

The Survey Research on How Information Technology is being Used by the Universitys' Students

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Abstract - The purpose of this research are: 1) to study the behavior of Nakhon Phanom University students in using information technology to study, 2) to examine the Nakhon Phanom University students' ability and potential for using information technology. The entire reliability value was 0.96 and the discrimination index was between 0.49-0.80. The results disclosed as follows: 1) most students owned laptops (75%), followed by the smartphone (58%), as well as the University students keep up with the newest technology. This is becomes evident when examining the student's length of ownership of the various devices, which is not more than three years. It becomes obvious that students buy new devices all the time and the majority of students use these devices in learning (over 86%). The study also found that teachers use laptops and projectors the most in their classroom (>70%). The communication channel that the university provided such as the online learning system, was not used as much as the social media channel (only 20%). 2) The students essential Software skills for learning were in the middle while social media skills were very high. Therefore, the results showed the majority of students lacked basic knowledge in using introductory information technology that supports learning.

Keywords - E-Learning, Online Learning, Educational Technology, ICT Readiness

I. INTRODUCTION

In our world today many changes are occurring rapidly, regardless if it is in the field of education, the economy, or society, but especially in the field of information technology. Presently it can be plainly observed that these technologies are becoming profoundly advanced, and is part of what makes the lives of people today more comfortable. It allows people to communicate with each other easier and quicker. From past to present it has evolved to what presently is referred to as the information age. Media technology has developed rapidly especially in using devices such as the cell phone, portable computer, digital cameras, and etc. These devices provide convenience to the user as they can carry them to use wherever and whenever it is considered necessary for daily life. However, information technology and media channels can also be employed in the field of study as useful tools creating educational opportunities and enhancing education. Technology in the classroom is now becoming an important part of establishing a balanced education that will make for an effective participation in the modern world. Integrating technology into education is essential in a world that relies on searching for information and communication quickly. Hardware is improving all the time along with advances in the development of software which provides for valuable learning opportunities. But the aim of skills development is to help each student to use their

resources more effectively. Technology, as the integrated approach to learning, has dramatically improved the standards of education. Therefore, researchers must study whether the use of technology in the university instructor's approach to teaching are meeting the needs of the learner or not. In addition it is essential that the professor is provided any necessary adjustments to improve their use of educational technology, and help be provided to apply these adjustments in their teaching methods, thus benefitting and meeting the needs of learners. Thus, this research aims to survey the use of information technology by the Nakhon Phanom University students, examining how much is it applied to studying, what their ability is in using it, the needs of the students in comparison to what the university provides, professors use of information technology, and necessary recommendations.

II. CONCEPT OVERVIEW

Information and communication technology (ICT) changes rapidly both in information and knowledge that requires humans to adapt frequently to keep pace with the changes taking place. Institutions should study their ICT readiness by examining both the ownership of students' devices and the ability of students to use those devices to enhance the effectiveness of their education, including to improve and make needed corrections to meet the goals of the user [1]. In a study of 112,000 students from 250 institutions, it was ascertained that 76% of students all have smartphones and 89% of students have laptops, which is an increase in figures when compared to the years 2012 to 2013. It was observed that students have more smartphones and laptops than before thus increasing communication, but this does not mean that these students are using them in pursuing education. Most use them to follow up on personal matters. However, the majority of students agree that having information technology helps them experience success in learning and be prepared for future work. The research of [2] provides more information regarding this. In a survey of 6,240 students, in the part about usage of smartphones,

unveiled that the majority of students 94%, use to send messages to communicate, 82% use it to watch videos and take pictures, 47% use to enter various websites, 42% use to listen to music, and 37% use in downloading [1, 2] supports the research of [2] by reporting that 2 in 3 students state they use their smartphone with reasonableness for the following: data access, taking pictures, access to digital resources, following up with the professor, recording information, and using in classroom activities. Lastly, [1] found important evidence in this research that, although technology will progress, the majority of students still want to have integrated learning by learning in classrooms and by means of online learning, more so than having online learning only. [3] said it is very essential that the university and educational institutions need to understand their students' ICT readiness in terms of ownership, hardware, software, and settings for effective online courses and content delivery that is practical and meets the needs of users.

III. RESEARCH METHODOLOGY

The sample used included 595 university students, and using quantitative research with surveys. The design to grade the samples' viewpoint was derived from the Likert Scale that provides a qualitative research scale. The software Qualtrics was used which is an online research survey tool that can use a whole range of objective information. The statistics used in analyzing the information was completed using a computer program that uses percentages and averages. The tool used in data collection was a rating scale questionnaire.

IV. RESULTS

The results from the survey found that students that responded to the survey, 65% came from faculty of Science, which is not surprising since that faculty has the most students in the Nakhon Phanom University. Followed by this are students from faculty of Management and Information Technology 12%, faculty of Industrial Technology 8%, International Aviation College 6%, and College of Tourism and Service Industry 3%.

Finally, there is the faculty of Agriculture and Technology and College of Nursing 2%. It can be seen that there is diversity in the students that responded to the survey which is valuable as it makes the results much more reliable.

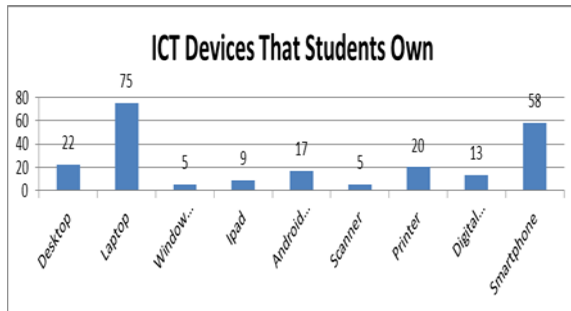


Fig 1. ICT Devices that Student Own

Fig. 1, shows that the majority of students own laptops at 75% followed by the smartphone. It can be seen that both small, portable devices are the most popular among students. They can be used in research and learning. According to Skiba (2014) the laptop and smartphone are very popular technological devices as can be observed by the rapidly increasing numbers in 2012-2013.

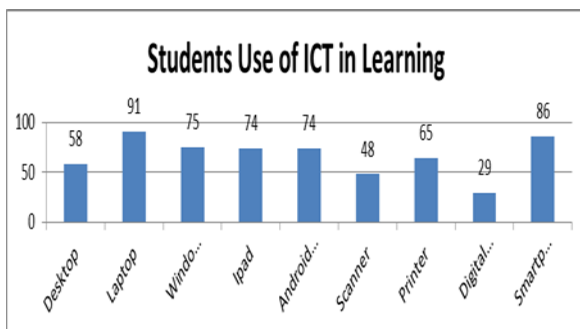


Fig 2. Students Use of ICT in Learning

From fig. 2, it can be ascertained that students use laptops (91%) in the classroom the most followed by the smartphone (86%). This information harmonizes with figure 1. It can be discerned that the students view these aforementioned devices as conveniently compact useful in studying, therefore were very popular devices among sample students from the Nakhon Phanom University. Followed by the use of Windows Tablet (75%) and Ipad and Android tablet (74%). It is apparent that the smartphone of today is technology that immensely meets the needs of

its users. Although small, it can take photographs, save sounds, search for various documents on the online world, and save information; which does a comparable job to that of having a laptop. However, one of the drawbacks is the time it takes to print. Additionally, the smartphone's keyboard is still inconvenient in comparison with using the laptop keyboard. However, one important observation that makes the smartphone popular is the relatively inexpensive price. Students can afford it [4].

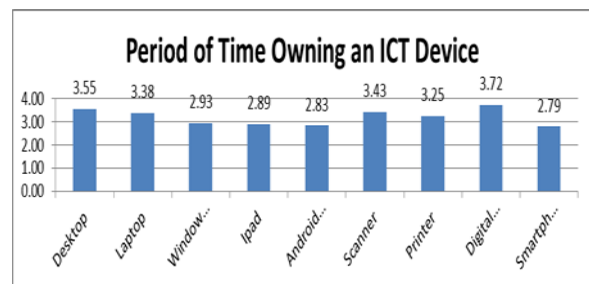


Fig 3. Period of Time Owning an ICT Device

In the following query from fig. 3, the period of times students own various devices was examined. It is apparent that the majority of devices the students have are only slightly over 3 years old. This shows that students always pursue modern ICT devices which can be recognized from the age of usage. No device is used over 5 years, especially the tablet and smartphone. It can be seen that none of these two devices even reached 3 years of age. This is a small number of years showing Thai youths regularly pursue the latest technology. In the following questions, we will see if students use this technology to improve learning.

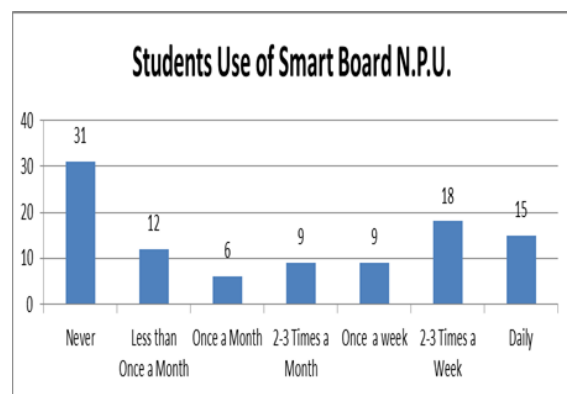


Fig 4. Students Use of Smart Board N.P.U.

From fig 4, it was identified that the majority of university students, more than 50%, have never used the smart board as a communication channel in the classroom, not even once a month. This information is consistent with the research of [5] It found that Nakhon Phanom University students favor communication channel Social Media in classroom connection among the professor and student, and between students themselves. More students use the eLearning system that the university provides.

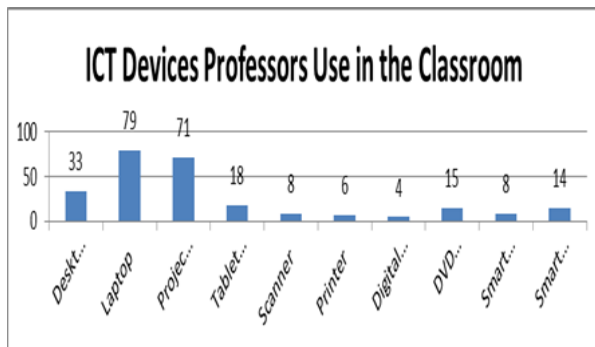


Fig 5. Period of Time Owning an ICT Device

The questions in this paragraph are regarding devices the professor uses in teaching their classes. From fig. 5, it is evident that professors use the laptop (79%) followed by projector (71%). Since the majority of classrooms do not have desktops installed in the class, the professor will bring a laptop to connect to the projector to provide classroom lecture content. Such numbers, when compared to the research of [6], which found that professors use the desktop in classrooms more than use the laptop, differs greatly due to the fact that classrooms came furnished. The professor does not need to take a laptop to use in the classroom.

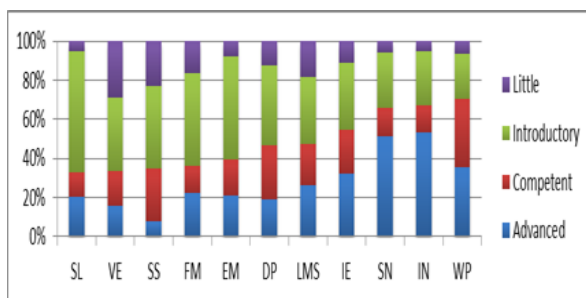


Fig 6. Students Evaluate their Own Ability in Using Applications

Fig. 6, is the Nakhon Phanom University students' evaluation of their own ability to use various applications. It is evident that students evaluate they have talent in using Social media and using the internet since most of the time spent each day is with Facebook and surfing the internet. The lowest on the student's self evaluation is the use of the excel spreadsheet followed by video editing. This is very interesting information as important applications that promote learning, doing reports, and exhibitions in class, the students find it uncomfortable. This might be due to the fact that many of the students who responded to the survey are from the Faculty of Arts, thus are not very comfortable using technology. That is an important issue for a country that should be developed, as students that will become future teachers are still not comfortable with education technology. Once they become teacher, how will their students learn about this technology?

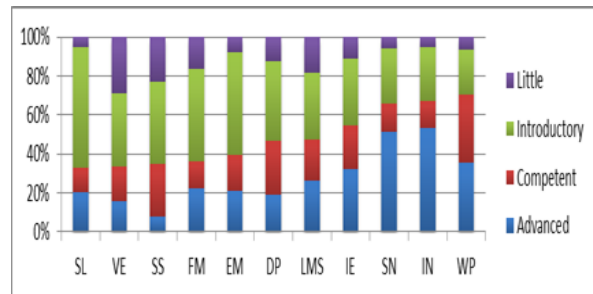


Fig 7. Students Evaluate their Own Ability in Using Applications

It can be seen that fig. 7, is consistent with their self evaluation of regarding their ability, since the survey results show that students use Social Media (85%) to communicating together the most between professor and student and between students themselves [5], and searching information on the internet is mostly to do reports and send reports. However the majority of Thai students use this, is to copy someone else's work and turning it into the professor. This is another important issue that needs to be addressed in Thai education. Students' skills in using PowerPoint are weak and undeveloped.

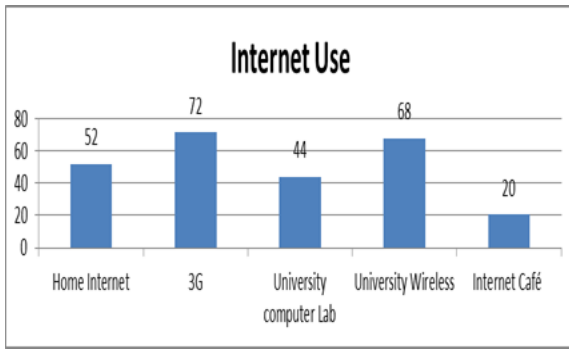


Fig 8. Students Internet Use

Fig. 8, represents the students' internet usage. It can be recognized that the majority of students use 3G (72%) since it is convenient, can be used everywhere, inexpensive, and students can afford it. However, if the students are in the university, the students will use the university's wireless (68%) as it is free and of high speed. But if they do not come to university, the students use the dormitories internet (52%). Using the internet in the University Computer Lab is only (44%) and a few (20%) use Internet Cafés.

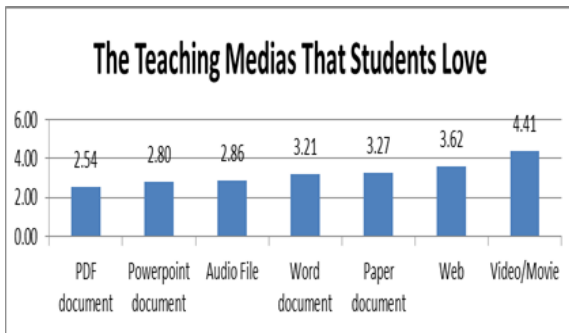


Fig 9. The Teaching Medias that Students Love

From fig. 9, it can be observed that students love Video teaching media the most. Following this is the Web format, Paper document, Audio File, PowerPoint documents and PDF files. However, the majority of professors in the Nakhon Phanom University have mostly paper documents, PowerPoint, and PDF files, contrary to what the students wanted.

V. CONCLUSIONS

This research found that small sized information technology such as the laptop and

smartphone are highly remarkable technology and popular. Due to its compact size and ability to address the users desires well, many big enterprises, whether it is Samsung, Window, or apple invests much financial funds in advancing this technology. Having a cell phone is like having a small computer at the same time. The results of this research show that Nakhon Phanom University students pursue new technology all the time as can be seen in the number of times they owned the various devices, not more than 3 years. It helps us discern that the students buy new devices all the time. The majority of students claim they use these devices in learning also. Facebook especially is highly used every day which students say they use in order to study and for recreation. But communication channels that the university provides, such as Online learning club, did not receive as much response as it should. Therefore it can be ascertained that professors might use this information to consider and make changes to their teaching strategies by using Facebook as a means to help promote education since the results of this research show that students are especially interested in the technologies mentioned. Thus if the teacher knows these changes, knows how to apply them, and makes those needed changes then they will see that using popular technology in student groups, outside of enjoyment, is beneficial in education. However it was found that most of the students still lack the basic knowledge of information systems which support computing thereby providing students with more knowledge. Because there are still some parts that are unknown and never been used, it is deemed that students can use and benefit from classes regarding this subject. The university should follow and measure the effects of information technology all the time in order to provide students enthusiasm and to be able to equip themselves to have the basics, prepared for future work. Students who have basic knowledge in using software packages will have an advantage and needed in the labour market.

VI. SUGESTSIONS

1. Of all the students that took the survey there should have been more.

2. Should ask for cooperation of all agencies in order to maintain good quality research

3. The senior manager should see the importance of this research and support it.

4. The benefits of this research should be published to give professors and people the knowledge to use information technology to meet the needs of the students.

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(Arranged in the order of citation in the same fashion as the case of Footnotes.)

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