

BIBLIOGRAPHY

ALTATIS, CHAMBERLANE P. APRIL 2007. The Information and Communication Technology (ICT) Usage of Development Communication Students of Benguet State University. Benguet State University, La Trinidad, Benguet.

Adviser: Sheryl I. Fernando, BSc

ABSTRACT

The study was conducted to determine the usage of Information and Communication Technology (ICT) among the Development Communication students of Benguet State University. The specific objectives were to determine the socio-demographic profiles of DevCom students, identify the various ICTs the DevCom students are using., determine the length of time the Devcom students have been using these ICTs., determine how frequent the Devcom students are using these ICTs., determine the level of expertise of Devcom students in using these ICTs., enumerate the information acquired by the Devcom students in using the ICTs., enumerate the positive and negative effects of ICT to the learning strategies and habits of DevCom students. Survey questionnaire was used in gathering information from 40 respondents.

Most of the respondents were 16-18 years old, and female. Majority of them are from Benguet.

Findings showed that the ICTs the Devcom students are using are devices which includes radio, TV, mobile phone, telephone, camera, and video camera; ICTs on the internet which includes e-mail, chat, and web surfing; and computer softwares which

includes Word, Excel, PowerPoint, Publisher, PageMaker, Photoshop, Video Impression, Movie Maker, Picture Package, Pinnacle, and Audacity. Majority of them, are using the mentioned ICTs but are still not so familiar with how to use some of them. These ICTs also helped them in their learning but it also made them lazy and made their learning expensive.

It is therefore recommended that the Devcom students must be trained with how to use the ICTs, be controlled in using them, and make some alternatives of reresearching.



TABLE OF CONTENTS

	Page
Bibliography.....	i
Abstract.....	i
Table of Contents	iii
INTRODUCTION	
Rationale.....	1
Statement of the Problem.....	3
Objectives of the Study.....	3
Importance of the Study.....	4
Scope and Limitation of the Study.....	4
REVIEW OF LITERATURE	
What is ICT?.....	5
ICT in Education.....	5
ICT in the Philippines.....	6
ICT in Benguet.....	7
Effects of ICT to Learning.....	8
METHODOLOGY	
Locale and Time of the Study.....	9
Respondents of the Study.....	9
Data Collection.....	9

Data Gathered.....	11
Data Analysis.....	11
RESULTS AND DISCUSSION	
Socio-Demographic Profile of Devcom Students.....	12
Various ICTs the Devcom Students are Using.....	13
Length of Time the Devcom Students Have Been Using the ICTs.....	16
Devcom Students' Frequency of Use of the ICTs.....	21
Level of Expertise of Devcom Students in Using the ICTs.....	26
Information Acquired by the Devcom Students In Using the ICTs.....	31
The Positive and Negative Effects of ICTs to the Learning Strategies of Devcom Students.....	33
SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS	
Summary.....	36
Conclusions.....	37
Recommendations.....	37
LITERATURE CITED.....	38
APPENDIX: Survey Questionnaire.....	40

INTRODUCTION

Rationale

Prior to the advancement of information technologies, communications were done through ideographic or syllabic writing, alphabet writing, and speaking. However, due to the discoveries and inventions of many scientists, technologies on communication were among those that were developed to improve the means of communication through media or technology. These technologies are now used to handle information and aid communication and are called Information and Communication Technology or ICT (Van der Wolf, 2005). ICT is an umbrella term that includes any communication device or application, encompassing: radio, television, cellular phones, computer and network hardware and software, satellite systems and so on, as well as the various services and applications associated with them, such as videoconferencing and distance learning (TechTarget, 2006).

ICT includes telephone, cell phone, radio, TV, video, and computer. More advance technology includes Internet e-mail, chat, website, blog, and pod cast. In more developed countries, they also do video conferencing.

Since the invention of these technologies, they are being adapted by many countries in the world including the Philippines (Manila Times, 2003). At present, the government has been doing a lot of interventions to increase ICT accessibility (Villafania, 2006).

In 1999, the ICT project started at Benguet State University (BSU) in La Trinidad Benguet. It was funded by the Philippine Institutional University Co-operation (PIUC) Program between BSU, Saint Louis University, and several Flemish universities in



Belgium. The project has been identified as the access point of the Philippine research, education and government information network and the regional ICT training and testing center by the Commission on ICT Human Capital Development Group. On June 28, 2006, this project was cited as one of the best “Bridging the Digital Divide” in the Philippines by the Asia Pacific Economic Cooperation Digital Opportunity Center at the awarding ceremonies during the Taipei International Convention Center in Taipei City, Taiwan (Lacsamana, 2006).

Although advanced ICTs like video conferencing is still not applied in La Trinidad, internet surfing and chatting among others are now rampant in the computer shops. Various softwares are also installed in the computers that are being used by students in making projects.

Communication processes take place in the learning environment. Teachers make use of ICT to enhance these communication processes to induce learning. It is then necessary to look into the positive and negative effects of these technologies to guide the teachers and students in making use of them.

ICT is relatively a new concept in developing countries. Study shows that its use in education creates a positive impact to learning.

The Development Communication students of Benguet State University are trained to use some of the ICTs in developing projects, researches, and assignments. There is a need then to study their ICT usage.



Statement of the Problem

The study aimed to know the ICT usage of the Development Communication students of Benguet State University.

Specifically, the study aims to answer the following questions:

1. What are the socio-demographic profiles of DevCom students?
2. What are the ICTs that the DevCom students are using?
3. How long have the Devcom students been using these ICTs?
4. How frequent are the Devcom students using these ICTs?
5. What is their level of expertise of Devcom students in using these ICTs?
6. What are the information acquired by the Devcom students in using the ICTs?
7. What are the positive and negative effects of ICTs to the learning strategies and habits of DevCom students?

Objectives of the Study

The study aimed to:

1. Determine the socio-demographic profiles of DevCom students;
2. Identify the various ICTs the DevCom students are using;
3. Determine the length of time the Devcom students have been using these ICTs;
4. Determine how frequent the Devcom students are using these ICTs;
5. Determine the level of expertise of Devcom students in using these ICTs;
6. Enumerate the information acquired by the Devcom students in using the ICTs; and
7. Enumerate the positive and negative effects of ICT to the learning strategies and habits of DevCom students.



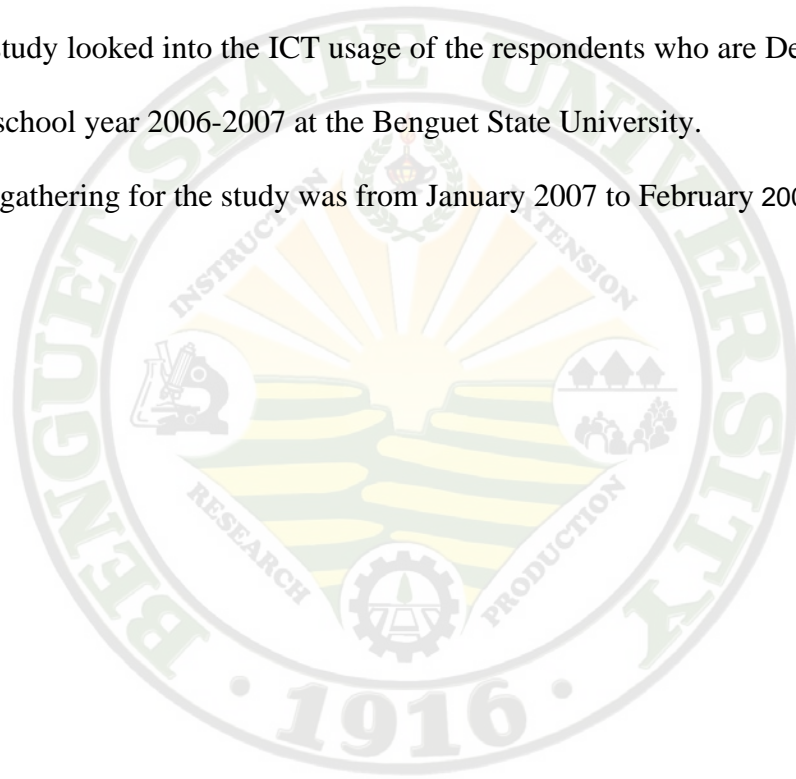
Importance of the Study

The result of the study will guide the teachers and students in making use of ICTs in the teaching-learning environment. It will also help them in the proper usage and control of these technologies in different learning situations and environment. Moreover, it further enhances the usage of ICT in education.

Scope and Limitation of the Study

The study looked into the ICT usage of the respondents who are Devcom students enrolled for school year 2006-2007 at the Benguet State University.

Data gathering for the study was from January 2007 to February 2007.



REVIEW OF LITERATURE

What is ICT?

Information and Communication Technology - (ICT) The study of the technology used to handle information and aid communication (Van der Wolf, 2005).

ICT (information and communications technology - or technologies) is an umbrella term that includes any communication device or application, encompassing: radio, television, cellular phones, computer and network hardware and software, satellite systems and so on, as well as the various services and applications associated with them, such as videoconferencing and distance learning. ICTs are often spoken of in a particular context, such as ICTs in education, health care, or libraries (Search.smb.com, 2004.).

Short for Information and Communications Technology, it is the study or business of developing and using technology to process information and aid communications (Webopedia, n.d.).

ICT in Education

The Information and Communication Technology (ICT) curriculum provides students with a broad perspective on the nature of technology, how to use and apply a variety of technologies, and the impact of information and communication technologies on themselves and on society (Alberta Government, 2006).

The use of information and communication technologies (ICTs) in and for education is rapidly expanding in many countries, and is now seen worldwide as both a necessity and an opportunity (UNESCO, 2005).



In the United Kingdom, Information and Communications Technology (ICT) is a subject in education, and a part of the National Curriculum. Other countries, such as Norway, also have ICT as an educational subject. The ICT programme in the United Kingdom is co-ordinated by Becta. A major current initiative is the Curriculum Online scheme which is aimed to accelerate the uptake of technology amongst schools. Becta took over the running of this scheme from the Department for Education and Skills in 2005. Becta works closely with the Joint Information Systems Committee to develop strategy (Wikipedia, n.d.).

ICT in the Philippines

One of the major differences happening in the Philippine ICT education scene now compared to years ago is that the student won't have to wait for a college education to acquire the basic skills in computer technology. One of the main reasons is that basic computer subjects are being taught in grade school at some educational institutions today. Not only do the elementary school subjects of today teach kids not only how to read, write and do the math but also expose them to an important device they would inevitably use in the future: the PC. Indeed, elementary classrooms offering computer subjects as part of the curriculum will play a major role in fueling the drive of educating the young ones with learning skills using modern technologies as a basic tool (InQ7.net, 2003).

A PUBLISHER of supplementary magazines for high school students in the Philippines for the past 25 years has jumped into the e-learning bandwagon. Leveraging on its accumulated content, the Diwa Asia Publishing Group Inc. decided this year to aggressively implement an e-learning strategy in a package combining an interactive student resource called "Genyo;" mobile school software; a teacher-training



course on technology; Internet connectivity; and access to an online portal (Asian Journal Online, n.d).

ICT in Benguet

The Seminar-Workshop on Retooling Librarians and Information Managers on Digital Resources, Database Creation, and Management held at the Benguet State University, ICT Hall on February 23-24, 2006 had 68 participants coming from all over the Philippines. The principal objective was to create an awareness of freely available electronic resources on the World Wide Web and to introduce vital database management tools designed by the FAO among librarians and information managers and to develop their skills in applying them to local situations and in contributing local agricultural research results to the AGRIS and PhilAgriNet databases (Anonymous, 2006).

La Trinidad, Benguet: The Benguet State University's information and communication technology development project was cited one of the best in the Philippines by the Asia Pacific Economic Cooperation Digital Opportunity Center at the awards ceremonies at the Taipei International Convention Center in Taipei City, Taiwan on June 28 (Lacsamana, 2006).



Effects of ICT to Learning

The UK-based BECTA report (2001) *Primary Schools of the Future - achieving today* analysed results from 2110 schools. It confirmed that schools with very good Information and Communication Technology (ICT) resources had more students achieving at higher levels in national English, Mathematics and Science tests. The Tasmanian study gathered Australian context learning outcomes data and matched this with classroom computer climate information from 63 classes and found a similar effect. Tension between traditional learning outcomes and student thinking processes when using ICT are described and discussed (Fluck and Robertson, 2002).

ICT can be used to support learning in many different ways in schools. This extends beyond individual pupils' use of learning software on a computer to include, among other things, interactive presentations using touch sensitive whiteboards, specialist devices like data loggers for the collection of data in science lessons, email based applications to support learning communities and links between schools, and schools' use of enhanced pupil information systems (Pittard et al., n.d.).



METHODOLOGY

Locale and Time of the Study

The study was conducted at the College of Agriculture (CA), Benguet State University (BSU). As shown in Figure 1, BSU is in La Trinidad, a South-western municipality of Benguet. It is five kilometers away from Baguio City, the summer capital of the Philippines. CA in BSU is chosen as one of the centers of Excellence in Agriculture Education by the CHED.

BSU began as a farm school in June 15, 1916 and gradually developed into a regional state university in 1986. One of the eight colleges of the university is the College of Agriculture. In 1999, the course Bachelor of Science in Development Communication is offered under this college.

The ICT division being in charge in the university handles the overall ICT university Infrastructure. The LAN, network services and Internet services are being maintained. Some ICT services are web hosting for the university official website, email, secure file sharing in the university, e-learning tools and several ICT solutions such as information systems development.

The study was conducted from January 2007 to February 2007.

Respondents of the Study

The respondents of the study were 40 Development Communication students enrolled at BSU in the school year 2006-2007. Ten students per year level were randomly chosen.



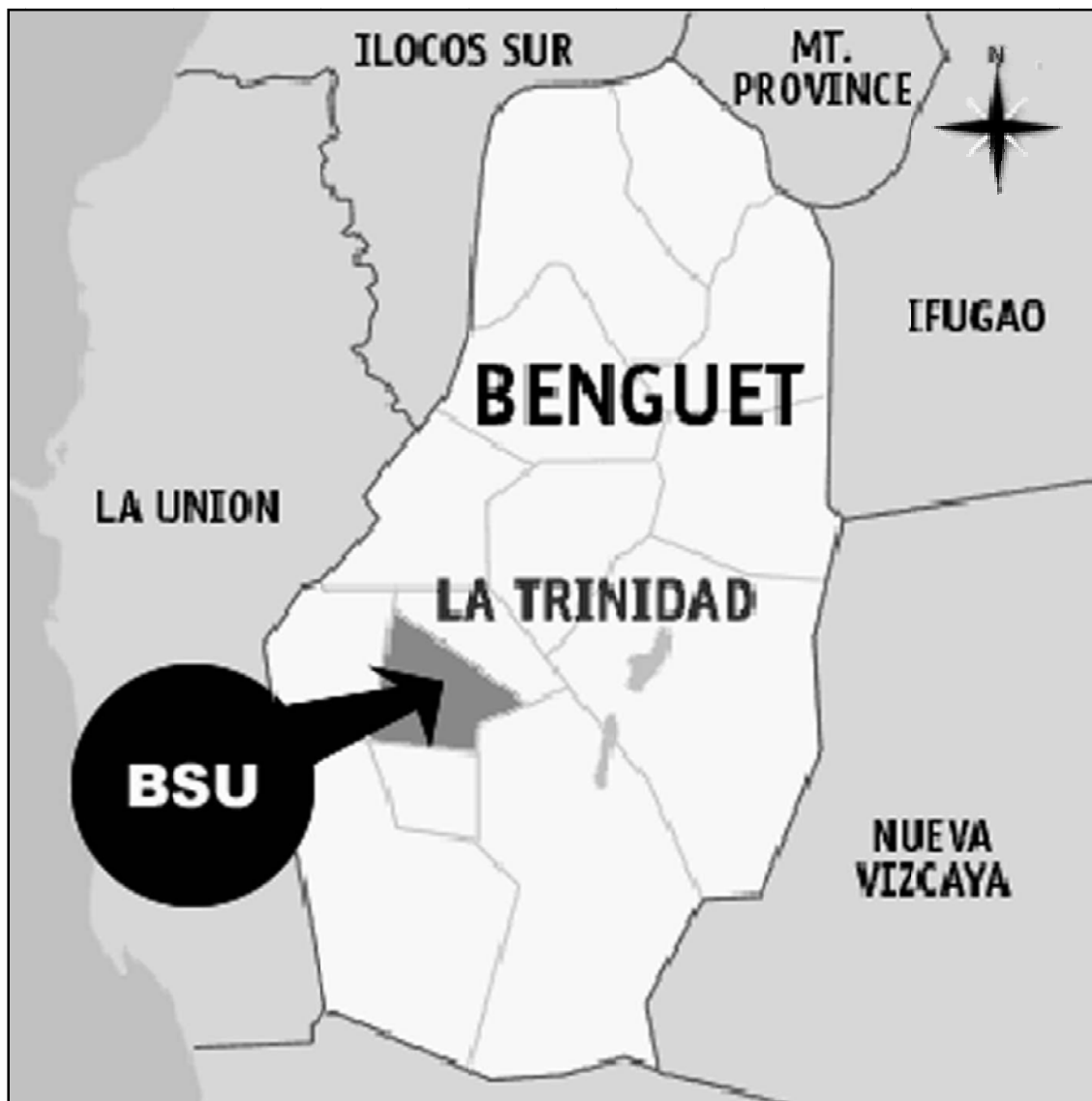


Figure 1. Map showing the locale of the study

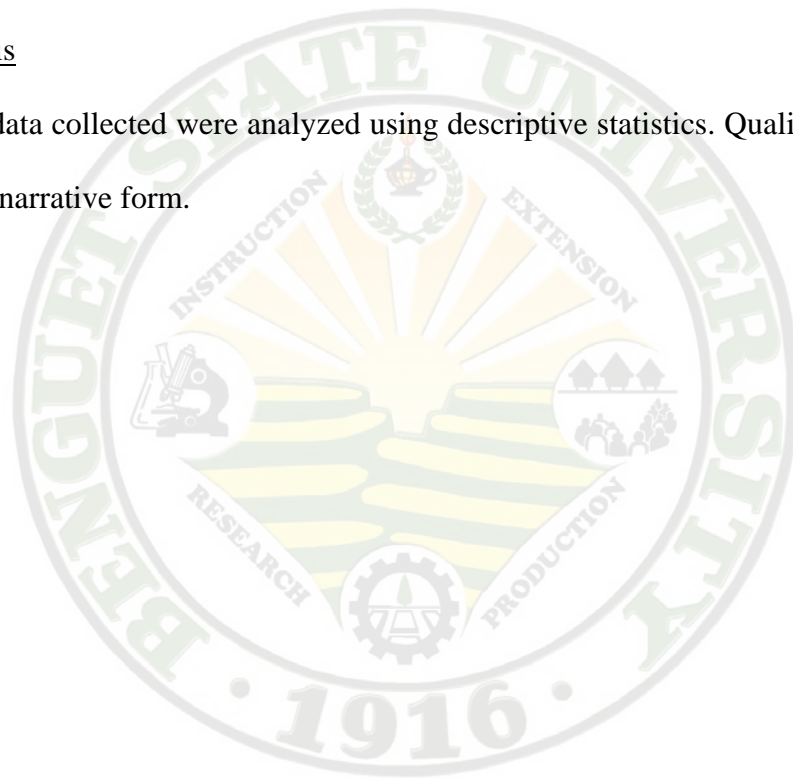


Data Gathered

Data gathered included the socio-demographic profile of DevCom students, the various ICTs they are using, their length of time they have been using these ICTs, their frequency of use of these ICTs, their level of expertise in using these ICTs, the information they are acquiring in using these ICTs, and the positive and negative effects of ICTs to their learning behavior and habit.

Data Analysis

The data collected were analyzed using descriptive statistics. Qualitative data was described in narrative form.



RESULTS AND DISCUSSION

Socio-Demographic Profile of Devcom Students of BSU

The socio-demographic profile of the respondents in this study is of the 40 Devcom students, which is 10 per year level, for the school year 2006-2007. The profile is limited to their age, sex, present address, and provincial address.

Table 1 shows the basic characteristics of the respondents. Their ages range from 16 to 25 years old. The highest rank (45 %) ranges from 16-18 years of age whereas the least (3 %) is the one of 23 and above. Majority (80 %) of them are females and few (20 %) are males.

Table 1. Characteristics of the Devcom students

CHARACTERISTICS	NUMBER (n=40)	PERCENTAGE (%)
Age		
16-18	18	45
19-20	15	38
21-22	6	15
23-25	1	3
TOTAL	40	100
Sex		
Male	8	20
Female	32	80
TOTAL	40	100



Table 2 presents the places of origin of the respondents. Most (65 %) of them are from Benguet and the rest are from Mountain Province, Baguio, and other places such as Kalinga, Ifugao, and La Union.

Table 2. Places of origin of Devcom students

PLACES OF ORIGIN	NUMBER (n=40)	PERCENTAGE (%)
Benguet	26	65
Mt. Province	10	25
Baguio	4	10
Others	3	8
TOTAL	40	100

Various ICTs the Devcom Students are Using

The various ICTs the Devcom students are using are the devices (radio, TV, cell phone, telephone, camera, video camera); ICTs on the internet (e-mail, chat, and websites); and computer softwares (Microsoft Word, Excel, PowerPoint, Publisher; Adobe PageMaker, and Photoshop, and others such as Video Impression, Windows Movie Maker, Picture Package, Pinnacle and Audacity).

Table 3 shows the devices the Devcom students are using. All of them are using the radio and TV. The device that fewest number of Devcom students are using on the other hand is the telephone wherein less than half (38 %) of them are using it.



Table 3. Devices the Devcom students are using

DEVICES	NUMBER (n=40)	PERCENTAGE (%)
Radio	40	100
TV	40	100
Cell phone	38	95
Camera	31	78
Video cam	24	40
Telephone	15	38
Multiple responses		

Table 4 presents the ICTs in the Internet that the Devcom students are using. Most (75 %) are using the e-mail and surfing the website whereas less than half (40 %) of them are using the chat. The rest are not using the said ICTs on the Internet because of lack of knowledge on how to use them.

Table 4. ICTs on the internet that the Devcom students are using

INTERNET ICTs	NUMBER (n=40)	PERCENTAGE (%)
e-mail	30	75
Web surfing	30	75
Chat	24	40
Multiple responses		



Table 5 shows the computer softwares that the Devcom students are using. For Microsoft, majority (98 %) of them are using MS Word. On the other hand, the Microsoft software that the least number of Devcom students are using is Excel. For Adobe, 35 % of them are using Photoshop whereas 28 % are using PageMaker. For other softwares, most (60 %) are using Audacity and the software that the least number of Devcom students are using is Pinnacle wherein only 15 % of them are using it.

Table 5. Computer softwares the Devcom students are using

COMPUTER SOFTWARES	NUMBER (n=40)	PERCENTAGE (%)
For text documents/publication and spreadsheet		
MS Word	39	98
MS Publisher	22	55
Adobe PageMaker	11	28
MS Excel	21	53
For slide show and photo editing		
MS PowerPoint	25	63
Adobe Photoshop	14	35
Picture Package	18	45
For Audio and video editing		
Audacity	24	60
Video Impression	19	48
Windows Movie Maker	9	23
Pinnacle	6	15
Multiple responses		



Length of Time the Devcom Students
Have Been Using the ICTs

Table 6 and Figure 2 present the length of time the Devcom students are already using the devices. The longest time that was already used by them is radio wherein all of them are already using it for five years or more. On the other hand, the device that most (63 %) of them are not using is telephone. Majority (83 %) of them also have been using TV for five years or more. For cell phone, 28 % of them are already using it for two years or less and 25 % of them are already using it for five years or more. Only 23 % of them also are already using telephone. For camera, 23 % of them are still not using it and most (58 %) of them are already using it for five years or more. Majority (60 %) are still not using video cam and 30 % of them are already using it for two years or less.

Table 6. Length of time the Devcom students have been using the devices

DEVICES	NUMBER OF YEARS							
	NOT YET USING		TWO OR LESS		THREE TO FOUR		FIVE OR MORE	
	No.	%	No.	%	No.	%	No.	%
Radio	0	0	0	0	0	0	40	100
TV	0	0	4	10	3	8	33	83
Cell phone	2	5	11	28	17	43	10	25
Telephone	25	63	9	23	3	8	3	8
Camera	9	23	5	13	3	8	23	58
Video cam	24	60	12	30	3	8	1	3



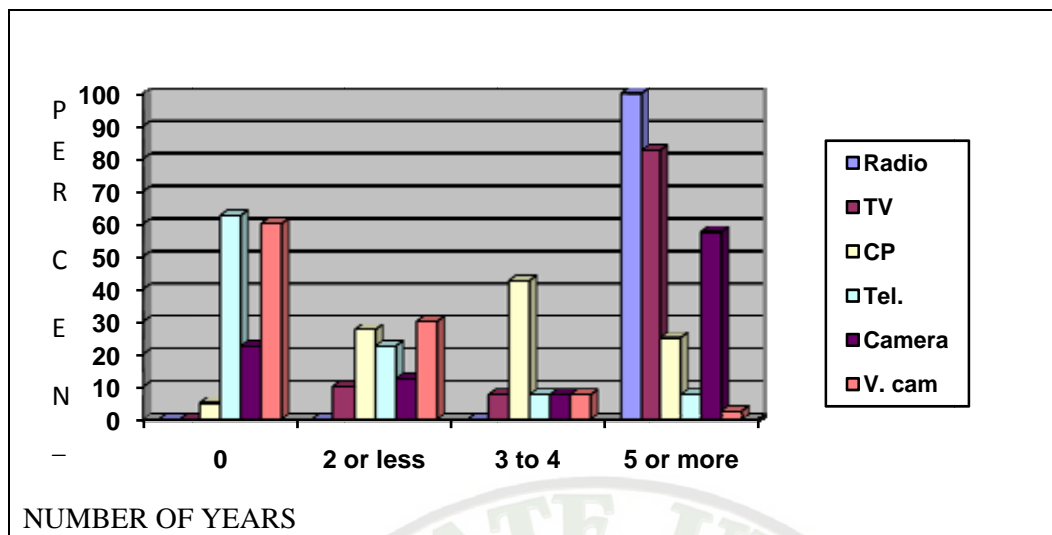


Figure 2. Length of time the Devcom students have been using the devices

Table 7 and Figure 3 show the length of time the Devcom students are accessing the internet. Majority (60 %) of them is not using chat and 35 % of them are already using the internet and e-mail for two years or less.

Table 7. Length of time the Devcom students have been using the internet

INTERNET	NUMBER OF YEARS							
	NOT YET USING IT		TWO OR LESS		THREE TO FOUR		FIVE OR MORE	
	No.	%	No.	%	No.	%	No.	%
e-mail	10	25	35	14	11	28	5	13
Chat	24	60	25	10	4	10	2	5
Web surfing	10	25	35	14	10	25	6	15



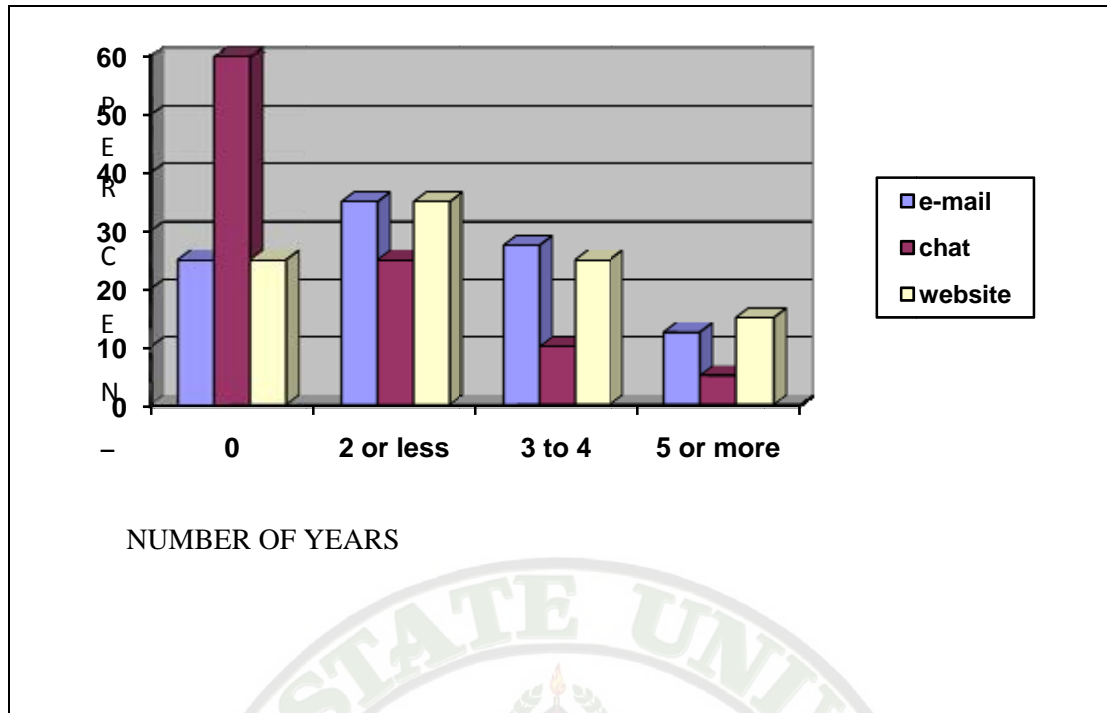


Figure 3. Length of time the Devcom students have been using the internet

Table 8 and Figures 4, 5, and 6 show the length of time in using computer softwares. For the software for text documents or publication and spreadsheet, less than half (45 %) of them are already using Word for five years or more whereas majority (73 %) of them is not yet using the Photoshop. For the slide show and photo editing majority (65 %) of them are not yet using the Photoshop and only 10 % of them are already using the PowerPoint for five years or more. For the audio and video editing, more than half (60 %) of them are already using the Audacity for two years or less and 34 % of them are not yet using the Pinnacle. Furthermore, majority (60 %) of them are already using Audacity for two years or less and less than half (48 %) for Video Impression.



Table 8. Length of time the Devcom students have been using the computer softwares

SOFTWARE	NUMBER OF YEARS							
	NOT YET USING		TWO OR LESS		THREE TO FOUR		FIVE OR MORE	
	No.	%	No.	%	No.	%	No.	%
For text document/publication and spreadsheet								
Word	1	3	10	25	11	28	18	45
Publisher	18	45	19	48	3	8	0	0
PageMaker	29	73	9	23	2	5	0	0
Excel	19	48	12	30	4	10	5	13
For slide show and photo editing								
PowerPoint	15	38	16	40	5	13	4	10
Photoshop	26	65	13	33	1	3	0	0
Picture Package	22	55	18	45	0	0	0	0
For audio and video editing								
Audacity	16	40	24	60	0	0	0	0
Video Impression	21	53	19	48	0	0	0	0
Movie Maker	31	78	9	23	0	0	0	0
Pinnacle	34	85	6	15	0	0	0	0



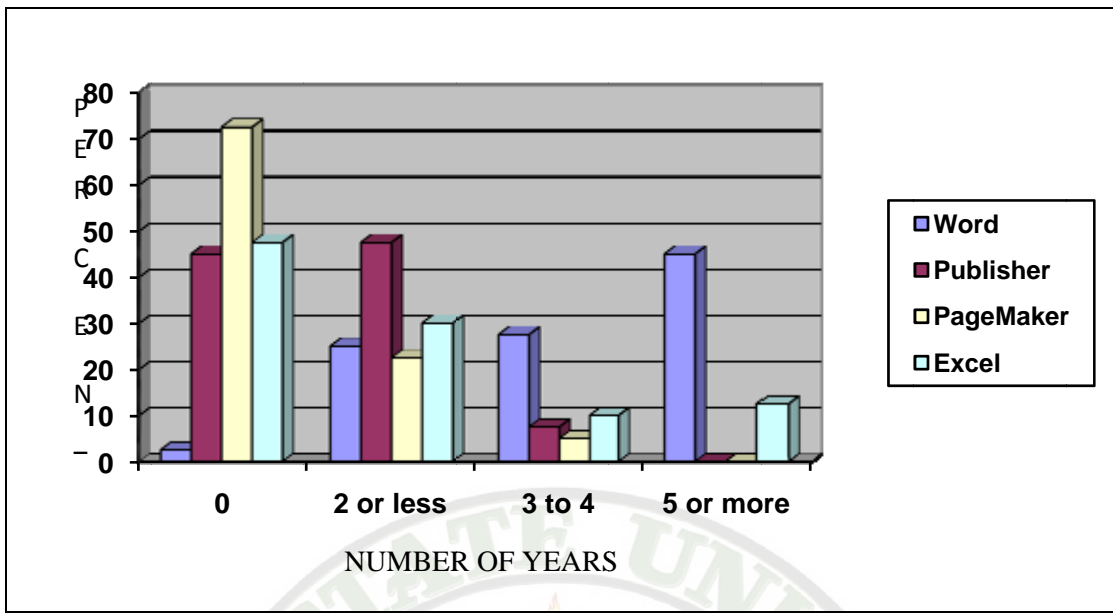


Figure 4. Length of time the Devcom students have been using the softwares for text documents/publication and spreadsheet

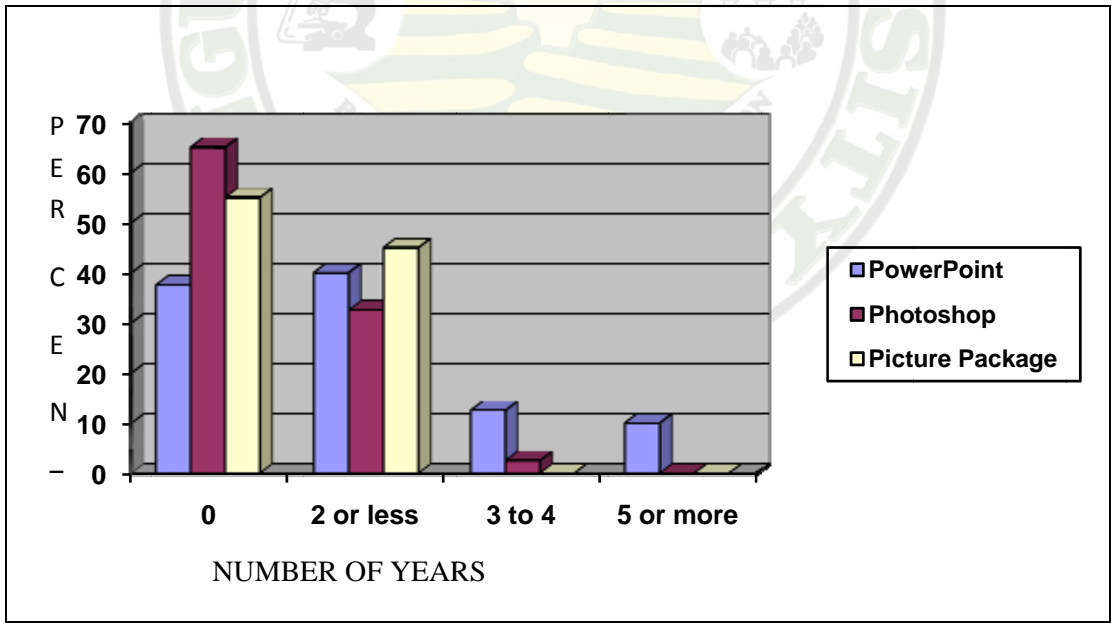


Figure 5. Length of time the Devcom students have been using softwares for slide show and photo editing



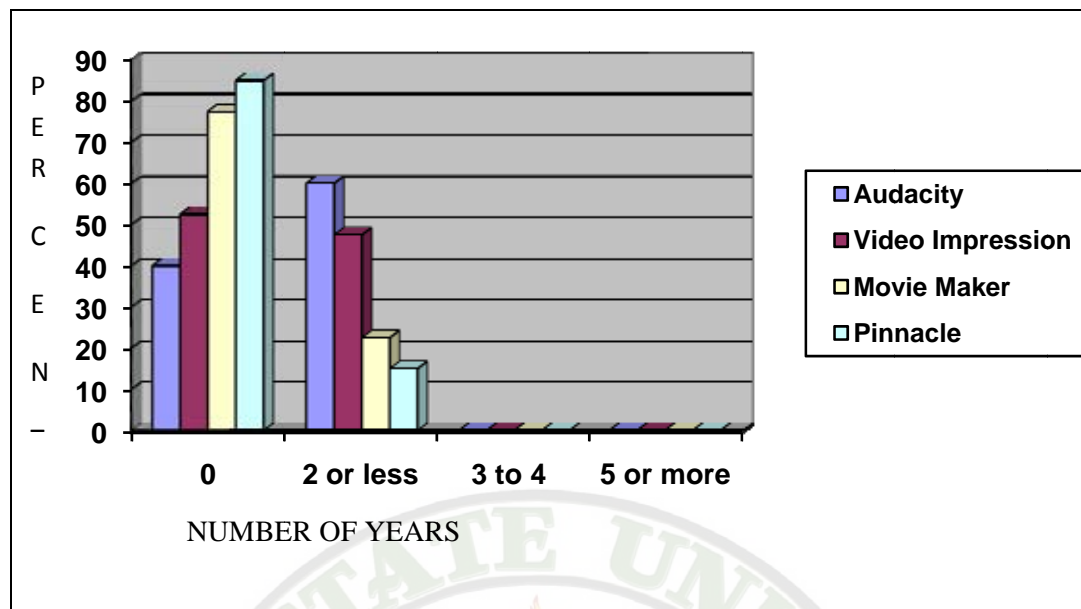


Figure 6. The Length of time the Devcom students are using the softwares for audio and video editing

Devcom Students' Frequency of Use of the ICTs

Frequency of use of Devcom students is indicated whether they are not using it, they are using it daily, weekly, or occasionally. Occasionally, includes those who are using it once in a while, when it is only needed, and other frequency of their use beyond weekly.

Table 9 and Figure 7 show how frequent the Devcom students are using the devices. Majority (90 % and 70 %) of them are using the radio and TV everyday respectively. More than half (63 %) of them are not using the telephone. Majority (70 % and 95 %) of them are also using TV and cell phone daily. More than half (55 %) of them are also not using video cam 40 % of them are using it occasionally.



Table 9. Devcom students' frequency of use of the devices

DEVICES	FREQUENCY OF USE							
	NOT USING IT		OCCASIONALLY		DAILY		WEEKLY	
	No.	%	No.	%	No.	%	No.	%
Radio	1	0	3	8	32	90	5	13
TV	0	0	6	15	28	70	6	15
Cellphone	0	0	1	3	38	95	1	3
Telephone	25	63	12	30	1	3	2	5
Camera	4	10	30	8	1	3	5	13
Videocam	22	55	16	40	0	0	2	5

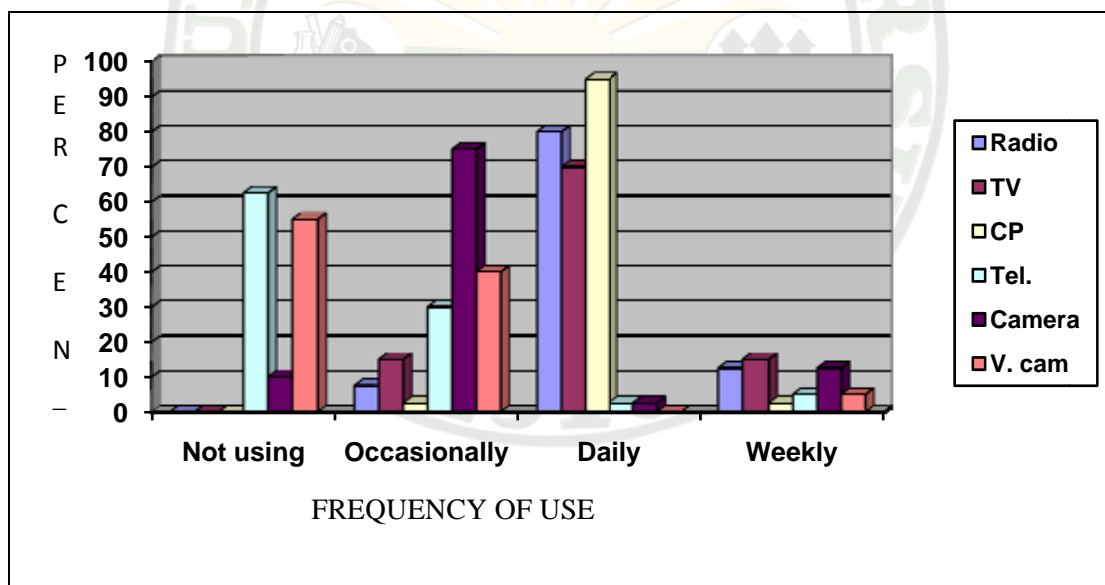


Figure 7. Devcom students' frequency of use of the devices



Table 10 and Figure 8 present how frequent the Devcom students are using the internet. Most (60 %) of them are not using chat in computer internet, 35 % are checking their e-mail weekly, and 25 % are surfing the websites. Less than half (48 %) of them are surfing the net occasionally, 40 % for chat, and 38 % for e-mail.

Table 10. Devcom students' frequency of use of the ICTs on the Internet

INTERNE T	FREQUENCY							
	NOT USING IT		OCCASIONALLY		DAILY		WEEKLY	
	No.	%	No.	%	No.	%	No.	%
e-mail	10	25	15	38	3	1	14	35
Chat	16	40	16	40	3	1	7	18
Website surfing	10	25	19	48	3	1	10	25

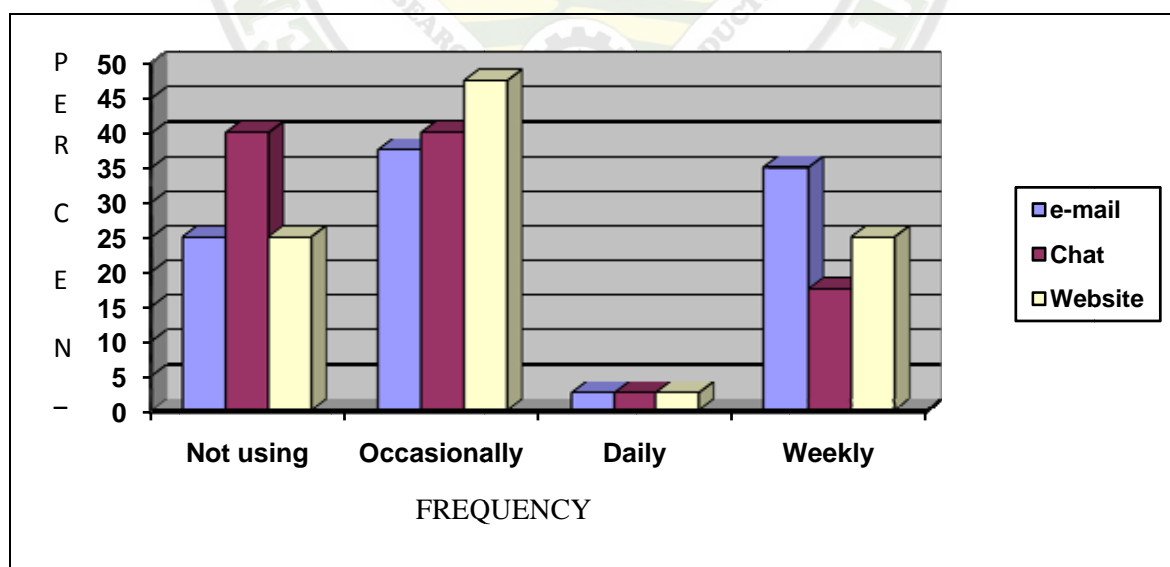


Figure 8. Devcom students' frequency of use of the ICTs on the internet



Table 11 and Figures 9, 10, and 11 shows how frequent the Devcom students are using the computer softwares. For the softwares for text documentation/publication and spreadsheet, 48 % of them are using Word weekly and 50 % of them are using Excel occasionally. For the softwares for slide show and photo editing, 55 % of them are not using Picture Package and 48 % of them are using the PowerPoint occasionally. For the softwares for audio and video editing, 60 % of them are using the audacity occasionally and 85 % of them are not using the Pinnacle.

Table 11. Devcom students' frequency of use of computer softwares

SOFTWARE	FREQUENCY							
	Not Using it		Occasionally		Everyday		Weekly	
	No.	%	No.	%	No.	%	No.	%
For text documents/publication and spreadsheet								
Word	1	3	13	33	7	18	19	48
Publisher	18	45	18	45	0	0	2	5
PageMaker	20	50	15	38	0	0	5	13
Excel	15	38	20	50	1	3	4	10
For slide show and photo editing								
PowerPoint	19	48	19	48	0	0	2	5
Photoshop	26	65	11	28	0	0	3	8
Picture Package	22	55	18	45	0	0	0	0
For audio and video editing								
Audacity	16	40	24	60	0	0	0	0
Video								
Impression	21	53	19	48	0	0	0	0
Windows								
Movie Maker	31	78	9	23	0	0	0	0
Pinnacle	34	85	6	15	0	0	0	0



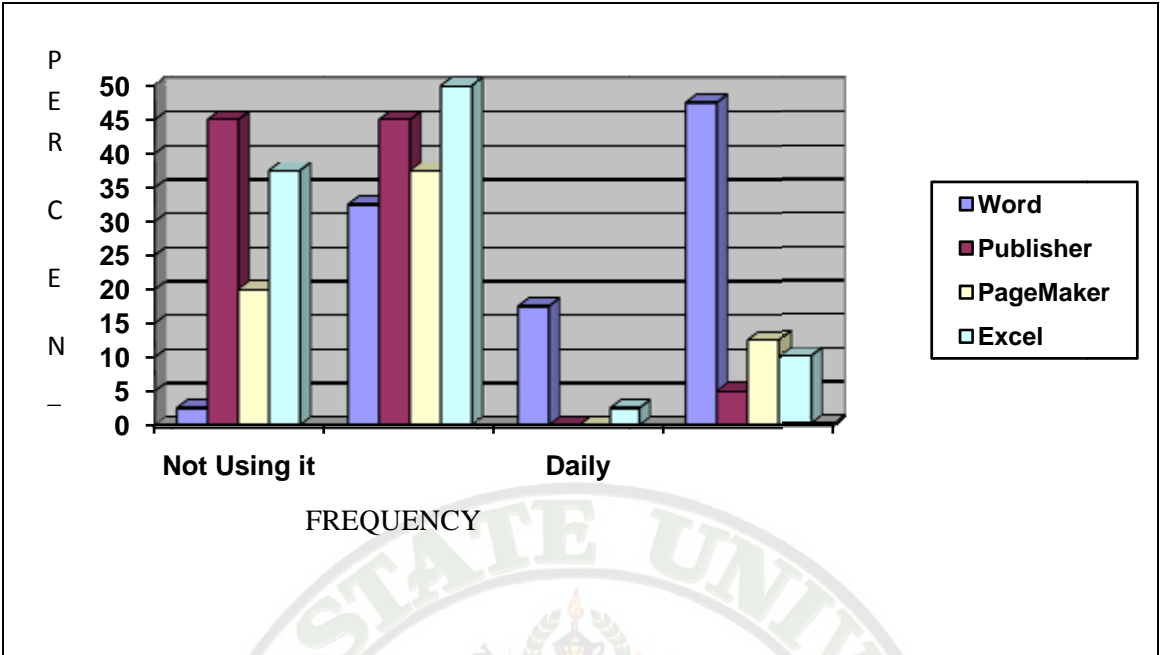


Figure 9. Devcom students' frequency of use of softwares for text document/publication and spreadsheet

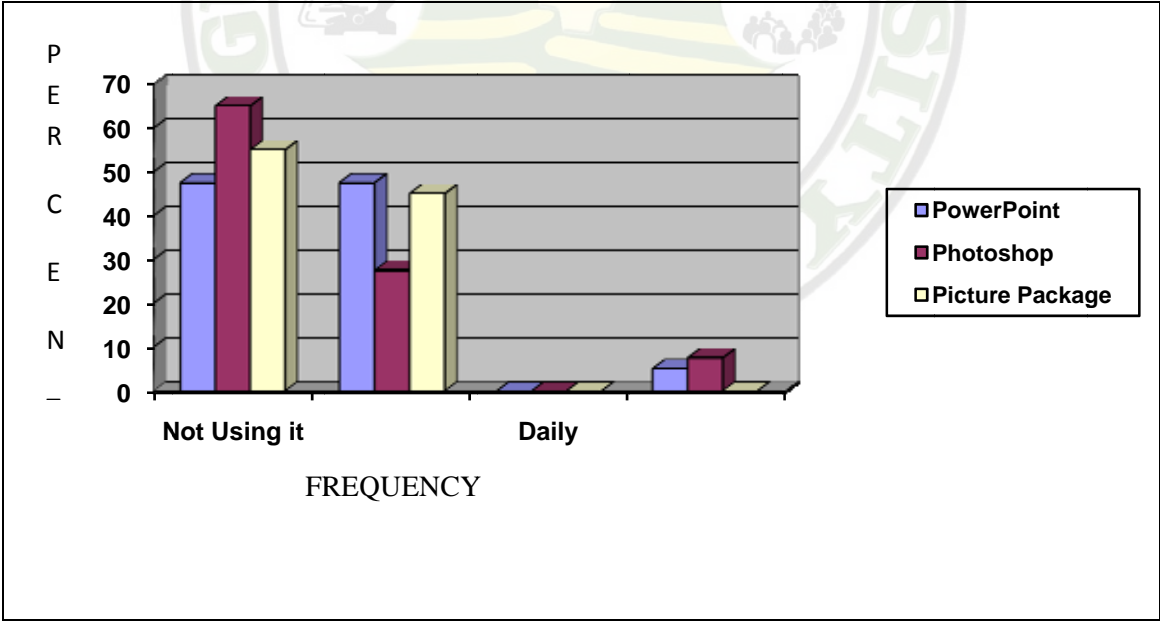


Figure 10. Devcom's frequency of use of the softwares for slide show and photo editing



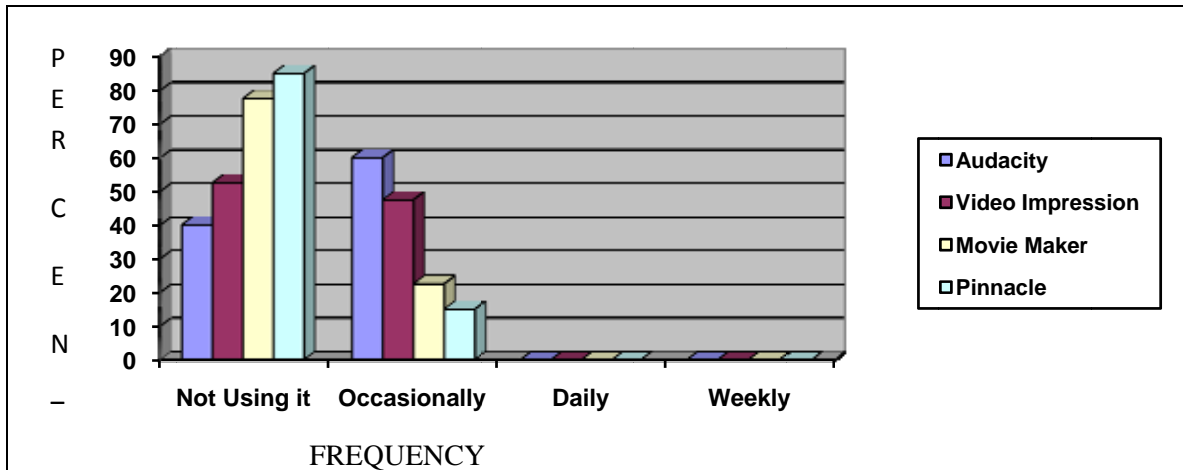


Figure 11. Devcom 's frequency of use of the softwares for audio and video editing

Level of Expertise of Devcom Students in Using the ICTs

Table 12 and Figure 12 present the level of expertise of the Devcom students in using the devices. All of them are good in using radio, TV, and cell phone. Most (63 % and 60 %) of them does not know how to use telephone and video cam respectively.

Table 12. Level of expertise of Devcom students in using the devices

DEVICES	LEVEL OF EXPERTISE							
	NO EXPERIENCE		POOR		AVERAGE		GOOD	
	No.	%	No.	%	No.	%	No.	%
Radio	0	0	0	0	0	0	40	100
TV	0	0	0	0	0	0	40	100
Cellphone	0	0	0	0	0	0	40	100
Telephone	25	63	1	3	3	8	11	28
Camera	4	10	4	10	10	25	22	55
Videocam	24	60	3	8	9	23	4	10

Rating scale:

- 0- no experience at all
- 1-3 – Poor (only knows the basics)
- 4-6 – Average (not so good and not so poor)
- 7-10 – Good (almost expert)



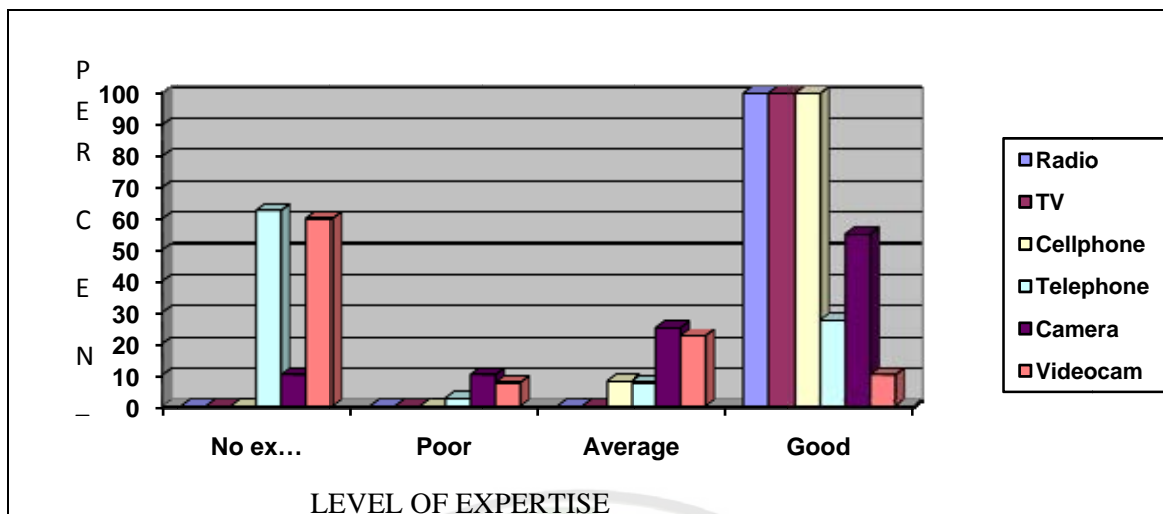


Figure 12. Level of expertise of Devcom students in using the devices

Table 13 and Figure 13 present the level of expertise of Devcom students in using the internet: 45 % of them are good in using e-mail and website surfing and more than half (60 %) of them does not know how to use chat.

Table 13. Level of expertise of Devcom students in using the Internet

INTERNET	LEVEL OF EXPERTISE							
	NO EXPERIENCE		POOR		AVERAGE		GOOD	
	No.	%	No.	%	No.	%	No.	%
e-mail	10	25	5	13	7	18	18	45
Chat	24	60	0	0	6	15	10	25
Website	10	25	2	5	10	25	18	45



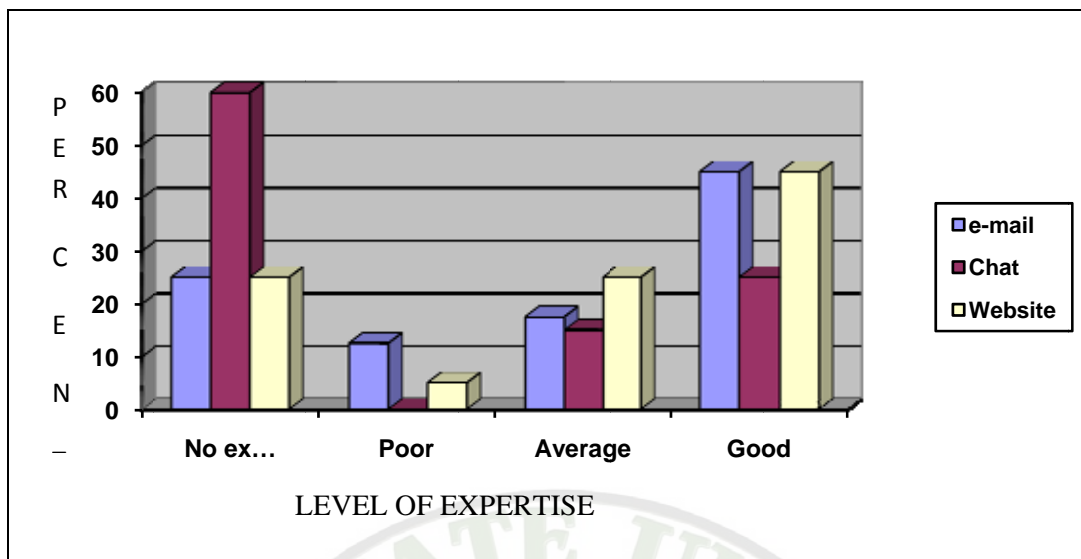


Figure 13. Level of expertise of Devcom students in using the internet

Table 14 and Figures 14, 15 and 16 show the level of expertise of Devcom students in using the computer softwares. For softwares for text documents/publication and spreadsheet, majority (85 %) of them are leveled 7-10 (good) in using Word and most (73 %) of them have no experience in using the PagaMaker. For the softwares for slide show and photo editing, 43 % of them are leveled 7-10 (good) in using PowerPoint and more than half (65 %) of them have no experience in using Photoshop. For the softwares for audio and video editing, majority (85 %) of them have no experience using Pinnacle and 13 % of them are leveled 7-10 (good) in using Video Impression. Twenty-five percent of them are also average in using Video Impression and 20 % in Audacity. Moreover, 40 % of them are poor in using Audacity and 23 % in Movie maker.



Table 14. Level of expertise of Devcom students in using the computer softwares

SOFTWARE	LEVEL OF EXPERTISE							
	NO EXPERIENCE		POOR		AVERAGE		GOOD	
	No.	%	No.	%	No.	%	No.	%
For text documents/publication and spreadsheet								
Word	1	3	0	0	5	13	34	85
Publisher	18	45	0	0	11	28	6	15
PageMaker	29	73	3	8	8	20	0	0
Excel	19	48	3	8	6	15	12	30
For slide show and photo editing								
PowerPoint	15	38	0	0	8	20	17	43
Photoshop	26	65	5	13	7	18	2	5
Picture Package	22	55	0	0	4	10	14	35
For audio and video editing								
Audacity	16	40	16	40	8	20	0	0
Video Impression	21	52	4	10	10	25	5	13
Movie Maker	31	78	9	23	0	0	0	0
Pinnacle	34	85	6	15	0	0	0	0



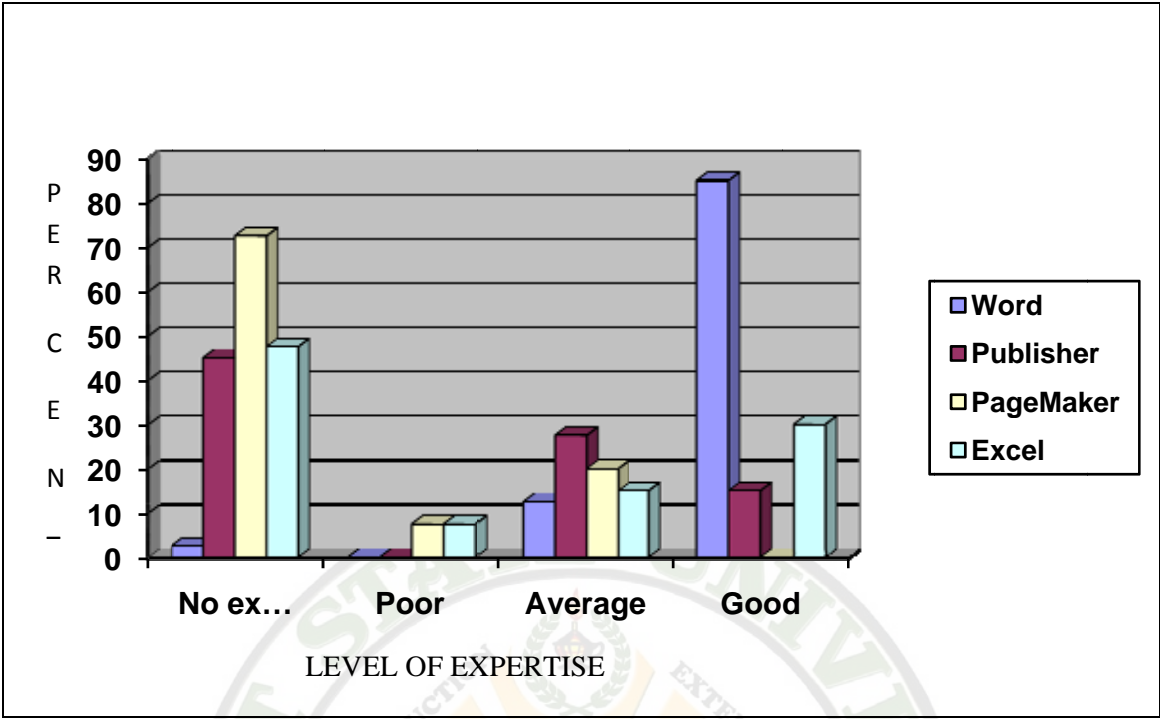


Figure 14. Level of expertise of Devcom students in using the softwares for text documents/publication and spreadsheet

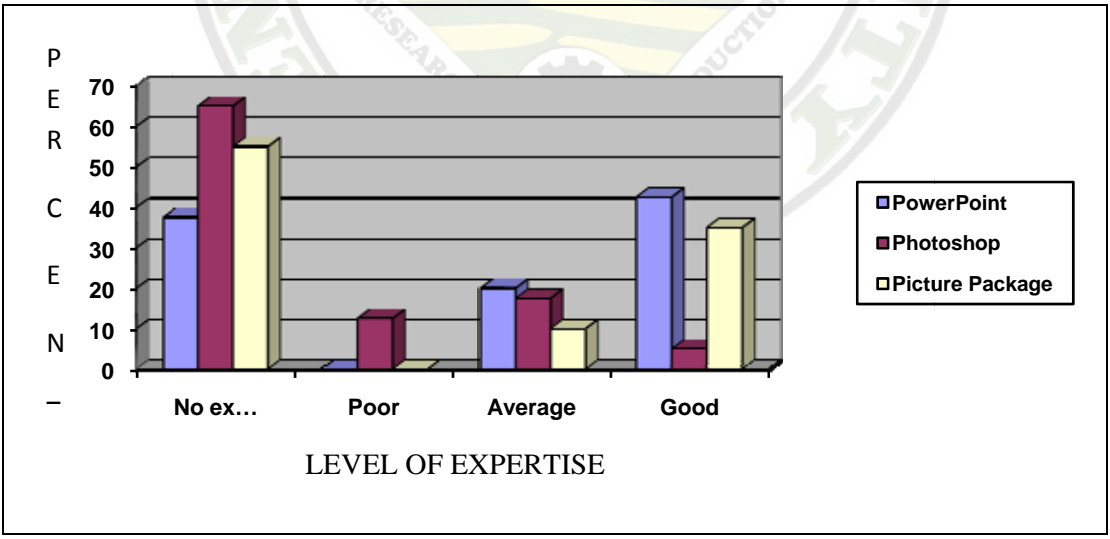


Figure 15. Level of expertise of Devcom students in using the softwares for slide show and photo editing



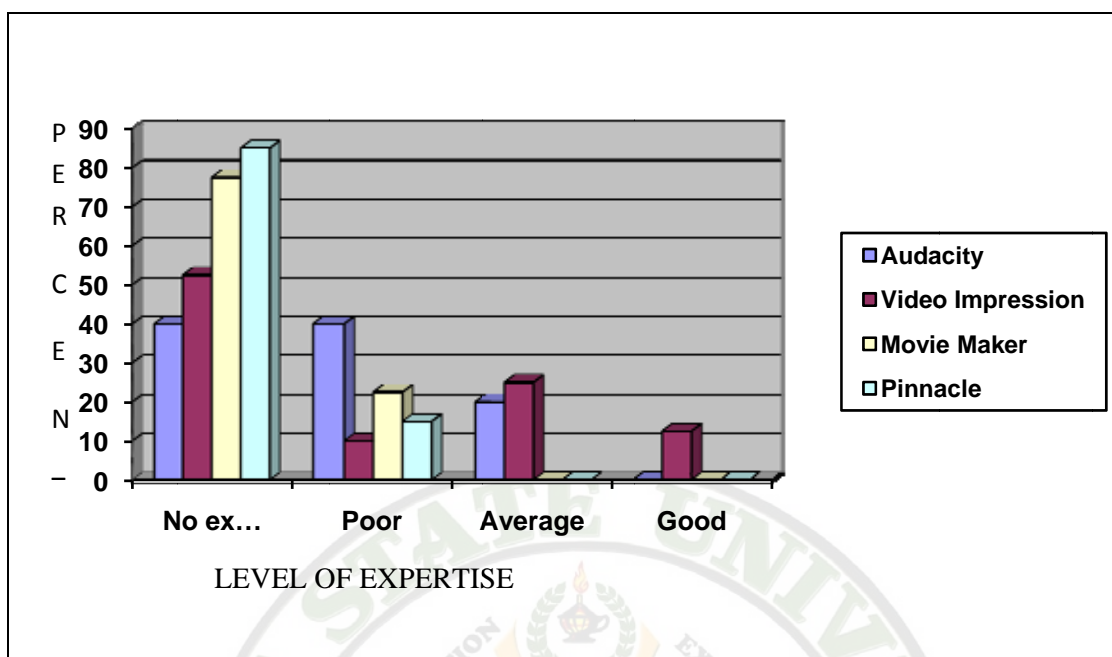


Figure 16. Level of expertise of Devcom students in using the softwares for audio and video editing

Information Acquired by the Devcom Students in Using the ICTs

Table 15, Figure 17, and Figure 18 show the information acquired by the Devcom students in using the ICTs. Majority (90 %) of them are acquiring researches in using the internet. All of them are acquiring news in using radio and TV. Most (95 % and 80 %) of them are acquiring entertainment from TV and radio respectively. Majority (95 %) of them also are acquiring personal messages in using cell phone. Moreover, less than half (40 % and 48%) of them are acquiring researches from radio and TV respectively. Half of them are also acquiring personal message in using chat and 40 % for e-mail.



Table 15. Information acquired by Devcom students in using the ICTs

ICT	INFORMATION ACQUIRED							
	Researches		Entertainment		News		Personal Message	
	No.	%	No.	%	No.	%	No.	%
Radio	16	40	32	80	40	100	0	0
TV	19	48	38	95	40	100	0	0
Cell phone	4	10	8	20	9	23	38	95
Telephone	2	5	2	5	3	8	11	28
Camera	8	20	6	15	1	3	3	8
Videocam	5	13	5	13	0	0	2	5
Internet								
e-mail	10	25	12	30	9	23	16	40
chat	2	5	10	25	5	13	20	50
Web surfing	36	90	9	23	11	28	0	0
Multiple responses								

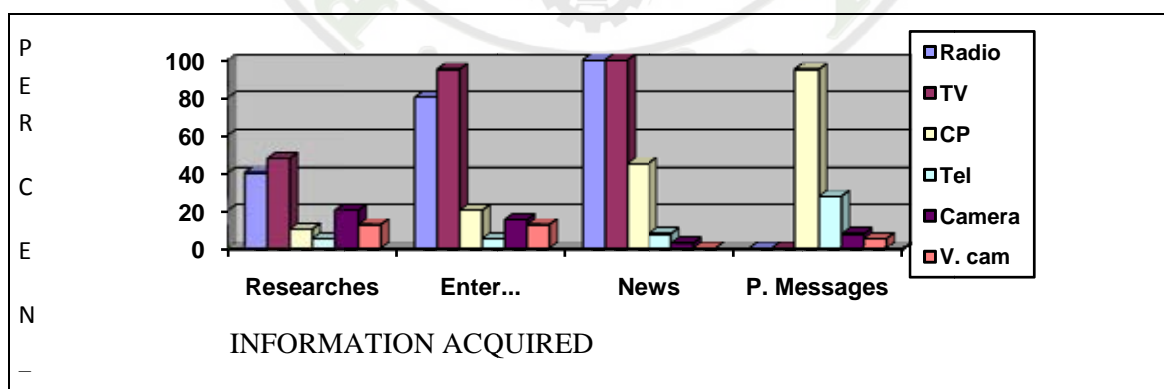


Figure 17. Information acquired by the Devcom students in using the devices



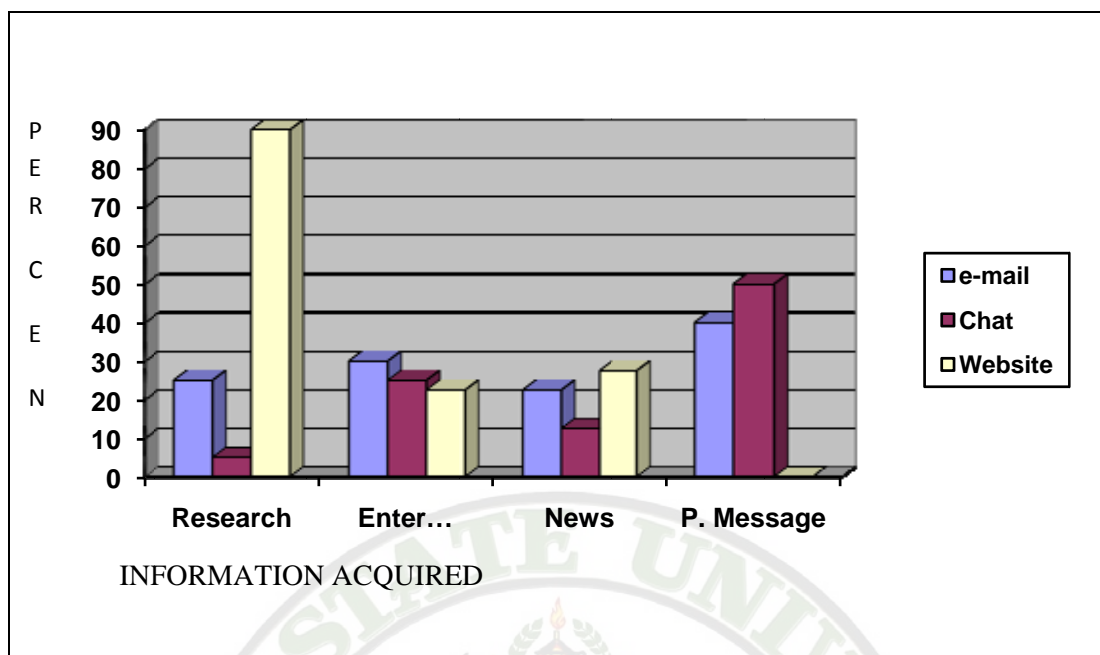


Figure 18. Information acquired by the Devcom students in using the internet

The Positive and Negative Effects of ICTs to the Learning Strategies of Devcom Students

Table 16 shows the positive effects of the ICTs to the Devcom students. All of them are getting more information in using the radio, TV, and internet. Majority (95 % and 90 %) of them are also more challenged in learning in using the internet and computer softwares respectively. Most of them (85 % and 70 %) said that internet and softwares respectively lessened their time and effort to research. More than half (80 % and 68 %) of them also said that internet and softwares respectively made their learning easier. Furthermore, more than half (55 %) of them said that they acquire researches in using cell phone and less than half (48 % and 45 %) in using video cam and camera.



Table 16. Positive effects of ICTs to Devcom students

ICT	POSITIVE EFFECTS							
	GIVES MORE INFORMATION		MAKES LEARNING MORE CHALLENGING		SAVES TIME		MAKES LEARNING EASIER	
	No.	%	No.	%	No.	%	No.	%
Radio	40	100	33	83	22	55	23	58
TV	40	100	28	70	25	63	25	63
Cell phone	22	55	12	30	20	50	19	48
Telephone	15	38	6	15	12	30	9	23
Camera	18	45	22	55	12	30	16	40
Video cam	19	48	31	78	13	33	12	30
Internet	40	100	38	95	34	55	32	58
Softwares	0	0	36	90	28	70	27	68
Multiple responses								

Table 17 presents the negative effects of ICTs to the learning of Devcom students. All of them said that radio and TV causes laziness for them to read printed materials. Majority (97.5 % and 85 %) said the same thing for internet and computer softwares respectively. All of them also said that internet and softwares makes their learning expensive. Majority (98 %, 85% and 60 %) said the same thing to video cam, camera, and cell phone respectively. Only 30 % on the other hand said that internet made their learning harder and 25 % to softwares and cell phone.



Table 17. Negative effects of ICTs to the Devcom student

ICTs	NEGATIVE EFFECTS					
	CAUSES LAZINESS TO READ PRINTED MATERIALS		MAKES LEARNING EXPENSIVE		MAKES LEARNING HARDER	
	No.	%	No.	%	No.	%
Radio	40	100	14	35	2	5
TV	40	40	15	38	4	10
Cellphone	28	70	24	60	10	25
Telephone	40	100	15	38	4	10
Camera	14	35	34	85	4	10
Videocam	15	38	39	98	6	15
Internet	39	98	40	100	12	30
Softwares	34	85	40	100	10	25
Multiple responses						



SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

Summary

The study was conducted at Benguet State University, La Trinidad, Benguet to determine the socio-demographic profile of Devcom students, identify the various ICTs they are using, determine the length of time they are already using these ICTs, determine their frequency of use of these ICTs, determine their level of expertise in using these ICTs, and enumerate the positive and negative effects of ICT to their learning strategies and habits.

Survey questionnaires were used to gather information from the 40 samples (10 per year level) of Devcom students of BSU.

The study was conducted in BSU from January 2007 to February 2007. The data gathered were analyzed using descriptive statistics and qualitative data were described in narrative form.

Findings showed that the Devcom students of BSU belonged to the age bracket of 16-25 years old. Majority of them are females.

Majority of the respondents come from Benguet. Some are from Mountain Province and Baguio whereas few are from La Union, Kalinga, and Ifugao.

The various ICTs the Devcom students are using are radio, TV, cell phone, telephone, camera, video cam, internet, and computer softwares.

These ICTs helped them in their studies but they also made them lazy and made their studies more expensive. It is because is made it easy for them to research through the use of ICTs but they need to spent more money in it.



Conclusions

The following conclusions were derived from the study:

1. Devcom students are very familiar with ICTs like radio, TV, and Cell phone but some are not yet so with telephone, camera, video cam, internet, and some computer softwares.
2. ICTs added information to Devcom students, made their learning challenging, lessened their time and effort, and made their learning easier but they also made them lazy and made their learning more expensive.

Recommendations

Based on the conclusions, the following recommendations were formulated:

1. Since Devcom students are making a lot of communication materials and are being engaged with many communication activities, they must be taught with how to use the ICTs that they do not know how to use, especially the internet and computer softwares.
2. The Devcom students should be controlled in using the ICTs. They must be encouraged to read printed materials despite the knowledge of the internet and computer softwares.
3. The Devcom students must not rely alone on the ICTs in making school requirements to avoid expensive learning. They must also do some alternatives of researching like going to the library and others.



LITERATURE CITED

- ALBERTA GOVERNMENT (n.d.) Information and Communication Technology. Retrieved October 24, 2006 from http://www.education.gov.ab.ca/k_12/curriculum/bySubject/ict/
- ANONYMOUS. 2006. Baguio Seminar-Workshop Highlights. Retrieved November 5, 2006 from <http://www.bar.gov.ph/philagrinet/activities.htm>
- ASIAN JOURNAL ONLINE. 2005. Filipino Publishing Firm Moves to e-learning. Retrieved December 4, 2006 from http://www.asianjournal.com/cgi-bin/view_info.cgi?code=00009817&category=
- FLUCK A. and ROBERTSON M. 2002. Classroom Computer Climate and National Learning Benchmarks. Australian Computers in Education Conference. Retrieved January 11, 2007 from <http://www.tasite.tas.edu.au/acec2002>
- INQ7.NET. 2003. ICT What is the Status of ICT in the Philippines Today? Retrieved January 10, 2007 from http://www.inq7.net/inf/2003/jun/18/text/inf_22-1-p.htm
- LACSAMANA H. 2006. BSU ICT Project Cited. The Manila Times. Retrieved December 4, 2006 from <http://www.manilatimes.net/national/2006/july/08/yehey/prov/20060708pro4.html>
- PITTARD V., BANNISTER P., and DUNN JESSICA. (n.d.) The Big Picture: The Impact of ICT on Attainment, Motivation and Learning. Retrieved January 13, 2007 from <http://www.dfes.gov.uk/research/data/uploadfiles/ThebigpICTure.pdf>
- SEARCH.SMB.COM. 2004. ICT. SMB Definitions. Retrieved November 10, 2006 from http://searchsmb.techtarget.com/sDefinition/0,,sid44_gci928405,00.html
- UNESCO. 2005. Education and ICT. Retrieved November 11, 2006 from http://portal.unesco.org/ci/en/ev.php-URL_ID=22981&URL_DO=DO_TOPIC&URL_SECTION=-465.html UNESCO, 2005
- VAN DER WOLF W. M. 2005. What is ICT. GTdesign - Enjoying ICT. Retrieved December 20, 2006 from <http://www.gtdesign.org/>
- VILLAFANIA A. 2006. Where is ICT Education in the Philippines Headed? InQ7.net. Retrieved January 11, 2006 from http://news.inquirer.net/common/email_story.php?index=1&story_id=68893&site_id=30
- WEBOPEDIA (n.d.) ICT. Retrieved October 5, 2006 from <http://www.webopedia.com/TERM/I/ICT.html>



WIKIPEDIA (n.d.) ICT (Education). Retrieved October 26, 2006 from [http://en.wikipedia.org/wiki/ICT_\(education\)](http://en.wikipedia.org/wiki/ICT_(education))



Appendix: SURVEY QUESTIONNAIRE

Name:
 Age:
 Sex:
 Place of Origin:

ICT Usage:

ICT	Length of time you have been using it	Frequency of use	Level of expertise	Information Acquired
Devices: Radio TV Cellphone Telephone Camera Video cam Others: (pls specify) Internet ICTs: e-mail chat web surfing Others: (pls specify)				



Softwares:				
Word				
Excel				
PowerPoint				
Publisher				
PageMaker				
Photoshop				
Video Impression				
Movie Maker				
Pinnacle				
Audacity				
Others: (pls specify)				

Effects of ICT to Your Learning

ICT	Positive	Negative
Devices:		
Radio		
TV		



Cellphone		
Telephone		
Camera		
Video cam		
Others: (pls specify)		
Internet ICTs:		
Softwares:		

