Education Achievement by Social Network Case Study
Introduction Database Subject

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บทคัดย่อ—การวิจัยเรื่อง การศึกษาผลสัมฤทธิ์ทางการเรียนโดยใช้เครือข่ายสังคม รายวิชาฐานข้อมูลเบื้องต้น มีวัตถุประสงค์เพื่อศึกษาผลสัมฤทธิ์ทางการเรียนโดยใช้เครือข่ายสังคมเฟสบุ๊ค และเปรียบเทียบผลสัมฤทธิ์ทางการเรียน ระหว่างกลุ่มที่ใช้เครือข่ายสังคมเฟสบุ๊ค (กลุ่มทดลอง) และไม่ใช้เครือข่ายสังคมเฟสบุ๊ค (กลุ่มควบคุม) โดยมีกลุ่มเป้าหมายเป็นนักศึกษาที่ลงทะเบียนเรียน จำนวนรวม 76 คน

นวัตกรรมที่ใช้ในการทดลอง ได้แก่ การใช้เครือข่ายสังคมเฟสบุ๊ค เพื่อทำการเปรียบเทียบผลสัมฤทธิ์ระหว่างนักศึกษา แบ่งออกเป็น 2 กลุ่ม กลุ่มหนึ่ง จำนวน 36 คน (กลุ่มทดลอง) โดยใช้เครือข่ายสังคมเฟสบุ๊คในการทบทวนความรู้ ส่วนอีกกลุ่มหนึ่งจำนวน 40 คน (กลุ่มควบคุม) ไม่ใช้เครือข่ายสังคมเฟสบุ๊คแต่ให้ทบทวนความรู้ด้วยตนเอง ภายใต้ระยะเวลาที่กำหนด นอกจากนี้ยังกำหนดให้ทดสอบวัดความรู้ด้วยแบบทดสอบวัดความรู้ ทั้งก่อนและหลังเรียน ทดลองทั้ง 2 กลุ่ม โดยแบบทดสอบได้ผ่านการตรวจสอบจากผู้เชี่ยวชาญ 3 คน แบบทดสอบมีความเหมาะสมและสอดคล้องกับเนื้อหาดีมาก

ผลการวิจัยพบว่า 1) ผลสัมฤทธิ์ทางการเรียนโดยใช้เครือข่ายสังคมเฟสบุ๊ค และไม่ใช้โดยใช้เครือข่ายสังคมเฟสบุ๊คแตกต่างกันอย่างไม่มีนัยสำคัญทางสถิติ ซึ่งไม่เป็นไปตามสมมติฐานที่ตั้งไว้ 2) เปรียบเทียบผลสัมฤทธิ์ทางการเรียนนักศึกษาส่วนใหญ่ในกลุ่มที่ใช้เครือข่ายสังคมเฟสบุ๊ค มากกว่าร้อยละ 88.88 มีผลการทดสอบผ่านเกณฑ์ที่กำหนดไว้ (50%) ซึ่งเป็นไปตามสมมติฐานที่ตั้งไว้

คำสำคัญ: เครือข่ายสังคม, เฟสบุ๊ค

Abstract— The purpose of this research were 1) To using the social network Facebook in every lesson in Introduction Database 2) To examine the difference of the achievement in Introduction Database used by the experimental group and control group. The sample grouped was 76 students who studied Introduction Database in the first semester in academic year 2011. The research instruments included the used of social network Facebook. The statistic devices used for data analysis were mean, percentage, standard deviation and t-test.

The results showed that 1) The students' learning achievement in control group and experimental group were not different at 0.05 level of statistical difference and it was not conducive to the set-up hypothesis. 2) The achievement of the experiment group was higher than the control group (88%) and it was conducive to the set-up hypothesis.

Keywords- Social Network; Facebook

I. INTRODUCTION

Presently, the development in computer technology and computer networks has been constantly evolving. It makes the most access and the use of services in the network internet more. Sedthapong (2010) stated that the beginning of Web 2.0 to Web 3.0 (Semantic Web) makes the current popularity of the Social Network is growing relentless and rising steadily each year. Facebook is a social networking service website. It started on February 4, 2004. The users can create a profile and contact to other users as friends and exchange messages real-time. In addition, the users use Facebook by making the

question –answer of interest, posting photos and videos, writing articles or blogs and playing games.

Nevertheless, the experience of the researcher found that the students did not pay attention in Introduction Database. The researcher solved this problem by teaching through Facebook. It made the learners pay attention and developed the new methodology teaching in computer studied. In addition, the researcher investigated the achievement of the learners by social network.

II.   RESEARCH OBJECTIVE

1) To use the social network Facebook in every lesson in Introduction Database

2) To examine the difference of the achievement in Introduction Database used by the experimental group and control group

III.   SCOPE RESEARCH

A. Population and Samples

The population of the study is 76 students in Introduction Database who enrolled in COSC2201: Introduction Database in the first semester in academic year 2011.The course introduces students to compare outcomes between the two groups into one group of 36 students (control group) who used the social network Facebook. The other group was 40 students (experimental group) who did not use the social network Facebook.

B. Research Concept

In the term of this research, it compares to the acheivements' learners in Introduction Database by using social network and non-using social network. The group was divided into two groups: the experimental group and the control group. The social network was used by the experimental group in the teaching whereas the control group did not use the social network. Moreover, the reviewing self-knowledge was used by the control group in this research.
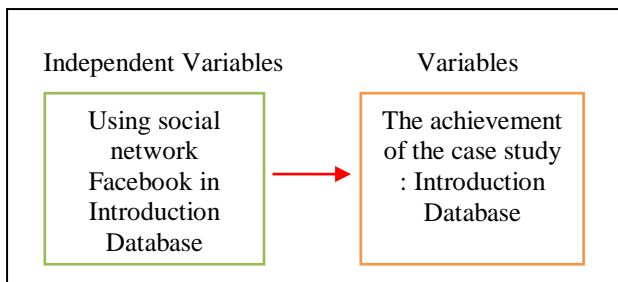

Figure 1.   Research Concept.

IV.   DATA ANALYSIS

In the descriptive statistics, the students' knowledge of the experimental group and the control group were analyzed by average, percentage and standard deviation

while the ability of the chapter contents were analyzed by t-test.

V.   RESEARCH RESULTS

TABLE I.   THE SCORE AND PERCENTAGE BEFORE BETWEEN AFTER LEARNER

| Group | Average education achievement | | | No | Evaluation criteria (50%) | Per cent |
	Before Test	After Test	Per cent			
Experimental Group	2.01	2.88	72+	36	32	88.88
Control Group	1.83	2.88	80+	40	36	90.00

From Table 1, the experimental group was higher than the control group. Apparently, the experimental group was 72 % and the evaluation criteria was 88.88 % while the control group was 80% and the evaluation criteria was 90.00%.

TABLE 2 THE ANALYSIS BY STATISCAL AND TEST HYPOTHESIS

Group	Number	$\bar{X}$	(S.D.)	t-test	P
Experimental Group	36	5.02	2.96	.178	.895
Control Group	40	4.56	2.78		

As shown in Table 2, the mean score of the experimental group was 5.02 with a standard deviation of 2.96 whereas the mean score of the control group was 4.56 with a standard deviation of 2.78.

TABLE 3 THE ANALYSIS OF MEAN , STANDARD DEVIATION AND COMPARE THE SCORE OF THE POSTTEST BETWEEN THE EXPERIMENT GROUP ANS CONTROL GROUP

Group	Number	$\bar{X}$	(S.D.)	t-test	P
Experimental Group	36	7.19	1.17	-.465	.643
Control Group	40	7.20	1.14		

As seen from Table 3, some significant differences in the analysis of mean, standard deviation and posttest between the control group and the experimental group were indicated. It found that the mean score of the experimental group was 7.19 with the standard deviation

of 1.17 while the mean score of the control group was 7.20 with the standard deviation of 1.14.

VI. DISCUSSION

In term of the findings, the average of the experimental group was higher than the control group at the statistical level .025 and the evaluation criteria was 88.88 %. In addition, it was found that, the mean of the control group was higher that the pre-trial and the evaluation criteria was 90.00%

Furthermore, the achievement of the experimental group and the control group was not significantly different at the statistical level.05. In addition, 88% of the experimental group was successful by studying network on Facebook in Introduction Database and the evaluation criteria was 90.00% at the statistical level .05.

VII. CONCLUSION AND LIMITATIONS

The result in this research that both experimental group and the control group were not different at the statically .05 which was not conform in the assumptions. According to the interview and observation, the crucial factor was affected to the experimental group that social network (Facebook) was not only interesting but also too complicated and difficult for the learners.

Furthermore, the main reason why they did not pay attention in the class because the learners always do other activities, for instance, surfing the internet during their class and they cannot concentrate in their learning.

Added to that, the thing is the main factor for this study and the researcher found that the undergraduate learnt within in the limited period because of the different knowledge of the learners. The students who learn more slowly need to take more time than the usual learners. It has an affect to the students in their learning.

It is interesting that the control group studied the lesson through social media. The instruction materials were revised by the learners. It consisted of the contents that were relevant the achievement test. As a result, the control group found out the answer quicker and easier to remember than the experimental group. It is congruent with the study of Nuttapol (2012) also revealed that the ability of using social media and social online has constantly developed and the student satisfaction by social media teaching were the most.

VIII. RECOMMENDATION FOR FUTURE RESEARCH

A. *Recommendation for theoretical framework.*

The result of this study that the use of social network (Facebook) can develop the achievement of the learners by activating their understandings in computer lessons. Moreover, the learners can revise their studies all the time.

B. *Recommendation for policy*

The information technology should be used in investigating the behavior of the learners during the class. Furthermore, the lecturers should support the training course about applying in the application of social media in computer studies. It makes the learners enhance their learning.

C. *Recommendation for further research*

The researchers should study on the innovative material for the new teaching concepts and integrate in the information technology.

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