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Usage Of Facebook: The Future Impact Of Curriculum Implementation On Students In Malaysia

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Abstract

Facebook can increase interaction between teachers and students in web-based communication. Many research studies related to the use of Facebook by students and impact on their academic achievement but none of the research focused on futures study related to Facebook in education. The objective of this study was to get consensus on the benefits of the use of Facebook as a tool for teaching and learning in the future, student participation in teaching and learning process, suitability of subject in teaching and learning process via Facebook in the future, the impact of the use of Facebook in skills of students and the impact of the use of Facebook in terms of students' character in the future. In this study, Fuzzy Delphi Method using a seven-point Linguistic scale was used to get consensus of 20 experts consisting of 10 specialist teachers, five IT specialists and five lecturers in the Faculty of Education. This study can be beneficial not only to teachers and students, but also as a reference to the education system in Malaysia to transform education through collaboration with social networking technology in the future. All the domains and subdomains in this study obtained consensus from the experts.

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1. Introduction

Launched in February 2004, Facebook is a social networking service with a mission to make the world more open and connected (Facebook, 2012). People use Facebook to keep in touch with friends and family, to find out what is happening in the world, and to share and express their opinions. Facebook, which is a popular social networking site, is one of the most-used social networking sites today with millions of users (Bicen & Carvus, 2010; Cain, 2008; Mazman & Usluel, 2010; Ross et al., 2009). Facebook has quickly become one of the most popular social sites (Ross et al., 2009). As of October 2012, Facebook has more than one billion monthly active users; about 81% of monthly active Facebook users are outside the United States and Canada, and 552 million active users daily on average in June 2012 and 600 million monthly active users are using Facebook through a mobile device in September 2012 (Facebook, 2012).

Facebook is basically a social networking site online where individuals can share pictures, their biodata and join a group of friends who are online (Buckman, 2005; Cabada et al., 2009). Although many online websites such as MySpace and Friendster are also designed to connect people, Facebook is generally considered the leading social networking site used by college students (Golder, Wilkinson, & Huberman, 2007). For example, in the United States, the use of Facebook is now very popular among the students with the participation of over 90% among undergraduate students, as reported in a number of surveys (Ellison, Steinfield, & Lampe, 2007; Stutzman, 2006). It has also become one of the social networks most used by British students (Madge, Meek, Welles, & Hooley, 2009) and South African students (Shambare et al., 2011).

A motivating factor for popularity of social networking sites among young consumers is that the social networking site provides users with more flexibility and freedom to express their feelings (Shambare et al., 2011). This is because technology use has changed the way we communicate with each other, the way we use language, the way we read and write, the way we think and the way we teach (Crystal, 2008a, 2008b; Johnson, 2009; O'Brien & Sharber, 2008). Thus Facebook is said to have a positive impact on the lives of college students (Munoz & Towner, 2009). By offering virtual office hours through Facebook teachers have a positive impact on student satisfaction as they are able to communicate with students outside of the classroom (Li & Pitts, 2009). This presents a clear opportunity to bring Facebook into education. Students should be given information on the use of Facebook in education because Facebook can facilitate the sharing of information related to school and student learning and students can also have discussion in FB about a difficult topic.

Facebook allows the exchange of information among the students on one hand, and between students and teachers on the other, potentially making it an important educational tool for effective teaching requires educators to guide, nurture, develop and transmit knowledge to students on an ongoing basis (Alger, 2009). To find strength in technological progress along with the development of pedagogy, academics suggest the ideal combination of technology integration in learning and social constructivism in order to achieve the objectives of contemporary education (Koohang, Riley, Smith & Schreurs, 2009; Neo 2010; Sadik 2008). Thus, technological tools such as Facebook can be used to communicate and clarify the concept and content of the course to engage students with information (Solvie & Kloek, 2007). For that reason, it is expected that the implementation of Facebook in the curriculum will enhance the effectiveness of teaching and learning.

Many research studies on Facebook lead to the use of Facebook, the effects of teacher self-disclosure via Facebook on teacher and student relationship and increase academic achievement among Facebook users. Reynol (2011) used the method of statistical analysis to examine the relationship between frequency of use and the students' participation in Facebook. Neil (2009) used qualitative analysis to study the frequency of students using Facebook for educational purposes while Muhammad Kamarul Kabilan et al. (2010) used statistical analysis to examine whether university students assume Facebook is a useful and meaningful tool in the educational environment that can support the learning of English. However, not many studies about Facebook have covered the use of Facebook in implementation of the curriculum. Total study about Facebook is not broad

enough, especially about the future studies using Fuzzy Delphi method. Therefore this study was conducted in order to see the use of Facebook among students and its impact on the future implementation of the curriculum in Malaysia using Fuzzy Delphi method.

2. Purpose Of The Study

The purpose of this study was to obtain expert consensus on the impact of the use of Facebook among students and teachers on the implementation of the curriculum of the future.

This study is aimed at answering the following research questions:

1. What is the consensus of experts on the impact and benefits of the use of Facebook in terms of teaching aids in teaching and learning in the future implementation of the curriculum?
2. What is the consensus of experts on the impact and benefits of the use of Facebook in terms of student involvement in the teaching and learning process in the future implementation of the curriculum?
3. What is the consensus of experts on the impact and benefit the use of Facebook in terms of the suitability of the subject in the process of teaching and learning in the future implementation of the curriculum?
4. What is the consensus of experts on the impact and benefits of the use of Facebook in terms of the suitability of the subject in the process of teaching and learning in the future implementation of the curriculum?
5. What is the consensus of experts on the expected impact of the use of Facebook on the skills of students in the future implementation of the curriculum?

3. Methodology

To get future expectations, recommended information collected through the survey data obtained from experts. For example by using the Delphi method (Afghan, 2007). The Delphi method was explored in 1950 by the RAND Corporation (Dalkey, 1969). This method includes survey conducted in two or more rounds. After each round, the researcher will give the results of the previous round so that experts can review or retain their original answers. Questionnaires carried out separately and the experts do not know each other. This method is often perceived to create a good interaction within the group (Rowe, 1991).

Although the Delphi method has been widely used in education, especially in anticipation of the future, this method have its drawbacks. Among the weaknesses of the Delphi method (Saedah Siraj, 2007):

1. Reliability of the data depends on expertise; if the researcher fails to deliver real experts mean the study will lose credibility.
2. Experiments are repeated on a sample and this will cause boredom to the sample.
3. A small number of experts are not able to resolve all the issues studied.
4. Less chance of getting a response from the emotional aspect.

To solve the problem of ambiguity in the consensus of experts, researchers from around the world have created new methods. Murray, Pipino, and Gigch (1985) proposed the application of Fuzzy Delphi Method Teory into semantic variables used to solve the problem of ambiguity in the Delphi method. Kir and Folger (1988) suggests the use of average normalization modes and Ishikiwa et al. (1993) used the maximum-minimum along

with the cumulative frequency distribution and scoring for organizing fuzzy expert opinion on fuzzy numbers. Expert prediction interval value is then used to derive the fuzzy numbers that will form the fuzzy Delphi method. Hsu and Chen (1996) proposed a fuzzy aggregate equation. By using this similarity function, the similarity between experts can be collected and fuzzy numbers can be built directly into each expert to determine the degree of agreement between them. Then the coefficient of consensus is used to get value assessment fuzzy numbers for all specialists. If the degree of agreement is too low among all experts then the questionnaire must be administered again.

The advantages of Fuzzy Delphi Method are:

1. Saves time on the questionnaire.
2. Save costs.
3. Reduce the total number of surveys, questionnaires increase the recovery rate.
4.   Experts can fully express their opinions, ensure completeness and consistency of opinion.
5.   Taking into account the ambiguity that cannot be avoided during the study. This method does not misinterpretate original expert opinion and gives their real reactions.

Therefore this study using Fuzzy Delphi method as the main method of review as the advantage obtained in Fuzzy Delphi method over the Delphi method. Expert questionnaire is a very good tool and is useful in the process of data collection conducted in Delphi method if the method and process of interviewing individuals cannot be done due to time constraints and group composition (Dalkey, 1963). **Data Analysis**

Expert evaluation was collected through a questionnaire survey. A total of 20 questionnaires were recovered and verified. All assessment that measured were converted into fuzzy sets based on expert response using a 7 point linguistic scale for the benefit of the use of Facebook in the implementation of the curriculum in the future from aspects of teaching aids, student involvement in teaching and learning, expectation of suitability to subject for the use of Facebook, for aspects of the students' skills and personality had been analyzed based on the actual response.
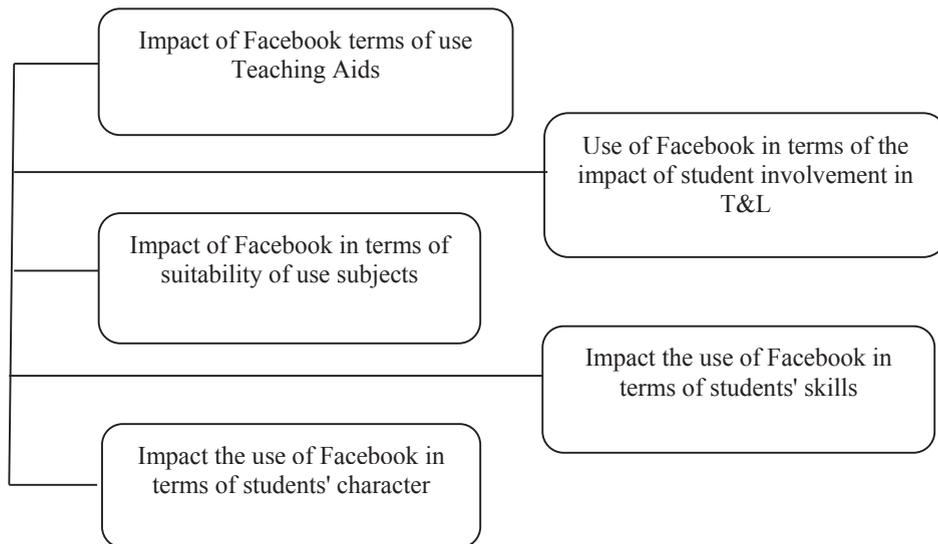

Figure 1. The expected impact of the use of Facebook in the implementation of curriculum

The distance between two fuzzy numbers is calculated by measuring the average deviation between the data evaluation experts. From the data analysis of the threshold value is greater than 0.2 then the second round of questionnaires is run. In the second round if the threshold value is less than 0.2 it means consensus from all the experts has been achieved.

In this study, the criteria used to evaluate the group consensus on the basis that the agreement is more than 75% (Chu & Hwang, 2008; Murry & Hammons, 1995). In first round of acceptance of the group is 89.10%. Group consensus estimates in the second round is 91.43%.

After obtaining the consensus of the group, the averages of the Fuzzy number were obtained.

Table 1: Average Fuzzy Number for benefits of implementing the use of Facebook in the future curriculum for aspects of teaching aids

Criteria	Average Fuzzy No
Using a Facebook page for an announcement	(0.81, 0.96, 1.00)
Inform students about homework to do.	(0.71, 0.88, 0.97)
Inform learning objectives that will be implemented.	(0.63, 0.80, 0.94)
Share information about teaching and learning.	(0.65, 0.82, 0.94)
Plan learning activities to be carried out.	(0.64, 0.82, 0.96)
Teacher observations of student homework.	(0.62, 0.80, 0.94)

Table 2: Average Fuzzy Number for benefits of implementing the use of Facebook in the future curriculum for student involvement in aspects of teaching & learning

Criteria	Average Fuzzy No
Building a 'group' for the class being taught.	(0.74, 0.89, 0.97)
Handle or discussion forum online.	(0.74, 0.90, 0.98)
Weekly tutorials conducted.	(0.72, 0.89, 0.98)
Question and answer session conducted in FB.	(0.70, 0.86, 0.96)
Students prepare early after getting information from the teachers through a Facebook page.	(0.67, 0.84, 0.96)
Students who have difficulties communicating in simple class interact in FB.	(0.70, 0.87, 0.97)

Table 3: Average Fuzzy Number for benefits of implementing the use of Facebook in the future curriculum for appropriate subjects

Criteria	Average Fuzzy No
Science subjects (Biology, Physics, Chemistry) and Mathematics	(0.63, 0.82, 0.95)
History and Geography	(0.69, 0.86, 0.96)
Bahasa Malaysia / English / Tamil / Chinese	(0.71, 0.87, 0.97)
Islamic Education / moral.	(0.64, 0.82, 0.95)
Subject Art Education / Physical / Music	(0.69, 0.86, 0.97)

Table 4: Average Fuzzy Number for benefits of implementing the use of Facebook in the future curriculum for the skills of students

Criteria	Average Fuzzy No
Have the skills to find information	(0.68, 0.84, 0.95)
Skills appropriate to the needs of the current job market.	(0.65, 0.82, 0.95)
Have skills in technology.	(0.70, 0.86, 0.96)
Have the skills to think critically and creatively.	(0.68, 0.85, 0.96)
Lack of social communication skills for many students to interact in cyberspace.	(0.74, 0.89, 0.97)

Table 5: Average Fuzzy numbers for the benefit of the use of Facebook in the implementation of the curriculum in the future for aspects of students' character

Criteria	Average Fuzzy No
Increase student motivation.	(0.61, 0.80, 0.94)
Make students self-reliant.	(0.70, 0.87, 0.97)
Students are more interested in their studies.	(0.61, 0.80, 0.94)
Religion and moral values eroded.	(0.60, 0.80, 0.95)
Students take an active part in the discussion.	(0.62, 0.80, 0.94)
Build a sense of having a Facebook account.	(0.70, 0.87, 0.97)

To find out the ranking of each variable, defuzzifying was conducted. Table 7, 8, 9, 10 and 11 show the position or ranking for each of the variables and sub variables.

Table 6: Position for the benefit of the use of Facebook in the implementation of the curriculum in the future for aspects of teaching aids

Criteria	Fuzzy Evaluation	Score	Ranking
Using a Facebook page for an announcement	(16.20, 19.10, 20.00)	18.6	1
Inform students about homework to do.	(11.20, 15.10, 18.30)	14.925	2
Inform learning objectives that will be implemented.	(11.40, 15.10, 17.80)	14.85	3
Share information about teaching and learning.	(10.60, 14.60, 17.90)	14.425	4
Plan learning activities to be carried out.	(9.80, 13.80, 17.20)	13.65	5
Teacher observations of student homework.	(9.40, 13.40, 17.10)	13.325	6

Table 7: Ranking for the benefit of the use of Facebook in the implementation of the curriculum in the future for student involvement in aspects of T & L

Criteria	Fuzzy Evaluation	Score	Ranking
Building a group for the class being taught.	(11.40, 15.30, 18.20)	15.05	1
Handle or discussion forum online.	(11.60, 15.20, 18.00)	15	2
Weekly tutorials conducted.	(11.20, 15.00, 18.10)	14.825	3
Question and answer session conducted in FB.	(10.20, 14.20, 17.60)	14.05	4
Students prepare early after getting information from the teachers through a Facebook page.	(10.00, 14.00, 17.50)	13.875	5
Students who have difficulties communicating in class interact in FB.	(10.00, 14.00, 17.30)	13.825	6

Table 8: Rating for the benefit of the use of Facebook in the implementation of the curriculum in the future for appropriateness aspect of subjects

Criteria	Fuzzy Evaluation	Score	Ranking
Science subjects (Biology, Physics, Chemistry) and Mathematics	(13.20, 16.40, 18.80)	16.20	1
History and Geography	(11.80, 15.10, 17.70)	14.93	2
Bahasa Malaysia / English / Tamil / Chinese	(10.20, 14.20, 17.70)	14.08	3
Islamic Education / moral.	(9.80, 13.80, 17.20)	13.65	4
Subject Art Education / Physical / Music	(9.20, 13.20, 16.90)	13.13	5

Table 9: Ranking for the benefit of Facebook use in the implementation of the curriculum in the future for the skills of students

Criteria	Fuzzy Evaluation	Score	Ranking
Have the skills to find information	(11.20, 15.20, 18.50)	15.025	1
Skills appropriate to the needs of the current job market.	(11.20, 15.20, 18.40)	15	2
Have skills in technology.	(11.00, 15.00, 18.30)	14.825	3
Have the skills to think critically and creatively.	(10.60, 14.60, 18.00)	14.45	4
Lack of social communication skills for many students to interact in cyberspace.	(10.60, 14.60, 17.90)	14.425	5

Table 10: Ranking for the benefit of Facebook use in the implementation of the curriculum in the future for aspects of students' character

Criteria	Fuzzy Evaluation	Score	Ranking
Increase student motivation.	(11.60, 14.90, 17.50)	14.73	1
Make students self-reliant.	(10.80, 14.80, 18.10)	14.63	2
Students are more interested in their studies.	(10.00, 14.00, 17.60)	13.90	3
Religion and moral values eroded.	(9.80, 13.80, 17.40)	13.70	4
Students take an active part in the discussion.	(9.60, 13.60, 7.30)	13.53	5
Build a sense of having a Facebook account.	(8.80, 12.80, 16.70)	12.78	6

5.Discussion and Conclusion

Based on the results of this study, of the five variables to measure the benefits of the use of facebook in curriculum implementation in the future is accepted by consensus by the experts involved. This shows that the use of facebook in the future implementation of the curriculum is very desirable because it coincides with the advanced technology nowadays where the use of very high virtual space.

Ranking needs in this research is to identify the most important subvgariable for each variable. The aim is to put the variables according to priority, from the highest priority until the lowest priority.

For variable Facebook as teaching aid, the sub variable with the first ranking is "using the Facebook page for an announcement telling" and the final ranking is "Plan learning activities to be carried out". This statement is supported by Mazman & Usluel, 2010; Bicen & Carvus, 2010; Ross et al., 2009; Cain, 2008 stating that Facebook is a social networking site popular nowadays because it is used by millions of consumers; this implies that facebook is a medium suitable for making an announcement to students in the future implementation of   the   curriculum.

For the second variable, namely aspects of student involvement showed sub variable ranked first is "to build a group of classes taught" and the final ranking is "conducting weekly tutorials". The findings in the first ranking for this second variable is very timely with the opinion of Alger (2009) which states that the ability of Facebook is to promote the exchange of information among the students in one hand, and between students and teachers on the other, and potentially make it an important educational tool for effective teaching requires educators to guide, nurture, develop and transmit knowledge to students. Indirectly, facebook can be used as a tool to build a group in class and tutorials regularly scheduled to be delivered to each group.

For variable suitability subjects, the sub variable that gets ranked first is "Bahasa Malaysia / English / Tamil / Chinese" and the final ranking is the "subjects of science and mathematics". This shows that it is very easy to use FAcebook for subjects involving only theory without involving calculations. Findings ranking for variable findings suitability subjects clearly shows us that Facebook is a tool that is useful and meaningful educational environment that can support the learning of English (Muhammad Kamarul Kabilan et al., 2010).

The fourth variable, namely the students' skills, shows knowledge gets first ranking is "have the skills to find information" and "skills to think critically and creatively" has fallen into the final ranking. It is known that the use of Facebook really is capable of helping students get the information quite easily available from virtual search. But the disadvantage is to produce students who are relatively less use common sense and think to produce an idea.

The last variable is the aspect of students' character. Ranked first show is "build morale to have a Facebook account" and the last is "religious and moral values being eroded". This can be proved by the many social problems arising with the use of control and understanding of facebook. This is proved by Galiffa (2009) which states that the uncontrolled use of Facebook also allows students to engage in immoral activities during the communication process.

The conclusion to be drawn from this scientific research is the use of Facebook is seen as a medium and an effective tool for curriculum in the future. This is supported by the efforts made by the government in creating a free wifi zone in selected areas. This effort is seen as being able to expand and maximize the use of Facebook in the curriculum of the educational system of our country. The respondents from the experts were also seen reaching a consensus agreement that Facebook be made a medium in the teaching and learning process in the future because it is capable of affecting the education system as well as in line with current technology. Apart from the benefits of using Facebook, researchers feel the negative effects also exist, because if students use so much time on social networking sites such as Facebook this will leave them less time to learn and have a negative impact on their studies such as low academic achievement. According Zuwairi (2010), logging on to Facebook a long time can cause active students to turn passive. Therefore, we suggest that the government and experts involved in either of the fields of education and ICT study and create a model that is believed to be able to compensate and prevent the negative effects arising from the use of Facebook in teaching and learning systems for implementation of the curriculum in the future.

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