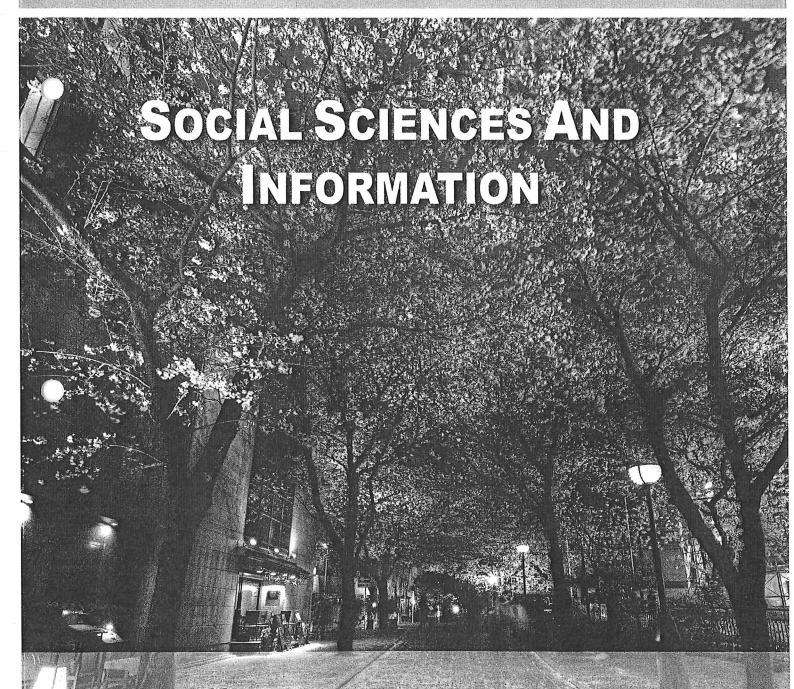
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# Teachers' Learning for Improving Students' Internet Use in a Thai High School

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Keywords: Learning in action; Students' Internet use; Internet use for learning; Teachers' learning

Abstract. The Internet is a main tool for learning. The Thai government has supported Internet use in basic education for learning. This includes learning outside classroom. Teachers' practice can lead students' Internet use for learning. This paper proposed creating teachers' awareness for learning in action. Teachers learned by experiment to create a learning activity that could affect students' Internet use in leisure time. The results showed that the participating students' Internet use for learning in leisure time increased with statistical significance. As well as, the Internet use for entertainment decreased.

#### 1. Introduction

The Thai government has encouraged Internet use for education. It has issued ICT policies and plans since 1996 that have influenced Thai education. Their vision has focused on providing and using the Internet for learning [1, 2]. They influence the standards of learner quality for the internal quality assurance of Thai high schools. The standards include that learners should have an ability to use IT to develop learning and have a skill for self-learning and a love to learn [3]. To develop students to follow the standards of the internal quality assurance, teachers need to take responsibility.

However, using ICT in schools has been slow to progress in Thailand. Laohajarastsang in 2010 discussed that a sensitive issue of ICT use in Thai education concerned teachers because most of them were sensitive to change [4]. This still happened after training or attending development programs. Therefore, teachers need to understand the basic concept of ICT use in school. This can make them accept and follow policies about ICT in education.

In addition, Thai young people involve inappropriate Internet use in their leisure time. The result of the first Thailand ICT Master Plan (2002-2006) identified that Thai adolescents' Internet use mostly related to inappropriate usage [5]. Most of the Internet use was for entertainment (more than for educational purposes, commercial transactions or government transactions), the inflow of foreign cultures and inappropriate content, and an increase in computer crime. Students' Internet use in Thailand concerned with playing games and chatting with peers for fun and accessing to inappropriate content [6]. These problems obstructed students' Internet learning because students aimed to take a long period of time to use the Internet for entertainment.

The Internet use for learning in leisure time can refer to e-learning. E-learning comprises of three types of interaction such as student-teacher, student-student, and student-content interaction [7]. The interaction implies communication that includes questioning, feedback, and clarification. Students' interaction shed light on the degree of the students' active learning [8, 9]. It can imply students take part and join in a dialogue for learning. A process of learning also relates to a reading process that students interact with content. This can include Internet use to access learning content [9]. The

interaction can be a synchronous or an asynchronous way that means interaction with or without real time presence of a teacher and another student.

Teachers act as a key role in e-learning in school. Teachers influencing students' Internet use has many advantages [10]. They can give an assignment and lead students to use the Internet. If teachers do not concern e-learning in students' leisure time, students will take their time to use the Internet for entertainment [11].

This paper aims to support teachers' learning to improve students' Internet use in leisure time. The teachers' awareness to learn can be developed by a situational analysis. Then, the teachers can learn by experiment as learning in action [12] to improve students' Internet use for learning.

# 2. Purposes of the study

This study concerns teachers' learning for improving students' Internet use in leisure time. Table 1 presents purposes, processes and results of the study.

Purpose	Processes	Results
Creating awareness and building involvement	Situational analysis of students' Internet use by focus group of the participating teachers	<ul> <li>The participating teachers stated advantages and disadvantages' Internet use.</li> <li>The participating teachers stated responsibility to improve students' internet use</li> </ul>
2.Improvement of students' Internet use in leisure time.	Experimential learning as teachers' learning in action	<ul><li>An activity for students' Internet use</li><li>Students' Internet use for learning</li></ul>

Table. 1. Purposes, processes and results of the study

#### 3. Methodology

The methodology began with a situational analysis to create the participating teachers' awareness and involvement [13]. Additionally, the author and the participating teachers created an activity for students' Internet use by considering e-learning interaction [7]. Interaction of e-learning can be designed as an activity. With this study, the activity was short film production as shown in Table 2 that students could interact with other students, teachers and content in online setting.

Phases of the short film production	E-learning interaction
Writing a script, storyboards, and a screenplay for each learning area	- Interaction with learning content, teachers, and group members
Scheduling short film production and allocating tasks to group members	- Interactions with teachers and group members
3. Selecting locations and shooting a short film	- Interaction with learning content, teachers, and group members
4. Editing and adding effects	- Interaction with learning content, teachers, and group members
5. Distribution of a short film	- Interaction with learning content, teachers, and group members

Table. 2. The design of the short film production

The selected school is a Thai high school which met the standards of the Ministry of Education about ICT. However, students in the school trended to use the Internet for entertainment. The students' Internet use consumed a lot of Internet bandwidth for their entertainment.

The participating teachers were eight teachers who were leading teachers from eight learning areas in the school. Students in the school were informed about the activity in their leisure time and invited to join; joining was optional. There were 75 students who participated. The participating students were divided into eight groups according to the eight teachers. Each participating teacher acted as a facilitator for his or her student group. Each group produced a short film that relate to a learning area.

The research instrument was created to survey the students' leisure time activities. The three students in each group as a leader, and two members were interviewed about their leisure activities in school, after school, and during holidays. As a result, there were five activities that related to Internet use. The questionnaire on students' Internet use in leisure time is shown in Table 3.

Table. 3. The questionnaire on students' Internet use in leisure time

Item	m Students' Internet Use in Leisure Time		No
1	Learning on the Internet		
2	Playing computer and online games		
3	Listening to music and/or watching movies on the Internet		
4	Using social networking sites		
5	Other communication on the Internet		

The validity was checked by eight teachers from each group. The reliability was checked by the test-retest method. The same questionnaire was taken on two separate occasions. In this case, the second questionnaire was two weeks after the first. As a result, the Person correlation presented that each item was significant at the 0.01 level.

The participating students provided data about their Internet use three times, in a pretest, ongoing test (that is, a test while the short film production were ongoing), and posttest. They gave an answer of "Yes" or "No" depending on whether they engaged in each Internet use, first, before conducting the short film production (pretest); then, they completed the questionnaire again while engaging in the Internet use; short film production (ongoing test); and finally, after finishing the short film production, they did the questionnaire a final time (posttest). The data about students' Internet use in leisure time were analyzed by using the Cochran's test.

#### 4. Results

#### 4.1 Teachers' awareness to improve students' Internet use

From the focus group, the result of the situational analysis was communicated to the teachers. The teachers saw that students' Internet use can deliver negative outcomes. Students use the Internet as a source for copying an assignment without learning. They use the Internet for entertainment in a long period of time like playing games, watching video clips, listening to music, and using social networks for entertainment and playfulness. These interrupt students' learning.

The teachers gave feedback that students' Internet use to learn can occur by their concerns. They should focus on using the Internet as teaching and learning media by assigning students to use the Internet. They stated their intention to develop students' Internet use in an appropriate way. This was consistent with their practice of the internal quality assurance. In the standard 10, they have to conduct research for improving students' learning [3].

## 4.2 Students' Internet use for learning

The participating students produced eight short films that related to eight learning areas in the school. They followed processes of the short film production as e-learning interaction [7]. The processes involve students' Internet use for learning.

There were 57 students who completed the questionaire of students' Internet use in leisure time for pre-, ongoing-, and post-test. Table 4 compares the percentage of students' Internet use for the three times. It refers that the short film production influenced students' Internet use in leisure time. The percentage of all items changed. Most of items increased but playing online, computer, and video games that relates to entertainment on the Internet decreased. The table also shows that learning on the Internet and using social network sites increased with statistical significant.

Table. 4. The Cochran's test to compare students' Internet use for three times

Activities	Percentage			Cochran's test
	Pre-test	Ongoing-test	Post-test	
Learning on the Internet	45.6	52.6	68.4	.027 *
Playing online, computer, and video games	35.1	35.1	26.3	.268
Listening music and/or watching movie on the Internet	43.9	50.9	57.9	.301
Using social network sites	56.1	77.2	70.2	.018 *
Comunication on the Internet	31.6	38.6	45.6	.234

<sup>\*</sup> p < .05

### 5. Summary

Teachers as knowledge workers have to conduct learning in action for student development. With this project, Thai teachers can follow their practice of internal quality assurance. They learn to conduct research to improve their students' learning in leisure time. This is consistency with experiment of learning in action [12]. To lead teachers' learning, creating teachers' awareness is required. The situational analysis explored inappropriate Internet use of students. Students' Interne use may lead to negative outcomes. Therefore, the participating teachers were awareness and got involvement to learn for student development.

Following the learning activity, students used the Internet to meet their learning purpose. They had to produce a short film that relates to a learning area. As a result, a number of students who identified Internet use for learning increased with statistical significant. A number of students who use social interaction increased. This may refer to learning from online people. The students could use social networking sites and other communication on the Internet to share their knowledge and learn from their peers, teachers, and other online experts. At the present, social networking sites are the most popular communication of young people [14], so using the social networking sites increased with statistical significant.

In the short film production, the students can learn by watched short films as examples on the Internet. There are websites that present short films like YouTube. In Thai language, the students can access to Thaishortfilm, Clipmass, and Krupu that provide short films as examples. This may affect to increasing of listening music and/or watching movies on the Internet. In this case, increasing of watching movies on the Internet related to learning. It led the students to meet the learning purpose.

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