

“Status of Students’ Perceptions and Self-efficacy on the Use of ICT”

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Abstract. This study investigated the status of students’ perceptions and self-efficacy on the use of information and communications technology. The respondents are fifty 4th Year Bachelor of Elementary Education major in English students of the Department of Professional Education, College of Education, Mindanao State University – Iligan Institute of Technology, Iligan City, Philippines. The study employed the descriptive-correlation method. An adapted questionnaire composed of three parts was used to gather needed data.

Results of the survey revealed the following: most of the respondents are 19 years old; more than one-half have their own computer units but only 18 of them have Internet connection at home; 68% of the respondents daily use of computer is 1 – 3 hours; in terms of perceptions with regard to interest, majority wants to learn more about ICT however they are not very interested on using ICT in making course reflections, sharing work or outputs or working collaboratively with classmates; word processors, web browsers, search engines and emails are the most commonly used ICT tools while desktop publishing, video editing software and social bookmarking are the least used; in general, the respondents frequently use ICT tools; respondents foremost purpose of using ICT is for educational research; generally, respondents possess a “good” skill on the use of ICT tools; there is a negative relationship between the frequency of ICT use and age – as age increases, the frequency of ICT use decreases; there is a strong / significant positive relationship between perception towards ICT and self-efficacy on the use of ICT. Results of the study implies that strengthening of ICT trainings in the in-service level is needed so that teachers can update themselves and cater to the needs of the 21st century learners.

Keywords: Information and Communications Technology, Self-efficacy, Perception, Education

1. Introduction

During the past decade there has been an exponential growth in the use of information and communication technology (ICT) which has made pervasive impact both on society and on our daily lives. It is not surprising to see the increasing interest, attention and investment being put into the use of ICT in education all over the world. In addition to efforts to employ ICT to improve learning, the emergence of the knowledge economy has also brought about a much greater emphasis on education (Wong, 2003).

Governments of developing countries have been IT users for more than four decades. In that period, people have moved from Information Technology (IT) to Information and Communication Technologies (ICT) and from ICT to Information Systems (IS). The new digital connections have been supporting and transforming governance by processing and communicating data. This has facilitated interconnectivity on a massive scale, where government offices are linked to one another enabling collaborative thinking. Businessmen and citizens are linked to governments revolutionizing delivery of services. Connectivity among NGOs supports learning and concerted activities between communities, which permits building social and economic development. This setup brings not only E-administration (improving government processes) but also E-citizens and E-services (connecting people), and E-society (building interaction among people) (Carague, 2004).

Moreover, computer systems comprise one of the most distinctive and complex technologies of the late 20th century. Many of people’s transactions with organizations are mediated by computer systems, as reflected in the bills (tuition bills), payments (school fees) and record keeping (in the library, registrar and other school offices). Interactive computer systems have become standard equipment in many professions,

from the sciences to journalism, and are increasingly appearing in schools at all levels. Furthermore, according to Benghozi and Licoppe (2003), “the experience with computerization often makes it possible to better prepare, facilitate, and structure the integration of past and recent technological generations...which range from secure access to bank accounts, electronic commerce, and online payment systems (including reservation of train or cinema tickets) to communication forums and information searches.”. University students and professionals are the most informed and creative users of this technology. They search the web for information on academic topics, scholarship possibilities and job opportunities as well as pursue individual interests in news, music, and entertainment (Pertierra, 2007).

We have come to an age where the ability to read, write, and count is not enough for the development in technology. ICT has become widely used in schools that students feel the necessity to equip themselves with ICT skills. Equipping one’s self with ICT skills is more than just following a trend but preparing one’s self to function in the knowledge economy.

2. Aim of the Study

This study aimed to determine the 4th Year BEE- English students’ perceptions and their self-efficacy towards the use of ICT. Specifically, it sought to answer the following questions:

- What is the profile of the respondents?
- What are perceptions of the students toward ICT with regard to interest?
- What ICT tools are commonly used by the respondents?
- What are the respondents’ purpose of using ICT?
- What are the respondents’ self-efficacy on the use of ICT?
- Is there a significant relationship between profile of the respondents and their frequency of ICT use?
- Is there a significant relationship between respondents’ perceptions in terms of interest toward ICT and self-efficacy on the use of ICT?

3. Method Used

This study used the descriptive-correlation design method. In gathering the data, an adapted questionnaire was used (from the research conducted by Dr. Ismail Guven of Bucharest, Istanbul with permission).The following statistical tools were employed in the computation and analysis of the gathered data: Frequency and Percentage, Mean, Pearson Product Moment Coefficient of Correlation (PPMCC), and Likert Scale.

4. Findings

4.1. Profile of the Respondents

Table 1. Profile of the Respondents in Terms of Age

Age Level	Frequency Distribution	Percentage Distribution
18	2	4.0
19	24	48.0
20	18	36.0
21	4	8.0
23	2	4.0
Total	50	100.0

Table 2. Profile of the Respondents in Terms of Computer Ownership and Internet Connection

	Computer Ownership		Internet Connection at Home	
	Frequency	Percentage	Frequency	Percentage
Yes	27	54	18	36
No	23	46	32	64
Total	50	100	50	100

Table 3. Daily Computer Usage in Terms of Hours

Daily Computer Usage	Frequency	Percentage
Less than one hour	4	8
1 – 3 hours	34	68
4 – 5 hours	9	18
More than 5 hours	3	6
Total	50	100

The tables above present the profile of the respondents in terms of their age, computer ownership, Internet connection at home and daily computer usage. It can be seen on Table 1 that majority of the respondents are 19 years old. On Table 2, it is revealed that more than half of the respondents have their own computers at home. However, not all of those computers are connected to the Internet. In terms of daily computer usage, Table 3 shows that 68% of the respondents spend 1-3 hours everyday.

4.2. Perceptions towards ICT with regard to Interest

Results of the survey revealed the following ranking in terms of their perceptions towards ICT with regard to interest: (1st) respondents want to learn more how to use ICT, (2nd) respondents prefer to use ICT in doing research, and (3rd) respondents like using ICT in preparing their assignments and requirements. These findings imply that the respondents believe that they need to learn more about ICT since it is a rapidly changing field and that there is a need to constantly update one's self. Furthermore, they want to learn more how to use ICT because they want to exploit its advantages. However, they have least interest in using ICT in making course reflections, sharing work / output, and collaborating with classmates – an exercise that make their works visible not only to their teacher but to their classmates as well. This makes them conscious of their works and might be afraid of being ridiculed for errors that might be found.

Table 4. Commonly Used ICT Tools, Frequency of ICT Use, and Self-Efficacy on the Use of ICT

	Commonly Used ICT Tools		Frequency of ICT Use		Self-Efficacy on the Use of ICT	
	%	Rank	Mean	Remarks	Mean	Remarks
Word processing	98	1	3.6000	Always	5.1400	Very Good Skill
Spreadsheets	52	7	2.2000	Sometimes	4.1200	Good Skill
Presentation software	82	5	3.2400	Frequently	4.8400	Very Good Skill
Desktop Publishing	0	12	1.8200	Sometimes	3.1000	Fair Skill
Web browsers and search engines	90	2.5	3.8200	Always	5.2400	Excellent Skill
Email facilities	90	2.5	3.7400	Always	5.2200	Excellent Skill
Chat/forum facilities	76	6	3.0400	Frequently	4.7200	Very Good Skill
Video editing software	0	12	2.0600	Sometimes	3.2800	Fair Skill
Wiki	86	4	2.7600	Frequently	4.1600	Good Skill
Blog	30	9	1.8000	Sometimes	3.1200	Fair Skill
Online collaborative websites	42	8	2.3600	Sometimes	3.6400	Good Skill
Media sharing	20	10	2.0600	Sometimes	3.2600	Fair Skill
Social bookmarking	0	12	2.0800	Sometimes	3.3800	Fair Skill
			Grand Mean: 2.66	Remark: ICT is Frequently Used	Grand Mean: 4.0938	Remark: Good Skill

It can be gleaned from the table above that the most commonly used ICT tools are word processors, web browsers and search engines, and email facilities. Those tools are commonly used by the students since those are the tools that are usually used for doing paper works, researches, reports, and other assignments. These findings are similar with the findings of the study conducted by the Organization for Economic Cooperation and Development (OECD). Their survey found out that one-half of the respondents reported frequent use of Internet and word processing because both of which have educational potential (OECD, 2005). On the other hand, the least used ICT tools are desktop publishing, video editing software and social bookmarking. The reason might be because these tools are not always required by the teachers in doing assignments, are difficult to use or manage, or require complex skills.

In terms of frequency of ICT use, the table above shows that ICT tools are frequently used by the respondents. This implies that use of ICT is very common among the respondents since they find it useful in doing their schoolwork and believe that it has a positive impact on their learning and performance.

As seen on Table 4, self-efficacy on the use of ICT that are considered with an “excellent skill” and “very good skill” are those that are commonly used by the respondents. This means that the more frequently an ICT tool is used, the more skillful one will become on its use.

Table 5. Relationship between the Profile of the Respondents and Frequency of ICT Use

Variables	Correlation (Pearson r)	Correlation Value
Respondents' Profile versus Frequency of ICT Use	-0.279	Denotes high relationship

Table 5 shows that age has a significant negative relationship with the use of ICT – as age increases, frequency of ICT use decreases. Age therefore, is a factor relative to the frequency of ICT usage.

Table 6. Relationship between the Respondents' Perceptions with regard to Interest toward ICT and Self-efficacy on the Use of ICT

Variables	Correlation (Pearson r)	Correlation Value
Respondents' Perceptions with regard to Interest toward ICT and Self-efficacy on the Use of ICT	0.279	Denotes strong/significant positive relationship

It can be seen on Table 6 that there is a strong/significant positive relationship between respondents' perceptions with regard to interest toward ICT and self – efficacy on the use of ICT.

This implies that the more interested they are on the ICT, the more they are going to use it frequently which would eventually lead to improved ICT skills. Therefore, it is important for an individual to develop interest on the use of ICT since this is a precursor on the development of self-efficacy on the use of ICT.

5. Conclusion

The linking of computers across the world is known to many people. Today's web of computers and what we call ICT have proliferated to such a degree that they impact on virtually every aspect of our daily lives. Educational institutions are witnessing a paradigm shift brought about by the use of ICT that others have even started seeing ICT as an indispensable tool in the teaching-learning process.

As students are continually exposed to the capabilities of ICT, their perceptions toward it change: the more positive one's perception towards ICT, the more likely one is going to develop better skills on ICT use. It is evident in some schools that efforts have been exerted in order to retool the classrooms. With this teachers are faced with the responsibility to utilize ICT. Teachers in this era should learn to adopt with change - particularly in the new trends of teaching and learning. This will enable them to cater to the needs of the 21st century learners.

6. References

- [1] Benghozi, P. and Licoppe, C. (2003). *The global Internet economy: Technological national learning from Minitel*

to Internet (Bruce Kogut, Ed.). Cambridge, Massachusetts: The MIT Press.

- [2] Carague, O. (2004). *I-Governance for development*. Quezon City: C and E Publishing, Inc.
- [3] Gulbahar, Y., & Guven, I. (2008). *A survey on ICT usage and the perceptions of social studies teachers in Turkey*. *Educational Technology & Society*, 11 (3), 37-51. Retrieved January 2011 from http://www.ifets.info/journals/11_3/4.pdf
- [4] Organization for Economic Cooperation and Development (2005). *Are students ready for a technology-rich world?*. Retrieved January 12, 2012 from www.oecd.org/dataoecd/28/4/35995145.pdf
- [5] Pertierra, R. (2007). *The social construction and usage of communication technologies: Asian and European experiences*. Diliman, Quezon City: The University of the Philippines Press.
- [6] Wong, K. C., et. al. (2003). *ICT implementation and school leadership case studies of ICT integration in teaching and learning*. Retrieved January 12, 2012 from <http://www.scribd.com/doc/11004243/Ict-in-School>