A Research and Development of Prevention of Primary Students' Inappropriate Behavior from Internet by Self-Regulation Technique

Parinya Meesuk, Rajamangala University of Technology Thanyaburi, Thailand

Abstract

A research and development of prevention of Primary students' inappropriate behavior from internet by Self-Regulation technique was conducted by 3 objectives as: 1) to study current situation of primary students' internet use and risk of inappropriate behavior 2) to synthesize children's self-regulation procedure and 3) to compare inappropriate behavior of student between use and not use self-regulation technique. Research procedure were divided to 2 phrases, first, was survey research from randomized 270 students by a questionnaire. Second, was experiment research with 29 participants experiment group and 28 participants control group. Data were analyzed by frequency, percent, mean, SD, and independent t-test. Research results follow: 1. 3 way of Primary student internet use behaviors in difference level. The most way was for academic purpose, entertainment, and communication, respectively 2. student's inappropriate behavior included aggressive, pornographic, impropriety, and contact with stranger 3. primary student self-regulation consist 3 steps included 1) aim setting, 2) self remind, and 3) action to themselves 4. student in experiment group who used self-regulation technique had inappropriate behavior less than control group with .05 statistical significant.

Keywords: A research and development, inappropriate behavior, Self-Regulation technique, primary student

Introduction

Since year 2000, most social activities are expressed on Information Technology. Electronics process such as collecting, analyzing and searching data are general activities can performed by everyone. The main instruments of those activities unavoidably use are computer and internet (Malithong, 2000). The internet is a network which connect the whole world into uni-network. Several types of internet information used to support users' needs that cause of easier to communicate in which part of the world by real time. Furthermore, the number of Internet use is growing explosively worldwide, with 44.8% Internet users coming from Asia alone (Ayub, Hamid, and Nawawi, 2014)

Using internet are perform in several types such as communication and searching data even in business, mass communication, and importantly in education (Meesuk, 2013). In education, the internet can provide support in various types of learning: expository, active, and interactive. However, the literature has been more concerned with studying with variables determine general internet usage in education, than it has been with researching the specific determinants of internet usage for each one of these types of learning in particular (Castano, Duart, and Sancho-Vinuesa, 2015). Since, internet determinants for learning and considered an important skill to acquire in 21th century societies, and at the same time one of the greatest potentialities of internet usage in the teaching-learning process (Beauchamp & Kennewell, 2010; Meesuk, 2013)

Advance in computer technology have enable the internet to serve as a platform not merely to seek information, but also to exchange ideas and knowledge with other users, and obtain expert opinion via email, teleconferencing, chatting and other avenues, Nevertheless, the advent of social network sites such as Facebook, Twitter, Socialcam and others that include chatting and online games (Ayub, Hamid, and Nawawi, 2014) Those are change the perception on Internet use from one that is associated with learning to that socializing facility. Such website applications have resulted in the Internet being used for three purposes contain academic, communication, and entertainment activities (Meesuk, 2013).

Several studies have been conducted to identify the use of internet among youth and student in situation of education. For instance, Jackson et al. (2006) found primary student use the internet as instrumental for studying, in addition they use the internet for other purposes such as e-mail, visit website, and online games. Chen and Fang (2007) study on young people in Hong Kong found that the internet was used for different purposes such as for making friends, shopping, listening to music, having fun, completing homework, and searching for information on further education. Hawi (2012) conducted a research on 883 school students in Lebanon. The results report 84.2% student used the internet for communication and e-mail, 65.7% for information search, and 51.8% for entertainment such as online games and music.

The spread of Internet use has enabled individuals to carry out several daily activities, particular communication, through this media. The increase of Internet use for communication purpose lead to changes in cultural and social structure that modern individuals have become lonely individual having troubles to establish healthy social relation and experiencing social deviances (Ozgur, Demiralay, and Demiralay, 2014).

Common uses of the Internet during childhood include communicating (i.e., email, chat), accessing information (i.e., visiting websites), and playing games (Johnson, 2006). According to Johnson and Johnson (2008), children who used the internet at home for learning and communicating demonstrated better language and metacognition than children who did not. A popular use of the Internet for both children and adult is playing game. Playing game effects to children, Van Deventer and White (2002 cited in Johnson, 2010) reported 10- and 11 year-old video gamers noted extremely high level of self-monitoring, pattern recognition, and visual memory. Similar with DeBell and Chapman (2006) concluded that Internet Use promote cognitive development in children specifically in the area of visual intelligence, where certain computer activities, particularly game, may enhance the ability to monitor several visual stimuli at once, to read diagrams, recognize icons, and visualize spatial relationships. But however, playing video games has also been linked to childhood distractibility, over-arousal, hostility, and aggression.

Internet use during childhood occur at home, school, and in community. In comparing home-based and school-based computer activities, at home, children choose their own activities, have comfort time for exploration, visiting website, game, and learn incidentally. In contrast, at school, children has been controlled, teacher control activities, computer time limited, and learning is teacher-directed. Burnett and Wilkinson (2005) conclude that creative problem solving was evident in home-based, but not necessarily school-based, use of Internet.

Using Internet lonely is one of the leading troubles of today's human being. Problematic Internet use of students who use Internet more frequently than others. (Ozgur, Demiralay, and Demiralay, 2014) (e.g., indecent chatting, make appointment with stranger, aggressive behavior, and low academic achievement). From problems as mention can not control by neither parents nor school. Importantly, the students supposed to control or regulate themselves into appropriate behavior as called in term of self-regulation. Moreover, when student seek information through the Internet, their criteria and strategies for accessing information and their self-regulation have been further suggested as important issues to be discussed (Cheng, Liang, and Tsai, 2013).

Self-Regulation

Self-regulation is one of the frequently studied concepts in the fields of education, psychology, and neuroscience. Although those studies have different particular, theoretical contexts and variables (Tanribuyurdu and Yildiz, 2014). Many study results demonstrate the importance of self-regulation in the development, learning, and social relationship of the individual.

Zimmerman (2008) claimed that self-regulation is a proactive process that enables learners to acquire academic skill (e.g., goal setting, choosing strategies, and self-monitoring of one's own progress. In traditional, students' self-regulation has been suggest to play a role in academic achievement. But, to adapt and integrate the possibilities of plentiful sources of information, media, and materials offered by the Internet, students' self-regulatory skill have also been emphasized and their positive influences on learning performance have been documented (Cheng, Liang, and Tsai, 2013). Tanribuyurdu and Yildiz (2014) summarized definition of self-regulation in different meaning as the capacity of the individual to delay or suppress behavior, tendencies and desires, abide by social rules, control and regulate emotions, focus on goal-directed stimuli and maintain attention. Another meaning of self-regulation is the ability of one to control physical functions and emotions, direct and focus attention.

As proposed by Pintrich (2004), a student's self-regulated learning generally involves four phases, namely: 1) planning 2) monitoring 3) controlling and 4) reflecting. Akyoa and Garrison (2011) interpreted self-regulatory learning through of metacognition which consists of three dimensions: knowledge of cognition, monitoring of cognition, and regulation of cognition. While knowledge of cognition reflect students' awareness as learner and their motivation to learn, monitoring and regulation of cognition indicated their reflective metacognition states (i.e., assessment of task or asking for clarification) during the learning process. Similar Cheng et al. (2013) propose the idea of two level of self-regulation. While one is *basic self-regulation,* which refers to self-awareness of planning how to implement tasks (i.e., planning), the other is *advanced self-regulation*, which refers to following actions for supervising and regulating processes and evaluating outcome (i.e., monitoring, controlling, and reflecting).

Ruwiwatanawong (2012) conduct an experiment on grade five student. The study reported effects of self-regulation on mathematics achievement score that experiment group had higher score than control group with .05 statistical significant and participants tend to seek of knowledge, change themselves to be better, and adapt their behavior in appropriate way. Moreover, they are active, sympathy, and satisfy things they did to hit the goal by systematically.

Self-regulation develops in early childhood and positively affects positive social behavior, school readiness, academic achievement and the ability to show greater empathy. Furthermore, individuals with high level of self-regulation have lower risk of drug use, antisocial behavior (Tanribuyurdu and Yildiz, 2014). Promoting the development of self-regulation in childhood is critical as it has a key role in learning, development and socialization. In order to support the development of self-regulation in children, these skills should be individually assessed and evaluated. There is a need for process to promote children's self-regulation development and, thus, to ensure that

they are socially, emotionally and cognitively ready for living with computer technology and Internet attack. Moreover, establishing adaptive appropriate behavior and prevent of inappropriate behavior from internet by Self-Regulation technique are important.

Research questions

This research has conducted by research questions follow: 1) do primary students use Internet for? 2) how primary student has process of self-regulation? 3) do primary students in experiment group have less inappropriate behavior?

Research objectives

A research and development of prevention of primary students' inappropriate behavior from internet by self-regulation technique was conducted by R&D method to 1) study current situation of primary students' Internet use behavior and risk of inappropriate behavior emerge from using Internet 2) synthesize the primary students' self-regulation procedure and 3) compare the emersion of primary students' inappropriate behavior between student who does and does not apply self-regulation technique.

Research Methodology

Methodology divined into 2 phase include phase I survey phase, and phase II experimental phase. The sequence of research as follow:

Phase I was conducted by documentary research merge with survey research to investigate the first and second objective.

Population

Population of the research is 51,759 primary students in Chachoengsao province, Thailand

Sample

The sample of phase I was 270 primary students calculated by G*power 3.1.9.2 with 0.95 power of X^2 estimate goodness of fit test, effect size was 0.3. the sample size has been calculated from the program was 220. Although, researcher conducted sample in each group equally for convenience to collecting data. Each group was divided by school size; small, medium, and large. Research designed 90 participants in each school size, the final sample was 270 primary students, 50 more than calculated. The aim of design was 50 more data would be used to compensate when the questionnaire would not return.

Research instrument

The instrument in phase I was a questionnaire asking about the primary student's internet use behavior and risk of inappropriate behavior emersion. The questionnaire consisted three parts include general data (gender, grade, place they use internet, etc.),

15 items of internet use behavior (academic, communication, and entertainment), and 12 items of risk of inappropriate behavior emersion (aggressive imitation, watching sexual media, using internet in impropriety period, and make appointment/meeting with stranger). Quality of questionnaire was explored by internal consistency reliability, the scale in part 2 was .886 and part 3 was .920 respectively.

Data analysis

Data were analyzed by descriptive statistics; frequency, mean, SD.

Phase II was conducted by experimental completely randomization design with control group to investigate the third research objective.

Sample

The subjects of the study were 57 primary students from Chachoengsao Primary Educational Service Area 1 and 2. Stratified sampling technique was conducted 28 students from Wat-Thepnimitr school and 29 students from Wat-Samrom school.

Research instruments

The instruments on phase II were; student self-regulation task sheet, teacher and student's self evaluation of the student's inappropriate behavior emersion report.

Data analysis

Data were analyzed by mean different comparing by independent t-test.

Research results

The research results as follow by research objective were:
1. current situation of primary students' internet use behavior and risk of inappropriate behavior emersion found that students have all 3 type of internet use behavior in different level. They use internet once or twice a week. The most behavior type was use internet for academic ($\bar{x}$ =.95, SD=.90), later was for entertainment ($\bar{x}$ =.73, SD=.91), and last for communication ($\bar{x}$ =.35, SD=.70). Furthermore, primary students perform inappropriate behavior emersion in all items include aggressive imitation, watching sexual media, using internet in impropriety period, and make appointment/meeting with stranger in daily live.

2. primary students' self-recognition procedure reported 3 main steps with 2 subdivisions in each step namely; *step 1 targeting* include 1) identify target behavior and 2) classify of target behavior emersion, *step 2 self-monitoring* include 1) report emersion of target behavior with practitioner and 2) report emersion of target behavior by themselves, and *step 3 action to themselves* include 1) evaluate themselves compare with the aim that they specified and 2) reinforce themselves by positive action such as praise or reward themselves.

3. results of comparing primary students' inappropriate behavior between student who does and does not apply self-regulation technique found mean of inappropriate

behavior score of subjects before apply self-regulation technique of control group ($\bar{x}$ =1.46, SD=.51), and experiment group ($\bar{x}$ =1.86, SD=.63), has no different statistical significant as shown in table 1

Table 1. mean of inappropriate behavior score of subjects before apply self-regulation technique between control group and experiment group comparison

	N	mean	SD	t	Sig.
Experiment group	29	1.86	0.63	1.88	.07
Control group	28	1.46	0.51		

The average of inappropriate behavior score of subjects in experiment group between before apply self-regulation technique ($\bar{x}$ =1.86, SD=.63), was higher than after apply self-regulation technique ($\bar{x}$ =1.33, SD=.48), has different statistical significant (p< .05) as shown in table 2

Table 2. mean of inappropriate behavior score of subjects in experiment group between before and after applied self-regulation technique

	N	mean	SD	t	Sig.
Before	29	1.86	0.63	-2.25	.04
After	29	1.33	0.48		

The average of inappropriate behavior score of subjects after apply self-regulation technique of control group ($\bar{x}$ =1.33, SD=.48), and experiment group ($\bar{x}$ =1.93, SD=.96), has different statistical significant (p< .05) as shown in table 3

Table 3. mean of inappropriate behavior score of subjects after apply self-regulation technique between control group and experiment group comparison

	N	mean	SD	t	Sig.
Experiment group	29	1.33	0.48	-2.15	.04
Control group	28	1.93	0.96		

Discussions

From the research results, researcher raise 3 interesting founding had been discussed:
1. current situation of primary students' internet use behavior was use internet for academic the most, later was for entertainment, and last for communication. Because school assign student to do tasks that finished by computer and internet (searching information, complete their homework, etc.). Moreover, primary teachers encourage their students use internet both in school and at home for academic tasks (Malithong, 2000; Krinate, 2006; U-wethwatana, 2006). Similar, Meesuk (2013) reported students perform internet use behavior in academic style more than others.

2. primary students perform inappropriate behavior found in all types include aggressive imitation, watching sexual media, using internet in impropriety period, and make appointment/meeting with stranger in daily live. Because the content of internet media emphasized entertainment and funny content, especially, online games are interested to children (Dahla, 2009). Furthermore, passed study reported aggressive behavior of primary student up on situation, they will imitate behavior of the model that they interested (Jamjit, 2009; Suksomsod, 2008). Refer to imitation theory, children will choose content from internet by themselves, that easy to imitate aggressive behavior, watching sexual media, using internet in impropriety period, and make appointment/meeting with stranger in daily live (Meesuk, 2013).

3. results study of inappropriate behavior from internet of subjects in control and experiment group that found subjects in control group perform less inappropriate behavior when attend to self-regulation activities. Because of process of self-regulation procedure include setting target, planning, monitoring, and control their behavior to change to aim that they desired. The outcome of the procedures cause student personal benefits, they will hold process of self-regulation procedure. (Rattanajarn, 2004; Sangthong, 2007).

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Contact email: mparinya@gmail.com