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# Students' Attitude Towards Focused Educational Video Sharing Sites for Learning

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## Abstract

*This study is aimed to analyse the psychological factors, social, technological and institutional that influence students' attitudes to use and accept the focused educational video sharing site. The acceptance factors were studied based on the technology acceptance model (TAM). A series of learning software video tutorials in the form of screencast has been developed and uploaded to focused educational video sharing sites named LearnSoftware to be used in this study. A questionnaire has been used as an instrument to analyse the students' attitudes in acceptance of the site for educational purpose. Quantitative research method was used and data were collected from 294 students of Multimedia studies (major and minor) from 5 Public Higher Learning Institutions. Multiple regression analysis conducted found that psychological factors contributed the main influence towards the use of the focused educational video sharing site. In sum, the findings of this study are beneficial for institutions, students and lecturers, and video-sharing site developers in understanding learners' behavior towards decision-making in accepting and using new technologies introduced.*

**Keywords:** *Focused educational video sharing site, YouTube, TAM, New media*

## 1. Introduction

In line with today's development of new media technologies, the emergence of various video sharing sites is vital to support video-based teaching and learning processes. A video sharing site is a web service that allows users to upload and share their videos in various ways such as through email, blog or social media network (Zhou, Baud & Bellot, 2013). From an educational point of view, the existence of these sites has facilitated the sharing of learning videos, and at the same time has solved the problem of transferring and storing large-sized videos. Some examples of video sharing sites currently available are YouTube, Vevo, Dailymotion and so on. However, it seems like the existence of various video sharing sites nowadays is not specific for educational purposes (Snelson, 2008). These sites are better known as social media that contain varieties of non-censored video content and

making it easy for students to access videos that have elements of violence, cruelty, entertainment, and so forth (Buzzi, Buzzi & Leporini 2011; Patterson & Hargreaves, 2011).

The development of educational-based video sharing sites is important as it can steer away from the distractions of video content that is not meant for education during a learning process (Ahmad Zamzuri, 2013). Academic Earth (<http://academicearth.org>), Big Think (<http://bigthink.com>), Fora.tv (<http://fora.tv>), and TED (<http://www.ted.com>) are examples of educational video sharing sites developed for more specific learning purposes today (Snelson, 2011). With the existence of these sites, students and teachers may share learning videos anywhere and at any time which suits today's modern learning style (Lupshenyuk, Hocutt & Owston, 2011).

### Research Model Hypothesis

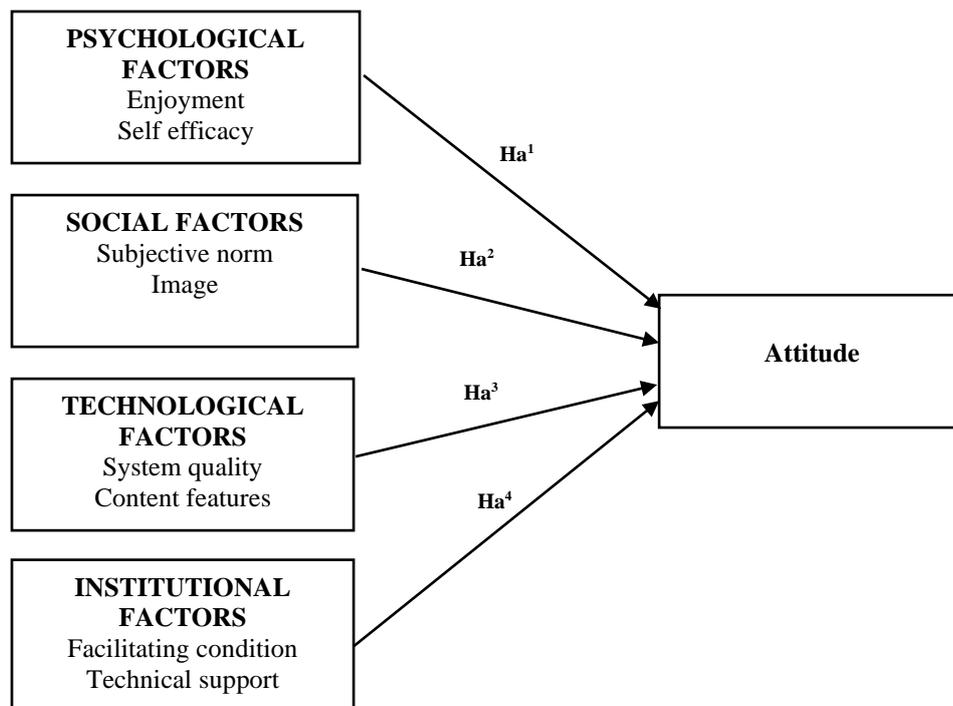


Figure 1 : Research model

### Research hypothesis

**Ha<sup>1</sup>** : There is a significant positive correlation between psychological factors and attitudes towards the use of the LearnSoftware educational video sharing site.

**Ha<sup>2</sup>** : There is a significant positive correlation between social factors and attitudes towards the use of the LearnSoftware educational video sharing site.

**Ha<sup>3</sup>** : There is a significant positive correlation between technological factors and attitudes towards the use of the LearnSoftware educational video sharing site.

**Ha<sup>4</sup>** : There is a significant positive correlation between the institutional factors and attitudes towards the use of LearnSoftware educational video sharing site

## 2. Literature Review

### Technology Acceptance Model (TAM)

TAM is a theory expanded from the Theory of Reasoned Action (TRA) which was introduced by Azjen and Fishbeins, 1975 (Alenezi, 2011). TAM was developed to explain how users accept and use certain technology, taking into account factors of consumer behaviour (Davis, 1989). This model states that when consumers were introduced to new technology, there are several factors that will affect the decision on how and when to use the technology. TAM was chosen as the basic model in this study because it is a very influential research model over the past decade. Quite a number of previous studies have done some improvements on it and have extended the original TAM model.

TAM was used in this study because of its advantages such as this model has been established and was built specifically to be applied in the studies involving the use of technology TAM has also been tested and applied extensively in the studies that involve acceptance of New media (Noraihan & Sobhi, 2013) and online learning (Farahat, 2012). Its use is very widespread and proved to be very useful in a variety of empirical studies in determining the intention of an individual towards the acceptance and use of technology in various fields of information technology and information systems studies (Venkatesh et al, 2003). There are five constructs in the original model of TAM; Perceived Usefulness, Perceived Ease of Use, Attitude Towards Using, Behavioural Intention and Actual Use as shown in Figure 2 below.

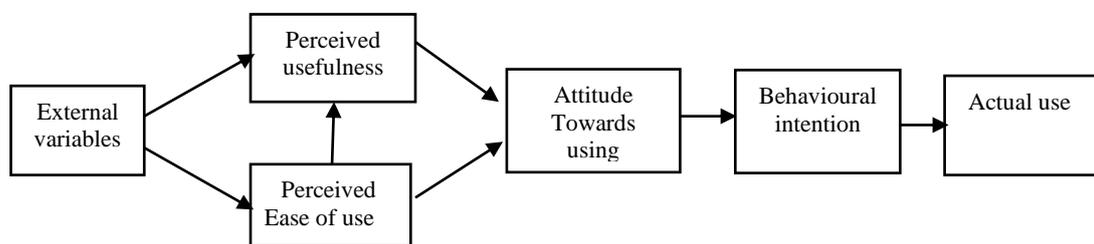


Figure 2 : Technology Acceptance Model

#### External variables

#### Psychological factors

Psychological factors are individual's internal factors that are responsible for decision making. The results from previous studies found that psychological factors such as enjoyment and self-efficacy are the external factors that have been added as extensions of the TAM model and are widely used in the study of acceptance and rejection of the technology introduced, particularly that relates to the system developed for educational purposes

#### *Enjoyment*

Enjoyment in the context of technology acceptance is defined as appreciation obtained from the use of technology or services that manifests user's satisfaction (Igbaria, Majid, Parasuraman & Baraoudi, 1996). Meanwhile, Heijden (2004) defines enjoyment as users' perception of the excitement enjoyed the use of a system. Based on these definitions, in general, if users find it fun to use new technology, therefore the attitude towards the use of the technology is positive (Norazah & Norbayah, 2011). The enjoyment factor is seen as a strong influence on an individual's intention to use the computer and this factor has been added to the TAM model in investigating the use and acceptance of the system or a particular technology (Davis, Bagozzi & Warshaw, 1992).

### *Self-efficacy*

According to Bandura (1977), self-efficacy is defined as an individual's belief towards his/her own self to perform well and effectively when carrying out a task or responsibility. Computer self-efficacy which is one's belief towards one's capability in using the computer effectively is a form of self-efficacy commonly used to determine technology acceptance (Simmering, Posey & Piccoli, 2009). In this study, self-efficacy factor refers to a student's belief towards himself/herself in using LearnSoftware, a video sharing site, that students with high self-efficacy will have the confidence in their capability to use the site for the purpose of software tutorial learning, then further assume that the site is useful and easy to use. Meanwhile, a student with low self-efficacy will find that the LearnSoftware site is not easy to use and useless. In relation to that, the self-efficacy is seen as an important factor in the study of acceptance behaviour towards the LearnSoftware video sharing site. Based on previous studies, self-efficacy factor had been included and applied to a great extent as one of the external factors in the extension of TAM model of technology acceptance studies on website-based learning technology (Albargouthi, 2006 & Chen, Yeh, Lou & Lin, 2013).

### *Social factor*

The social factor is an important influence in technology acceptance and rejection. The impact of social factor is related to the changes of emotion, mind, attitude, and behaviour of an individual towards certain results of interactions with another individual or a group of individuals (Kocaleva, 2015). The findings of previous studies discover that social influence can determine the acceptance and use of a technology (Venkatesh et. Al, 2003). The studies on technology acceptance of e-learning sites find that a student can be influenced by friends, lecturers, institutions, and other parties that are trusted to decide on the use of the system (Lwoga & Komba, 2014). The social influence also positively affects the continuous use of this site (Bakar, Razak & Abdullah, 2013).

### *Subjective norm*

Subjective norm is a social influence that is taken into account in determining the acceptance and rejection factors of the technology introduced. According to Ajzen & Fishbein (1975), the subjective norm is the influence of people who are close to and important in an individual's life to the extent that they can influence that person's decision towards a behaviour. For the purpose of this study, lecturers and classmates are the individuals who can determine the acceptance or rejection of a student in using the LearnSoftware video sharing site for learning purposes. A study by Farahat (2012) finds that a group of influential individuals in the life of a student such as an instructor, mentor, and peer have great impact on the student's intention and attitude towards online learning application. The student feels concerned to reject the use of the e-learning site if his/her friends use it (Park, 2009).

### *Image*

Image is one of the measures in technology acceptance and adoption. This construct is widely used in the building of model and theory of technology acceptance such as the TAM 2 Model (Venkatesh & Davis, 2000) and the diffusion of innovation theory (DOI) (Moore & Benbasat, 1991). Image is defined as a belief that the use of an innovation is able to increase the image or social status of an individual (Fishbein & Ajzen, 1975). In the context of online learning system's acceptance and adoption, the image factor can be defined as a student using the system is seen as intelligent and prestigious. This factor encourages the student's intention and behaviour in using it (Maina & M. Nzuki, 2015). Lu, Liu & Liou (2005) relate the image factor as; students' perception of the use of an innovation is able to elevate their social status. This study finds that the perception towards image has encouraged students' intention to use the innovation in the current learning method, which is the e-learning site. In addition, Alenezi (2011) also studied the social factors which included subjective norm, image and self-identity in determining students' acceptance towards e-learning site and found that image and self-identity were the only ones that contributed towards students' acceptance.

## Technological Factor

The technological factor is considered important in studying technology acceptance developed. Previous studies show that technological factors such as system quality, information quality, and service quality can determine the acceptance or rejection of a system developed (Al-Busaidi & Al-Shihi, 2010). The problems related to the technology itself such as network connection failure and server instability may cause the developed technology to be rejected by the users (Hussein, Aditiawarman & Mohamed, 2007).

### *System quality*

In the context of technology acceptance, previous studies find that system quality is very important in determining technology acceptance and rejection of the users. The system quality factor is widely used in the development of various extensions of models that study users' satisfaction and acceptance towards information systems (Osang, Abinwi & Tsuma, 2015). Dorobat (2014) has developed varieties of model extensions that measure technology acceptance, especially in identifying the factors of e-learning acceptance and found that system quality such as user-friendliness, system stability, fast speed, safety, and flexibility contribute towards users satisfaction and acceptance of the system developed.

The findings of previous studies discover that quality system factor is often used in determining users' satisfaction towards the technology developed. Ramayah & Chow Lee (2012) find that the students were satisfied with the use of good quality e-learning system and intended to keep using it continuously. Almarashdeh, Noraidah, Nor Azan & Alsmadi (2010) also find that the system quality presented in the application of the learning management system positively affect the use of it among students.

### *Content features*

Content is one of the key characteristics in the design or development of a virtual learning environment (Mueller & Strohmeier, 2011). It refers to the information characteristics and appearances of the technology or system developed, which include the element and style presented such as texts, graphics, audio, video, animation, and simulation, as well as other multimedia contents (Wu, Tennyson & Hsia, 2010). A good content characteristic of technology developed will be easy to use, therefore able to increase users' satisfaction (Wu & Liu, 2013). Based on previous studies, the content feature is one of the important factors in determining users' acceptance and satisfaction towards online learning site (Wu et al., 2010). This factor has been added in the extension of TAM model to analyse its effect towards perceived usefulness, perceived ease-of-use, attitude, and intention to use the site. For the purpose of this study, content characteristics refer to the features of the software tutorial video in the form of screencast developed. Audio and video are the fundamental elements applied in the production of a screencast video. The use of both multimedia elements associated with tutorial video presentation style will be studied to determine the influence of content characteristics towards students' acceptance of the LearnSoftware video sharing site for educational purposes.

## Institutional Factor

The development of technology of online learning environment at an institutional level generally involves supports from various parties such as the administration, academic, and students affair, and particularly access to facilities and technical support is of great importance to ensure a success of the use and acceptance of the system (Almarabeh, Mohammad, Yousef & Majdalawi, 2014 ; Yiong, Sam & Wah, 2008). The findings of previous studies discover that the extensions of TAM model do consider the access to facilities and technical support in students and educators' acceptance towards the e-learning system, blended learning, learning management system, mobile learning environment and many other online learning platforms that have been developed by their institutions.

To serve the purpose of this study, the provision of infrastructural facilities such as laboratory with good Internet access and WiFi facility are important influences in determining students' acceptance

and rejection to use the LearnSoftware video sharing site for educational purposes. The same goes to technical support provided by the administrator of the LearnSoftware video sharing site as well as information technology centre which are significant in supporting the use of this site for software tutorial learning purposes.

#### *Facilitating condition*

Facilitating condition is defined as an individual's belief towards an organisation and technical infrastructure in supporting the use of a system (Venkatesh, Morris, Davis & Davis, 2003). For this study, facilitating conditions refers to infrastructural facilities that need to be provided by the institution in order to support the online learning environment through a video sharing site. To support and encourage students to use the LearnSoftware video sharing site, the provision of complete Information Technology infrastructural facilities by the institution such as providing computer labs, Internet access and a wide range of WiFi service across the campus area are significant in determining the rate of usage of the site. Other than that, high-speed Internet access is also required to be provided for smooth learning process of the LearnSoftware video sharing site which involves the use of a lot of video elements. The provision of facilities by an institution can influence students' behaviour in using the online learning system developed (Jong & Wang, 2009).

#### *Technical support*

The technical support factor is always considered as one of the significant external factors of technology acceptance based on TAM model (Alshammari, Ali & Rosli, 2016). As for the development of the LearnSoftware video sharing site, the website administrator is responsible of technical support for the students who use the site for learning purposes of various screencast software tutorial provided. Meanwhile, the centre of Information Technology at an institution is responsible for the provision of technical assistance with regards to smooth Internet access and computer appliances maintenance.

The technical support provided at an institution, whether it is support from the faculty, tutor, and website administrator, gives a direct impact on users' motivation and satisfaction (Bekele, 2010). According to Tabak & Nguyen (2013), when an efficient and quickly responsive technical support are provided by the website administrator, the users will consider the site as being useful and easy to use in improving their achievement of online learning

### **3. Methodology**

This study used a quantitative approach by conducting a survey methodology. The study instrument used was a questionnaire developed based on a previous questionnaire that applied TAM model in studies on the acceptance of new media, e-learning, social media and education. The study subject was the students of Bachelor of Multimedia (major or minor) programme at Public Higher Learning Institutions (PHLI). The students were selected based on the study requirements that the subjects were using video sharing sites to learn multimedia software tutorials. The study population was 20 PHLIs all across Malaysia that had been identified to offer Multimedia Programmes (major and minor).

Of the total population, 5 PHLIs had agreed to collaborate in this study, namely Universiti Utara Malaysia (UUM) and Universiti Pendidikan Sultan Idris (UPSI) of the north zone, Universiti Putra Malaysia (UPM) of the central zone, as well as Universiti Sains Islam Malaysia (USIM) and Universiti Teknikal Malaysia Melaka (UTEM) of the south zone. The total population of the study is as in Table 1 as obtained from the administrative division of the respective universities. This study used a probability sampling procedure because the subject and samples had all the characteristics of the study population (Chua, 2014).

Table 1  
Total of population

Universiti	Population	Male	Female
1. Universiti Utara Malaysia (UUM)	395	115	280
2. Universiti Pendidikan Sultan Idris (UPSI)	114	48	46
3. Universiti Putra Malaysia (UPM)	151	44	107
4. Universiti Sains Islam Malaysia (USIM)	466	147	323
5. Universiti teknikal Malaysia Melaka UTEM)	234	61	173
<b>TOTAL</b>	<b>1260</b>	<b>415</b>	<b>929</b>

Based on the population of 1260 students taking Bachelor Degree of Multimedia (major and minor) programme at the five Universities, 294 students were selected to become the study samples as in Table 2 below:

Table 2  
Total of the study sample

Universiti	Sample
1. Universiti Utara Malaysia (UUM)	51
2. Universiti Pendidikan Sultan Idris (UPSI)	60
3. Universiti Putra Malaysia (UPM)	43
4. Universiti Sains Islam Malaysia (USIM)	80
5. Universiti teknikal Malaysia Melaka UTEM)	60
<b>TOTAL</b>	<b>294</b>

#### 4. Analysis And Findings

Table 3  
The regression coefficients of independent variables

Coefficients <sup>a</sup>						
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error			
1	(Constant)	2.31	0.16		14.36	0.00
	Faktor_Psikologi	0.51	0.04	0.58	11.92	0.00
2	(Constant)	2.01	0.17		11.64	0.00
	Faktor_Psikologi	0.40	0.05	0.46	8.27	0.00
	Faktor_Institusi	0.20	0.05	0.23	4.20	0.00
3	(Constant)	1.87	0.18		10.25	0.00
	Faktor_Psikologi	0.36	0.05	0.40	6.81	0.00
	Faktor_Institusi	0.16	0.05	0.18	3.11	0.02
	Faktor_Teknologi	0.11	0.05	0.13	2.21	0.03

	(Constant)	1.82	0.19		9.84	0.00
	Faktor_Psikologi	0.34	0.06	0.38	6.08	0.00*
4	Faktor_Institusi	0.14	0.05	0.17	2.76	0.05*
	Faktor_Teknologi	0.11	0.05	0.13	2.14	0.03*
	Faktor_Sosial	0.06	0.05	0.07	1.28	0.20

a. Dependent Variable: Attitude

The analysis results show that in terms of significance, psychological factors ( $\beta = 0.58$ ,  $t = 11.92$ ,  $p < 0.05$ ) alone contributed 33% ( $r=0.57$ ) of variance changes in perceived usefulness [F (1,289)=142.17,  $p<.05$ ]. While the combination of both psychological ( $\beta = 0.46$ ,  $t = 8.27$ ,  $p < 0.05$ ) and institutional factors ( $\beta = 0.23$ ,  $t = 4.20$ ,  $p < 0.05$ ) contributed 37% ( $r=0.61$ ) of variance changes in perceived usefulness [F (2,288)=83.36,  $p<.05$ ]. Additionally, when technological variable ( $\beta = 0.13$ ,  $t = 2.21$ ,  $p < 0.05$ ) were taken into account, the three independent variables accounted for 38% ( $r = 0.61$ ) of variance changes in perceived usefulness [F (2,287)=57.96,  $p<.05$ ]. In conclusion, the results of the study hypotheses are as in Table 4

Table 4

*The hypothesis results of Ha<sup>1</sup>, Ha<sup>2</sup>, Ha<sup>3</sup> and Ha<sup>4</sup>*

No.	Hypothesis	Result
Ha <sup>1</sup>	There is a significant positive correlation between psychological factors and attitudes towards the use of LearnSoftware's educational video sharing site	accepted
Ha <sup>2</sup>	There is a significant positive correlation between social factors and attitudes towards the use of LearnSoftware's educational video sharing site	rejected
Ha <sup>3</sup>	There is a significant positive correlation between technological factors and attitudes towards the use of LearnSoftware's educational video sharing site	accepted
Ha <sup>4</sup>	There is a significant positive correlation between institutional factors and attitudes towards the use of LearnSoftware's educational video sharing site	accepted

## 5. Discussion

Based on the analysis results, it was found that psychological factors (enjoyment and self-efficacy), technological factors (system quality and content features) and institutional factors (facilitating condition and technical support) have a significant positive correlation with attitudes towards the use of LearnSoftware's educational video sharing site, while the social factors (subjective norms and image) do not influence the student's perceived ease-of-use of the LearnSoftware site. Based on the literature review conducted, attitude is defined as a positive or negative reaction shown by an individual to perform a behaviour (Fishbein & Ajzen, 1975). According to Davis (1989), an attitude towards the use is the measurement of individual's evaluation of a system that relates to the individual. Through this definition, attitude refers to a positive or negative attitude towards the use of LearnSoftware educational video sharing site. These positive and negative attitudes were the results of

student's own evaluation of the LearnSoftware site, if the student is positive then the student will accept the site and if it is a negative attitude, then the student will reject the use of this educational video sharing site.

The findings show that psychological factors, namely self-efficacy and enjoyment, encourage students' positive attitudes towards the use of the LearnSoftware site. As previously mentioned, self-efficacy which is a form of motivation within the students to do something has encouraged them to evaluate the site, thus being positive about accepting this site because of the benefits they gain. Additionally, the students' evaluation about this site being fun for tutorial learning activities also contributed towards the positive attitude to adopting this site for educational purposes.

In terms of technological factors, it came off as encouraging the students' positive attitude towards the use of the LearnSoftware site because the evaluation of the quality of this site and its content features were highly emphasized by the students since the use of this site is a learning tool that involves the use of technology. The use of technology here means this learning method is unlike conventional learning, which only involves books and lecture sessions, but it involves the use of technology such as Internet access speed, video access, quality of video sharing site itself and the quality of video content provided. Students' evaluation on these features has encouraged their positive attitude to make use of this site for learning purposes.

As for institutional factors, the findings showed that this factor was also important in influencing students' attitudes towards the use of educational video sharing sites. This study found that students were positive towards the use of the LearnSoftware site because of the available facilities and technical support provided. The provision of information technology infrastructure such as laboratories with computer facilities and Internet access, as well as technical guidance and support from related institutions of this site is especially emphasized by students for the purpose of using this site. The role of the institutions has encouraged students' positive attitude towards software tutorial learning methods through this video sharing site introduced.

While psychological, technological and institutional factors influence students' attitude to use the LearnSoftware educational video sharing site, the findings discovered that social factors do not influence students' attitude to use the LearnSoftware educational video learning site. This is because social factors such as subjective norms of the influence of surrounding individuals could not determine the students to be positive towards the use of the LearnSoftware site because as previously stated in the definition of attitude towards the use, this positive or negative attitude is generated by individual's judgement. This means that the influence of the surrounding people could not influence students to use the site because evaluation on the LearnSoftware site was done by the students themselves. Similarly, with social factors such as image, it does not affect attitudes because an image only shows that a student appears clever and prestigious if he uses the LearnSoftware site, it does not evaluate the LearnSoftware site itself. This means that students' attitude to use the LearnSoftware site is not influenced by image because image is merely the student's personal status.

## **6. Conclusion**

In conclusion, as a whole, the findings found that psychological factors such as self-efficacy and enjoyment were the most important factors in determining students' acceptance of educational video sharing sites. This study provided great implications for educational institutions, students, instructors and educational video sharing sites developers in using and practicing the preparation of educational video sharing site. As for institutions, the provision of better information technology infrastructure such as the provision of computer lab facilities, Internet access, hardware and software as well as technical support is crucial to encourage students to be positive about the use of educational video sharing sites. Additionally, the dependency on open social media sites of the students and faculty may also be solved and the findings of this study may provide guidance for educational video sharing site

developers in providing and developing educational video sharing sites that provide fun, quality and are beneficial for students.

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