the learning procces is not being utilized optimally by students, basically social media can be used to support the lecture process. The author looks at the facts that happened, that quite a lot of students use mobile devices just to access social media. One of the reasons is because of the phenomenon Culture Shock. Where, Culture Shock is an existing part of community life or better known as local cultural unusualness, which is a problem that often befalls someone who is in a foreign area (Dayaksini, 2008). In the FKIP UMSU Accounting Education Study Program there are several students who come from the interior to continue their studies, and they require adjustments to the Medan city environment and its surroundings as one of them is a user of developing technology, so students need control in controlling themselves in using social media. A situation like this can be exploited by the campus, especially lecturers to support a more effective lecture process, namely through the use of social media as a learning medium. Social media was chosen because the level of student digital literacy and students' ability to gain access to digital content is generally still low, so as to implement learning with a fully e-learning based application

or learning system such as Moodle, Chamilo, Claroline dll will be more difficult. Social media in particular Facebook, Instagram, TikTok, Whatsap quite familiar among students, so that its use as learning medium can be more optimal. The use of social media as a learning medium is expected to improve students' learning abilities, so that in the end it can improve students' cognitive learning outcomes.

Literature Review

a. Understanding Social Media

Laughey (2007) defines media as communication tools, including the technology involved. Regardless of how we view media in terms of form and technology, the term "media" can be understood by examining the communication process itself. Meyrowitz (1999: 44-52) defines media as a container for carrying messages in the communication process.

Social media itself, according to Van Dijk (2013), as cited by Nasrullah (2015:11) in his book on social media, is a media platform that focuses on the existence of users and facilitates their activities and collaborations. Therefore, social media can be seen as an online medium (facilitator) that strengthens relationships between users and also as a social bond. Nasrullah (2015: 11) defines social media as a medium on the internet that allows users to represent themselves and interact, collaborate, share, communicate with other users, and form virtual social bonds. A common characteristic of all social media is the openness of dialogue among users. Social media can be changed over time and redesigned by its creators, or in some specific sites, can be modified by a community. In addition, social media also provides and shapes new ways of communicating.

b. Characteristics of Social Media

Rulli Nasrullah (2015: 15) explains that social media has specific characteristics. From the definition of social media above, it can be concluded that social media is an online medium that contains a group of internet-based applications to support social interaction between humans and has its respective functions and roles to be beneficial to each individual who uses it. The purpose of using social media is to communicate, interact with others, and form social bonds or networks. which is not possessed by some other cyber media:

1. Network

Social media has the characteristics of a social network. Social media is built from a social structure formed within a network or the internet. The network formed between users is a network that is technologically mediated by technological devices such as computers, mobile phones, or tablets. The network formed between these users eventually forms a community, such as Facebook, Twitter, etc.

2. Information

There are five basic characteristics of information and the presence of information technology which increasingly add to the aspects of people's lives as stated by Sugiharti in Nasrullah (2015), namely :

- a. Information is an economic raw material.
- b. Information technology has an influence on society and individual.
- c. Information technology makes it easier to manage information which allows network logic to be applied in institutions and economic processes.
- d. When such information and network logic is applied, it gives rise to greater flexibility with the consequence that economic processes, organizations and institutions are easily formed and continuously implemented.
- e. Information technology has narrowed down to become an integrated system.

3. Archives

For social media users, archives become a character that explains that information has been stored and can be accessed at any time and via any device. Any information that is uploaded on Facebook does not just disappear at the turn of a day, month or even year.

4. Interactivity

The basic character of social media is the formation of networks between users. This network does not just expand friendships or followers on the internet, but must also be built on interactions between these users. Thus, the author concludes that social media is an online medium that helps someone to socialize with new environments and people who do not directly.

c. Types of Social Media

According to Nasrullah (2015: 14), social media can be categorized into the following forms:

1. *Blog*: A social media platform that allows users to upload daily activities, comment on each other's posts, and share other web links, information, and so on.
2. *Microblogging*: A type of social media that facilitates users to write and publish their activities or opinions. The emergence of this type of social media refers to the appearance of Twitter, which only provides a certain space or a maximum of 140 characters.
3. *Facebook*: A social networking site used by people to interact with others from a distance. Facebook is considered a social media with features that are considered the most familiar to various groups.
4. *Twitter*: is a social networking and microblogging service that enables users to send, receive, and read text-based messages of up to 140 characters, known as tweets.
5. *Instagram*: is a social networking app that focuses on sharing photos. The name "Instagram" is a combination of "insta" and "gram." "Insta" comes from the word "instant," which means the ease of taking and viewing photos. "Gram" comes from the word "telegram," which means sending something to someone else.
6. *LINE*: is a free instant messaging app that can be used on various platforms such as smartphones, tablets, and computers. LINE operates using the internet, allowing users to perform activities such as sending text messages, images, videos, voice messages, and more.

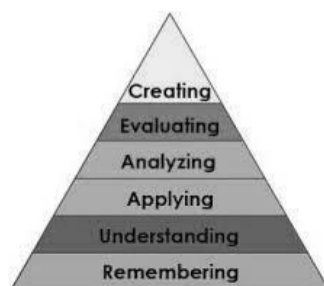
Besides the platforms mentioned above, there are of course many more social media platforms, considering the ever-developing technology. The examples above are popular social media platforms that are frequently used, especially by the youth in Indonesia.

d. Cognitive Learning Outcomes

Learning is a mental/psychological activity that occurs in an active interaction with the environment, resulting in changes. These changes are obtained through effort (not due to maturity), are relatively permanent over time, and are the result of experience (Purwanto, 2009: 38). According to Purwanto, learning outcomes can be explained by understanding the two words that form it, namely "results" and "learning". The meaning of results (product) refers to an acquisition as a result of an activity or process that causes a functional change in the input. Cognitive comes from the word cognition, which is basically the word knowing, meaning to know. The term cognitive has become popular as one of the domains or areas/domains of human psychology that encompasses all mental behavior related to understanding, consideration, information processing, problem-solving, intentionality, and belief (MuhibbinSyah, 2009: 65). From the above understanding, it can be concluded that students' cognitive learning outcomes are abilities, skills, or capacities in the cognitive domain related to knowledge and understanding of learning methods and styles, the ability to develop and apply learning methods and styles in higher education, time management, analyzing learning difficulties or challenges, summarizing or synthesizing learning materials to create a product based on learning activities experienced.

e. Dimensions of Cognitive Learning Outcomes

Cognitive learning outcomes are behaviors that occur within the cognitive domain. The learning process involving cognition encompasses activities from the reception of external stimuli by the senses, storage and processing in the brain as information, to the retrieval of information when needed to solve problems. In relation to the unit of study, the cognitive domain plays the most important role. The primary goal of teaching is generally to improve students' abilities in the cognitive aspect. Cognitive aspects are classified into six levels according to Bloom's taxonomy, arranged in a pyramidal hierarchy. Bloom's classification system can be described as follows: (Daryanto, 2010: 101-102).



Source: <https://bit.ly/2JTOYKh>

Here is a brief explanation of each aspect as given in Bloom's taxonomy:

1. **Knowledge**
Knowledge is the ability of a person to recall or recognize names, concepts, terms, or facts, ideas, phenomena, formulas, and so on without expecting the ability to use them (Anas Sudijono: 50).
2. **Comprehension**
Comprehension is the level of ability that expects students to be able to understand the meaning or concept, situation, and facts that they know (Ngalim Purwanto, 2010: 44).
3. **Application**
Application is the ability of a person to apply or use general ideas, procedures or methods, principles, formulas, theories, and so on, in new and concrete situations¹ (Anas Sudijono, 51).
4. **Analysis**
Analysis is the ability of a person to be able to break down a particular situation or condition into its constituent elements or components (Daryanto: 110).
5. **Evaluation**
Evaluation is the ability of a person to make a judgment about a statement, concept, or situation based on certain criteria (Ngalim Purwanto, 2010: 47).
6. **Creating**
Creating is directed towards the cognitive process of putting elements together to form a coherent whole and directing students to produce a new product by organizing several elements into a form or pattern different from before.

f. Factors Affecting Learning Outcomes

According to Muhibbin Syah (2001:132-139), factors that can influence the achievement of student learning outcomes consist of internal and external factors:

1. Internal Factors

Internal factors are factors that originate from within the student or learner themselves. There are two factors: (a) Physiological (physical) factors, Physical condition includes posture, completeness and normal functioning of body parts, nutritional needs of the body, stamina that can affect a student's ability to receive lessons. Sensory conditions include conditions of vision, hearing, smell, taste, and touch. (b) Psychological (spiritual, mental, personality) factors include: Level of intelligence, Student learning attitudes, Talents or potential possessed, Student interest in a topic or material, Student achievement motivation. Of the two internal factors (physiological and psychological) that have been explained above, the dominant factor is the psychological factor. Therefore, the role of parents, family, teachers, and friends is very much needed to motivate students in learning. Learning first and foremost it is a matter of interest and willingness. If someone does not have a strong desire to learn, it will be difficult for them to receive the given stimulus.

2. External Factors

External factors are factors that originate from outside the student, namely the environmental conditions around the student themselves. (a) Social environment, including family, school, community, and groups. (b) Non-social environment, such as school buildings and their location, the family's home and its location, weather conditions, the study time used by students, and the landscape.

Method

This research uses quantitative research with a regression analysis model. Regression analysis is a method for determining cause-and-effect relationships between one variable and another variable (Sugiyono 2012:11). The research location is at Santoyakobus Catholic High School, Merauke, with the address at Jln. Missin II, Merauke Papua. The research period was 4 months, from November 2019 to February 2020.

The research population was all active students at Santoyakobus Catholic High School in Merauke in the 2019/2020 academic year, totaling 193 people. Of the 193 people, the researcher determined a research sample of 60 people taken based on the criteria set by the researcher (purposive sampling) and proportionally based on the student's semester of study (stratified random sampling). The criteria that researchers set for sampling were students' activeness in using social media accounts, especially Facebook and WhatsApp.

The data collection technique used for data collection in this research uses a questionnaire method in the form of a semantic differential attitude scale. The semantic differential scale contains a series of bipolar characteristics to reveal indicators of the independent variable and dependent

variable (Riduwan, 2010:92). This instrument is closed, meaning that the responden only needs to state their attitude towards the statements provided through appropriate answers between he ranges of always-never and agree-disagree.

This instrument trial is a used trial in the sense that the researcher only distributes the instrument once to be used in collecting data. The instrument that have been filled in by respondents their level of validity and reliability, Question items that have low validity and reliability valies will be discarded anf not used in data analysis. Meanwhile, hose that meet the requirements for validity and reliability testing will be used to test the hypothesis.

After the meansuring instrument has been tested for validity and reliability, the next stage is testing the data analysis requirements including data normality testing, Linearity test and heteroscedasticity test to determine whether the hypothesis will be tested parametrically or non-parametrically. The technique for testing the hypothesis uses a simple regression analysis technique with the help of the spss version 25.0 program by looking at the significance values in the anova and coefficients tables and the comparing them with a significance level (α) of 0.05. As for the terms of acceptance or rejection, Namely if the significance value is less than or equal to (\leq) 0.05 then the working hypothesis is accepted and the null hypothesis is rejected, and if it is more than 0.05 ($>$) then the working hypothesis is rejected and the null hypothesis is accepted.

Result and Discussion

1. Validity and Realiability Test Results

The results of validity testing, of the 30 instrument items tested, there were five questions that were invalid, thus there were 25 questions that were suitable for further analysis. In this research, the learning outcome variable instrument does not need to be tested for validity and reliability because the researcher uses the cumulative achievement index (GPA) value which comes from the analysis and processing of academic data which has been validated by each course teaching lecturer. The results of reliability testing on 30 quwstions showed that the alpha value was 0.807, which means that the reliability of the questions was very high for the variable using social media as a learning medium.

2. Analysis Requirements test results (Classic assumption Test)

The results of normality testing based on the normal probability plot show that the distribution of data is around a straight line and the data points form a linear pattern so that it is consistent with a normal distribution, thus the data on the variable use of social media as a learning medium and student cognitive learning outcomes is normal. From heanova table, it is know that the linearity value is 0.000 or less ($<$) than the significance value of 0.05, so it can be said that the data is linear. His means that the two variables studied have a linear and significant relationship.

Heteroscedasticity testing using the SPSS 25.0 program is seen from the scatter plot graph. From the graph it is known that the data is distributed evenly or does nor from a particular pattern, and the points are spread above and below the number 0 on the Y axis. So it can be concluded that there is no heteroscedasticity problem in he analyzed regression model

3. Hypothesis testing

Table 1 Anovaa

ANOVA ^a						
	Model	Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	6.263	1	6.263	47.774	.000 ^b
	Residual	7.604	58	.131		
	Total	13.867	59			
a. Dependent Variable: Hasil_Belajar						
b. Predictors: (Constant), Media_Sosial						

From the Anova table above, the significance value is known to be 0,000 to be which means it is smaller than the significance level of 0.05. This shows that there is an influence between the independent variables and the dependent variables. Therefoe Ha is accepted and Ho is rejected.

Table 2 Correlations

Correlations

		Hasil_Belajar	Media_Sosial
Pearson Correlation	Hasil_Belajar	1.000	.672
	Media_Sosial	.672	1.000
Sig.(1-tailed)	Hasil_Belajar	.	.000
	Media_Sosial	.000	.
N	Hasil_Belajar	60	60
	Media_Sosial	60	60

From the correlation table above, the correlation value between the two variables is 0.672 which means there is a strong and positive relationship between the independent and dependent variables. This means that the higher the use or utilization of social media as a learning medium, the higher the student learning outcomes will be.

Table 3 Model Summary^b

Model Summary ^b										
Model	R	R Square	Adjusted R Square	Std. Error of the	Change Statistics					Durbin - Watso
					R Square	F Chang	df 1	df2	Sig.F Chang	
1	.672	.452	.442	.36208	.452	47.774	1	58	.000	1.932
a.Predictors:(Constant), Media_Sosial										
b.Dependent Variable:Hasil_Belajar										

From the Model Summary table above, the R Square value is 0.452, which means the influence of the independent variable on the dependent variable is 45.2%. This shows that the variable of using social media as a learning medium can significantly influence student learning outcomes by 45.2%, while learning outcomes were influenced by other variables not studied by 54.8%.

Table 4 Coefficients^a

Coefficients ^a						
		Unstandardized		Standardized		
		Coefficients		Coefficients		
Model		B	Std. Error	Beta	t	Sig.
1	(Constant)	.233	.405		.576	.567
	Media_Sosial	.033	.005	.672	6.912	.000
a.Dependent Variable:Hasil_Belajar						

From the table above, it is known that the constant value (a) is 0.233, which means that if there is no used of social media (X), then the consistent value of student learning outcomes (Y) is 0.233. The regression coefficient value (b) of 0.033 is positive, which means that the use of social media has a positive effect on student learning outcomes. This means that every 1% increase in social media usage will have an impact on increasing student learning outcomes by 0.033. From the known values above, the regression equation for this research model can be produced, namely $Y = 0.233 + 0.033X$

Conclusions

1. Conclusion

Based on the research results, several things can be concluded as follows:

- a. From the results of hypothesis testing, a significance value of 0.000 (<0.05) is obtained, which means H_0 is Accepted and H_a is rejected. In other words, there is a positive and significant influence from the use of social media (independent variable) on the cognitive learning outcomes of STK Santo Yakobus Merauke students. Positive influence means that the higher the use of social media as a learning medium, the higher the student's cognitive learning outcomes will be.

- b. From the model summary table, the coefficient of determination value is 0.452, this shows that the influence of using social media as a learning medium on student cognitive learning outcome variables is 45.2%. This means that the cognitive learning outcome variable is also influenced by other variables that were not studied by 54.8%, for example the influence of peers, student social environment, assistance from lecturers and others.
- c. From the regression model studied, the regression equation for this research model is obtained, namely $Y=0.233+0.033X$. This means that every time there is an addition of 1 biasis point to the variabel using social media as a learning medium, it will influence (increase) the student cognitive learning outcome variable by 0.0266 point.

2. Suggestion

Based on the conclusions above, the author provides the following suggestion:

- a. The campus can further increase the frequency and effectiveness of using social media as a learning medium. So far, social media is more often used as a means of conveying information. The author suggests that social media can be better utilized to develop online-based learning methods.
- b. The campus can further improve lecturers' skills in developing online-based learning modules. So far, as far as the author has observed, there has never been any training or training in preparing online-based teaching materials to support the online learning process (e-learning).
- c. The campus can help increase the digital literacy of students, especially those from remote areas. Getting used to digital technology can be done simply, for example by looking for references on the internet, sending assignments via social media or email, making reviews of digital articles, sharing lecture materials via the cloud for students to download, giving assignment in the computer laboratory, giving presentation assignments with the power point program, ect.
- d. The campus should provide strong and stable internet network support and facilities for students to support the learning process. So far a wifi network (hospot) has been provided on campus, but some students are still having problems accessing it due to the lack of ownership of gadgets and digital devices. Therefore, the author suggests that the computer laboratory be accessible every lecture hour by students and provide several computer devices in the library access digital content.
- e. The campus has increased the function of controlling student internet access while on campus. This is very necessary so that students can be controlled in using existing internet access appropriately for the development of their learning process on campus.
- f. Students need to increase awareness and self-control in using social media so that social media in particular and existing internet network in general can be used optimally and as effectively as possible to support their learning outcomes.
- g. Student's willingness to learn new things, especially digital technology and online lecture methods, must be increased. The author observes that some senior student (over 30 years old) feel comfortable with classical learning methods. This is very contradictory to the spirit of the academic community as individual learners.

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