

THE DEVELOPMENT OF AN INTERACTIVE LEARNING CLASSROOM BASED ON
INTERACTIVE LEARNING AND DISCOVERY LEARNING USING SOCIAL MEDIA
TECHNOLOGY TO ENHANCE STUDENT INTERACTION,
ACHIEVEMENT AND SATISFACTION

การพัฒนาห้องเรียนที่มีปฏิสัมพันธ์ด้วยการเรียนรู้แบบมีปฏิสัมพันธ์และการเรียนรู้
แบบค้นพบผ่านการใช้เทคโนโลยีโซเชียลมีเดียเพื่อส่งเสริมการมีปฏิสัมพันธ์
ผลสัมฤทธิ์ในการเรียนและความพึงพอใจในการเรียน

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Abstract

The purposes of this research were to 1) develop an interactive learning classroom based on interactive learning and discovery learning using social media technology 2) examine student interaction and achievement after using an interactive learning classroom 3) study student satisfaction towards an interactive learning classroom. The purposive sample group was 20 undergraduate students enrolled in a human resource management course during the first semester of the 2016 academic year. The research instruments were 1) a learning needs questionnaire 2) an interactive learning book 3) a questionnaire collecting experts' opinions towards appropriateness of an interactive learning book 4) an observation checklist of student interaction based on discovery learning 5) a questionnaire of student interaction based on interactive learning and discovery learning 6) a pre-test and a post-test 7) a student satisfaction questionnaire. Data were analyzed by using content analysis, mean, standard deviation and t-test.

The research results were summarized as following:

1) An interactive learning classroom based on interactive learning and discovery learning consisted of an interactive learning book covering human resource management content and the selected web-based application with social media technology. It was also integrated with students' learning needs in using simulations, role playing, real cases, problem solving activities, practice and discussion in instruction. Its effectiveness was verified by experts as appropriate ($\bar{X} = 4.92$, S.D. = 0.13) at a very high level in its content, structure and presentation.

2) For student interaction, the mean of discovery learning observed by a teacher was very high in interaction level at 4.93. The mean of interactive learning and discovery learning evaluated by students was high in interaction level at 4.20. For student achievement, scores before and after applying an interactive learning classroom was 54.50 and 87.80 of 100, respectively. The posttest scores were significantly higher than the pretest scores at 0.05 level of significance.

3) Student satisfaction towards an interactive learning classroom was at a high level ($\bar{X} = 4.44$, S.D. = 0.58). Students found it as a new, fun, interesting, motivating and good way to learn with ability to share and

see answers with different perspectives and it is a good practice of learning by discovering answers including easiness to participate and interact with the classroom.

In conclusion, an interactive learning classroom based on interactive learning and discovery learning using social media technology can be used to promote student interaction, achievement and satisfaction with positive results and its development for instructional use will be more effective if these factors, that is, time management, technology and teaching competencies are taken into consideration.

Keywords: Interactive Learning Classroom; Interactive Learning; Discovery Learning; Social Media; Student Interaction, Achievement; Satisfaction

บทคัดย่อ

การวิจัยครั้งนี้มีวัตถุประสงค์เพื่อ 1) พัฒนาห้องเรียนที่มีปฏิสัมพันธ์ด้วยการเรียนรู้แบบมีปฏิสัมพันธ์และการเรียนรู้แบบค้นพบ ผ่านการใช้เทคโนโลยีโซเชียลมีเดีย 2) ตรวจสอบการมีปฏิสัมพันธ์ และผลสัมฤทธิ์ในการเรียนหลังการใช้ห้องเรียนที่มีปฏิสัมพันธ์ 3) ศึกษาความพึงพอใจในการใช้ห้องเรียนที่มีปฏิสัมพันธ์ กลุ่มตัวอย่างแบบเฉพาะเจาะจงที่ใช้ในการวิจัยครั้งนี้คือ นิสิตระดับปริญญาตรีที่ลงทะเบียนเรียนวิชาการจัดการทรัพยากรมนุษย์ในภาคเรียนที่ 1 ปีการศึกษา 2559 จำนวน 20 คน เครื่องมือที่ใช้คือ 1) แบบสอบถามความต้องการจำเป็นในการเรียนรู้ 2) สมุดเรียนรู้แบบมีปฏิสัมพันธ์ 3) แบบสอบถามความเหมาะสมของห้องเรียนที่มีปฏิสัมพันธ์ 4) แบบสังเกตการมีปฏิสัมพันธ์ด้วยการเรียนรู้แบบค้นพบ 5) แบบประเมินการมีปฏิสัมพันธ์ด้วยการเรียนรู้แบบมีปฏิสัมพันธ์และแบบค้นพบ 6) แบบทดสอบก่อนและหลังเรียน 7) แบบประเมินความพึงพอใจต่อห้องเรียนที่มีปฏิสัมพันธ์ สถิติที่ใช้ในการวิเคราะห์ข้อมูลได้แก่ การวิเคราะห์เนื้อหา ค่าเฉลี่ย ค่าเบี่ยงเบนมาตรฐาน และสถิติทดสอบที (t-test) ผลการวิจัยพบว่า

1) ห้องเรียนที่มีปฏิสัมพันธ์ด้วยการเรียนรู้แบบมีปฏิสัมพันธ์และการเรียนรู้แบบค้นพบประกอบด้วยสมุดเรียนรู้ที่มีปฏิสัมพันธ์ ครอบคลุมเนื้อหาการจัดการทรัพยากรมนุษย์และเทคโนโลยีโซเชียลมีเดียที่เป็นโปรแกรมทำงานผ่านเว็บไซต์ โดยห้องเรียนที่มีปฏิสัมพันธ์นี้ได้บูรณาการความต้องการจำเป็นในการเรียนรู้ด้วยการใช้การจำลองสถานการณ์ การแสดงบทบาทสมมติ กรณีศึกษาจากเหตุการณ์จริง กิจกรรมการแก้ปัญหา การฝึกปฏิบัติจริงและการพูดคุยแลกเปลี่ยนเรียนรู้ ประสิทธิภาพของห้องเรียนที่มีปฏิสัมพันธ์ได้รับประเมินจากผู้เชี่ยวชาญว่าอยู่ในเกณฑ์ที่เหมาะสม ($\bar{X} = 4.92$, S.D. = 0.13) ในระดับมากที่สุดด้านเนื้อหา โครงสร้างและการนำเสนอเพื่อนำไปใช้ตรวจสอบการมีปฏิสัมพันธ์ ผลสัมฤทธิ์ในการเรียนและความพึงพอใจในการเรียน

2) สำหรับการมีปฏิสัมพันธ์ ค่าเฉลี่ยของการเรียนรู้แบบค้นพบที่สังเกตโดยผู้สอนอยู่ในระดับสูงมากที่สุดที่ 4.93 ค่าเฉลี่ยของการเรียนรู้แบบมีปฏิสัมพันธ์และแบบค้นพบอยู่ในระดับสูงมากที่สุดที่ 4.20 สำหรับผลสัมฤทธิ์ในการเรียน ค่าเฉลี่ยคะแนนก่อนใช้ห้องเรียนที่มีปฏิสัมพันธ์อยู่ที่ 54.50 และหลังการใช้ห้องเรียนที่มีปฏิสัมพันธ์มีค่าเฉลี่ยคะแนนอยู่ที่ 87.80 จากคะแนนเต็ม 100 คะแนนตามลำดับโดยค่าเฉลี่ยหลังการใช้ห้องเรียนที่มีปฏิสัมพันธ์สูงกว่าก่อนการใช้อย่างมีนัยสำคัญทางสถิติที่ระดับ 0.05

3) ความพึงพอใจในการเรียนต่อห้องเรียนที่มีปฏิสัมพันธ์อยู่ในระดับดี ($\bar{X} = 4.44$, S.D. = 0.58) ผู้เรียนพบว่า ห้องเรียนที่มีปฏิสัมพันธ์เป็นวิธีเรียนที่ดี แปลกใหม่ สนุกสนาน น่าสนใจและสนใจให้เรียนโดยสามารถแลกเปลี่ยนและเห็นคำตอบจากมุมมองแตกต่าง อีกทั้งคิดเห็นว่า วิธีนี้เป็นแนวปฏิบัติที่ดีในการเรียนรู้ด้วยการค้นพบคำตอบรวมทั้งมีความง่ายที่จะเข้าร่วมและมีปฏิสัมพันธ์ในห้องเรียน

ผลวิจัยสามารถสรุปได้ว่า ห้องเรียนที่มีปฏิสัมพันธ์ด้วยการเรียนรู้แบบมีปฏิสัมพันธ์และการเรียนรู้แบบค้นพบผ่านการใช้เทคโนโลยีโซเชียลมีเดียสามารถนำมาใช้เพื่อส่งเสริมการมีปฏิสัมพันธ์ ผลสัมฤทธิ์ในการเรียนและความพึงพอใจในการเรียนเพื่อผลลัพธ์ทางบวกได้ แต่การพัฒนาห้องเรียนที่มีปฏิสัมพันธ์ให้มีประสิทธิภาพได้นั้นต้องคำนึงถึงการบริหารเวลา เทคโนโลยีที่เลือกใช้ และขีดความสามารถในการสอนของผู้สอนด้วย

คำสำคัญ: ห้องเรียนที่มีปฏิสัมพันธ์ การเรียนรู้แบบมีปฏิสัมพันธ์ การเรียนรู้แบบค้นพบ โซเชียลมีเดีย การมีปฏิสัมพันธ์ ผลสัมฤทธิ์ในการเรียน ความพึงพอใจในการเรียน

1. Introduction

At present, education around the world is moving from traditional teaching, which focuses on teacher centered instruction, to the new learning experience based on technology [1]. In addition, rapid advances in technology have been reshaping learning [2]. With technology, educators, students and parents have a variety of learning tools at their fingertips [3]. Using technology allows content to be more accessible and flexible for students, which may enhance the quality of student learning [4]. Specifically, social media technology has become a growing phenomenon with many and varied definitions in public and academic use. The use of social media interfaces through computer and mobile devices has become quite widespread [5]. It can be said that social media is the fastest growing web application in the 21st century [6].

More and more educational institutions are adopting social media as interactive learning tools to improve and enrich user's learning experience. Interactive Learning is a pedagogical approach that incorporates social networking and urban computing into course design and delivery. It is reported that approximately since 2000, students entering institutions of higher education have expected that interactive learning will be an integral part of education [7].

As a result, using social media for interactive learning is one of the most efficient ways to increase student engagement as it increases student interactivity [8]. Moreover, social media can be used for collaborative knowledge discovery [9]. It also enables problem solving and encourages independence, which are two of the key features of discovery learning [10]. The research on "Collaborative Learning Using Social Media Tools in a Blended Learning Course" also confirmed that social media are online tools [11] that can support inquiry and discovery learning [12].

Technically, social media use web-based technologies with desktop computers and mobile devices to create highly interactive platforms [13]. Therefore, incorporation of social media could offer new opportunities to enhance academic instruction and student learning experiences [14].

With social media technology implemented for instructional use, teaching with interactive learning and learning through interactive learning and discovery learning will definitely make classrooms more interactive and support a better knowledge discovery. Students will be more motivated to learn, which will bring better student interaction, achievement and satisfaction resulting in achieving established learning outcomes.

According to the aforementioned, the researcher is interested in studying student interaction, achievement and satisfaction when using an interactive learning environment based on interactive learning and discovery learning using social media technology with undergraduate students in order to investigate the results related to interaction, achievement and satisfaction for further development of interactive classroom for best quality of learning.

2. Research Objectives

This research focuses on the following

2.1 to develop an interactive learning classroom based on interactive learning and discovery learning using social media technology

2.2 to examine student interaction and achievement after using an interactive learning classroom

2.3 to study student satisfaction for the use of an interactive learning classroom

3. Conceptual Framework

The researcher reviewed theories, practices and related researches of the interactive learning environment for teaching and learning to set the conceptual framework as follows:

3.1 Interactive learning

Schank and Cleary (1995) defined five teaching architectures, that is, simulation-based learning by doing, incidental learning, learning by reflection, case-based teaching, learning by exploring for a teacher to create interactive learning [15].

3.2 Discovery learning

Bruner points out that any individual has the will to learn and this will should be used in such activities that should raise curiosity and direct students to studying and discovering knowledge and learning happens by discovery, which prioritizes reflection, thinking, experimenting, and exploring [16].

Rezak stated that the discovery learning approach incorporates three key ideas, that is, problem solving, learner management, and integrating and connecting [17].

3.3 An interactive learning book

Patchara Vanichvasin [18] developed a paper-based version of an interactive learning book under framework of interactive learning and discovery learning to enhance student interaction and achievement. An interactive learning book was changed into an electronic format to be used in this research in accompany with social media technology.

4. Scope of Research

4.1 Population and Sample

Population was 104 students of Business and Computer Education at Vocational Education, Faculty of Education, Kasetsart University.

Sample consisted of 20 Business and Computer Education students enrolled in a human resource management course during the first semester of the 2016 academic year selected by purposive sampling.

4.2 Variables

Independent Variable: An interactive learning classroom based on interactive learning and discovery learning using social media technology.

Dependent Variables: Student Interaction, Achievement and Satisfaction

4.3 Scope of the Content

The content covers a human resource management course as in: the importance and definition, objectives, roles, internal and external factors influencing human resource management, trends, characteristics of human resource professionals, competencies, process and its application.

5. Research Methodology

The research was conducted in three steps to achieve the research objectives as follows:

Step 1 to develop an interactive learning classroom based on interactive learning and discovery learning using social media technology

1.1 Reviewed theories and the related research of interactive learning and discovery learning from the research of Patchara Vanichvasin [18] in the topic of the Development of an Interactive Learning Book based on Interactive Learning and Discovery Learning to Enhance Student Interaction and Achievement and extended this study from this related research by using an interactive learning book as sets of presentation and selected social media technology for instructional use after reviewing social media technologies. The researcher also updated content of human resource management from books, articles, websites and journals in an interactive learning book to keep it up to date.

1.2 Developed a learning needs questionnaire by using open-ended questions to ask about ways of learning and used it to study learning needs of students of Business and Computer Education enrolled in a human resource management course during the first semester of the 2016 academic year and used those needs to help develop an interactive learning classroom to best meet their learning needs.

1.3 Developed an interactive learning classroom by using inputs from 1.1 and 1.2 and selected PearDeck, a web-based application, as social media technology to be used for instruction.

1.4 Develop a questionnaire collecting expert opinions towards appropriateness of an interactive learning book with Likert's Scale of five Levels in three dimensions. These are content, structure and presentation including one open-ended question for recommendation if any.

1.5 Experts determined the effectiveness of an interactive learning classroom.

1.6 Data collected was analyzed by using mean, standard deviation and content analysis.

1.7 Results were brought into consideration to improve an interactive learning classroom for instructional use in step 2.

Step 2 to examine student interaction and achievement using an interactive learning classroom

2.1 Used three instruments, that is, observation checklist of student interaction based on discovery learning, a questionnaire of student interaction based on interactive learning and discovery learning, a pre-test and a post-test. Three instruments were drawn from the research of Patchara Vanichvasin [13], who did a paper-based version of the interactive learning book based on interactive learning and discovery learning to enhance student interaction and achievement.

An observation checklist of student interaction based on discovery learning was used by a teacher with five-point Likert Scale to examine the use of an interactive learning classroom for teaching to promote student interaction. It focused on four learning activities teachers employed to create an interactive learning classroom, that is, reflection, thinking, experimenting and exploring by using mean and standard deviation.

A questionnaire of student interaction based on interactive learning and discovery learning was the questionnaire for the sample's opinions of interaction levels using five-point Likert Scale. It focused on eight dimensions of interactive learning and discovery learning under two major areas, that is, overview of learning and learning activities. An area of overview of learning covered integrating and connecting, learner management and problem solving. An area of learning activities covered simulation-based learning, incidental learning, reflection, case-based learning and exploring by using mean and standard deviation.

A pre-test and a post-test before and after the application of an interactive learning classroom was developed by the researcher to measure student achievement. It contained 10 items of multiple choices and one writing case to demonstrate effective human resource management using content analysis and t-test that included t-distribution and probability values to examine student achievement.

2.2 Three instruments were verified by the panel of three experts used in step 1.5 to determine the appropriateness of these instruments.

2.3 The teacher in this project ran normal classes to give prior knowledge related to human resources management before using an interactive learning classroom.

2.4 A teacher booked a computer room with the internet connection to use the selected social media technology for instructional use, which was PearDeck, for four weeks. It was one of web-based social media technologies.

2.5 A teacher prepared an interactive learning classroom for a period of four weeks by uploading sets of presentations from an interactive learning book and created questions by using PearDeck as social media technology. PearDeck was a free web-based social media program with a platform to create and upload

presentation, invite students to participate in the presentation, ask questions and give answers, join discussion including sharing answers among students. PearDeck was set up to present those uploaded presentations and brought students together on social media network. Students studied through PearDeck for three hours sessions for a period of four weeks.

2.6 A teacher operated an interactive learning classroom by setting up interactive learning sessions to give web-based instruction and reminded students of past knowledge learnt in class and knowledge to be discovered in an interactive learning classroom.

2.7 Participants of 20 students were invited to attend an interactive learning classroom by typing URL to log in with a mobile or a laptop or a desktop to participate in an interactive learning classroom in which they can view presentations, answer questions and shares answers with a teacher.

Before starting an interactive learning classroom, they were given a pre-test. During the use of an interactive learning classroom, the teacher used an observation checklist based on discovery learning to observe how student learned and interacted in an interactive learning classroom. On their screens, students saw a window with buttons on the side of the screen that allowed them to interact. The instructor began presentations by clicking page by page and posted questions for them to discover answers. Students viewed all presentations from the instructor's screen. After using an interactive learning classroom, students were given a post-test and an interactive learning and discovery learning questionnaire.

2.8 Collected and checked all instruments for completeness and accuracy.

2.9 Data collected was analyzed by using mean, standard deviation and t-test.

Step 3 to study student satisfaction for the use of an interactive learning classroom

3.1 A satisfaction questionnaire was given to ask the sample's opinion of satisfaction using five-point Likert's Scale. There were 13 items and one open-ended question.

3.2 It was approved by three experts used in step 1.5 to determine the appropriateness of this instrument.

3.3 A satisfaction questionnaire was given at the end of week four after finishing an interactive learning classroom.

3.4 Data collected was analyzed by using mean, standard deviation and content analysis.

6. Research Results

The research results were demonstrated as below:

6.1 The development of an interactive learning classroom based on interactive learning and discovery learning using social media technology

Results of learning needs of students about ways of learning to help develop an interactive learning classroom showed that in their opinions, they preferred ways of learning in a classroom with simulations and role playing of human resource management situations, real cases of human resource professionals, problem solving activities, practice and discussion in class to share what they learned.

Table 1 Means and standard deviation of appropriateness of an interactive learning classroom according to experts' opinions

Appropriateness	n = 3		Interpretation
	\bar{X}	S.D.	
1. content	4.89	0.20	Very High
2. structure	4.89	0.20	Very High
3. presentation	5.00	0.00	Very High
Total	4.92	0.13	Very High

Table 1 showed that the total average mean was 4.92 and standard deviation (S.D.) was 0.13. This meant that the appropriateness was at a very high level according to experts' opinions.

6.2 Examining student interaction and achievement after using an interactive learning classroom

6.2.1 Student interaction based on discovery learning. Teacher's observation was done for four weeks by using the observation checklist to monitor interaction. The results were shown in Table 2.

Table 2 Means and standard deviation of discovery learning observed by a teacher

Interactive Learning	n = 20		Interpretation
	\bar{X}	S.D.	
Reflection	4.87	0.04	Very High
Thinking	4.92	0.10	Very High
Interactive Learning	n = 20		Interpretation
	\bar{X}	S.D.	
Experimenting	4.95	0.07	Very High
Exploring	5.00	0.00	Very High
Total	4.93	0.13	Very High

Table 2 showed that the total average mean was 4.93 and standard deviation (S.D.) was 0.13 from four weeks of observation in classroom. This meant that discovery learning observed by a teacher was at a very high level in student interaction.

6.2.2 Student interaction based on interactive learning and discovery learning for four weeks. Results of student interaction based on interactive learning and discovery learning from Likert's Scale of five levels towards an interactive learning classroom were presented in Table 3.

Table 3 Means and standard deviation of interactive learning and discovery learning

Interactive Learning and Discovery Learning	n = 20		Interpretation
	\bar{X}	S.D.	
Integrating and Connecting Knowledge	4.26	0.73	High
Learner Management	4.53	0.51	Very High
Problem Solving	4.21	0.63	High
Simulation-based Learning	3.63	0.60	High
Incidental Learning	3.95	1.08	High
Reflection	4.47	0.51	High
Case-based Learning	4.11	0.66	High
Exploring	4.42	0.51	High
Total	4.20	0.60	High

Table 3 showed that the total average mean was 4.20 and standard deviation (S.D.) was 0.60. This meant that students interacted with learning activities based on interactive learning and discovery learning at a high level.

6.2.3 Student achievement after using an interactive learning classroom by using a pre-test and a post-test. Post-test scores were higher than pre-test scores. The gap difference was demonstrated in Table 4.

Table 4 Student achievement before and after using an interactive learning classroom

Test	Total Scores	\bar{X}	S.D.	t-test	Sig*
Pre-test	100	54.50	11.66	14.44*	0.00
Post-test	100	87.80	7.82		

*The mean difference is significant at 0.05 level

According to Table 4, it was indicated that scores before and after using an interactive learning classroom were 54.50 and 87.80 respectively. There were significant differences between pre-test and post-test scores. The analysis showed that student achievement after the use of an interactive learning classroom was higher than before, significantly different at the level of 0.05.

6.3 Student satisfaction for the use of an interactive learning classroom

Table 5 Means and standard deviation of student satisfaction towards an interactive learning classroom

Student's Satisfaction	n = 20		Interpretation
	\bar{X}	S.D.	
1. It encourages student interaction in classroom	4.00	0.63	High
2. It is understandable, clear and easy to learn	4.13	0.81	High
3. It is modern.	4.69	0.60	Very High
4. It provides appropriate content	4.63	0.62	Very High
5. It has right balance of content	4.38	0.50	High
6. It is in creative style.	4.63	0.72	Very High
7. It communicates clearly and creatively	4.38	0.72	High
8. It stimulates learning interest	4.50	0.63	Very High
9.It encourages knowledge discovery	4.56	0.63	Very High
10.It encourages thinking and it is easy to follow	4.56	0.63	Very High
11.It supports learning by doing	4.25	0.77	High
12.It encourages self- learning	4.44	0.63	High
13.It leads to learning	4.56	0.51	Very High
Total	4.44	0.58	High

Table 3 showed that the total average mean was 4.44 and standard deviation (S.D.) was 0.58. This meant that the student were satisfied with an interactive learning classroom at a high level.

Results of student satisfaction from open ended answers showed a good, new, fun, interesting, and motivating way to learn with ability to share and see answers with different perspectives, good practice of learning by discovering answers including the easiness of participation and interaction with the interactive learning classroom.

7. Conclusion and discussion

From this study, it revealed that an interactive learning classroom based on interactive learning and discovery learning using social media technology can be used to increase student interaction, achievement and satisfaction.

This study produced positive findings of discovery learning in accordance with Patchara Vanichvasin [18], who reported that the average mean of student interaction based on discovery learning after using an interactive learning book was 3.80 but this study provided better results at 4.93 when interacting in classroom using social media technology. It was also in accordance with Vatcharaphong Yosai, Attaporn Ridhikerd and Chantana Viriyavejakul [19] who reported that the learning achievement on web-based instruction on workshop practicum after studying web-based courseware was significantly higher than prior to studying at 0.01 level. In addition, it also matched with Saxena [3] who stated that educational technologies can improve student achievement and corresponded to Hopkins [20] who stated that social media encouraged interaction.

However, to best implement an interactive learning classroom, there are three important things to ensure successful teaching as follows:

1. Time Management is needed. It can help ensure that learners spend time on academic activities rather than non-academic activities, which would distract them from academic performance. Time rules must be clearly established to ensure good quality of learning.

2. Technology selected is essential. Although technology, especially social media technology, can be used as powerful learning platforms to aid learning, appropriate technology must be selected to ensure that every student is fluent in using it and requires no technical skills as this will definitely obstruct learning and will not help achieve learning outcomes as required if it is too difficult to use.

3. Teaching competencies are necessary. Fatina Wonglakha [1] stated that learning with technology needs teachers who understand and have technology knowledge. Moreover, teachers need to create learning atmosphere and positive attitude towards learning with technology. They should have a role in facilitating and guiding learners to learning and have careful planning of how to integrate social media technology to learning.

Recommendations

1. For effective use of social media technology as a part of learning process, readiness of desktops or mobile devices along with internet connection must be considered so less time will be spent on finding devices to use or fixing internet problems.

2. This study can be used in other subjects and other groups of students to compare results. Also, it can be further implemented with full functions of social media technology by paying fees to explore more utilization and benefits of learning.

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