

# SOCIAL CONSTRUCTIVISM IN SOCIAL MEDIA: FACEBOOK FOR TEACHING AND LEARNING PURPOSES

## (Konstruktivisme Sosial Dalam Media Sosial: Facebook Untuk Tujuan Pengajaran Dan Pembelajaran)

\*Mohd Amin Mohd Noh, Hoo Fang Jing

<sup>1</sup>Faculty of Education  
International Islamic University College Selangor  
43000 Kajang, Selangor, Malaysia.

<sup>2</sup>Academic of Language Studies  
Universiti Teknologi MARA (UiTM) Kampus Alor Gajah  
78000 Alor Gajah, Melaka

\*Corresponding author's email: mamn@kuis.edu.my

### Article History:

Submit: 20 February 2017

Accepted: 29 March 2017

Revised: 30 March 2017

Published: 28 December 2017

Attarbawiy: Malaysian Online Journal of Education

Vol. 1, No. 2 (2017), 59-67

### Abstrak

Kajian ini menerangkan tentang kepentingan teori Konstruktivisme dalam proses pengajaran dan pembelajaran bagi peringkat institusi pengajian tinggi di Malaysia. Seramai 56 peserta yang terdiri daripada tiga kumpulan pelajar tahun akhir bagi program Senilukis dan Senireka telah dipilih untuk kajian ini. Ianya mengkaji sejauhmana kumpulan pelajar ini dapat membina pengetahuan berdasarkan pengetahuan sedia ada, pengalaman terdahulu dan faktor-faktor budaya di persekitaran mereka dalam menghasilkan kualiti projek tahun akhir yang menarik. Masalah timbul dalam proses pengajaran dan pembelajaran apabila pelajar dan pensyarah tidak dapat bertemu ketika sesi syarahan atau sesi studio disebabkan kekangan-kekangan seperti ketidakhadiran, mesyuarat, kesuntukan masa untuk sesi pemantauan dan konsultasi proses kemajuan dan perkembangan projek yang seterusnya mengakibatkan pelajar kurang produktiviti dan ketidakcekapan dalam menyiapkan projek tahun akhir mereka. Oleh itu, kajian ini melihat fungsi Konstruktivisme Sosial berdasarkan penggunaan Facebook sebagai satu alat Komputer Perantara-Komunikasi (KPK). Kaedah kualitatif digunakan untuk mengumpul data bagi mengkaji interaksi sosial dan perkembangan komunikasi dalam kalangan pelajar. Hasil penemuan menunjukkan bahawa Facebook menjadi alat yang berkesan untuk pelajar mencapai interaksi sosial yang lebih baik di antara mereka dalam proses pengajaran dan pembelajaran. Oleh itu, KPK harus digunakan sebagai alat alternatif untuk pensyarah berkomunikasi dengan pelajar. Proses pembelajaran tidak seharusnya terbatas dalam konteks kelas sahaja. Pelajar dan pensyarah harus terlibat secara langsung dalam sesi pembelajaran sendiri pelajar untuk mengatasi kekangan sesi interaksi bersemuka.

**Kata kunci:** teknologi pendidikan, konstruktivisme sosial, media sosial, pembelajaran atas talian.

### Abstract

This study describes the importance of looking into the theory of constructivism in the process of teaching and learning for higher learning institution in Malaysia. 56 participants from 3 different groups of Art and Design final year students in Universiti Teknologi MARA (UiTM) Melaka campus have been chosen as the subjects for this study. It investigates how these groups of students are able to construct knowledge based on their prior knowledge, past experiences and the cultural factors that govern the environment they are in to produce good and interesting final year project. Problems arisen in the process of teaching and learning whereby students and lecturers were not able to meet up during lecture and studio hours due to many constrains like absenteeism, meetings, and insufficiency for monitoring and consulting student's project progress and developments resulting in inefficiency and less productive of the final products by the students. Thus, Social Constructivism is looked into using a well-known Computer-Mediated Communication (CMC) tool which is Facebook. The qualitative method is used for collecting data to examine the social interaction and the development of communication among students. The findings in this study indicate that the use of Facebook has served as a good tool for Graphic Design students to achieve better social interaction amongst them in the process of teaching and learning session. Therefore, CMC should be used as an alternative tool for lecturers to be able to communicate with students. Learning process should not be confined only during classroom. Both the students and lecturer should participate in students' own learning time and to overcome the constraint of face-to-face interaction.

**Keywords:** educational technology, social constructivism, social media, online learning

## 1.0 INTRODUCTION

### 1.1 Constructivism

Theory is general principles that explain or predict facts, observations, or even events and it is generally accepted as valid if it has gone through repeated testing. Thus, a model created from a theoretical construct or mental picture helps one to be able to understand something that has been learned. However, it cannot be easily observed or experienced directly. Knowing this definition leads us to the theory of constructivism.

Constructivism is a process of active learning, a contextualized process of constructing knowledge and not just by acquiring it. It is based on personal experiences and hypotheses of the environment. Learners must continuously test these hypotheses through social negotiation. Experiences in the past or prior knowledge and cultural factors play important roles to a situation. They create their own subjective representations of objective reality thus these representation is deemed subjective. Leedy & Ormrod (2010), stated that construct validity is the extent to which an instrument measures a characteristics that cannot be directly observed but is assumed to exist based on patterns in people's behaviour (such a characteristic is a construct). Motivation, creativity, prejudice, bedside manner, is constructs and that none of these can be directly observed and measured.

This study looks into the constructivism theory of learning for Art and Design final year students for their final project in Universiti Teknologi MARA (UiTM) Melaka campus. It investigates how this group of students is able to construct knowledge based on their prior knowledge, past experiences and the cultural factors that govern the environment they are in to produce good and interesting final year project. Their lecturers play only the role to impart knowledge in helping this group of students to promote further development or advancement in their studies.

This study also examines the learning process of Graphic Design students to see if they are able to integrate their knowledge into the artwork by looking into the aspects of culture and context in parallel with reality and the needs of the society and construct their knowledge based on this understanding. Here, this study will focus on Social Constructivism. Kukla (2000) remarked that social constructivists believe that reality is constructed through human activity. Members of a society together invent the properties of the world.

Besides that, knowledge is also a human product, and is socially and culturally constructed. Individuals create meaning through their interactions with each other and with the environment they live in (Ernest, 1999; Gredler, 1997; Prat & Floden, 1994). In addition, McMahon (1997) stressed that learning is a social process that takes place within not only an individual but also the development of behaviours that are shaped by external forces then meaningful learning will occur when the individuals are engaged in social activities. These are the assumptions of social constructivism by these three researchers in the area of constructivism.

### 1.2 Facebook

The main purpose Facebook was launched by Mark Zuckerberg in 2004 is to serve as the platform for college students to interact and find new friends. However, year 2005 has seen Facebook opened its membership to the high school students and in turn leads to users among adults aged 25 years and above who were the most popular and the fastest growing Facebook users compared to students. In September 2012, Facebook users around the world have increased to over 1 billion members (Statista.com, 2017).

Through interviews by David Chartier with Facebook engineering Vice President, Mike Schroepfer in 2008, a new application called Facebook Connect was launched as a continuation of the Facebook Platform that allows users to connect Facebook identity or Facebook profile, contacts and personal information to others websites.

According to Dean (2009), as well as offering 37 languages for easy access, Facebook also gives users the opportunity to use a variety of basic applications that are offered for free such as an event page to allow users of Facebook to promote or publicize the events that will take place, invite others to attend and identify users who will or will not attend the event; groups page to allow Facebook users to communicate and interact within their similar interest or hobbies; marketplace page to offers the opportunity for users to advertise and promote products or services to other users; sites page to operate as a specific site created by a specific user to promote any occasions or topics for non-profit purpose; and the presence of technology to serves as online messaging when friends or acquaintances are active online.

Statista.com (2017) also has stated in the first quarter of 2017, Facebook users have reached 1.94 billion people around the world as shown in Figure 1. This shows that Facebook's mission and vision to give freedom to people to share and always be connected to each other had then became true. Since then,

the numbers of active users of Facebook growth increasingly from quarter to quarter over the years. Refer to Figure 2; the distribution of Facebook users worldwide by age and gender as January 2017 was found that 12 percent of global active users were women between ages of 18 and 24 years (Statista.com, 2017).

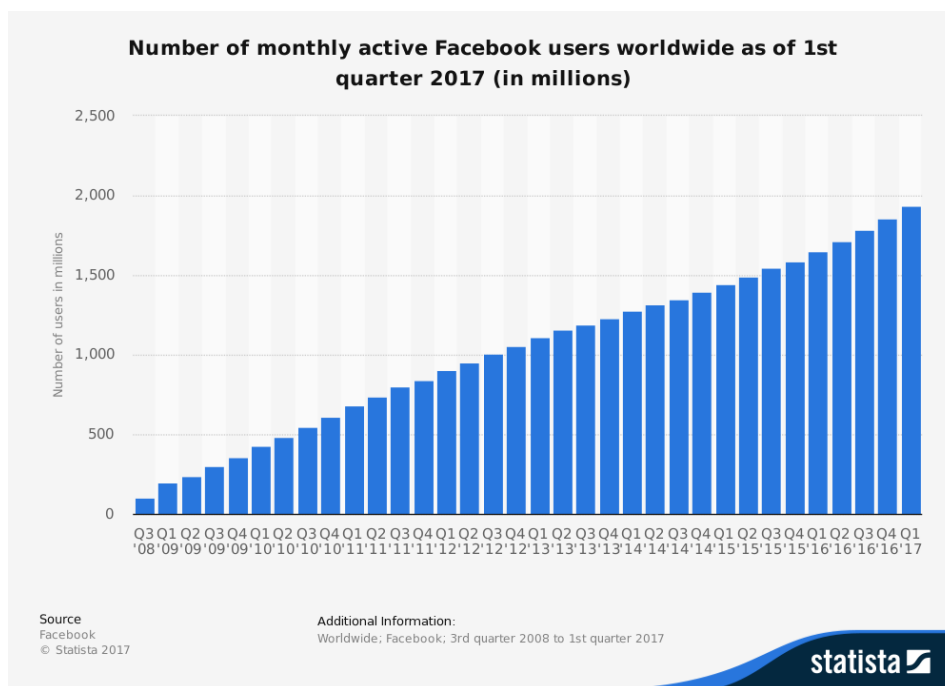


Figure 1: Graph Showed Increasing Numbers of Facebook Users.

Source: Extracted from statista.com

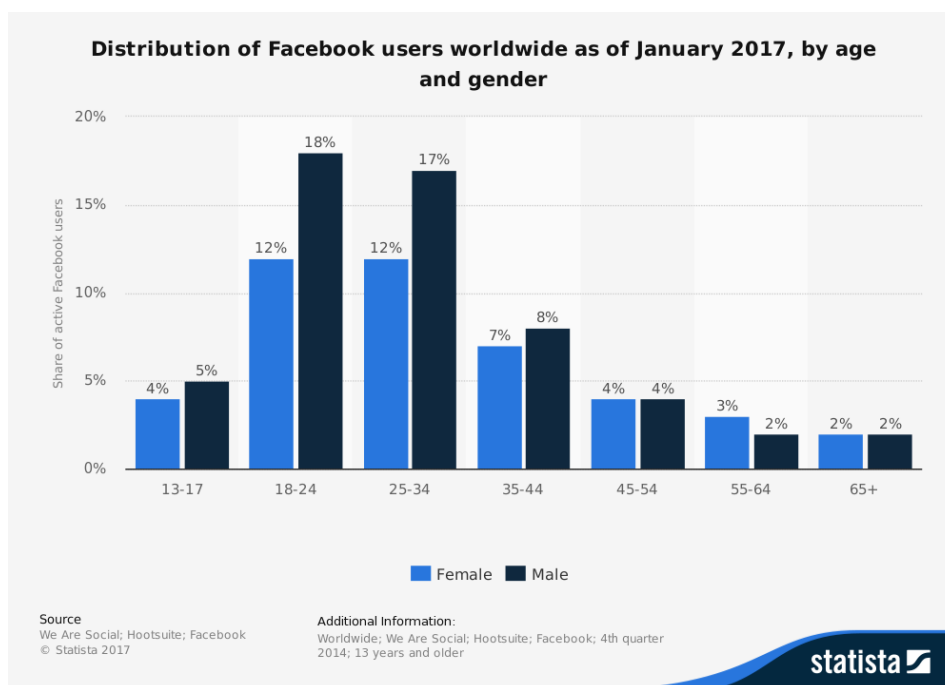


Figure 2: Graph Showed Distribution of Facebook Users Worldwide by Age and Gender.

Source: Extracted from statista.com

## 2.0 PROBLEM STATEMENT

Most of the programs in the Faculty of Art and Design, Universiti Teknologi MARA (UiTM) is a program associated with the production of creative arts. The Diploma students in Graphic Design and Digital Media learn a variety of courses involving the use of creative thinking skills and processes that

often involve the complicated development of ideas before the student can produce their final artwork. Major Discipline is a compulsory course that the final-year students have to undergo as an essential prerequisite to qualify for their diploma. Lecture and studio session that usually lasts for 10 hours a week between a lecturer and students with an average of 20 in a class is not sufficient for monitoring and consulting student's project progress and developments. Lecturers have been facing various whims and situations involving students who lack of disciplines as not attending lecture sessions, nonchalant attitude as well as avoiding meeting with the lecturers for consultation process (Reay, Crozier, & Clayton, 2010; Mulryan-Kyne, 2010). The situation is even more complicated if the lecturers are required to attend various meetings, seminars, workshops or courses and the students did not take any initiative to continue their projects without supervision (Keengwe, Schnellert, & Mills, 2012).

Since Computer-mediated Communication (CMC) exists and is growing rapidly, a variety of studies and research have been carried out on each of the applications such as ICQ, weblogs, Friendster, MySpace and the latest is Facebook (Hoo et. al., 2011). Therefore, with the use of Facebook as an alternative media for lecturers to provide consultation and monitoring the students' progress with a total of 100 percent involvement can accelerate the process of completing the project besides promoting social constructivism approach among students in the higher learning institutions.

### 3.0 OBJECTIVES

This study examines the use of social media- Facebook as a communication tool among lecturers and students outside the classroom session upon completing their Major Discipline course. Thus, the focus of the study was to look into:

- a) The development of social construct among students in shaping their knowledge and understanding in relation to their project.
- b) The effectiveness of social media such as Facebook as an alternative media for consultation to look at the progress of students' projects for Major Discipline course.

### 4.0 METHODOLOGY

Qualitative method is used for collecting data on the effective use of social media - Facebook by students. The responses from students were gathered and analyzed to obtain the result of using Facebook to clarify if the objectives were met. Qualitative approach was used to examine the social interaction and the development of communication among students through Facebook. Data collections look into the patterns of development progress done by the students through the responses of consultation and discussion that occurred among students. The qualitative method also focused to the involvement and responses among students regarding their design ideas or concept of project and helping each other to solve problems using the social media - Facebook.

#### 4.1 Sample

The subject of this study is composed of a small group of students who have similar social and educational backgrounds. They are the final year students of Diploma in Graphic Design program and Digital Media at the Universiti of Teknologi MARA (UiTM) Melaka campus.

Table 1: Graphic Design Students by Group and Gender.

GROUPS	STUDENTS	
	Male	Female
MAD111 5A	7	8
MAD111 5B	8	9
MAD111 5C	7	7
	22	24
Total	46	

The student must complete the Major Discipline course which is a compulsory course to qualify them to be awarded the diploma certificate. This course requires students to produce a complete series of corporate identity design consists of various items such as logos, corporate items, advertising items, labels and packaging as well as a variety of other designs to coincide with the project that have been agreed

upon by the lecturer and student. Therefore, the process of design and development of ideas is complicated and can be more difficult if consultation and discussion sessions with the lecturer were not done properly and in accordance.

The scope of the samples consists of 46 students from three groups with the average aged between 20 and 22 years as shown in Table 1. Each of them has the knowledge and skills required to be computer literate and graphic design knowledge apart the Facebook account to facilitate the consultation process that will carry out.

#### **4.2 Instruments**

This study employs a single case study because it involves a group of students with similar education and social backgrounds. Facebook has been used as an alternative media for lecturers to have consultation sessions with their students online within eight weeks of the semester calendar.

In addition, direct observation was used to record the process and the role of lecturers and students through the activities that take place in Facebook through group page that was specially created for this purpose. Each process of observation and monitoring runs with careful planning to ensure this method can provide the expected results. Adam and Schvaneveldt (1985) pointed out that observation is the best assets and has unique elements that are not available in other data collection.

Through this direct observation method, the information obtained are direct, apart from the simple application and the validation of the data can be made to evaluate a real function of Facebook and its effectiveness in shaping the development process of each project performed by the students to meet the required time frame.

#### **4.3 Validity and Reliability**

There was an exchange of experiments in the study of CMC environment with the aim of using more data through real interaction between the students. It is not sufficient with only the quasi-scientific laboratory to study the consumers' reactions. CMC researchers now, on the whole, adopted a naturalistic collection and interpretation of data. Previous researchers shy away from analyzing the content of the message, because there is no method to perform the task, and in part because it is very time consuming. However, this obstacle has been overcome and the field of CMC is finally moving from a situation where the actual data from CMC interaction is 'paradoxically the least used' (Romiszowski and Mason, 1996; Mason, 1991). This study has successfully display the actual data as a result of social interaction and communication of the final year students based on numerous discussion and consultation monitored by the lecturers.

#### **4.4 Content Analysis**

Qualitative method was used in this study and it was conducted using direct observation through the development of social construct among the final year students. Frequency of the students using Facebook for consultation and communication outside of class session as well as the discussion of the progress work were paramount. This study can be seen as a platform to measure the effectiveness of using Facebook as a social constructive media for consultation and the development process among students of Graphic Design and Digital Media program to produce better quality artwork with the involvement of peer-to-peer discussion and a lecturer as the moderator.

### **5.0 FINDINGS**

Based on the information shown in Table 2, this study has found that there were three types of activities for students to participate actively in Facebook namely visit group page, topic posted and discussion. Students were observed for the past 8 weeks and 46 students from three different groups have participated.

From Table 2, 100 percent students had logged in to the existed Facebook group page specifically created for Major Discipline course to view the discussion throughout 8 weeks. Some had even viewed the Facebook several times a day to keep themselves updated with the discussion going on. Students viewed the topics and discussion from peers and had also participated in the peers' review on their design artwork that basically shows the initial ideas that they have before constructing it further.

Nevertheless, from Table 2, 84.78 percent students had participated in the topics posted. Topics were varied from logos, to corporate items, advertising items, labels and packaging designs. Other than that, students had also asked for advice not only from the lecturers involved, but also from the others

who had participated in the discussion. They have uploaded their designs or artwork for others to comment and to give opinion so that amendments can be done for perfection. Students tend to discuss the difficulties they have encountered to eliminate their fears for incompleteness of their artwork. Different information had been posted for all whom had participated in the discussion such as date of review, pre-review, presentation or any course requirement pertaining to the final project.

Table 2: Frequency by Types of Activities for Graphic Design Students

Type of Activities	Students (n=8 weeks)	Total of Frequency (N=100%)
Visit Group Page	46	100%
Topic Posted	39	84.78%
Discussion	39	84.78%

Further to this, 84.78 percent students had participated in the discussion in Facebook group page. They have kept themselves updated to any of the replies from students and the lecturers regarding their artwork consistently. They have also participated in giving opinions to other students' artwork too. Brainstorming session was conducted actively amongst them and they welcomed any suggestions on the design or artwork that had been posted to produce the best artwork for their final project presentation at the end of semester.

## 6.0 DISCUSSION

Facebook is a popular CMC nowadays and most teenagers have created an account and they believe in social interaction that happened between them and their connections in Facebook. Thus, this study advocates the relation of teenagers especially in this case, the Diploma Graphic Design and Digital Media students using Facebook as their tool of communication in their process of learning. According to Vgotsky, (1978) humans use tools that develop from a culture to mediate their social environments and people develop these tools to serve solely as social functions, ways to communicate needs. He believes too that the internalization of these tools led to higher thinking skills.

In a short period of eight weeks, this study found that students had interacted actively using Facebook. At times, students would log in several times a day when they have questions or needed advice from the lecturers or sharing their ideas among peers. This is actually very difficult to carry out if they are using face-to-face communication with the lecturers. In this situation, the role of lecturers and students were shifted as students play an active role in learning whereas lecturer's presence is somehow insignificant as he or she only facilitates the meaning of construction in students. Students find Facebook a very useful tool to communicate to develop greater or more specific ideas for their project. They were not worried of unable to communicate with the lecturer and they were able to utilize their time extensively no matter when or where they are. All they needed were some motivation and some encouragement or guidance to prove that they are on the right track to produce the best artwork.

This tool proved excellent to the lecturer too as he or she found that students are more willing to spend time communicating actively using Facebook. The lecturers could actually monitor all students' progress as they interact among themselves and at the same time interfere by providing only necessary information to students so that they could think logically and creatively to produce better artworks. At the end of the day, the students would have to present their final artworks.

Besides that, this study also found that students are more daring to voice out their opinions or to share ideas using Facebook. Even the passives ones are also more willing to participate in the discussion and surprisingly, they do have good and interesting ideas. This again proved that social interaction using Facebook is effective to deliver message across and to have communication among students of various learners with diverse interest and backgrounds to offer something unique in their group's construction in the completion of their final project. They are able to contribute their own personal skills and talents and this situation makes the lecturer's expectation higher to achieve higher grades for the students. More importantly, students were able to construct their own knowledge based on everyone's experience and put their ideas together to achieve better performance in their design artworks. Learning therefore becomes reciprocal experience for the students and the lecturer involved.

In addition, the use of Facebook has shown also that distance is not a problem anymore for students to learn. They are able to communicate at anytime or anywhere. Being in campus always after class time is no longer a requirement for them to complete their project neither should they wait in a long

queue just to meet the lecturers to ask for advice which tires them easily and they are able to use their own time to their own convenience to gather ideas to construct a better learning process.

Facebook has served them well to show their ability to perform a task under lecturer's guidance or with peer collaboration. The lecturer also found that students have used their potential fully especially solving problems independently pertaining to their own project or helping others to complete their project. Cooperation exists in a healthy way amongst these students and even with a larger number of students should not be a problem for lecturer to communicate and to view each student's potential. This helps in providing better guidance for the students individually so that they are able to see clearly of what they needed to complete their artwork.

Last but not least, there is evidence that Facebook is a tool to improve students' cognitive development consistently. Cognitive theory is about the development of a person's thought processes. Here, this study has again successfully shows that students' understanding and interaction with the world. Students were able to make choices that make the most sense to them after interacting with their peers in Facebook. This is due to group interaction and peer pressure situation.

Students were also able to overcome their fears of incompleteness of their artwork. They are automatically motivated and pushed themselves to be better than others or hope to perform and produce better artwork than their peers. They are able to monitor their own progress by checking the items that they need in their final project with their peers. But, most importantly, students were not directly instructed by the lecturers as what happened in traditional classroom most of the times to achieve good grades, but more to what they prefer and design their original ideas for their final project.

The lecturers were only a mere guidebook for them to construct their own ideas. Hence, the students can become an individual who can reason and think using hypotheses. This is the result of biological maturation and environmental experience. They are then able to construct an understanding of the world around them especially in their areas of expertise where experience discrepancies happened between what they already know and what they had discovered in their environment. Piaget (1957) claims that discovery learning is important – the idea that students learn best through doing and actively exploring. Here, this study found that Facebook has served as a shared understanding tool among individuals whose interaction is based on common interest which is in the area of Art and Design and assumptions were formed from the ground for their communication.

Social meanings and knowledge are shaped and evolved through negotiation within the communicating groups. Any personal meanings shaped through these experiences are affected by the community to which the students belong to. Together they produce a product and as a group, impose meaning through the social learning process.

## 7.0 CONCLUSION

The findings in this study indicate that the use of Facebook has served as a good tool for Graphic Design students to achieve better social interaction amongst them related to learning session. Even the most passive students were able to participate in the discussion. Students who were not diligent to have face-to-face interaction with the lecturer seem to have improvement in terms of communicating in the brainstorming session conducted through Facebook.

The nature of students' social interaction with knowledgeable peers in the same group is important. They were able to share information and a building criticism has evolved around them in the Facebook. They are able to develop their thinking abilities by interacting with each other and with the guidance of the lecturer.

Besides that, the students are able to construct knowledge. They have absorbed the information from the Facebook. Hence, construct their artwork based on the ideas, suggestions and guidance provided for betterment in their final project. The role of the lecturer and students were also shifted. Students play more important role in constructing their artwork and the lecturer was only providing necessary guidance. From these, new information is then linked to their prior knowledge, thus mental representations were formed. This has taught the students to use their thinking creatively and to stand firm on their ideas for the completion of their artwork.

However, this study has also limitation in terms of students' motivation. Some students had less participation even though time and place were not a hindrance for them to communicate with the lecturer and other students. It is difficult for the lecturer to ensure full participation as these students were old enough to understand the importance of participating in the discussion. A few of the students did not understand the use of Facebook as an alternative for them to have discussion besides the usual class time.

Some students were reluctant to upload their artwork for peer reviews for fear of criticism. These students were not confident enough to portray their artwork due to incompleteness or have lesser idea than the rest of their peers. There were also students who insist of having face-to-face interaction with the lecturer and they wanted to keep their artwork till the day of presentation. They do not seem to understand the use of Facebook for them to amend their artwork to achieve better product to obtain better result.

## 8.0 RECOMMENDATION

CMC should be used as an alternative tool for lecturers to be able to communicate with students. Learning process should not be confined only during classroom both the students and lecturer should participate in students' own learning time and to overcome the constraint of face-to-face interaction, different types of CMC can be used. Blended-learning should be incorporated in higher learning institutions as a platform for the lecturers and students to be able to continuously interact to achieve better learning process. Students will then be motivated to share their ideas or to provide opinion on others ideas to promote healthy discussion. They will then learn to construct their knowledge through deep learning. This will help to develop better quality students.

## 9.0 REFERENCES

- Adam, G. R., & Schvaneveldt, J. D. (1985). *Understanding Research Methods*. New York: Longman.
- Chartier, D. (December 5, 2008). Interview: Facebook engineering VP talks Connect. *Ars Technica*. Retrieved on April 5, 2014, from <http://arstechnica.com/business/2008/12/facebook-connect-interview/>.
- Chen, I. (2012). *Social Constructivism Constructivist Theories*. An Electronic Textbook on Instructional Technology. Retrieved on April 5, 2014, from <http://viking.coe.uh.edu/~ichen/ebook/et-it/social.htm>.
- Dean, A. (February, 2009). Facebook. *WhatIs.com*. Retrieved on May 5, 2014, from <http://whatis.techtarget.com/definition/Facebook>.
- Distribution of Facebook Users Worldwide as of January 2017, by Age and Gender. (2017). Retrieved from <https://www.statista.com/statistics/376128/facebook-global-user-age-distribution/>
- Distribution of Facebook Users Worldwide as of January 2017, by Age and Gender. (2017). Retrieved from <https://www.statista.com/statistics/376128/facebook-global-user-age-distribution/>
- Ernest, P. (March 23, 1999). *Social Constructivism as a Philosophy of Mathematics: Radical Constructivism*.
- Facebook Product/Service. (February 4, 2004). Facebook. Retrieved on April 5, 2014, from <https://www.facebook.com/facebook?sk=info>.
- Hoo, J. F. J., Nur'ain Mohsin, & Rafidah Abdul Azis. (2011). *Gender Roles in Weblog Online Interaction among UiTM Students*. Shah Alam, Selangor: Institut Pengurusan Penyelidikan
- Keengwe, J., Schnellert, G., & Mills, C. (2012). Laptop initiative: Impact on instructional technology integration and student learning. *Education and Information Technologies*, 17(2), 137-146.
- Kukla, A. (2000). *Social Constructivism and the Philosophy of Science*. London: Routledge.
- Leedy, P. D., & Ormrod, J. E. (2010). *Practical Research: Planning and Design*. Upper Saddle River, NJ: Merrill.
- McClard, A., & Anderson, K. (2008). Focus on Facebook: Who Are We Anyway?. *Anthropology News*. Retrieved on May 5, 2014, from <http://www.aaanet.org/issues/anthronews/upload/49-3-McClard-and-Anderson-In-Focus.pdf>.
- McMahon, M. (1997). *Social Constructivism and the World Wide Web - A Paradigm for Learning*. Retrieved on May 5, 2014, from <http://www.ascilite.org.au/conferences/perth97/papers/Mcmahon/Mcmahon.html>.
- Mulryan-Kyne, C. (2010). Teaching large classes at college and university level: Challenges and opportunities. *Teaching in Higher Education*, 15(2), 175-185.
- Number of Monthly Active Facebook Users Worldwide as of 1st Quarter 2017 (in Millions). (2017). Retrieved from <https://www.statista.com/statistics/264810/number-of-monthly-active-facebook-users-worldwide/>



- Pepitone, J. (2010). Facebook Hits 500 Million Users. CNN Money. Retrieved on April 5, 2014, from [http://money.cnn.com/2010/07/21/technology/facebook\\_500\\_million/index.htm](http://money.cnn.com/2010/07/21/technology/facebook_500_million/index.htm).
- Piaget, L. (1957). *Construction of Reality in the Child*. London: Routledge & Kegan Paul.
- Protalinski, E. (October 3, 2013). Facebook Passes 1.19 Billion Monthly Active Users, 874 Million Mobile Users, and 728 Million Daily Users. Company/Facebook. Retrieved on May 5, 2014, from <http://thenextweb.com/facebook/2013/10/30/facebook-passes-1-19-billion-monthly-active-users-874-million-mobile-users-728-million-daily-users/>.
- Reay, D., Crozier, G., & Clayton, J. (2010). 'Fitting in' or 'standing out': Working-class students in UK higher education. *British Educational Research Journal*, 36(1), 107-124.
- Romiszowski, A., & Mason, R. (1996). Computer-Mediated Communication. *Handbook Of Research for Educational Communications and Technology*, 2, 397-431.
- Vygotsky, L. (1978). *Mind in Society. Interaction Between Learning and Development* (pp. 79-91), Cambridge, MA: Harvard University Press.