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Perception of Primary School Students, Parents and Teachers toward the Use of Computers, the Internet and Social Networking sites

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Abstract

Regarding the future of the Information and Communication Technologies (ICTs), students, parents and teachers should prepare themselves for this advancement. This paper aims to investigate the perceptions and behaviour of primary school students, parents and teachers toward the use of computers, the Internet and social networking sites while identifying factors possibly affecting marketing plan, which can be beneficial to educational businesses.

This research was conducted using semi-structured interview with 3-page-open-ended questions designed by the researchers. Cultural, linguistic and subjective influences during the design of this qualitative study were taken into consideration.

The setting of this study focused on a school in a suburban area of Bangkok, Thailand. The study found that primary school students, parents and teachers have positive perceptions toward the use of computers, the Internet and social networking sites. They mentioned frequently about the availability of computers at home, information literacy in terms of reading and writing skills, English language fluency, the quality of the electricity connection, Technology Readiness Index, the Internet usage and social networking sites’ usage. The study concludes that supervision by parents, information controlling, school policies play a crucial part in this findings. Consequently, the findings and recommendation can be useful to any marketing plan related to these target groups by aiming to deliver a clear and safe message through parents and teachers.

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1. Introduction

The Information and Communication Technologies (ICTs) have become an important role in people’s lives. Students, parents, and teachers should prepare themselves for the future of the ICTs advancement. In many countries, for example, Turkeys, some researches describe a role of teachers, engaging students of primary school activities to Web Enhancement Learning Activities (WELA) in terms of motivation, feedback, and interaction. This study indicates that primary school students need to be directed by both face-to-face and online WELA. However, the use of social network (sites) by primary school students has not yet been fully recognized. The researcher revealed that social chats allowed the development of related skills and knowledge, and was an important precursor to more formal learning (Maher, 2009).

Even though the advantage of using computer, Internet and social networking sites has been increasing day by day, they can cause ethical problems. It is important to get individuals to adopt the habit of using the Internet according to ethical rules since their primary education schools ages in terms of preventing related problem in society. Then, students, families and teachers should be informed about the use of the Internet, considering ethical rules. Related legal and technical precautions should be taken (into consideration). More studies should be carried out in order to investigate the causes of unethical Internet behaviors among primary (education) school students (Bodura, Ozkanb, Altun & SimSek, 2009).

In Thailand, the Thai Cabinet approved Shenzhen Scope Scientific Development Company’s contract to provide 900,000 tablet computers for first graders in government (public) schools under “One Tablet PC Per Child” scheme. This proposed buying the selection of Scope under the cost of THB 2,482 (US $81) a piece in which the first lots would be distributed to first graders to promote a knowledge based and network-connect society. The equipment would be WIFI-enabled tablet computers with a seven-inch screen and a storage capacity of 8-16 gigabytes (BangkokPostLearning, 2012; kunakornpaiboonsiri, 2012). Srinakharinwirot University had followed up researches resulting from the use of the tablet computers from March-April, 2012. Assistant Professor Charoenchai Boonyuleepan reported that after using the tablet computers, the first grade students’ behaviors had not changed toward practicing or doing in what they know best, but had changed toward ways of using technology. The students seemed to be more enthusiastic and creative in learning. The 4th grade students seemed to be more effective users than the 1st grade students. Teachers had some difficulties with technical problems. More wi-fi connections should be provided for more communities. The researchers further suggested that if the government distributes tablet computers to university students instead of first grade students, Thailand would be better off in terms of reducing divided gap between the rich and the poor citizens. (Morngyai, 2012)

Some researchers stated it had always been known that children can grow up to be consumers of marketing systems (McNeal & Yeh, 1990). The amount for the consumer behavior is estimated to be about $4,400 yearly for US children aged 4-12, or approximately $150 billion annually (McNeal & Yeh, 1993). The study has shown that social marketing is a viable tool at a sub-regional level and has the potential to change attitudes, knowledge and behavior. (Richards, et al., 2009) This paper is to explore the perception and behaviors of primary schools students, parents and teachers toward the use of computers, the Internet, and social networking sites as well as identifying factors possibly affecting marketing plans toward the use of computer, the Internet and social networking sites for primary school students, parents, and teachers related to educational businesses.
2. Literature Review

A tablet computer refers to a complete computer consisted of entirely a flat touch screen that users operation via a stylus, digital pen, or fingertip instead of a keyboard or mouse (Rainer & Watson, 2012). The Internet (so called “the Net”) defines as a global Wide Area Network (WAN) that connects approximately 1 million organizational computer networks in more than 200 countries on all continents, including Antarctica, and features in the daily routine of almost 2 billion people. (Rainer & Watson, 2012)

Social networking sites let users upload their content to the Web in the form of text (or blogs), voice (such as podcasts), images, and videos (such as videocasts). (Rainer & Watson, 2012) The most popular social networking sites are Facebook, MySpace, Flickr, LinkedIn, YouTube, and Twitter. As of August 2011, Facebook had more than 700 million members. Feeds can be controversial. Many users react negatively to have their online activities broadcast publicly. Mismanaged feeds can create public relation disorientation and may lead to legal actions. For instance, Facebook initially experienced a massive user outcry when it launched its feed. And it faced a subsequent backlash when its Beacon service broadcast its user purchases without first explicitly asking the users’ consent. (Rainer & Watson, 2012)

Fuchs and Horak suggested that the overall number of the Internet, telephone, and mobile phone users increased continuously in South Africa, but the ethical digital divide has not narrowed due to social polarization, an extreme unequal distribution of income, and high crime rates. (Fuchs & Horak, 2008) Denmark has rated as the world’s e-readiness leadership in 2009. Sweden (2nd), the Netherlands (3rd), and Norway (4th), the US (5th), and the UK (13th) occupied highly on ICT usage. Nevertheless, Thailand’s ranking dropped from 47th in 2008 to 49th in 2009. Denmark’s connectivity was 9.50%, while that of Thai was 3.65%. (EconomistIntelligenceUnit, 2009) Although digital divide is an aspect of recent concern, technology divide has been an aspect for much longer. Two approaches to enable a wider population to benefit from ICT revolutions are: to enhance level of ICT literacy (including basic, functional technology and computer education), and to design appropriate IT tools around the capabilities of users. For example, Simputer (http://www.simputer.org/) can employ audio/visual input/output, without the need to be literate; low cost telephony and data communication—VOIP and wireless communication like WIFI and CorDECT. (Rao, 2005)

3. Theories and Conceptual Models

Education worldwide must provide students with information literacy, which includes the effective and integrated use of ICTs. The digital divide in education is based on disparities in investment in education as a whole. Due to the global divide, students in poorer countries like the Philippines have less access to digital content. Nevertheless, developing countries realized the need to educate children with skills to deal with new technology even without basic funding to purchase hardware along with hiring qualified manpower. (Rodrigo, 2005) Rodrigo further conducted worldwide surveys with 226,434 elementary students, 181,552 public primary school students, and 44,882 private primary school students and found that in Metro Manila, the Philippines, 25 students shared one computer, while 8 students shared one computer in Norway and Slovenia. (Rodrigo, 2005) Interestingly, for secondary school students, 18 students in the Philippines, 7 students in Norway, 3 students in South Africa, and 9 students in Thailand shared one computer.

Past literature reveals that higher levels of education are associated with higher computer and Internet use. To illustrate, Norway that has a higher level of education’s country has higher levels of computer and Internet uses than those of Thailand. (Worldbank, 2012) Additionally, male and female Internet users for Thailand were about the same amount, which were 21% for male and 22% for female (InternationalTelecommunicationUnion, 2012).

A list of shared defining characteristics of students, parents, and teachers beliefs can be considered to be the individual conceptions about desirable ways of teaching, learning, and parenting, and conceptions about how
students come to learn, teachers come to teach, or parents come to nurture. (Beijaard, 1998) A general finding is that computer experience is positively related to computer attitudes. The more experience teachers have with computers, the more likely they will report positive attitudes towards computers. (Rozell & Gardner, 1999) Positive computer attitudes are expected to foster computer integration in the classroom. Other factors frequently related to ICT integration include age and gender. (Shapka & Ferrari, 2003) Many researchers have stressed the ‘gender gap’ in computer use. Studies report lower levels of classroom use of computers by female teachers, for example. In contrast, traditional teacher beliefs seem to have a negative impact on the integrated classroom use of computers. (Hermans, Tondeur, van Braak, & Valcke, 2008)

Referring to the 2nd Thailand Information and Communication Technology (ICT) Master Plan (2009-2013), e-life-long learning. (MinistryOfICT, 2012) The goal of the ICT for Education Master Plan 2007-2011 has been to create Smart Thais with information literacy by integrating ICT into teaching and learning in Thai classrooms. (Laohajaratsang, 2012)

The Thai Education Ministry aimed to seek approval to purchase higher specification tablets for nearly 700,000 units for Grade 7th students. Of the 900,000 tablets the government would purchase, 860,000 would be distributed to all of the country’s first-grade students and the rest would be earmarked for teachers and kept as reserve inventory. Scope’s tablets would come with a two-year warranty, and they would be handed out to the students without the requirement of returns. The tablet’s specifications were a seven-inch touch screen, a main storage unit of 16GB, 1GHz dual core CPU or higher, 512MB RAM or higher and an Android 3.2 operating system compatible with Android 4.0. The decision was made after a committee visited the production lines of all four companies in China. TCL Cooperation offered $89, Haier Information Technology (Shenzhen) Company offered $105, and Huawei Technologies Company proposed $135. A government committee provided a starting price of 3,100 baht per unit plus 300 baht for uploading e-content. The cost excludes shipping costs to Thailand. (BangkokPostLearning, 2012; Kunakornpaiboonsiri, 2012)

4. Research Methodology and Findings

This exploratory and preliminary study was conducted using interviews. The purpose was to provide deeper understanding of the problem domain. Discovering and identifying possible factors as well as validating the proposed factors would further develop conceptual framework. The researchers for the study took into consideration cultural, linguistic and subjective influences during the design of this qualitative study. The study included a constructive dialog between the researchers and participants throughout data-collection and analysis in order to address potentially problematic assumptions.

Maximum variety exemplification, which is one of the purposeful exemplification methods, is employed in this paper. The aim of the maximum variety exemplification is to reflect the variety of the participants that can be partial to the problem through forming a relatively small sample. (Demir, 2009) In this paper, it is asserted that the gender of the teachers, their seniority, and experiences have sufficient power to grant this variety.

The setting for the study focused on a school within a suburban area of Bangkok, Thailand. The total of nine in-depth interviews was conducted. A female teacher and a male teacher with more than 15 years of teaching experiences were selected. Two male students and two female students from 5th and 6th grades were chosen due to their verbal expressive characteristics. Two female parents and a male parent were asked to participate in the study.

The study was set up in February–March, 2012. The data of the study were collected through semi-structured interview protocol with 3-page-open-ended questions designed by the researchers. In the designing period of the interview form, pilot interviews were carried out with a teacher, a student, and a parent. In order to ensure content validity of the interview form, the opinions of a research methodology expert and a Business Computer teacher were sought.
The data acquired from the interviews have been recorded by means of note taking method. Hence, they had been instructed on how to use the semi-structured interview technique before they performed the interviews. They were also reminded not to disclose the identity of the participants. After the implementation of the interviews, the researcher and an expert study revise the interview forms one by one, and discuss the topics that are agreed and disagreed.

In the analysis of the data, one of the qualitative data analysis techniques, descriptive analysis technique, was employed. In this analysis, direct quotations are frequently given in order to reflect, to the highest possible degree, the ideas of the participants. While conducting descriptive analysis, statements of the students, teachers, and parents interviewed were directly used. The responses of the students, teacher, and parents to each question were classified according to some certain themes and the students’, teachers’, and parents’ statements/words were classified into certain themes related to their computer, Internet, social networking site uses’ problems they encounter and their opinions on the problems. In the presentation of the findings of the study, some quotations were taken from the students, teachers, and parents statements.

Table 1. Analysis of Qualitative Findings

| Respondents’ Comments | No. of respondents mentioning | Theoretical Relevance |
|-----------------------|-------------------------------|-----------------------|
| I [student] use Thai menus for my computer, Internet, and social networking sites’ uses. | 3 | Availability of information literacy in terms of reading and writing skills, English language fluency, Technology Readiness Index (Discomfort), |
| In my [student] class, many friends cannot read. | 1 |
| I [student] use English menus for my computer, Internet, and social networking sites’ uses. | 2 |
| I [teacher] know Microsoft office. | 1 |
| I [teacher] use Thai menu | 1 |
| Total of 8 |
| I [student] know Apple products like ipad and iphone, ipod. | 2 | Availability of computer knowledge (specifically desktop computers and tablet computers), One Tablet PC Per Child, Technology Readiness Index (Discomfort), Digital Divide, ICT literacy (basic, functional technology, and computer education), Design appropriate IT tools around the capabilities of users. |
| I [student] do not know tablet, smartphone, and software. | 2 |
| I [student] do not know apple, smartphone, tablet. | 2 |
| I [student] heard about tablet. | 1 |
| I [parent] heard about Apple and tablet. | 1 |
| Total of 6 |
| I [student] like computers because I learn new thing about technology. | 1 | Availability of students with computers at home. |
| I [student] like to use computers because it is fun and I gain more knowledge. | 1 |
| My [student] parents will allow me to use computer for 2 hours per day at Internet café. | 1 |
| My children asked me to buy printer for them. | 1 |
| I [parent] bought 13,000 baht computer set for my children because they told to use for homework. | 1 |
| I [parent] limit my child to play with computer games for less than 1 hour. | 2 |
| Total of 7 |
I [student] did reports on social, history, culture, music topics especially those of the Thai.

| 2 | Availability of Internet in Classrooms, information literacy (reading and writing skills), |
|---|------------------------------------------------------------------------------------------|
| 1 | 30% of my [teacher] students seemed not to understand the class content and 70% seemed to understand the class content. |
| 1 | 40% of my [teacher] students play games in the class and 60% follow the class content. |
| 1 | My [teacher] students can search for their homework on the Internet such as assignments for science projects. |
| Total of 5 |  |

I [student] prefer to work in groups, so that we can help one another.

| 3 | Availability of computer in Classrooms, teamwork. |
|---|--------------------------------------------------|
| 1 | My [teacher] students like to use computers because they would be more enthusiastic when they get to use computers. |
| 1 | My [teacher] students would have fun using computers in the computer labs because they get to draw, print, and stay in air-condition room. |
| Total of 5 |  |

Total of 5

| 4 | Technology Readiness Index (Discomfort, Insecure), |
|---|---------------------------------------------------|
| 1 | I [student] would believe teachers more than friends in classrooms because the teachers would give us correct information. |
| 1 | I [student] cannot figure out how to understand contents in the computer class sometimes. |
| 1 | Sometimes contents in learning with computers can be boring. |
| 1 | My [parents] children believe their teachers in classes, but they will believe their friends outside the classes. |
| Total of 7 |  |

| 2 | Enjoyment in using computers. |
|---|-----------------------------|
| 2 | I [student] like to play game, listen to music, watch movies. |
| 2 | I [student] like to chat through facebook and hi5. |
| Total of 4 |  |

| 1 | Availability of electricity connection. |
|---|----------------------------------------|
| Total of 1 |  |

| 1 | Availability of different genders’ preferences for computer’s, social networking sites’, and Internet. |
|---|---------------------------------------------------------------------------------|
| Female students tend to work with computers for homework, but male students mostly use computers for playing games, facebook, chat. |  |
| 1 | I [female student] like to play facebook and use Internet. |
| 1 | Some female [students] friends like to chat through facebook, some male[students] like to play games. |
| Total of 4 |  |

| 1 | Availability of Internet and social networking sites’ usage. |
|---|-------------------------------------------------------------|
| I [student] can find new friends through facebook and Internet. |  |
| I [student] know chat and email. |  |
| I [student] like to use facebook |  |
| My [teacher] communicate with me through facebook. |  |
| Female child will stay home, but male child will go play computer games all days all nights. |  |
| Total of 5 |  |
I (female students) like to use Internet to search for my favourite movie stars and my assignments.  

| Availability of Technology Readiness Index (optimism and innovativeness). | 1 |
|---|---|

I (students) go fishing, watching movies, playing football)  

| Availability of other activities apart of using computer, Internet, and social networking sites. | 1 |
|---|---|

Some of my (students) friends play games all days.  

| Availability of unsafe use of computer, Internet, and social networking | 1 |
|---|---|

Some of the students who are addicted to game would not go home and involve in drugs  

| Total of 1 |
|---|

I [student] want to learn how to do animations and moving objects with computers.  

| Future needs related to the use of computer, Internet, and social networking sites. | 1 |
|---|---|

I [student] want my teachers to teach me alphabets and images.  

| | 1 |

I [parent] would like my children to learn about danger in using computer and addicting to computer games.  

| | 1 |

I [parent] believe that 4th grade students should start using computers.  

| | 1 |

| Total of 2 |
|---|

| Total of 4 |
|---|

Note: The number of respondents mentioned refers to the number of participants who provided one or more of the responses shown in each respective category. Some respondents’ responses fit more than one category.

5. Conclusion and Recommendations

The study provides data in an initial attempt to explore perceptions of primary school students, parents, and teachers toward the use of computers, the Internet, and social networking sites. Students, teachers, parents most frequently mentioned about the availability of students with computers at home (Valcke, Schellens, Van Keer, & Gerarts, 2007b), information literacy in terms of reading and writing skills (Bridges.org, 2001; Rodrigo, 2005), English language fluency (Zhou et al., 2011), the quality of the electricity connection (Zhou et al., 2011), Technology Readiness Index (Elliott et al., 2008), Internet usage, and social networking sites’ usage.

It confirms that most of the respondents have accesses to computer, the Internet, social networking sites from home. The most common Internet use was chatting and message board posting. Moreover, the study revealed that high levels of chat use were associated with psychological distress and a higher likelihood of risky behaviour. These data suggests that there is a definite need of appropriate prevention programs to inform children and teach them concrete Internet skills (Valcke, et al., 2007a) by parents.

Wijers also confirmed that basic reading and writing skills had positive effect toward computer and Internet use. (Wijers, 2010) Referring to the development of higher education Southeast Asian countries, some countries, such as Malaysia and Singapore, are dynamic in digital progress, while other countries in transition, like Cambodia, Lao PDR, and Vietnam, are still in need of drastic educational reforms. (Wijers, 2010) Therefore, this research confirms the past literature in the Thai context.

The findings become evidence for the need of English language fluency in order to gain benefits of computer usage (Zhou, et al., 2011) like the population in Bangladesh, Sri Lanka, and Nepal. Furthermore, the quality of the electricity connection had a positive impact on the likelihood of computer usage. This result is similar to the influence was significant in Sri Lanka. (Zhou, et al., 2011) Singh found that the lack of reliable power was cited as an obstacle on Internet use in rural kiosks. (Singh, 2004) The results further report those students’, parents’, teachers’ views are involved with the TRI (Technology Readiness Index) including:
1. Optimism: A positive view of technology and a belief that it offers people increased control, flexibility, and efficiency in their lives.
2. Innovativeness: A tendency to be a technology pioneer and thought leader.
3. Discomfort: A perceived lack of control over technology and a feeling of being overwhelmed by it.
4. Insecurity: Distrust of technology and scepticism about its ability to work properly. (Elliott, et al., 2008)

According to the findings of this study, teachers are likely to enhance students’ interest in computing as a discipline if they utilize learner-centred approaches, possibly because the latter are more compatible with young people’s everyday experiences with ICTs. Of interest was also the finding that perceived teacher expectations were more strongly associated with girls’ than with boys’ self-efficacy beliefs. One possible interpretation of this finding is that girls rely more on information provided by their teachers than from their parents to form an opinion about their computer abilities. This in turn could happen due to gender differences in computer experiences outside the school context. Research shows that, compared to girls, boys have more opportunities outside school to become involved in ICT activities and to experience success with ICTs, and therefore they may rely more on their parents for information regarding their ICT competence. If, on the other hand, school provides the main context where many girls can develop advanced computer skills, then the teacher becomes an important source of efficacy information. As to the school-based interventions to support safe Internet use, the findings indicate that there is a general awareness to define and implement a school policy, and to inform pupils about (safe) Internet use. The findings however point out that there are no action lines that might guarantee the acquisition of specific knowledge and/or skills related to safe Internet use.

For practitioners, one must take into consideration that primary school students, parents, and teachers clearly make sure the use of computer, the Internet, and social networking sites. Parents and teachers seem to play crucial roles in the controlling of information giving to the students. Therefore, any marketing plans related to these target groups should aim to deliver clear and safe message through parents and teachers. If parents and teachers agree or even support the message claims, students are likely to be a suitable target for proposed products.

The study presented in this article reflects some methodological limitations. Firstly, the research data were derived from questionnaires. A richer data set could be based on actual observation of Internet use. The study (Wishart, Oades, & Morris, 2006) combined questionnaires, phone interviews, classroom observations, and teacher/students/parents focus groups. Next, pupils, teachers, and parents, the school principals should have been involved. The information from the school principals might have been helpful to get a more concrete picture of concrete actions taken at policies’ levels. On the basis of the exploration of the relationships between these data, we are not able to study causal relationships and cannot come to conclusions about the impact of a safe Internet action line. Despite these methodological constraints, the results of the present study call for additional research to study the impact of school-based and home-based interventions. From an educational policy perspective, the results point at the need for changes in giving directions to schools and homes in view of adopting safe Internet use measures that build on a more active engagement of pupils in primary schools. The current state-of-the-art reflects that a general level of awareness has been attained, but that additional action lines have to be developed and implemented in this primary school’s level.

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