



Student's Behavior and Performance in Online Learning: The Role of YouTube as a Learning Source

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Abstract

This study focuses on the use of YouTube as a learning resource in online learning. YouTube, which has been widely used by educators as a learning resource, is considered to have great potential to influence changes in student learning behavior. This study is an explanatory study, which uses a quantitative approach with a survey method. Data collection uses an online questionnaire. The population of this study were students of the Faculty of Economics, Yogyakarta State University and students of the Faculty of Business and Management, MARA University, Shah Alam-Malaysia. This study used a sample consisting of students in the second to fourth semesters. There are two main findings in this study. First, students' intrinsic factors, attitudes and self-efficacy, influence students' learning behavior and performance. Second, students' self-efficacy in online learning is proven to mediate the relationship between students' attitudes towards YouTube as a learning resource and students' behavior and performance. The results of this study provide recommendations to teachers to choose the right learning media, which can transfer knowledge and improve students' understanding of learning materials. Students' self-confidence in their abilities needs to be fostered and improved by utilizing modern learning media that are fun and varied.

Keywords: student's behavior, student's performance, online learning, YouTube as a learning source

1. INTRODUCTION

Online learning has developed rapidly. There are many educational institutions that have implemented online learning systems. One of the factors driving the implementation of online learning is the emergence of industry 4.0. Along with time, online learning is no longer an option for the learning process. The Covid-19 pandemic, which began to spread to almost all countries in 2020, prompted the government to enact a policy to do all activities from home, including the learning process. As a result, online learning has become the main choice for educational institutions to continue the learning process. In contrast to its rapid development, the effect of online learning has not been shown to be satisfying, especially from the student's point of view [1]. Online learning is considered boring because it can inhibit social presence and interaction, such as communication with classmates and

instructors, flat, and lack of learning resources availability [2] [1]. Online learning is often associated with social media. According to [3], [4], [5] and [6], the existence of social media, which allows students to collaborate and interact with professionals, can help student academic achievement. However, different results were obtained from other studies that social media has a negative effect on academic performance [7] [8]. Meanwhile, the results of research by Pasek and Hargittai (2009) stated that there was no difference in the academic performance of students who used social media and students who did not use social media.

In February 2021, Microsoft released an annual report on the Digital Presence Index or Digital Civility Index. This survey was conducted to measure user behavior in surfing in cyberspace and social media. Of the 30 countries surveyed, Indonesia had a DCI score of 76 and was in 29th place out of 32 countries, while Malaysia with a DCI score of 63 was in 10th place. Indonesia and Malaysia are allied countries with adjacent territories and have almost similar languages and cultures. However, from the results of a survey conducted by Microsoft the two countries are in a far different position. This difference makes the use of social media in the two countries interesting to study. In this online learning condition, social media is a platform that often use as a media. YouTube is one of the social media platforms that has experienced a significant increase in usage in relation to learning [9]. For learning and educational content, YouTube achieves one billion views per day from approximately two billion monthly active users [9]. Thus, this study focuses on YouTube as a learning resource / media for transferring knowledge on online learning. Youtube was chosen as one of the popular learning resources because it is considered to provide a very broad knowledge and the level of flexibility of access for both educators and students, fast access and does not require any plugins. This online learning especially with YouTube as a learning platform, can effect student's attitude and performance.

Attitude and self-efficacy are factors in a person that are considered strong in influencing behavior and performance formation [10], [11]. Student attitudes in online learning, involve students' belief in the credibility and effectiveness of online learning/online knowledge transfer methods, such as delivering material through YouTube videos. In the case of online learning through Youtube, self-efficacy is defined as students' confidence that students can complete online learning well through YouTube videos which are sources for knowledge transfer. Thus, student self-efficacy in online learning is a factor that can determine student involvement and success in online learning [12].

Studies on social media have been widely done, but still focus on its use as a learning strategy in education [3] [13]. While the use of social media in education is predicted to have an impact for student learning behavior and performance. In addition, research on student attitudes towards the use of YouTube social media in education is still rare [11]. Previous studies have focused more on the good content characteristics of YouTube video in learning, video as a pedagogic strategy, and the effectiveness of YouTube for self-directed learning [14] [15]. Attitude and self-efficacy are factors in a person that are considered strong in influencing behavior and performance formation [10] [11] Student attitudes in online learning, involve students' belief in the credibility and effectiveness of online learning/online knowledge transfer methods, such as delivering material through YouTube videos. In the case of online learning through Youtube, self-efficacy is defined as students' confidence that

students can complete online learning well through YouTube videos which are sources for knowledge transfer. Thus, student self-efficacy in online learning is a factor that can determine student involvement and success in online learning [12]. Therefore, this study considers students' attitudes towards the use of social media, especially YouTube, as a medium for transfer of knowledge/learning resources which is a predictor of student online learning behavior and performance. Furthermore, this study focuses on how the influence of student attitudes towards online learning through YouTube on student self-efficacy in online learning and student self-efficacy in online learning on student learning behavior in online learning. This study also considers the involvement of two countries that have similar characteristics but have different social media usage behavior, they are Indonesia and Malaysia.

Self Efficacy

Self-efficacy is an important variable in determining the creation of learning behavior and attitudes from teaching and learning activities for students. According to [16], an important factor that determines the formation of learning behavior in students is self-efficacy. In student learning the emergence of self-efficacy is closely related to self-regulated learning, in which self-learning requires students to set their own goals, control their own behavior, anticipate obstacles, evaluate and also improve their behavior to achievement the learning goals. According to [17] changes in self-efficacy can be influenced through learning both positive and negative, if someone considers their poor performance as a learning opportunity, their self-efficacy may increase. Therefore, high self efficacy is an important aspect for student and teacher to achieve [18].

The collective results of research in the field of education state that self-efficacy makes a positive contribution to learning outcomes and achievements [19]. According to [11], self-efficacy is a critical aspect of learning success, so it is now an important part of creating successful online learning. Research shows that students with higher self-efficacy will be more effective in managing each of their academic responsibilities.

Learning Behavior

According to [20], learning behavior is a series of actions taken by an individual during the learning process. Learning behavior in human is a series of any actions by a person that involves acquisition, maintenance, and change as a result of learning gained through life experiences. This learning behavior is also often related to student behavior in academic learning activities. Learning behavior is formed from the learning processes carried out by teachers and students, academically and affectively. Efforts to encourage the creation of self-efficacy as an important aspect of creating student learning behavior in online learning are that teachers take a certain approach in arranging online learning materials and assessments, followed by encouraging peer / group support. Behavior in online learning is determined by a variety of different factors and categories, here are four categories of online learning behavior, namely trajectory behavior, social behavior, resource learning behavior, evaluation and reflection behavior [20].

YouTube as a Learning Source

YouTube is a social media with many users, one of which is for education. YouTube has become an educational channel for teachers to upload teaching materials to students. Youtube is the top choice for learning in several fields of education. YouTube allows users free access to videos that are set publicly, including videos with educational content. YouTube allows users to share their videos and comments and is a way for people to find opportunities to learn. The widespread use of online videos on the YouTube social network of educational materials and learning resources can increase the effectiveness of learning.

YouTube has many features that can help educators with content delivery. YouTube allows users to upload, share, view, rate and comment on videos [21]. YouTube has quickly become a learning tool due to its ease of use. YouTube is currently an alternative media that is widely used by students as an additional source of learning and to assist in completing assignments. YouTube is much easier to access.

Learning Achievement

Learning achievement is the result of the learning process. Learning achievement can be defined as learning outcomes that show how far students have been able to achieve the specified learning goals. Learning achievement referred to learners' achievement to goals preset by instructors after a period time of learning. Learning achievement as knowledge, comprehension, and skills acquired through special education experience with formal curricula and teaching design in schools. [22] mention can be able to predict learning outcome with motivation cognition and behavioral attitude. Learning outcomes are an indicator of the level of success of learning achievement.

Learning achievement is expected not only to focus on hard skills but also soft skills so that the student's attitude and performance will be better [23]. Learning satisfaction as indicators of learning performance. Students' motivation has been significantly increased, It is expected that learning achievement of students will be increased too [24]. Technology can provide more ways of making students learn actively in improving learning achievement in science and in promoting scientific ideas [25].

Hypothesis Development

This research emphasize on a various variable that affect one another, such as student's attitude towards YouTube as a learning source, learning behavior, learning performance, and self efficacy. Student's experiences of learning can also influence student's attitudes or perspectives on the learning process. Student's attitudes towards YouTube as a learning resource in online learning can be obtained from student's experiences in using video as a learning medium, therefore the fir hypothesis of this research is student's attitudes towards YouTube as a learning source have a positive effect on student learning behaviour (H1). [26] argue that student achievement moves towards a positive direction with modern learning because students find modern learning more attractive. Thus, the positive attitudes that students have towards the learning process, such as the use of YouTube as a learning resource, have a positive influence on achievement-oriented learning behavior. Based on the argument, the

second hypothesis is student's attitudes towards YouTube as a learning source have a positive effect on student's performance (H2).

[27] statement that the individual attitudes of students can affect the experience in learning situations where this attitude prevails, so that it can have an effect on student's competence perceptions in fulfilling learning demands in the form of tasks or often referred to as self-efficacy which is a personal agency system [16]. Thus the statement support the third hypothesis, student's attitudes towards YouTube as a learning source have a positive effect on student's self-efficacy in online learning (H3). [11] states that high self-efficacy allows students to direct their own learning process. Furthermore, student's self-efficacy will make students involved in the learning process so that it can lead them to success in online learning [12]. Therefore, the fourth hypothesis is student self-efficacy in online learning has a positive effect on student learning behaviour (H4) and the fifth hypothesis is student self-efficacy in online learning has a positive effect on student's performance (H5).

Student's attitudes towards YouTube as a learning resource will have an impact on online learning experience that is felt by students, so it will affect student's competency beliefs to meet learning demands called self-efficacy [27]. When individuals believe they can meet the demands of learning, they will feel ready to give all their power and efforts in learning behavior that is oriented towards achieving goals. Thus, the sixth hypothesis is student self-efficacy in online learning mediates the relationship between student attitudes towards YouTube as a learning source and student learning behaviour (H6) and the last hypothesis is student self-efficacy in online learning mediates the relationship between student attitudes towards YouTube as a learning source and student's performance (H7).

2. METHODS

This is a explanatory research, using a quantitative approach with survey method. This research design is ex-post facto. This study will examine four variables, the independent variable is the student's attitude towards YouTube as a learning source (X). While the dependent variable is student learning behavior (Y1), student learning performance (Y2), self-efficacy (Y3). The validity test was conducted in the form of content validity test and construct validity test. The reliability test in this study used Cronbach's alpha. Cronbach's alpha is a measure of reliability that has a value ranging from 0-1. A reliable instrument has a cronbach alpha value of more than 0.60-0.70. Data collection in this research uses a questionnaire technique. The form of the questionnaire to be used, are statements and / or closed questions forms. The questionnaire will be given online through Google Form.

The population of this study were students of the Faculty of Economics, Yogyakarta State University and students of the Faculty of Business and Management, University of MARA Shah Alam-Malaysia. This study used a sample consisting of students from the second semester to the fourth semester. The data in this research will be analyzed using parametric statistical analysis techniques. The analysis model used in this research is canonical correlation analysis. Canonical correlation analysis was chosen because it is in accordance with the research objectives, which is to test the correlation between one or more independent variables

and more than one dependent variable. The correlation between variables is as drawn below.

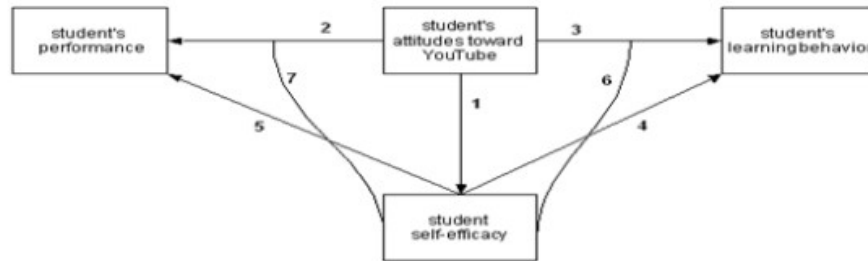


Figure 1. Relationship between Variables

3. RESULTS AND DISCUSSION

This research was conducted by distributing an online questionnaire to students in Faculty of Economics, Yogyakarta State University and students of the Faculty of Business and Management, University of MARA Shah Alam-Malaysia. These questionnaire consist of various variables that important to this study. Therefore after the data are collected, then it is tested using Smart PLS software, and also the variables tested for the validity and reliability. The result of outer model test are shown at Table 1 below.

Table 1. Outer Model Test Result

Variables	Composite Reliability	Average Variance Extracted (AVE)
Sel-efficacy	0.931	0.531
Student's attitude	0.941	0.518
Student's learning behavior	0.921	0.701
Student's performance	1.000	1.00

AVE value needs to be above 0.5, according to Fornell dan Larcker (1981) explains that AVE value can be under 0.5 only if the CR value is above 0.6. Therefore, this result indicates that all of the variables is valid and can be use for this research. The hypotesis of this research is also tested, and the result is in table 2 below

Table 2. Hypothesis Testing

Variables Relationship	UNY	Interpretation	UiTM	Interpretation
	P Value		P Value	
Self-efficacy -> Student's learning behavior	0.001	H4 accepted	0.000	H4 accepted

Self-efficacy -> Student's performance	0.000	H5 accepted	0.033	H5 accepted
Student's attitude -> Self-efficacy	0.000	H3 accepted		H3 accepted
Student's attitude -> Student's learning behavior	0.000	H1 accepted	0.625	H1 Rejected
Student's attitude -> Student's performance	0.000	H2 accepted	0.027	H2 accepted
Student's attitude -> Self-efficacy -> Student's performance	0.000	H7 accepted	0.044	H7 accepted
Student's attitude -> Self-efficacy -> Student's learning behavior	0.000	H6 accepted	0.000	H6 accepted

The result shows that all hypothesis for this research are accepted, but only one exception for H1 from University of Mara's data. This can happen by many causes, such as the limitation of data collected from students in University of MARA Shah Alam. Thus, with the validity of all variables and also majority of the hypothesis are accepted, the discussion for the correlation in every hypothesis are explained in the discussion section.

Student's Attitude towards YouTube as a Learning Source and Student's Learning Behavior

Based on the data processing, different results were obtained from the two samples. The sample from Faculty of Economics (FE) UNY shows that attitudes towards YouTube as a learning resource positively affect learning behavior. The results of this study are in line with research conducted by So and Brush (2008) which states that attitudes towards learning will affect student involvement in the learning process. Students who have a positive attitude towards YouTube will perceive that YouTube is a learning resource that is easily accessible and can help the knowledge transfer process, so they will feel happy while learning.

In contrast, the result from Faculty of Business and Management (FBM) UiTM shows that attitudes towards YouTube as a learning resource do not affect learning behavior. We argue that situational factors influence student learning behavior, such as students' lack of interest in following subjects and learning online experiences. [27] argue that the experience felt by students in the learning process plays a significant role in the formation of learning intentions and students' ability to learn. Based on the responses from respondents, they think that the advertisements on YouTube are quite disturbing for them to understand the material presented. Also signal interference becomes the prior reason that causes them less able to be actively involved, especially in online learning.

Student's Attitude towards YouTube as a Learning Source and Student's Performance

The second hypothesis states that attitudes towards YouTube as a learning resource positively affect students' performance. Both subjects shows the same result. These results indicate that student's assessment of the ease and effectiveness of the learning process will affect students' performance. Students find it easier to understand the material by watching and listening to material explanations from YouTube videos. As a result, they will be more committed to the learning process, which is shown by interacting actively with classmates, participating in giving opinions, and completing all assignments. Previous research also indicates that students' attitudes and achievement are closely related, which involves a commitment to learning. Modern education using video as a learning medium, is considered to move learning achievement in a more positive direction because students feel the learning process is more exciting and not boring [26].

Student's Attitude towards YouTube as a Learning Source and Self Efficacy

The result from FE UNY and FBM UiTM shows that student's attitude when using YouTube positively affect their self-efficacy. The positive attitude gains from the use of video as a learning media, in this case is YouTube, will give a positive impact for the learning process. This will encourage student's mindset that they are capable in finishing online learning tasks. This result is in sync with the argument from [27], which stated that student's individual attitude can affect their experience in learning situation, therefore this attitude will affect to the student's competency perception in fulfilling the learning tasks. As a primary source, youtube used is youtube developed by lecturers while as a secondary source youtube is used to complete the explanations/materials that have been delivered by lecturers. This proves that YouTube is indeed able to facilitate students to be able to study independently [21]. With this independent learning, students have formed an independent learning attitude in the distance learning process. The independent attitude obtained from the use of video as a learning medium, in this case, YouTube, will have a positive impact on the learning process. This shows that the confidence from students or commonly called as self efficacy are affected by their attitude in using online learning media, such as YouTube.

Student's Self Efficacy and Student's Learning Behavior

The result from FE UNY and FBM UiTM are both the same, it is proven that student's self efficacy in online learning are affect their learning behavior. [11] argues that the growth of self efficacy will push students to learn in accordance with what they are believe, and encourage students to have theri learning experience through interaction in online learning systems. In this Covid-19 pandemic situation, online learning is a must. The particularity for online learning are freedom to choose learning style, ways to learn and eventually create self learning awareness. The awareness to

do an independent learning can determine how feelings, thoughts can motivate behavior which eventually create self confident or known as self efficacy [16]. These can be concluded that if student's believe they can accomplish online learning tasks, the they will be able to learn independently because they have trust in themselves. Awareness for self-study can determine how to feel, think and can motivate behavior which ultimately forms self-confidence or Self-Efficacy [16]. Self-efficacy that has grown will continue to encourage students to learn according to what they believe which will encourage students to get a learning experience by interacting with online learning spaces or LMS [11]. In the case of YouTube as a learning resource in online learning, even though students have never done the learning process using YouTube, attitudes can be formed from their learning experiences with video media provided by educators or their experiences from using YouTube videos in their domain.

Student's Self Efficacy and Student's Performance

The fifth hypothesis states that students' self-efficacy in online learning through YouTube has a positive effect on student achievement. The results of data processing from both samples showed the same results. Most students take the initiative to search for learning materials through YouTube, because it is more complete, easy to understand, can be repeated, more interesting. This is in accordance with the findings which stated that learning through YouTube offers a lot of convenience and is suitable for the learning style of Generation Z. Learning through YouTube is the current choice of students to study independently [21]. Students with high self-efficacy will be able to determine appropriate actions to obtain the desired learning outcomes independently compared to students with low self-efficacy [28]. With Self-Efficacy and a virtual environment that supports learning motivation will be formed, the formation of learning motivation will then increase students' understanding and finally will achieve student achievement. This finding is in accordance with previous research conducted by [29] [30] [31] which states that learning through YouTube is effective in increasing learning motivation and has a significant and positive effect on the achievement of learning outcomes.

Self Efficacy Mediating Student's Attitude toward YouTube and Student's Learning Behavior

Based on the results of the data processing of the two samples, this hypothesis is accepted. These results indicate an indirect effect between attitudes towards YouTube as a source of learning and student learning behavior through student self-efficacy. Students who view YouTube as a good learning resource, easy to access, and make the learning process more fun, so that they form a confident attitude to follow online learning. With a confident attitude to follow the learning process well, students will show appropriate behavior. They can support successful learning by meeting the demands of online learning. Previous research has shown that students' attitudes towards learning media, such as YouTube, will affect the learning experience to form students' beliefs about their ability to complete learning well and achievement of goals [27].

Self Efficacy Mediating Student's Attitude toward YouTube and Student's Performance

The seventh hypothesis, which states that students' self-efficacy in online learning mediates the relationship between attitudes towards YouTube as a learning resource and student learning outcomes, is accepted. When students feel that YouTube makes their understanding of learning material better, they will have confidence that they can complete the learning process well. High self-confidence will make students strong and not give up easily to get maximum results in learning. In order to achieve a good performance, students will be actively involved during the learning process and actively participating in class discussions. Previous research stated that a good student's perspective on the learning process could encourage students' confidence to complete learning [27], and such confidence is said to be suitable for online learning and better prepared to face challenging tasks and will not avoid them. [32] also states that students are more likely to survive and be ready to face their fears until they achieve success with high self-efficacy.

4. CONCLUSION

This research can contribute in academic literature and references about student's learning behavior and performance in online learning. Besides, this research also contribute as examining result in the use of YouTube as a learning source. There are two main findings in this study. First, students' intrinsic factors, attitudes and self-efficiency, influence student learning behavior and performance. However, students' attitudes towards YouTube are not the main determinant of student learning behavior at Faculty of Business and Management, UiTM. It is due to situational factors that affect their learning behavior. Second, students' self-efficacy in online learning is proven to mediate the relationship between students' attitudes towards YouTube as a learning resource with student behavior and performance. This dual role of self-efficacy proves that self-confidence for students to believe in their abilities and competencies is essential to increase student involvement in online learning and encourage student achievement. Through this research it can concluded that the student's learning behavior and performance on Indonesia and Malaysia especially in online learning through social media are not much different. This research sugeest, teachers need to choose suitable learning media, to assist in knowledge transfer and increase students' understanding of the material provided. Students' self-confidence in their abilities needs to be fostered and improved to achieve the desired achievements, this can be helped with a enjoyable and various of modern learning media. Emphasizing research results, teachers need to choose suitable learning media for their students to feel happy, comfortable, and actively involved in the learning process. The selection of appropriate learning media can also assist in knowledge

transfer and increase students' understanding of the material provided. Various and modern learning media need to be considered by teachers so that students do not feel bored and as a means to facilitate students with different circumstances and backgrounds. Each student has a different experience in the learning process, especially about the use of learning media. In addition, students' self-confidence in their abilities needs to be fostered and improved to achieve the desired achievements.

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