The Motivation Level towards the Application of Google Apps among Part-time Students: A Case Study

Mohd Hasril Amiruddin[1*], Irwan Mahazir Ismail[2], Nizamuddin Razali[3], Mohd Erfy Ismail[4], Noriyani Doman[5], Noorazman Abd. Samad[6], Azwin Arif Abdul Rahim[7]

[1,3,4,5,6] Faculty of Technical & Vocational Education, University Tun Hussein Onn Malaysia, Parit Raja, Batu Pahat, Johor, 86400, MALAYSIA

[2] Center for Instructional Technology & Multimedia, Universiti Sains Malaysia, 11800, Penang, MALAYSIA

[7] Centre for Modern Languages Human Science, University Malaysia Pahang, Malaysia, Pekan, Pahang, 26600, MALAYSIA

*Corresponding Author

Abstract: The rapid development of technology nowadays has changed today's education system, especially in facilitating teaching and learning, and increasing students' motivation. The development in the area of applications such as google apps have positively impacted teaching fields as a medium to disseminate information and instructional strategies between a lecturer and students. However, students do not have a sense of motivation to learn a new learning environment that is based on technology. The aim of this study was to determine the level of students' motivation towards google apps. This was a survey study using a set of questionnaire as the instrument. The data were analyzed using mean scores to determine the students' level of motivation. These findings showed that the students' motivation to use google apps were high accordingly in terms of Google Drive for attention, relevance, confidence and satisfaction; Google Form for attention, relevance, confidence and satisfaction; Google Spreadsheets for attention, relevance, confidence and satisfaction, while Google PowerPoint for attention, relevance, confidence and satisfaction. The findings helped to determine the appropriate google apps as instructional strategies to be applied in teaching and learning that would be able to increase the students' motivation to learn. In general, this study supports the use of google apps in assisting learning process that can increase part-time students' motivation.

Keywords: google apps, instructional strategies, motivation, part-time students

1.   Introduction

Effective teaching techniques and methods are important in enhancing students' academic performance as well as attracting students' interest in the process of learning and teaching. With the help of computer technology, it makes learning and teaching more systematic. Computer technology helps students' learning in two ways i.e. by allowing students to gain information and skills, and practice the skills by helping other students to master the skills and apply it in different situations (Hayes, 2006 & Amiruddin, et al. 2016).

The development of information and communication technology with various software creation has opened a vast virtual space for students in search of knowledge. Apart from encouraging interest and promoting self-directed learning, this information technology should be utilized to make teaching and learning (T&L) process more effective. In line with the transformation of teaching and development of information technology, researchers are keen to explore the contribution of google software through a descriptive analysis of the previous studies. Among the studies related to google apps are the study conducted by Fauzi (2014) in the use of google drive software by focusing on google form components as an assessment tool for Indonesian language subject at the State Junior High School 1 Lembang, West Java. The Google Form was used as a document or form to build a variety of Indonesian language questions that were given to students in visual form and through computers and the internet networking facilities. In summary, the use of Google Form has given a good impact and benefit in terms of its effectiveness, attractiveness and produced interesting ground for learning. Google Form helped the teachers to save costs, time, and energy in conducting the test.

The use of technology in the field of teaching can improve the quality of education in the country because it can increase students' interest and motivation to learn, as well as expedite the learning process (Hassan & Rashida, 2012). Therefore, instructors' knowledge in the field of information and communication technology (ICT) needs to be prioritized if it is applied in T&L and should be appropriate with the subjects taught. According to Sidin and Mohamad (2009), with the development of ICT in this era of globalization, the development of teaching should emphasise on students' enculturation and mastery of ICT.

Part-time students practice conventional learning methods where they need to attend classes on weekends according to the schedule. Apart from printed materials, information for the students are conveyed via e-mails. The rapid influence and development of technology has now overcome the time-division gaps and reduced the physical separation gap between the students and their instructors (Cheah, 2004 & Uk Raai et al, 2014).

In addition, if at any given time students or lecturers need to communicate with each other individually or in groups, communication technologies such as telephones, telegrams or computer networks can be used. Most part-time education institutions in developed countries such as the United States and the United Kingdom use various telecommunication media such as radio, television, video, computers and satellites to improve the quality of teaching and learning, and students' performance. It also includes other equipment for communication such as telephones, facsimiles and e-mails. The variety of media, will encourage students' interest and motivation to continue learning and further improve the quality of learning. Hayati (2005) and Amiruddin & Masek (2014) asserts that attitudes towards computer technology are one of the factors that contribute to students' acceptance of computer usage and influence ones' motivation to learn certain things. However, there are some students who do not have high motivation to learn in a new learning environment which is based on technology (Mingmei Yu, Allan, Yuen & Jae Park, 2012). The students require high self-motivation as an encouragement to improve their learning. In fact, students should have high motivation, positive thinking, and various activities to improve their performance (Fazilah, Halizah & Harieza, 2010). Therefore, this study determined the part-time students' motivation level in the application of Google Drive, Google Form, Google Spreadsheet, and Google PowerPoint.

1.1 Google Apps in Learning and Teaching

The use of computer system and online application will generate a systematic implementation of teaching and learning (T&L) method particularly for part-time higher education level. The advancement of online applications like google apps have given loads of positive impact in T&L field. The applications are used as medium between lecturers and students in transmitting and sharing information. Learning is now viewed as a set of movements and community based that occurs anywhere, in isolation or as a whole (Brown, Collins, & Duguid, 1989; Othman & Amiruddin, 2010). Online applications do not need users to download from computers; it just needs the Internet connection to use applications like google apps such as Google Spreadsheet, Google Drive, Google Form and Google PowerPoint.

Using google apps, students can submit assignments to lecturers at anytime and anywhere. Apart from that, it is cost effective and students do not need to print their assignments. For that, the application is appropriate for lecturers and students to share their T&L materials. The application is capable of storing important information in various formats online when users upload files in the loading space. Furthermore, security features are installed so that the information that is kept by users in this application is not invaded (Gunawan & Agustina, 2013). Moreover, by using google apps, lecturers play a role in making sure that the use of the technology is positively effectual for the teaching and learning process. As such, lecturers must always be attentive with the latest use of the technology in facilitating the teaching and learning process that keeps on changing from time to time. Abdul Wahab et al. (2006) and Ismail, et al. (2017) found that lecturers' positive attitude in using technology in teaching and learning process is correlated with the increased use of technology. Hence, lecturers require extensive skills and knowledge about technology related matters so that T&L is well

conducted. Habibah (2001) asserts that lecturers' broad knowledge about computer is the strength in using technology in teaching and learning apart from the lecturers' own experience.

1.2   Motivation in Using Google Apps

Muhammad Kamil (2001) identifies motivation as the crucial element in producing the right learning. This is because motivation is a method of teaching that can stimulate students' interest in the learned subject. Weiner (1990) expresses that motivation is the inner state of a person that can arouse, direct and continue with behaviours. In this study, ACRS motivational model by Keller (2013) is used as a reference to find answers on learning that can influence motivational achievement and learning outcome. ACRS (Attention, Relevance, Confidence, and Satisfaction) model of learning has levels of motivational elements that are imbedded in the process of learning and teaching.

Students' attention is driven by curiosity. Hence, the students' curiosity must be aroused through elements that are unfamiliar, new and different from the existing ones and complex. A number of strategies suggested by Keller to retain students' attention is the use of various learning strategies such as paired or group discussions, games, simulations, talks, demonstrations, using interactive multimedia like animations, videos, computer software, using humour during T&L at the right time, using events, and appropriate examples to explain concepts as well as using questioning techniques.

The relevance of teaching materials with students' existing knowledge is vital because that will make the students feel they are learning something beneficial and meaningful to them. There are several strategies recommended by Keller in proving the teaching and learning relevancy i.e. by explaining to students the use of materials that they are learning, clarifying the benefits of knowledge gained and ways to instil it workplace environment, and assigning exercises or tests that are appropriate with students' level.

Confidence means competent behaviour that a person possesses and the capability to interact positively with the others. With confidence, a student will be driven to increase his or her achievement and simultaneously motivated to intrinsically work on the next task. Some strategies that can be utilised to elevate students' confidence are by boosting their faith to succeed by giving loads of positive experiences in the T&L process, breaking students' learning goals into smaller structured targets so that the students are not overwhelm by too many new concepts which consequently allow them to be in control over their success, and expressing encouraging and motivating words to students.

Satisfaction is a feeling that occurs after students successfully accomplish a learning goal. The feeling of satisfaction will encourage students to be more motivated to continuously pursue further goals. Teaching plays a vital role in triggering the feeling during the learning and teaching process. Teachers can sustain students' motivation by stating learning objectives to students, expressing verbal compliments, providing opportunities for students to exercise or apply newly learned knowledge, encouraging students to assist their peers to achieve T&L objectives, and comparing students' achievement with their previous achievement, and not with other students.

2.   Methodology

This study used a survey research design to find out students' motivational level in using four google apps i.e. Google Drive, Google Form, Google Spreadsheet and Google PowerPoint.

A sample was involving a total of 60 out of 104 part-time Master's students who enrolled in the Design and Instructional course were selected to participate in this study. A purposive sampling technique was used to select the respondents to respond with the questionnaire for the study. To ensure the reliability of the instrument, a pilot study was conducted and its Cronbach alpha value was identified using Statistical Packages for the Social Science Version 23.0 for Windows (SPSS) software.

The value of alpha was .99. For the analysis, four elements of ACRS motivational level by Keller (2013) were applied to identify the respondents' motivational level in using the four google apps. Means scores were used to compare which of the four elements (relevance, confidence, attention and satisfaction) motivate the students' in utilising each of the four identified Google Apps.

3.   Research Findings

3.1   Students' Motivational Level in Using Google Drive

Figure 1 shows the means values for the students' motivational level using Google Drive. Each measurement level was divided into three i.e. low, average and high. Findings of the study were measured based on ACRS motivational model which are 'attention', 'relevance', 'confidence', and 'satisfaction' of the students in using Google Drive. At the 'High' level which had the highest means score values of 4.18 was 'Relevance'. The next was 'Confidence' with a score of 4.09,

followed by 'Attention' (4.04) and 'Satisfaction' (3.73). The findings showed that google drive is a relevant online apps to be used in teaching and learning to motivate part-time students.
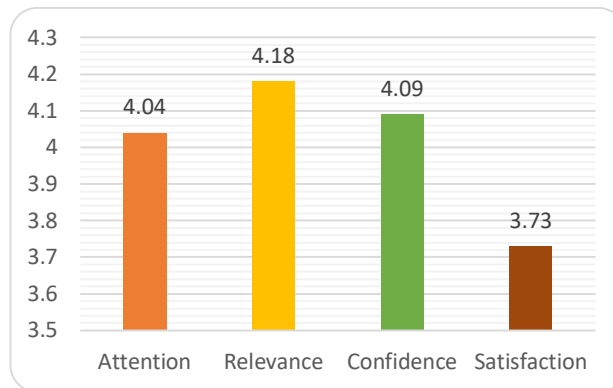

Fig. 1 - Students' Level of Motivation in Using Google Drive

3.2   Students' Level of Motivation in Using Google Form

Figure 2 reveals the means values for the students' three motivational levels in using Google Form. All the motivational elements scored high levels, led by 'relevance' (4.00), then 'confidence' (3.91), 'attention' (3.86) and 'satisfaction' (3.78). Similarly, this indicated that Google Form is more relevant to be used in motivating the part-time students to learn, rather than for confident, attention and satisfaction.
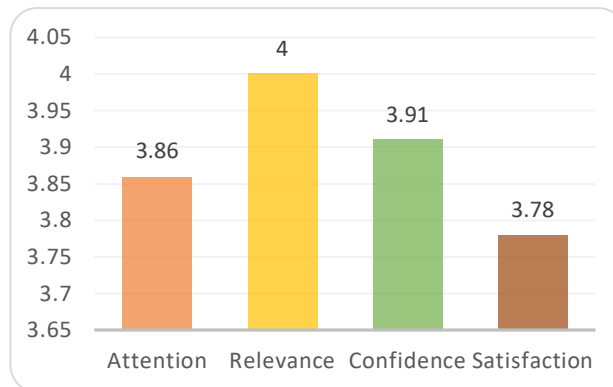

Fig. 2 - Students' Level of Motivation in Using Google Form

3.3   Students' Level of Motivation in Using Google Spreadsheet

The means score values for the students' motivational level in using Google Spreadsheet as observed in Figure 3. Based on the analysis, the respondents perceived 'attention' as the highest motivational element in using Google Spreadsheet with a score of 3.8. This was followed by 'confidence' (3.75), 'satisfaction' (3.71), and lastly 'relevance' with the score of 3.55. In comparison with the Google Drive and Google Form, the use of Google Spreadsheet was more in attracting the part-time students' attention to learn.

Fig. 3 -Students' Level of Motivation in Using Google Spreadsheet

3.4 Students' Level of Motivation in Using Google PowerPoint

In Figure 4, the findings revealed the students' motivation in using Google PowerPoint was due to its relevance. The 'relevance' element had the highest score of 4.10, followed by 'attention' (4.08), 'confidence' (4.05), and finally 'satisfaction' (3.93). The student perceived Google PowerPoint as motivating as it was relevant for their study.
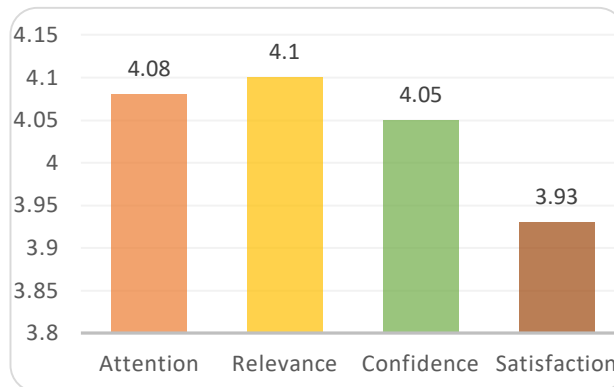

Fig. 4 -Students' Level of Motivation in Using Google 4. 4PowerPoint

Overall, Table 1 shows that all of the google apps scored high means in the four elements of the motivational level. 'Relevance' was the element that perceived most in three of the apps (Google Drive, drive form and Google PowerPoint), and one 'attention' for Google Spreadsheet. On the other hand, 'satisfaction' was the least motivational element perceived by the part-time students in using the four google apps in learning.

Table 1 - Summary of the Motivational Elements Means Scores for each Google Apps

Google Apps	Elements of Motivational Level (Keller 2013)			
	Attention	**Confidence**	**Relevance**	**Satisfaction**
Google Drive	4.04	4.09	4.18	3.73
Google Form	3.86	3.91	4.00	3.78
Google Spreadsheet	3.80	3.75	3.55	3.71
Google PowerPoint	4.08	4.05	4.10	3.93

4. Findings and Discussion

Analyses of the students' motivational level in using google apps i.e. Google Drive, Google Form, Google Spreadsheet and Google PowerPoint were based on the four elements of ACRS motivational model which centre on the students' attention, relevance, confidence, and satisfaction. Based on Table 1, 'relevance' was the most significant motivational

element in using the four google apps for the teaching and learning part-time students. Three google apps i.e. Google Drive, Google Form, and Google PowerPoint were indicated to be highly relevant to be used in students' teaching and learning. Azniza and Zaidatun (2011) assert that google apps help students to communicate with each other, and lecturers by sharing information in completing tasks. Hidi and Harackiewicz (2000) claim working together and discussing in groups able to stimulate the desire and interest to learn. Hence, the students found that google apps, particularly Google Form, Google Spreadsheet and Google PowerPoint relevant in allowing them to complete tasks and discuss the subjects. On the other hand, Google Spreadsheet was found to be less relevant plausibly due to its scarcity of use in their studies.

The 'attention' element also had high scores in using all the four googles apps. This was to say that using all the four google apps i.e. Google Drive, Google Form, Google Spreadsheet and Google PowerPoint managed to attract the students' attention during the teaching and learning process. Rizal (2014) concurs that the utilisation of google apps bring a lot of benefits to students, produce effective impact, attract attention and appeal students with interesting backgrounds. Additionally, google apps are user-friendly and suitable for T&L making it likeable by most students and lecturers (Zuhri & Zawiyah, 2013). These google apps features substantiate the students' motivation to participate in the teaching and learning process.

In terms of 'confidence', students perceived the four google apps had the element to help them in their studies. The ease use of google apps facilitated them in allowing new ideas to generate, hence enhancing their confidence in completing assigned tasks. Adding newly acquired knowledge with the schemata, students will be able to continue learning more effectively (Ee, 2002 & Mohd Affandi et al, 2017). Apparently, the formation of new knowledge comes from the combination of students' schemata with the current environment i.e. using google apps. Furthermore, Enang and Deffy (2012) state that students are able to access information shared by other students and lecturers at anytime and anywhere using google apps. In this study, google apps allow the part-time students to access information in facilitating learning, and completing tasks whenever and wherever they were at the moment of learning.

Though the fourth element, satisfaction, had the least effects on the students' motivation among the four google apps based on the analysis conducted in this study, however this element still had high means scores. This implies that the students were satisfied with the outcome when they used the google apps in completing their tasks. The satisfaction is an element of motivation that should inspire them to continue using the apps to obtain similar outcomes.

In this study, the use of google apps has proven to encourage the students in generating new ideas for their continuous confidence in learning. The multiple functions of the google apps allowed the students to develop their thinking and appropriately use the apps according to its function in their learning. Apart from its functions, google apps provided easy access to information which facilitated the students in completing their tasks. Ahmad Zaki (2014) asserts that google apps versatility in terms of its accessibility, as long as long there is the Internet connection, have made it a suitable platform for lecturers and students to share learning materials.

5.   Conclusion

This study has discovered that all the google apps i.e. Google Drive, Google Form, Google Spreadsheet and Google PowerPoint have increased part-time students' motivation. The apps were able to systematically facilitate the students in their teaching and learning process. To add, the apps allowed the students to share information and connect with each other as well as the lecturers at anytime and anywhere by using the apps. Therefore, the use of google apps was an appropriate application for the T&L of the students because it facilitated the T&L which subsequently increased the students' motivation to learn and hopefully their performance in their studies.

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