Imperial Journal of Interdisciplinary Research (IJIR)
Vol-2, Issue-11, 2016
ISSN: 2454-1362, http://www.onlinejournal.in

Effectiveness of Facebook Group as an Instructional Technology: Maximizing The Utility of Learning Space

Ryan R. Pecson, MAEd
Instructor, Bataan Peninsula State University, Bataan, Philippines
Master Teacher, Department of Education-Division of Pampanga, Pampanga, Philippines

Abstract*: Since its introduction, Facebook has become a learning space for collaboration and exchanges of ideas. Specifically, the Facebook group has been utilized nowadays by educators as an avenue for teaching-learning process. The aim of the study is to assess the effectiveness of Facebook group as an instructional technology. Based from the findings of the study, majority of the respondents perceived that the posted learning resources in the Facebook groups were highly effective, the same as the use of Facebook group as an instructional technology. Meanwhile, a limited significant difference between the profile of the respondents and the effectiveness of the learning resources used in the Facebook group was found. On the other hand, a significant difference was inferred between the profile of the respondents and the effectiveness of Facebook group as an instructional technology.*

Keywords*: Facebook, Facebook group, instructional technology, learning space*

1. Introduction

Facebook is a worldwide hit. It brings people closer together, making them globally connected to various trends and issues. Since its introduction in 2004 by Mark Zuckerberg and other fellow students at Harvard University, increasing number of people have been connected throughout the world, making it one of the most popular social media platforms to date.

Academically speaking, the use of social networks in teaching is not only a matter of convenience. The move from a walled garden type Learning Management Systems (LMS) to open environments (like Facebook) forces us to adapt new teaching ways [1]. This enhances the way how teachers deliver instruction and how students experience learning in a set-up where they can easily relate to, considering the vast majority of students who are users of Social Networking Sites (SNSs), especially Facebook.

Facebook as the largest and fastest networking sites, is one of the important SNSs that can play an important role in different academic disciplines [2]. It is a virtual meeting place that encourages authentic interaction, sharing and collaboration [3]. More so, social networking sites, especially Facebook, are an integral part of the lifestyle of contemporary youth. Facebook's group feature is designed to support discussions on defined topics and supports participative learning. By the nature and facilities of a Facebook group, it cannot serve as a system for uploads and downloads of files nor for maintenance of records; its purpose is to promote interaction and debate [4].

Facebook states that groups are designed for members of groups to connect, share and even collaborate on a given topic or idea. Groups have been used to market, promote or share group happenings. The key feature behind Facebook groups is the ability to make them invite only or limit these spaces to specific groups. These groups can be private or closed for only the students. Although this is a closed feature, one will need to friend students in the course to a closed or secret group; however an open group option will allow to add anyone from Facebook [5]. These features of the Facebook group allow educators to widen the platforms for learning, making it viable for them to use in their respective classes.

Hence, Facebook can be used by the instructor to share course resources, fire up discussions, promote collaboration, improve relationships between students, incorporate an array of learning tools such as videos, images, boards, chatting and private messaging, and use it in conjunction with other social media platforms. Facebook has endless advantages that solidly prove its social learning value [6]. As attested further, Facebook group as a course Web site serves as a platform for delivering content and maintaining interactions among the students and between the students and the instructor [7].

Essentially, the use of Facebook group engaged students in their space (social media, Facebook) and taught them how to use it academically (for their

own personal gain); and allowed students to drive the content of the course by collaborating and pursuing information, all the while driving one another to learn and better articulate their opinions in open academic discussion [8].

Indeed, Facebook and Facebook group opened a wider avenue for maximizing the learning opportunities and collaborations between students and their teachers. This provides more educational exchanges and sharing of experiences as learners embarked to utilizing Facebook group as a learning space. With the advent of technology and the nature of learners as technology users, it is advantageous for educators to catch up with the learners through the integration of technology and social media in teaching-learning process.

With such realities, it is the aim of the study to determine the effectiveness of Facebook group as an instructional technology. Specifically, the study included the profile of the respondents in terms of age, sex, year level, course enrolled and frequency of using Facebook per week; the effectiveness of learning resources used in the Facebook group; and the effectiveness of Facebook group as an instructional technology. By venturing in such research endeavor, the researcher aims to enlighten educators on the endless possibilities that the use of Facebook and Facebook group could deliver to the teaching-learning process.

2. Method

2.1 Research Design

The study used the descriptive method of research in comprehensively presenting the effectiveness of Facebook group as an instructional tool for college students. Such research design detailed how various aspects such as the profile of the respondents and the frequency of their usage of Facebook affect their perceived level of effectiveness of the Facebook group utilized as an instructional tool in their respective subjects.

2.2 Respondents

The respondents of the study were 107 college students, to which 85 are taking Bachelor of Elementary Education (BEEd), 15 are enrolled in the Bachelor of Secondary Education (BSEd), and 7 are pursuing Bachelor of Science in Civil Engineering (BSCE) at Bataan Peninsula State University – Dinalupihan Campus during the First Semester of Academic Year 2015-2016. All the respondents were purposively selected. Only the students who are members of the Facebook group and/or using the Facebook group itself as an instructional tool were given the chance to answer the self-made online survey-questionnaire.

2.3 Instrument

To gather the pertinent data needed in the study, the researcher utilized a self-made online survey-questionnaire comprising of 3 parts. Part 1 delineated the profile of the respondents in terms of age, sex, year level, course enrolled and frequency of using Facebook. Part 2 described the effectiveness of learning resources used in the Facebook group. Lastly, Part 3 underscored the effectiveness of Facebook group as an instructional tool.

2.4 Data Collection

After the final draft of the self-made survey-questionnaire, the researcher utilized google form in the creation of online survey-questionnaire. The researcher personally administered the online survey-questionnaire by posting the link to the Facebook groups. The respondents were given ample time in answering all the statements incorporated in the instrument.

2.5 Ethical Consideration

Data collected in the study were gathered from the student-members of the seven Facebook groups who willingly answered the online survey-questionnaire. A letter addressed to the respondents was appended in the online survey-questionnaire to convey the purpose of the study. In treating the data gathered, the researcher assured the confidentiality of them and the anonymity of respondents' identity.

2.6 Statistical Treatment

To analyze and interpret the gathered data, descriptive statistics (frequency, percentage, mean and standard deviation) and inferential statistics (t-test and Analysis of Variance or ANOVA) were used. Frequency count and percentage were used in describing the profile of the respondents. Mean was used in expressing the effectiveness of learning resources used in the Facebook group, and the effectiveness of Facebook group as an instructional tool. The following scales of means were used in interpreting the data gathered:

Scale of means

4.21 – 5.00
3.41 – 4.20
2.61 – 3.40
1.81 – 2.60
1.00 – 1.80

Likewise, the following scales with descriptive equivalent and interpretation were used:

Point scale	Descriptive rating	Interpretation
5	Always	Highly effective
4	Often	Effective

3	Sometimes	Moderately effective
2	Seldom	Less effective
1	Never	Not effective at all

Moreover, t-test and ANOVA were used in determining the significant differences between the profile of the respondents and their perceptions on the effectiveness of learning resources used in the Facebook group and the effectiveness of Facebook group as an instructional technology. Likewise, with regards to testing the hypotheses, the researcher set 0.05 level of alpha or the critical value. Using the Statistical Packages for the Social Sciences (SPSS), the actual significance or p-values were shown and readily compared with 0.05 level. P-values less than or equal to 0.05 were considered significant. If the statistical value is significant, the null hypotheses are rejected; otherwise, they are accepted.

3. Result and Discussion

For clarity of presentation, the data gathered were presented in order and sequence of the basic questions presented in the statement of the problem of the study.

3.1 Profile of the Respondents

Table 1. Profile of the respondents.

Profiles	*f*	%
Age		
20s and Below (17 – 20 y/o)	87	81.31
Above 20s (21 – 35 y/o)	20	18.69
Mean age = 19.67 y/o		
Sex		
Female	87	81.31
Male	20	18.69
Year level		
2nd Year	21	19.63
4th Year	86	80.37
Course enrolled		
Bachelor of Elementary Education	85	79.44
Bachelor of Secondary Education	15	14.02
Bachelor of Science in Civil Engineering	7	6.54
Frequency of using Facebook		
1 to 2 days a week	19	17.76
3 to 4 days a week	29	27.10
5 to 6 days a week	21	19.63
7 days (1 week) / Daily	38	35.51
Total	**107**	**100.00**

Scrutinizing the table, majority which is 87 or 81.31% of the respondents were aged 20 years old and below with a mean age of 19.67 years old. Meanwhile, females dominated the study with 87 or 81.31% of the respondents. Considering the degree / course of the respondents, majority which is 85 or 79.44% of them were enrolled as Bachelor of Elementary Education (BEEd) students. On the other hand, vast majority which is 86 or 80.37% of them were fourth year college students. Moreover, the respondents are frequently using (7 days or 1 week / daily) Facebook with 38 or 35.51% college students attesting to it. This means that college students are very adept in utilizing social media, particularly Facebook as an instructional technology/tool for learning that is popular among students. Hence, Facebook is one of the most popular social media platforms. Millions of people login each day to chat with friends, promote their businesses, and share the latest news [9].

3.2 Effectiveness of Learning Resources Used in the Facebook Group

Table 2. Effectiveness of learning resources used in the Facebook group.

Learning resources	Mean	Interpretation
Course syllabus	4.26	Highly effective
Modules	4.53	Highly effective
Activities	4.45	Highly effective
Videos	4.40	Highly effective
Images	4.40	Highly effective
Articles	4.35	Highly effective
PowerPoint presentations	4.57	Highly effective
Composite mean	**4.42**	**Highly effective**

In general, they were convinced that all the posted learning resources in the Facebook groups were highly effective ($\bar{x}$=4.42). When taken singly, the respondents believed that among the posted learning resources in their respective Facebook groups, the PowerPoint Presentations were highly effective ($\bar{x}$=4.57). One of the reasons why students are appreciative in PowerPoint Presentation is due to its potential to oversimplify the material. What students need to know is reduced to a bulleted list of five items described in five words or less. That does make complicated material more manageable for students and perhaps that's beneficial [10].

3.3 Effectiveness of Facebook Group as an Instructional Technology

Table 3. Effectiveness of Facebook group as an instructional technology.

Items	Mean	Inter-pretation
Exposes students to new and exciting experience of communicating with other students and the teacher that develops further	4.56	Highly effective

their interpersonal skills.		
Provides an alternative mode, venue or platform for learning and discussing concepts, lessons, activities and the subject being taught.	4.47	Highly effective
Motivates students to make use of technology to the fullest by maximizing the potential of Facebook as an educational hub.	4.52	Highly effective
Motivates students to express and exchange freely their ideas, opinions, and understanding on the concepts and lessons being taught.	4.59	Highly effective
Creates an environment to maximize student collaboration by commenting, messaging, liking and sharing.	4.53	Highly effective
Improves students' technological and computer skills through social media.	4.51	Highly effective
Promotes self-paced mode of learning by monitoring one's progress.	4.46	Highly effective
Develops students' communicating skills, especially writing, presenting, commenting and providing feedbacks.	4.52	Highly effective
Encourages students to become responsible and intelligent user of technology, especially social media.	4.52	Highly effective
Updates and informs students on lessons, activities, assignments and projects.	4.62	Highly effective
Composite mean	**4.53**	**Highly effective**

Overall, the students perceived that the use of Facebook group as an instructional technology is highly effective as attested by the average weighted mean of 4.53. Particularly, the effectiveness of Facebook group as an instructional technology is manifested in terms of "updating and informing students on lessons, activities, assignments and projects ($\bar{x}$=4.62). This means that the respondents were appreciating how Facebook grouping is updating and making them informed about their subjects. This connotes further how students and their instructor shared pertinent information in the Facebook group and benefitted from it, making them collaborators in gauging higher form of learning outside the traditional classroom setting. As attested, the usage of a Facebook group page was associated with higher levels of student-perceived time spent thinking about course materials outside of class, and higher levels of student-perceived connections with other students and with the instructor [11].

3.4 Significant Difference between the Profile and the Perception of the Students on the Effectiveness of Learning Resources Used in the Facebook Group

Table 4. Significant difference between the profile and the perception of the students on the effectiveness of learning resources used in the Facebook group.

Profiles	Group	Descriptives			Independent Samples T-Test / ANOVA		
		N	Mean	Std. Dev.	|t|, |F|	Sig.	Remarks
Age	20s and Below (17 – 20 y/o)	87	4.38	0.13	-4.82 |t|	0.00	Significant; Reject Ho
	Above 20s (21 – 35 y/o)	20	4.61	0.06			
Sex	Female	87	4.44	0.12	2.00 |t|	0.09	Not Significant; Accept Ho
	Male	20	4.34	0.11			
Course enrolled	Bachelor of Elementary Education	85	4.46	0.10	2.92 |F|	0.08	Not Significant; Accept Ho
	Bachelor of Secondary Education	15	4.33	0.14			
	Bachelor of Science in Civil Engineering	7	4.18	0.33			
Year level	2nd Year	21	4.25	0.18	-3.81 |t|	0.01	Significant; Reject Ho
	4th Year	86	4.47	0.10			
Freq. of using Face-book per week	1 to 2 days	19	4.08	0.13	44.74 |F|	0.00	Significant; Reject Ho
	3 to 4 days	29	4.18	0.11			
	5 to 6 days	21	4.69	0.13			
	7 days / Daily	38	4.64	0.12			

Notably, there is a significant difference in the perceptions of the respondents on the effectiveness of learning resources when grouped according to their age (t stat=-4.82; sig. 0.00), year level (t stat=-3.81; sig. 0.01) and frequency of using Facebook per week (F=44.74; sig. 0.00). This posited further that the respondents' age, year level and frequency of using Facebook were indicators on their perceived effectiveness of the learning resources used in the Facebook group; that the respondents' perceptions differ in terms of their age, year level and frequency of using Facebook. Meanwhile, no significant difference was inferred in sex (t stat=2.00; sig. 0.09) and course enrolled (F=2.92; sig. 0.08). This attested further that there is no significant difference between the profile of the respondents in terms of sex and course enrolled and their perceptions on the effectiveness of learning resources used in the Facebook groups. Analyzing the results, the null hypothesis was partially upheld due to the limited differences inferred between the variables.

3.5 Significant Difference between the Profile and the Perception of the Students on the Effectiveness of Facebook Group as an Instructional Technology

Table 5. Significant difference between the profile and the perception of the students on the effectiveness of Facebook group as an instructional technology.

Profiles	Group	Descriptives			Independent Samples T-Test / ANOVA		
		N	Mean	Std. Dev.	| t | , | F |	Sig.	Remarks
Age	20s and Below (17 – 20 y/o)	87	4.49	0.05	-10.85 | t |	0.00	Significant; Reject Ho
	Above 20s (21 – 35 y/o)	20	4.70	0.06			
Sex	Female	87	4.56	0.05	4.59 | t |	0.00	Significant; Reject Ho
	Male	20	4.40	0.11			
Course enrolled	Bachelor of Elementary Education	85	4.56	0.05	5.04 | F |	0.01	Significant; Reject Ho
	Bachelor of Secondary Education	15	4.39	0.13			
	Bachelor of Science in Civil Engineering	7	4.43	0.18			
Year level	2nd Year	21	4.38	0.12	-4.92 | t |	0.00	Significant; Reject Ho
	4th Year	86	4.57	0.05			
Freq. of using Face-book per week	1 to 2 days	19	4.19	0.08	126.06 | F |	0.00	Significant; Reject Ho
	3 to 4 days	29	4.32	0.05			
	5 to 6 days	21	4.70	0.10			
	7 days / Daily	38	4.76	0.08			

As reflected, there is a significant difference on the perceptions of the respondents on the effectiveness of Facebook group as an instructional technology when grouped according to their age (t stat=-10.85, sig. 0.00), sex (t stat=4.59, sig. 0.00), course enrolled (F=5.04, sig. 0.01), year level (t stat=-4.92, sig. 0.00) and frequency of using Facebook per week (F=126.06, sig. 0.00). This revealed further that the respondents' age, sex, course enrolled, year level and frequency of using Facebook were indicators on their perceived effectiveness of Facebook as an instructional technology; that the respondents' perceptions differ in terms of their age, sex, course enrolled, year level and frequency of using Facebook. This lead to the rejection of null hypothesis due to the differences inferred between the variables.

4. Conclusion and Recommendation

In light of the findings of the study, the researcher arrived at the following conclusions:

1. Majority of the respondents were 19.67 years of age, females, 4th year college students, taking up Bachelor of Elementary Education (BEEd), and using Facebook in a daily basis.
2. Majority of the respondents perceived that the posted learning resources in the Facebook groups were highly effective, especially the PowerPoint presentations.
3. Majority of the respondents perceived that the use of Facebook group as an instructional technology was highly effective, specifically in updating and informing students on lessons, activities, assignments and projects.
4. There is a limited difference between the profile of the respondents and the effectiveness of the learning resources used in the Facebook group. A significant difference was inferred in age, year level and frequency of using Facebook per week, while sex and course enrolled revealed otherwise.
5. There is a significant difference between the profile of the respondents and the effectiveness of Facebook group as an instructional technology.

In view of the conclusions inferred, the following are recommended:

1. Students' use of Facebook and Facebook group should be regulated in order to maximize their learning efficacy.
2. The effective inclusion of other learning resources in the utility of Facebook group should be explored and realized further.
3. Teachers should regulate the exchanges of ideas, opinions, etc. in the Facebook group wall.
4. Other profiles and significant variables should be explored in determining the effectiveness of Facebook group in various academic settings.
5. Further research is adhered to substantiate the use of Facebook group as an instructional technology, particularly in increasing the achievement of the students.

5. Acknowledgements

The researcher extends his deepest gratitude to all the college students of Bataan Peninsula State University – Dinalupihan Campus who took part in making this research undertaking possible.

6. References

[1] Miron, E. and Ravid, G., "Facebook groups as an academic teaching aid: Case study and recommendations for educators", *Educational Technology & Society*, 18, 4, 2015, pp. 371–384.

[2] Siddike, M. A. K., Islam, M. S. and Banna, H., "Use of social networking sites: Facebook group as a learning management system", *Knowledge Management & E-Learning*, 7, 2, 2015, pp. 232–249.

[3] Morrison, D., "Facebook for MOOCs: A bridge for student learning", May 4, 2016, Retrieved from https://onlinelearninginsights.wordpress.com/2016/05/04/moocs-and-facebook-a-hook-up-for-student-learning/

[4] de Villiers, R. R., "Academic use of a group on Facebook: Initial findings and perceptions", in *Proceedings of Informing Science & IT Education Conference (InSITE)*, 2010.

[5] Pasquini, L., "Facebook for learning communities: Groups vs. pages", June 14, 2012, Retrieved from https://techknowtools.wordpress.com/2012/06/14/facebook-for-learning-communities-groups-vs-pages/

[6] Pappas, C., "10 tips on how to use Facebook for effective social learning", May 17, 2013, Retrieved from https://elearningindustry.com/how-to-use-facebook-for-social-learning

[7] Meishar-Tal, H., Kurtz, G. and Pieterse, E., "Facebook groups as LMS: A case study", *The International Review of Research in Open and Distributed Learning*, 13, 4, 2012.

[8] Green, N., "The advantage of Facebook groups in education", February 8, 2011, Retrieved from http://www.edsocialmedia.com/2011/02/the-advantage-of-facebook-groups-in-education/

[9] Pappas, C., "How to use Facebook groups in eLearning", July 16, 2016, Retrieved from https://elearningindustry.com/use-facebook-groups-elearning

[10] Weimer, M., "Does PowerPoint help or hinder learning?" August 1, 2012. Retrieved from http://www.facultyfocus.com/articles/teaching-professor-blog/does-powerpoint-help-or-hinder-learning/

[11] Milburn, A. B., Braham, A. and McClinton, J., "Integrating qualitative components in quantitative courses using Facebook", *Interdisciplinary Journal of E-Learning and Learning Objects*, 10, 2014, pp. 229-246.

7. Appendices

7.1 Survey-questionnaire

This questionnaire is intended to assess your perception on the effectiveness of Facebook group as an instructional technology in learning the subject you are enrolled in.

Part I: Profile of the respondents

Age: _____

Sex: ☐ Male
☐ Female

Course enrolled:
☐ Bachelor of Elementary Education
☐ Bachelor of Secondary Education
☐ Bachelor of Science in Civil Engineering

Year level: ☐ 2nd year
☐ 4th year

Frequency of using Facebook:
☐ 1 to 2 days a week
☐ 3 to 4 days a week
☐ 5 to 6 days a week
☐ 7 days (1 week) / Daily

Part II. Effectiveness of learning resources used in the Facebook group

This assessment intends to measure the effectiveness of the learning resources incorporated in your Facebook group in the subject that you enrolled to. Please give your honest assessment by checking the corresponding scale opposite each item.

Scale	Des. Equiv.	Interpretation
1	- Never	- Not Effective At All
2	- Seldom	- Less Effective
3	- Occasionally	- Moderately Effective
4	- Often	- Effective
5	- Always	- Highly Effective

Learning resources used in the Facebook group	Scale				
	1	2	3	4	5
Course syllabus					
Modules					
Activities					
Videos					
Images					
Articles					
PowerPoint presentations					

Part III: Effectiveness of Facebook group as an instructional technology

This assessment intends to measure the effectiveness of Facebook group as an instructional technology in learning concepts in the subject that you are enrolled to. Please give your honest assessment by checking the corresponding scale opposite each item.

Scale	Des. Equiv.	Interpretation
1	- Never	- Not Effective At All
2	- Seldom	- Less Effective
3	- Sometimes	- Moderately Effective
4	- Often	- Effective
5	- Always	- Highly Effective

Facebook group as an instructional technology	Scale				
	1	2	3	4	5
Exposes students to new and exciting experience of communicating with other students and the teacher that develops further their interpersonal skills.					
Provides an alternative mode, venue or platform for learning and discussing concepts, lessons, activities and the subject being taught.					
Motivates students to make use of technology to the fullest by maximizing the potential of Facebook as an educational hub.					

Motivates students to express and exchange freely their ideas, opinions, and understanding on the concepts and lessons being taught.					
Creates an environment to maximize student collaboration by commenting, messaging, liking and sharing.					
Improves students' technological and computer skills through social media.					
Promotes self-paced mode of learning by monitoring one's progress.					
Develops students' communicating skills, especially writing, presenting, commenting and providing feedbacks.					
Encourages students to become responsible and intelligent user of technology, especially social media.					
Updates and informs students on lessons, activities, assignments and projects.					

7.2 Facebook groups

BEEd-4A

BEEd-4B

BEEd-4C

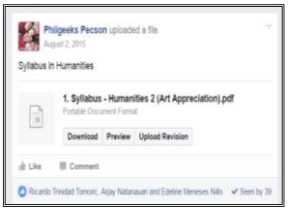
BEEd-4D

BSEd-2G

BSCE-2A

BSCE-2B

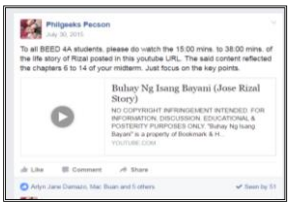
7.3 Sample learning resources posted in Facebook groups



Course syllabus

Module

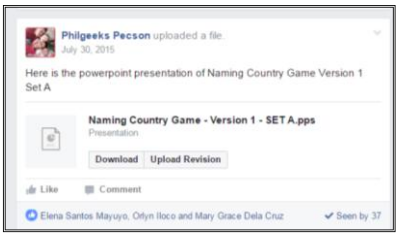
Activity



Video

Image

Article



PowerPoint presentation