

# **Community-Based Internet Usage Policy Development**

**Mashael Alhawsah**

A dissertation submitted in partial fulfilment of the requirements of Dublin Institute of  
Technology for the degree of  
M.Sc. in Computing (Knowledge Management)

**Month 2011**

I certify that this dissertation which I now submit for examination for the award of MSc in Computing (Knowledge Management), is entirely my own work and has not been taken from the work of others save and to the extent that such work has been cited and acknowledged within the text of my work.

This dissertation was prepared according to the regulations for postgraduate study of the Dublin Institute of Technology and has not been submitted in whole or part for an award in any other Institute or University.

The work reported on in this dissertation conforms to the principles and requirements of the Institute's guidelines for ethics in research.

***Signed:*** \_\_\_\_\_

***Date:***                      ***DD Month Year***

## **1 ABSTRACT**

The Internet is a tool for learning and obtaining a vast amount of information, but it is a tool which also has associated problems. The number of risks associated with the internet has been increasing both in number and in danger. As a result, protection measures must be developed to minimize the risks. One of the most important groups of such measures are Internet Usage Policies. An Internet Usage Policy addresses the problem by providing a set of guideline to be followed which minimize the risks. This dissertation investigates the development of Internet Usage Policy with the assistance of the groups that will be affected directly by the Policy. Survey techniques will be used to gather domain requirements and help shape development of policy.

### **Key words**

Internet Usage Policy, Knowledge Management, Knowledge Acquisition.

## **ACKNOWLEDGEMENTS**

I would like to express my sincere thanks to my supervisor Robert Ross for his valuable advises and help. It would have been hard to complete this project without his assistance.

I would like to thank the DIT Learning with Communities programme for trusting me with the project, as well as CLiC group for their continuous support.

Finally, I would like to thank my family and friends for their prayers and love.

## TABLE OF CONTENTS

### Contents

1	Introduction.....	1
1.1	Introduction of the project:.....	1
1.2	Background .....	1
1.2.1	Computer Learning in Community (CLiC):.....	1
1.2.2	CLiC Community:.....	1
1.2.3	CLiC Schools .....	2
1.2.4	CLiC Mobile .....	2
1.3	Research problem.....	3
1.4	Intellectual challenge.....	4
1.5	Research objectives .....	5
1.6	Research methodology .....	5
1.7	Resources .....	6
1.8	Scope and limitations .....	6
1.9	Organisation of the dissertation.....	7
2	Internet Usage policy .....	9
2.1	Introduction .....	9
2.2	What is an Internet Usage policy?.....	9
2.3	Internet Usage policy components: .....	10
2.3.1	Policy overview.....	10
2.3.2	Security.....	10
2.3.3	Monitoring and filtering: .....	10
2.3.4	Privacy Rights .....	11
2.3.5	Intellectual property .....	11
2.3.6	Acceptable Personal use.....	11

2.3.7	Unacceptable Personal use .....	11
2.3.8	Investigation of Violations and Corrective Action: .....	11
2.3.9	Notification and Distribution of Policy: .....	11
2.4	Difference between Internet Usage policies: .....	12
2.4.1	Organization: .....	12
2.4.2	Centres: .....	12
2.4.3	Schools: .....	12
2.5	Why Internet Usage policy is needed? .....	13
2.6	Internet Usage Policy criteria: .....	14
2.6.1	Adaptable .....	14
2.6.2	Flexible .....	14
2.6.3	Enforceable .....	14
2.6.4	Visible .....	14
2.7	Pros and cons of Internet usage policy: .....	14
2.8	Legislation with Internet usage in Ireland .....	15
2.9	Steps for Developing and Updating a policy: .....	15
2.9.1	Initiate and establish structure .....	16
2.9.2	Review and research .....	16
2.9.3	Preparation of draft policy .....	16
2.9.4	Circulation consultation .....	16
2.9.5	Ratification and communication .....	16
2.9.6	Implementation .....	16
2.9.7	Monitoring .....	17
2.9.8	Review, Evaluation and revision: .....	17
2.10	Changing the Current Policy .....	17
2.10.1	Use current policy assessment to get commitment .....	17
2.10.2	Form advisory committee .....	17

2.10.3	Develop a draft of the new policy .....	17
2.10.4	Present the new policy to the organizations board.....	18
2.10.5	Plan the implementation and enforcement strategies.....	18
2.10.6	Positively communicate the policy throughout the organization.....	18
2.10.7	Implementing the policy.....	18
2.10.8	Conduct on-going advocacy efforts and policy evaluation.....	18
2.11	Conclusion .....	18
3	knowledge and surveys .....	20
3.1	Introduction: .....	20
3.2	Knowledge management: .....	20
3.3	Knowledge acquisition: .....	20
3.3.1	Issues in Knowledge Acquisition.....	20
3.3.2	Requirements for KA Techniques.....	21
3.4	Research Survey: .....	22
3.4.1	Types of Survey: .....	22
3.4.2	The Steps in Developing a Survey: .....	22
3.4.3	Issues with Surveys: .....	25
3.4.4	Advantages and Disadvantages of a Survey .....	26
3.5	Conclusion.....	26
4	The Study Design.....	27
4.1	Introduction: .....	27
4.2	Survey Development: .....	27
4.2.1	Establish the goals of the project - What you want to learn.....	27
4.2.2	Determine your sample - Whom you will interview? .....	27
4.2.3	Choose interviewing methodology - How you will interview? .....	28
4.2.4	Create your questionnaire - What you will ask? .....	29
1.	The CLiC community questions: .....	29

4.2.5	Pre-test the questionnaire, if practical - Test the questions.....	33
4.2.6	Conduct interviews and enter data - Ask the questions .....	33
4.2.7	Analyse the data - Produce the reports.....	33
4.3	Statistics about using social networking: .....	33
4.4	Mobile Internet Access: .....	34
4.5	Conclusion.....	35
5	survey result and analysis .....	37
5.1	Introduction .....	37
5.2	Analysis Process.....	37
5.2.1	Data Analysis .....	37
5.2.2	P Value .....	38
5.3	Demographics of Participants .....	38
5.4	Previous Knowledge of and Attitude towards Internet Usage Policy.....	39
5.5	Attitudes towards Social Networking .....	44
5.6	Attitudes towards Breaches of Internet Usage Policy.....	48
5.7	Attitudes towards Mobile phones and Downloading files: .....	50
5.8	Conclusion.....	53
6	Writing the internet Usage policy .....	54
6.1	Introduction .....	54
6.2	Initiate and establish structure.....	54
6.3	Review and research.....	54
6.4	Preparation of draft policy.....	55
6.4.1	The Draft Zero.....	55
6.5	Circulation consultation .....	55
6.6	Ratification and communication .....	56
6.7	Conclusion.....	56
7	Conclusion and future work.....	57



7.1	Introduction .....	57
7.2	Research Definition & Research Overview .....	57
7.3	Contributions to the Body of Knowledge .....	57
7.4	Experimentation, Evaluation and Limitation .....	58
7.5	Future Work & Research.....	58
7.6	Conclusion.....	58
	Bibliography .....	59

## TABLE OF FIGURES

Figure 5. 1 this graph show the male and female participant .....	38
Figure 5. 2 Participants Ages. ....	39
Figure 5. 3 Students Knowledge of Internet User Policy .....	40
Figure 5. 4 Parent's Knowledge of Internet Usage Policy .....	40
Figure 5. 5 If the Parents are facing problem with their children .....	41
Figure 5. 6 What CLiC think IUP should do by? .....	42
Figure 5. 7 who should the policy apply on? .....	42
Figure 5. 8 does the company has IUP .....	43
Figure 5. 9 If the IUP enforced .....	43
Figure 5. 10 Do IT Professionals agree on enforcing the IUP .....	44
Figure 5. 11 Do the Parents agree on enforcement of the IUP .....	44
Figure 5. 12 popular social networks by the students.....	45
Figure 5. 13 Parent's Impression of Web Applications .....	46
Figure 5. 14 Student's Impression of Web Applications .....	46
Figure 5. 15 Impression of Web Applications from CLiC Community Members .....	47
Figure 5. 16 this chart shows what IT Pro think should be Limited or Blocked to the users ..	48
Figure 5. 17 this chart shows what Parents think should be Limited or Blocked to the users.	48
Figure5. 18 Parent's Choices for IUP Violation Policy .....	49
Figure 5. 19 IT Professional's Choices for IUP Violation Policy .....	50
Figure 5. 20 CLiC Community Member Choices for IUP Violation Policy .....	50
Figure 21 the pie chat shows whether the mobile use should be in the policy by IT Pro.....	51
Figure 22 the pie chat shows whether the mobile use should be in the policy by CLiC .....	51
Figure 5. 23 the chart shows the files that could be downloaded by IT Pro .....	52
Figure 5. 24 the pie chart shows the files that could be downloaded by CLiC .....	53
Figure 25 CLiC .....	76
Figure 26 Parents .....	76
Figure 27 IT .....	77
Figure 28 Students .....	77
Figure 29CLiC views if IUP will attract more centre.....	78
Figure 30 Parents awareness about the problem in the Internet .....	78

Figure 31 this pie chat shows what Parent think their children spend most of their time on ..	79
Figure 32 this pie chart shows what CLiC think users spend most of their time on .....	79
Figure 33 do the IT Professionals think that IUP is important .....	80
Figure 34 do the CLiC think that IUP is important .....	80

## TABLE OF TABLES

Table 1.1 the table above shows the World Internet Usage and Population Statistics .....	3
Table 3.1 Factors that method of interview depends on. (Al-Rawi).....	24
Table 4.1this table shows the percentage of children who access the internet using their mobile phone or other devices. ....	35

# **1 INTRODUCTION**

## **1.1 Introduction of the project:**

The focus of the project is to create a comprehensive internet usage policy for a community outreach organization based on community opinion. The aim of the policy is to provide guidelines for the internet user in the schools and the centres.

The main idea of this project is to use different groups and use their wisdom and personal preferences to build the Internet Usage Policy which is, simply a guidelines and rules that must be followed to guarantee safe use of the internet. This approach reflects the idea of 'the wisdom of crowds'. In the book the Wisdom of Crowds by James Surowiecki, the author states that “ If you put together a big enough and diverse enough group of people and ask them to make a decisions affecting matters of general interest, that group’s decisions will, over time, be intellectually [ superior ] to the isolated individual, no matter how smart or well-informed he or she is”. (Surowiecki, 2004)

## **1.2 Background**

### **1.2.1 Computer Learning in Community (CLiC):**

Computer Learning in Community was established in 2011. CLiC aim is to provide education via Information and Communication Technology (ICT) to Dublin inner city communities. This will be achieved through three initiatives within the programme CLiC- Communities, CLiC- School, and CLiC- Mobile.

A range of training and educational opportunities will be made available to all groups. This will assist in forming a closer relationship with communities, the school environment and the Dublin Institute of Technology (DIT). The following sections explain each initiative in details:

### **1.2.2 CLiC Community:**

CLiC community aims to engage, enhance self-esteem, build confidence and motivation, and empower individuals, families and local communities to fulfil their potential via ICT training.

The work of the programme involves the installation of computer hardware and software in specially refurbished flats and community centres. A range of courses are offered to the resident culminating with the opportunity to acquire professionally recognized ICT qualifications and if they wish an opportunity to complete a training course and return to deliver courses in their own communities.

### 1.2.3 CLiC Schools

CLiC School is working with inner-city schools and aims to engage teachers and students in the learning experience through ICT. These schools are located in the most marginalised areas in Dublin. There is little tradition of education in these areas with the result of there being high levels of unemployment along with a society which is suffering from substantial social and economic hardship. Students come from backgrounds where very little of value is placed on education and where there is very little knowledge of the educational system and the opportunities available to people.

The benefits for pupils involved in the projects are increases in:

- ICT skills
- Language skills
- Self-confidence, self-esteem, and pride.
- A desire to present their work to their peers.
- The provision a different type of learning experience for children that is engaging and enjoyable.
- The development of social skills through cooperative learning and problems solving.
- Pupils can learn through visual, audio, and kinaesthetic media, as well as through text.

### 1.2.4 CLiC Mobile

CLiC mobile provides a trainer who arrives at a community centre that has no ICT provision with a mobile unit of 10 laptops with USB broadband to provide basic training to local groups. This initiative will provide training opportunities to hard to reach groups who may for a number of reasons not feel comfortable availing of training through local community centres or where centres do not have facilities or funding to establish computer rooms. The target audience for these initiatives will include the homeless, elderly, foreign nationals, and unaccompanied minors

### 1.3 Research problem

The internet is one of the main tools for researching and communicating, and its usage numbers has increased dramatically over the years, due to the abundant information that can be accessed quickly and easily anywhere and everywhere. According to the internet world stats.com (stats, 2011) latest statistics, internet usage worldwide grew 444.8% from 2000 to 2010.

World Internet Usage and Population Statistics						
<b>World Regions</b>	<b>Population (2010 Est.)</b>	<b>Internet Users Dec. 31, 2000</b>	<b>Internet Users Latest Data</b>	<b>Penetration ( % Population)</b>	<b>Growth 2000-2010</b>	<b>Users % of table</b>
<b><u>Africa</u></b>	1,013,779,050	4,514,400	<b>110,931,700</b>	10.9%	2,357.3%	5.6%
<b><u>Asia</u></b>	3,834,792,852	114,304,000	<b>825,094,396</b>	21.5%	621.8%	42.0%
<b><u>Europe</u></b>	813,319,511	105,096,093	<b>475,069,448</b>	58.4%	352.0%	24.2%
<b><u>Middle East</u></b>	212,336,924	3,284,800	<b>63,240,946</b>	29.8%	1,825.3%	3.2%
<b><u>North America</u></b>	344,124,450	108,096,800	<b>266,244,500</b>	77.4%	146.3%	13.5%
<b><u>Latin America /Caribbean</u></b>	592,556,972	18,068,919	<b>204,689,836</b>	34.5%	1,032.8%	10.4%
<b><u>Oceania/Australia</u></b>	34,700,201	7,620,480	<b>21,263,990</b>	61.3%	179.0%	1.1%
<b>World Total</b>	6,845,609,960	360,985,492	<b>1,966,514,816</b>	28.7%	444.8%	100.0 %

**Table 1.1 World Internet Usage and Population Statistics**

The Internet is also a tool that it is used to provide education in schools and youth centres. Therefore, the students' safety must be ensured at all times while they use the internet.

In research conducted by the National Centre for Technology in Education (NCTE) in 2006 carried out to identify their online activities (NCTE, Webwise 2006 Survey of Children's Use of the Internet, 2006). 848 students between the ages of 9 and 16 in over 21 schools across Ireland were asked about their internet use. Some of the important findings are:

- 17% said they received regular instructions, However when asked what was covered by the instruction 54% said the most popular focus of instruction was on how to connect to the internet.
- 52% of children use the internet at school at least once a week.
- 42% believe most or all of the information that they find online.
- 59% do nothing to confirm that information they find on the internet can be trusted.
- 52% reported that their school work improved through using the Internet.
- In addition to asking their teacher or parents (67%), the internet (42%) is now one of their main sources of information when doing homework.

The Computer learning in community (CLiC) programme sponsor the computing class in some centres, schools in Dublin, most of these classes are used by student from different ages, and they taught how to use the internet. They also have a CLiC mobile where a representative from the CLiC goes to less fortunate areas in Dublin to provide them with basic computing skills. Therefore, CLiC needs to ensure the safe usage of the internet to the students of all kind of ages.

CLiC required an Internet Usage Policy for all the centres that they are currently working with, as well as a downloadable version for their web site. Therefore, a well-organized and efficient policy for CLiC that could be adapted by them in all centres and schools is one of the main research problems especially that it will address a wide range of students.

#### **1.4 Intellectual challenge**

The development of the policy in this project will be by interviewing certain group to gain their needs and preferences. Based on that the intellectual challenges are:



- The challenge of this project will be acquiring the information that will be the basis for building the Internet Usage Policy. Different groups have different opinions and views.
- Learning what an Acceptable Usage Policy is and how to write it. Writing a policy that it is not so strict so that the students cannot benefit from the rich resources in the internet, but not very loose either such that they might get harmed.
- Learning about the use of surveys and how to design them using different tools.
- Analysing the data using excel as well as learning about statistics.
- Deciding whether the best way to write the Internet Usage Policy is through best practice or going against the best practise.
- Making agreements with a third party and making sure that they will deliver their part of the deal.

## **1.5 Research objectives**

The following objectives will be achieved throughout the dissertation and contributed to the overall outcome:

- Establish a clear understanding of what Acceptable Use Policy is (AUP) in general and what Internet Usage Policy is in different areas.
- Construct the right groups with the right people.
- Know exactly what questions each group should be asked to build up the best knowledge.
- Write an Internet Usage Policy that is adaptable by the CLiC.

## **1.6 Research methodology**

Primary research and secondary research have been carried out in this project. The primary research in this project will be acquiring knowledge from different group of experts. The collection of data will be achieved by distributing a questionnaire to a number of participants of each group, and collecting the questionnaire for analysis.

The secondary research consists of literature reviews in the following areas:

- Internet Usage Policy

The difference between policies and how important it is in the organization and schools as well as what both them can benefit from having an IUP.

- **Survey Design**

Looking at the best way to develop a survey, and which method to follow.

- **Data Analysis**

How the data analysis could be conducted in an efficient matter.

## **1.7 Resources**

The following resources were used to complete this project:

- **DIT Learning In Community (CLIC Programme group):**

The CLIC group co-operation was the key component to complete this project by playing the connecting link between the researcher and the centres.

- **Library Facilities:**

The access to multiple resources in the DIT library and e-journals were the primary resource for the literature review. The resources used to obtain the reviews include: IEEE Electronic Library, Emerald Management 175 and multiple websites.

- **Survey Software:**

Access to an online survey was necessary to complete the study in this project. The survey tool that was used can be found at <http://www.limesurvey.org/>, and the other online survey is <http://www.surveymonkey.com>.

- **Access to the survey tool (Excel) to perform the analysis.**

- **The support of the project supervisor:**

Assistance from a supervisor was a great aid to complete the project.

## **1.8 Scope and limitations**

This project is about writing a policy about the Acceptable use of the Internet to be used in all the centres and the schools that are sponsored by the Computer Learning in community based on what the stakeholders need and matching to their objectives. It will be about the guidelines that should be followed there.

The main limitation for this project is identification of appreciated open source tools to help with the filtering and mentoring the web access. As well as with the time scale that was given, the monitoring, review, evaluation and revision of the developed IUP will not be possible because it take a place after the actual enforcement of the policy in 3 weeks. Also, the solution provided in this project is just for this problem domain, it might differ in other domains.

## **1.9 Organisation of the dissertation**

The dissertation is divided into chapters, and each chapter is dedicated to a specific subject which is broken down into sub-sections.

- **CHAPTER ONE**

The current chapter is an introductory to the project, and gives a brief description about the entire project. It also gives a brief description about the Computer Learning in Community (CLiC) group and their objectives.

- **CHAPTER TWO**

This chapter gives details about Internet Usage Policy. What are the definitions of Internet Usage Policy, its components, how can it be developed effectively, and what are the advantages and disadvantages of having an IUP.

- **CHAPTER THREE**

This chapter explain in brief what knowledge management, and knowledge acquisitions are. It also gives details about survey development, types of survey which have been used in this project and steps to develop a questionnaire.

- **CHAPTER FOUR**

This chapter is about the design of the study and it will give extensive information about the steps to develop the survey. It will also include what types of questions were asked to each group and why.

- **CHAPTER FIVE**

After the acquisition of the knowledge this chapter will explain how the obtained data can be used to produce knowledge. It will be the analysis phase of the project

- **CHAPTER SIX**

When all the knowledge is finally obtained the policy will be constructed, this chapter will follow certain step to develop the Internet Usage Policy.

- **CHAPTER SEVEN**

The last chapter of this project will reintroduce some of the objectives that the project achieves and the limitation and future work.

## **2 INTERNET USAGE POLICY**

### **2.1 Introduction**

An Internet Usage Policy is a form of control, it is used to control what the users can get access to on the internet, and it is also a kind of protection for underage users that will keep them from the dangers they might face on the internet.

This chapter describes internet usage policy in depth, the definitions of a policy and the Internet Usage Policy components. As well as the different reasons to use Internet Usage policy and the legislation concerned with internet usage in Ireland.

### **2.2 What is an Internet Usage policy?**

To shape our understanding of what an Internet Usage policy is, we first ask what is the definition of Policy. According to Wikipedia a policy "addresses the intent of the organization, whether government, business, professional, or voluntary. Policy is intended to affect the 'real' world, by guiding the decisions that are made. Whether they are formally written or not, most organizations have identified policies". (Wikipedia, 2009) What we can understand from this is that a policy could be written almost for anything as long as it has a set of rules and guidelines to improve certain case.

Second an Acceptable Usage Policy is (AUP; also sometimes acceptable usage policy or Fair Use Policy) is a set of rules applied by the owner/manager of a network, website or large computer system that restrict the ways in which the network site or system may be used. AUP documents are written for corporations, businesses, universities, schools, internet service providers, and website owners to reduce the potential for legal action that may be taken by a user, and often with little prospect of enforcement." (Wikipedia, 2009)

After breaking down the term it is easier to understand that Internet Usage policy is: a set of rules and guidelines on how the internet in the community centres and schools should be used by the student and the teachers.

## **2.3 Internet Usage policy components:**

There are a number of resources that outline the component of the IUP such as InfoSec Acceptable Use policy from the SANS Institute (InfoSec Acceptable Use policy) , but it does not give a good explanation for each section. The article (How to Write a Proper Internet Usage Policy) (Welebir & Kleiner, 2005) which is more general, states that an Internet Usage policy should address all the aspects of internet usage. Each of these aspects are summarised below:

### **2.3.1 Policy overview**

The overview is kind of an introduction of the policy. It also defines the internet usage policy in general and why it is needed. The overview is where the understanding of the Internet Usage Policy should be. (Welebir & Kleiner, 2005)

### **2.3.2 Security**

The Internet Usage Policy should state clearly with explanation of the potential risks that might face the student in general and the pupils in particular.. “An Internet Usage Policy should always address issues of security. Most employees understand that there are security risks when using the Internet, but many do not realise what activities are inherently risky. Some notable sources of risk include web browsing, JAVA, file transfers, FTP, e-mail, and news groups” (Welebir & Kleiner, 2005). Basic explanation of each of these risks should be sufficient.

### **2.3.3 Monitoring and filtering**

Filtering is essential in preventing a person from viewing certain types of content. To achieve this content-control software is needed which is according to Wikipedia is “a term for software designed and optimized for controlling what content is permitted to a reader, especially when it is used to restrict material delivered over the Web. Content-control software determines what content will be available.” (Content-control software ), content-control software is clearly important for efficient Internet Usage Policy.

The Internet Usage Policy should be explicit about what content are to be filtered such as adult material and illegal material (Welebir & Kleiner, 2005) which can be defined as “content which is contrary to criminal law” (Ireland) or any harmful materials.

#### 2.3.4 Privacy Rights

Student or employees should not have any expectation that their activities on the Internet are private - although most of the organisations do not want to give the impression to their employees that they are monitoring every activity in the Internet. However, it is necessary to communicate to them that they do not have individual privacy if what they are accessing could be considered as an illegal use of the Internet.

#### 2.3.5 Intellectual Property

All content that is stored in the organization is considered to be property of the organization. Internet Usage Policies should clearly state that all software and files downloaded from the Internet become the property of the organisation (Welebir & Kleiner, 2005).

#### 2.3.6 Acceptable Personal Use

If an organization allows personal use of the Internet, specific acceptable limitations should be documented. The organization should give examples or lists of what types of Internet sites that might be visited, even if there is a time limit.

#### 2.3.7 Unacceptable Personal Use

The Internet Usage Policy should list specific activities that the centre desires to ban. This section should not be ambiguous in any matter. Unacceptable personal use policies should apply regardless of when the Internet is used. (Welebir & Kleiner, 2005)

#### 2.3.8 Investigation of Violations and Corrective Action:

Students and employees should be informed in the Internet Usage Policy that there is a possibility of investigation for security reasons and in case of the policy terms been broken. It should also state what procedures will take place, and what disciplinary action will be taken for violating the rules in the Policy. (Welebir & Kleiner, 2005)

#### 2.3.9 Notification and Distribution of Policy:

Once an Internet Usage Policy is finished, it must be communicated to every employee and student of the centre. Initially, they should be given a printed copy of the Internet Usage

Policy and be asked to acknowledge compliance with the terms by signing their name and dating the policy (Welebir & Kleiner, 2005). If the organization has underage students the policy should also be acknowledged by their parents or legal guardians.

## **2.4 Difference between Internet Usage policies:**

An Internet Usage Policy is written based on the requirements for specific groups or organization, as according to that group the Policy might change to fit their needs. The following is some differences between policies based on the place of deployment:

### **2.4.1 Organization**

The policy has a set of rules that must be followed to guarantee the maximum benefit of most of the employees “ Procedures for monitoring use of information processing facilities established such procedures are necessary to ensure that users are only performing activities that has been explicitly authorised” (Al-Khayatt & Neale, 2001). The internet usage policy can play two roles in the organization. The first one is determining what the employees could not and could access on the Internet. As the research shows that surfing on the web can lead compulsive behaviour (Stewart, 2000). The second role is a security policy for the organization itself.

### **2.4.2 Centres**

Centres have various ranges of students with different ages. Since the aim of the community and youth centres is to teach the student how to use the internet, the policy for a centre will not generally be as strict as the one for an organizations .The policy should help the keep student from being exposed to harmful material.

### **2.4.3 Schools**

In schools the Internet Usage Policy differs from the centre in the age of the student. In general it is more controllable what we want them to have access to according to the school curriculum and the extra curriculum. Students should focus in the materials that are given to them in class and should not be distracted from them. The Policy should be strict in accordance with the age of the students, the younger the age the stricter the policy should be.



## **2.5 Why Internet Usage policy is needed?**

The use of the internet is rising every year, According to Internet World Statistics (stats, 2011), in Ireland there are 3,024,600 internet users as of June 2010, 65.1% penetration according to ITU (International Telecommunication Union).

The internet is one of the greatest tools of learning and contains a lot of information that might be harmful and could impact the user badly.

There are some risks and illegal materials that are associated with using the internet for example:

- **Productivity Loss:** Most of the organizations see that an Internet usage policy is needed to monitor the employees internet surfing. One of the main concerns is loss of productivity; it could cost a company multiple billions of dollars each year, recent research shows that an estimate of 5.3 billion was lost in 1999 because of unmonitored surfing of the internet (Stewart, 2000).
- **Drain on computing resources and bandwidth:** using the internet for downloading heavy data, and streaming real time data can slow the bandwidth and cause inconvenience for others who are using it in the right way (Stewart, 2000).
- **Downloading:** some of the major risks can be from downloading a file that contains viruses. As well as downloading file that is copyrighted material.
- **Transfer sensitive business information without being encrypted** (Team, 1994)
- **Inappropriate materials:** such as child pornography, adult pornography, material depicting extreme violence and child trafficking.
- **Injury to human dignity:** like racial discrimination, incitement to racial hatred and extreme sexual perversion.
- **Economic security:** for example all types of fraud and instructions on credit card piracy.

## **2.6 Internet Usage Policy criteria:**

To have a successful Internet Usage Policy there is some criteria addressed by M86 Security (which is the largest provider of Secure Web Gateways) (Security, 2011). In the following these criteria are summarised.

### **2.6.1 Adaptable**

The Internet Usage Policy should be effective by adapting to new change and new challenges. The article continues with an example that YouTube used to be considered to be breach of the policy terms because it is a waste of time, but now it is used for training purposes, sales and marketing.

### **2.6.2 Flexible**

The Internet Usage Policy should be flexible enough to meet the organization goals and objective but not too flexible that it does not serve its need. It is also possible to have different IUP for different groups to meet their different needs.

### **2.6.3 Enforceable**

To be successful, an Internet Usage Policy must be enforceable. This usually requires the installation of security software blocks and reporting on any unacceptable use of an organization's IT infrastructure, as well as the use of filtering software to maintain illegal and harmful websites. In a survey conducted by M86 Security, (25%) of respondents said that their Internet and email acceptable use policy was not actively enforced and over a third (38%) stated that they relied upon managerial vigilance alone to enforce the AUP.

### **2.6.4 Visible**

The employees and students should be reminded of the internet Usage Policy and the implication of breaking it. The person who breaches the policy should be dealt with according to the organization's policy.

## **2.7 Pros and cons of Internet usage policy:**

Internet usage policy has a lot of advantages once it has been used right and monitored regularly. Some of the IUP advantages are:

- It ensures the safe and secure surfing of the internet.
- It ensures the fair use of the computers and other resources.
- It protects Intellectual Property
- It protects privacy

Disadvantages of the Internet Usage Policy:

- A very strict policy can lead to some issues for example: the North Lindsey college student had issues when trying to access the university website.
- A poorly constructed IUP can cause problems rather than solving them.

## **2.8 Legislation with Internet usage in Ireland**

There is no specific legislation to the safe use of the Internet in Ireland. However, internet usage in Ireland has some regulation that must be followed:

- Data Protection (Amendment) Act 2003
- Child Trafficking and Pornography Act 1998
- Interception Act 1993
- Video Recordings Act 1989
- The Data Protection Act 1988
- Copyright Act (1963).
- Prohibition of incitement to hatred Act (1989).
- Criminal Damage Act (1991).
- Freedom of Information Act (1997).

## **2.9 Steps for Developing and Updating a policy:**

To create the most suitable Internet Usage Policy a set of rules and guidelines should be followed. The National Centre for Technology in Education outlines a set of steps to develop the IUP (NCTE, Internet Safety Information and Advice for Schools, 2006) the following steps outline of NCTE steps that will be used as the development procedure later on:

### 2.9.1 Initiate and establish structure

The first step in initiate and establish structure is to decide on who will have responsibility for putting this policy in place. Next will be co-ordinating group or committee, if necessary. Last step will be decide on how the information will be gathered from the audience.

### 2.9.2 Review and research

This step will be about gathering all the information needed to build the policy and it start with definition to the purpose, the scopa and goals of the Internet Usage Policy. As well as looking at similar cases to the one is being developed. It should also include an interview with the stake holders and all the people involved in the process.

### 2.9.3 Preparation of draft policy

Start with a zero draft which organizes and outlines the policy, and then write the rough draft following feedback. [rct group]

### 2.9.4 Circulation consultation

To take the stakeholders views a circulation of the policy must be done before the actual implementation of the policy. The draft policy must be consulted with school staff, students, parents/guardians, board of management/trustees. Based on the circulation result, amend the draft policy, as necessary.

### 2.9.5 Ratification and communication

Present the policy to the Board of Management for ratification. Make provision for the circulation of the policy to all parents/guardians and arrange to provide it to all students, including new entrants. Communicate the ratified policy to other members of the school community

### 2.9.6 Implementation

The web wise is a web site which gives advice and solutions for the internet usage for schools of Ireland (NCTE, Internet Safety Information and Advice for Schools, 2006) advice that the policy should be implemented in 3 weeks' time. Web wise is a website that it dedicated to

ensure safety for the children in the schools in Ireland. It also gives guidelines and rules to guarantee that safety is maintained.

#### 2.9.7 Monitoring

The policy should be monitored and checked regularly to identify issues and deal with the arising problems.

#### 2.9.8 Review, Evaluation and revision:

Review the implication of the Internet Usage policy on the student's behaviour. The review and evaluation should be done after 3 weeks of operation and ask for feedback to identify any problems.

### **2.10 Changing the Current Policy**

If the policy already exists and it needs to be changed there are guidelines to be followed. For example, some are presented by North Carolina Health Wellness Trust Fund (HWTF). These are outlined below

#### 2.10.1 Use current policy assessment to get commitment

The first step is identifying problems related to current policy. Identify educational, health, and economic reasons for changing policy or enforcement. Second step is to Interview key stakeholders to see what they expected from the new Policy and what the limitation with the old one was.

#### 2.10.2 Form advisory committee.

Include representation of the organization- and it must include as many as possible from different sectors.

#### 2.10.3 Develop a draft of the new policy

The draft should be simple and specific. The draft must identify to whom the policy will apply on.

#### 2.10.4 Present the new policy to the organizations board

After all the appreciated changes are applied to the policy, it should be presented to board of the organization for approval.

#### 2.10.5 Plan the implementation and enforcement strategies

After the approval of the new Policy there will be a discussion on how to enforce the new policy. That will include strategies of enforcement for all employees, students and visitors. When the strategies are selected, next will be when to implement the policy. Usually an implementation date four to six weeks.

#### 2.10.6 Positively communicate the policy throughout the organization

A description of the new policy and reasons for the change should be given to all the employees throughout the organization. The description should emphasis on the benefits of the new policy for both the organization and the employees or students.

The Policy should be sent to the people affected directly as well as informing the employees about the important date such as the implementation date and when it will be effective.

#### 2.10.7Implementing the policy

First there will be a test period before the actual implementation.

#### 2.10.8Conduct on-going advocacy efforts and policy evaluation

The last step will be Collecting stories of positive effects of polices on students and staff. As well as solicit comments from parents and community members.

### **2.11 Conclusion**

In conclusion, this chapter gives details on what the Internet Usage Policy is, starting with a definitions of IUP and the main component that each policy must have. One of the important sections is why the IUP is needed and what it does control, moreover, guidelines and steps to develop IUP from the start or updating the Internet Usage Policy are given.

While the chapter summarized a number of general pieces of advice on constructing Internet Usage Policies, the development of the internet Usage Policy must be tailored to a given organization. In the next chapter we will look at the methods to provide this tailoring

### **3 KNOWLEDGE AND SURVEYS**

#### **3.1 Introduction:**

One of the main areas of this project is requiring the information from the respected groups to build the Internet Usage policy. Which could be difficult for many reasons that will be addressed in this chapter. This chapter will also discuss one of the methods for acquiring the knowledge in details.

#### **3.2 Knowledge management:**

One of the knowledge definitions is “*Knowledge Management is the creation, extraction, transformation and storage of the correct knowledge and information in order to design better policy, modify action and deliver results*” Horwitch and Armacost (2002). Knowledge management plays a main role in this project because it is acquiring data and transfer that data in to Knowledge, after that applying that knowledge to build certain application.

#### **3.3 Knowledge acquisition:**

In the previous section we define Knowledge Management as acquiring the knowledge so it can be applied in different application, this section will be about what Knowledge acquisition is and way some ways that it is hard.

KA is defined by the Oxford English Dictionary as (i) expertise, and skills acquired by a person through experience or education; the theoretical or practical understanding of a subject; (ii) what is known in a particular field or in total; facts and information; or (iii) awareness or familiarity gained by experience of a fact or situation. The Knowledge acquisition can be defined as the process of extracting the information from some source - normally humans and sometimes books.

##### **3.3.1 Issues in Knowledge Acquisition**

Some of the most important issues in knowledge acquisition are investigated in Epistemics (*Knowledge Acquisition, 2003*)



- **Most knowledge is in the heads of experts**

The knowledge that needs to be acquired is in the expert's heads, and it is almost impossible to remember all the information once it is needed.

- **Experts have vast amounts of knowledge**

Usually a big amount of anything could lead to confusion, therefore, it is a possibility that the information acquired from the expert contains some mistakes.

- **Experts have a lot of tacit knowledge**

- They don't know all that they know and use, which mean that if a question was asked to them to explain a certain procedure they might forget the first few steps.
- Tacit knowledge is hard (impossible) to describe

- **Experts are very busy and valuable people:**

Finding the right time to interview the expert could be hard as usually experts do not like to sit and participate in interviews. As well as experts do not like to give away information that might make them less valuable to the organization.

- **Each expert doesn't know everything:**

It is hard to find one expert with all the needed knowledge.

- **Knowledge has a "shelf life"**

Knowledge has a certain amount of time before it becomes useless. So it is important to find an expert with up-to-date information.

To ensure that the information acquired from the expert is as good as possible some techniques are used; these are listed in the next section.

### 3.3.2 Requirements for KA Techniques

Because of the issues listed in the previous section, techniques are required and need to have the following criteria: (Knowledge Acquisition, 2003)

- Take experts off the job for short time periods
- Allow non-experts to understand the knowledge
- Focus on the essential knowledge
- Allow knowledge to be collated from different experts
- Allow knowledge to be validated and maintained.

The next section will be the details of the technique used to capture the knowledge.

### **3.4 Research Survey:**

One of the methods of acquiring the knowledge is the use of a survey. The survey is one of the popular types of quantitative, social science research. A survey is a way to collect the opinion of a selected population that are spread in a wide range.

#### **3.4.1 Types of Survey:**

There are various types of surveys that can be used in different media as is outlined in Writing Guide: Survey Research by AL- Rawi (Al-Rawi, Writing Guide: Survey Research):

1. Written surveys:

Groups of interested people report information or preferences relating to a specific topic.

2. Oral Surveys:

The oral surveys are more personal than written survey or the electronic methods. The oral survey is used to get the rough opinion of the interviewee.

3. Electronic Surveys:

With the continuous growth of the Internet and the expanded use of electronic mail for business communication, the electronic survey is becoming a more widely used survey method.

#### **3.4.2 The Steps in Developing a Survey:**

To have the response that will guarantee the best result, the development of the survey must be good and thought about thoroughly. There are 7 steps that are suggested by AL- Rawi for development of the survey; there are:

1. Establish the goals of the project - What you want to learn?

The first step in developing a survey is determining the goals of the survey determining and what the survey will achieve. Setting clear goals makes it easy to know what type of questions should be asked. This in return should lead to better answers.

## 2. Determine your sample - Whom you will interview?

Next step will be defining the audience. There are two main components in choosing the sample. The first one is deciding what kind of people should be interviewed. Researchers often call this group the target population.

The next is determining the size of the group; the number should not be very large or very small. The larger the sample, the more precisely it reflects the target group. “However, the rate of improvement in the precision decreases as your sample size increases”. For example, to increase a sample from 250 to 1,000 only doubles the precision. You must make a decision about your sample size based on factors such as: time available, budget and necessary degree of precision (Al-Rawi, Writing Guide: Survey Research).

## 3. Choose interviewing methodology - How you will interview?

After figuring who the audience are, the way how they should be asked the questions needs to be figured out. There are a lot of methods of getting the information from the group. Each method has its own advantages and disadvantages.

Speed	Email and web page surveys are the fastest methods, followed by telephone interviewing. Mail surveys are the slowest.
Cost	Personal interviews are the most expensive followed by telephone and then mail. Email and web page surveys are the least expensive for large samples.
Internet Usage	Web page and email surveys offer significant advantages, but you may not be able to generalize their results to the population as a whole.
Literacy Levels	Illiterate and less-educated people rarely respond to mail surveys.
Sensitive Questions	People are more likely to answer sensitive questions when interviewed directly by a computer in one form or another.

Video, Sound, Graphics	A need to get reactions to video, music or a picture limits your options. You can play a video on a web page, in a computer-direct interview, or in person. You can play music when using these methods or over a telephone. You can show pictures in those first methods and in a mail survey.
------------------------	---

**Table 3. 1 Factors that method of interview depends on. (Al-Rawi, Writing Guide: Survey Research)**

4. Create your questionnaire - What you will ask?

Planning of the survey design and survey questions is crucial when conducting a survey. Because once the survey is distributed, it is hard or impossible to adjust the research questions. Even when transferring the question in to the tool used to address the sample it would be hard to change the questions, since the instrument must remain stable in order to standardize the data set.

5. Pre-test the questionnaire, if practical - Test the questions?

It would be good if the questionnaire is put to a test first before it been distributed. That will give a decent idea of what answers each questions might get, that could determine the validity of the question asked. If the answers were far from what it should be that means that the questions should be verified.

6. Conduct interviews and enter data - Ask the questions?

The following step will be distribute the questionnaire and interviewing the groups and gather the information.

7. Analyse the data - Produce the reports?

Once the responses are collected it should be analysed. The information gained from the analysis will be used to complete the project.

### 3.4.3 Issues with Surveys:

When developing a survey there are multiple issues that might arise during the process. And it can be classified as overall design issues and response rate issues:

#### 1. Overall Issues:

There are four issues that should be considered when designing a survey:

- **Respondent Attitude:**  
It is important when developing the survey to look from the target group point of view. The structure of the question and how it should be asked and how they will answer the questions and if it is easy for them to understand or not all these factors that must be well thought-out.
- **Nature of Questions:**  
It is very important to coordinate between the medium and the types of question that are being asked; for example: if the medium is the telephone the open ended questions it would be hard to record and report the answers.
- **Cost :**  
The cost of the survey construction and distribution should be taken into consideration.
- **Ability of survey to meet needs of research question:**  
The ability of the survey to deliver a logical connection between research goal and the survey questions.

#### 2. Response Rate Issues:

Response rate are one of the major issues when developing a research survey. According to Weisberg, Krosnick and Bowen (1989), in the 1950s it was not unusual for survey researchers to obtain response rates of 90 %. Now, however, people are not as trusting of interviewers and response rates are much lower--typically 70 % or less.

There are still some issues even if the response rate is considered to be high; for example the bias responses which is classified in (Al-Rawi, Writing Guide: Survey Research) as:

- **Response bias:** “occurs when respondents deliberately falsify their responses. This error greatly jeopardizes the validity of a survey's measurements”.
- **Response order bias:** “occurs when a respondent loses track of all options and picks one that comes easily to mind rather than the most accurate”.

- **Response set bias** “occurs when respondents do not consider each question and just answer all the questions with the same response. For example, they answer "disagree" or "no" to all questions”.

And according to Fox and Tracy (1986) it is very hard to eliminate the bias responses, as the person giving the answer may continue to give a misleading information over and over again no matter how many time they been interviewed.

#### 3.4.4 Advantages and Disadvantages of a Survey

##### **Advantages for the surveys**

There are many advantages in using a survey and they are as outlined in (Al-Rawi, Writing Guide: Survey Research)

- They are easy to conduct, and allow many questions to be asked easily.
- Surveys are is inexpensive.
- The survey is good in gathering information from a large population.
- It is easy to administrate even from a remote location via mail.
- Standardized questions are easy to analyse.

##### **Disadvantages of the surveys**

As for anything that has strength it also has weakness points and the survey weaknesses are:

- The survey is inflexible because after it has been distributed there are not many changes that can be made to it.
- The response rate must be high to have a good result.
- And there are also the bias response issues and it might be hard for the participants to tell the truth or recall the information.

### **3.5 Conclusion**

To summarize, this chapter introduce the project from Knowledge Management point of view. It also outlines the problems that usually surround knowledge acquisition. And it gives details on the way it used in this project to acquire the knowledge.

## **4 THE STUDY DESIGN**

### **4.1 Introduction:**

Chapter 3 KNOWLEDGE AND SURVEYS introduced 7 steps to develop a survey, in this chapter a number of the steps will be presented again with much more details as it will be the beginning of the actual development of the Internet Usage Policy.

As mentioned before, the main idea is to develop the Internet Usage policy based on what the user groups see as suitable. To gain the groups opinions and views the survey must ask the right questions to get the most accurate answers. The next section shows how the survey is constructed step by step.

### **4.2 Survey Development:**

As outlined in the previous chapter, (Al-Rawi, Writing Guide: Survey Research) outlines a 7 step process for the development of surveys. The following section will outline a customization of that 7 steps process to meet the goals and objectives of this dissertation:

#### **4.2.1 Establish the goals of the project - What you want to learn**

The goals and objective of the project were already identified in Section 1.1. In summary, building Internet Usage Policy depending on the views of selected audience.

#### **4.2.2 Determine your sample - Whom you will interview?**

To complete this study a number of groups will complete a survey and based on this survey the internet usage policy will be constructed. There are a number of social groups that been identified to participate in this survey. The groups share a mutual interest in the Policy. The groups are:

##### **1. The IT Professionals:**

The experts who know the best way to develop the internet usage policy because they are in the business and know how to develop and maintain the policy, they also know what exactly should be included and what makes it a robust, enforceable policy and what makes it weak.

## **2. The CLiC community:**

The internet usage policy is developed for the CLiC community, therefore, including the CLiC group will ensure delivering the best policy as well as, it should be written according to what they see fit and match their goals and objectives.

## **3. The Parents:**

Parental choice is very important as they know what kind of problem they are facing with the children when it comes to the Internet. Their choice is also important to identify what site they are comfortable with. Last, knowing whether they want to be a part of the Internet Usage Policy and how far they want to be involved.

## **4. The Students :**

It is good to know what kind of website or activity the student wants to access or learn from so that the policy will have the appreciated consistency. For example, the policy might prevent a particular site and in the same time it really papule and not harmful site among the student, allowing such website will not be a violation of the rules.

### **4.2.3 Choose interviewing methodology - How you will interview?**

The questionnaire is the method that will be used in this project. And it will be distributed in two ways. The first one is online questionnaires and the second one will a hand out questionnaires. There are multiple reasons why the questionnaire was chosen which will be explained in the next section.

### **Why using a Questionnaire:**

There are a lot of ways to gather the information, and to complete this study the questionnaire was the best choice for multiple of reasons:

- Questionnaires are relatively easy to conduct.
- The online questionnaire gives the choice to distribute in a very wide range and large population.
- Easy to remotely administrate by using the online survey. Which give the option to manage the survey without the need to be physically present.



- Controlling what need to be answer in the online questionnaire by making the questions mandatory. This outlines the questions that make a difference in the survey.
- Easy to analyse especially the close ended questionnaire where there will be few selection to choose.

#### 4.2.4 Create your questionnaire - What you will ask?

Development of the questionnaire will be based on what kind of information that could be acquired from the stakeholders to build the actual internet usage policy. These surveys fill the void and help shape the final internet usage policy based on what the audience want. There will be unique questions for each group based on their background as well as mutual questions for all the groups.

The questions were formulated by analysing some of the general patterns of information required in Internet Usage Policies, as well as evaluating some of the popular trend that are spread in the internet, and determining what variables each participant group might have a meaningful view of. The following will be an outline of each set of questions asked to each of the four groups, along with motivations for each individual question.

##### 1. **The CLiC community questions:**

The following set of questions is addressed to the CLiC community:

- **Why do you think Internet Usage Policy is important?**

This question will be in all the groups but it is important to know why the CLiC community wants to have an internet usage policy and what they wish to achieve from having it, and see how to develop the policy that meet their expectations.

- **What are the disadvantages of not having an internet usage policy?**

This question was not asked directly in this form, it was broken to multiple questions that when gathered will demonstrate the disadvantage of not having an Internet Usage Policy.

- **What kind of value dose an IUP will add to CLiC?**

Whether the Internet Usage Policy will boost the reputation of CLiC, and make it best the choice to join by the centres and communities.

- **What elements do you think that IUP should clearly specify?**

What the CLiC want to be very obvious and should be stated clearly in the policy.

This question can be broken down to multiple questions and one of them is the types of file that could be downloaded in the CLiC's or the centre's machines.

- **Should the policy apply to the teachers and employees**

Would the CLiC prefer to make the policy general to all the employees and the student as well, should it only apply to students.

- **Do you agree and approve of discipline in case of policy terms being violated**

Should the person who violated the policy be disciplined or should some of the privileges be taken away from them? This question is repeated as well in the IT professionals and the Parent survey, it is very important to know the opinions for this question from different participants.

- **What kind of discipline**

Stating what kind of discipline should the violators get.

- **How strict should the policy should be? Taking into consideration that different ages are using the computers**

The benefit from this will be to know what site the CLiC community would like to deny access to (other than the obvious) like social networking site. This question was presented in multiple ways one of them is rate the web site that it considered the most wasteful of time.

- **Should the policy apply to the external devices such as mobile?**

At the end of this chapter there will be a few statistics showing why is it important to consider including the mobile phone and the hand held devices.

## **2. The Parent Questions:**

The following set of questions is addressed to the parents of students involved in the CLiC centres:

- **Do you know what an Internet Usage Policy is?**

This question is asked to make sure that the parents have an idea of what the Internet Usage Policy is and what to expect in the rest of the questionnaire.

- **Do you think that Internet Usage Policy important?**

Looking at parent point of view and knowledge about the Internet Usage Policy. This question will also show if they actually know what IUP is.

- **Are you aware of the issues that are in the internet?**

Are the parents aware of the different threat that could face their children on the internet?

- **Do you want to be informed about the IUP, or anything related to it like recent changes?**

Do parents want to be involved in the policy and if they wish to be informed about changes and updates.

- **Do you support discipline?**

Do parents want their children to be punished in case that they broke the rules.

- **What content is allowed and what is not allowed?**

This question was asked as what kind of site they want to be blocked and which one to limit the access to.

### **3. The Users/Students:**

The following set of questions is addressed to the Users/Students:

- **Do you aware of what an IUP is?**

It is good to know the understanding of the user of what Internet Policy is.

- **Do you approve of Internet Usage policy?**

Do the students agree on using IUP even if that means limiting access to some web site?

- **Is there a particular website or activity you wish to learn?**

This will help on preventing a website that the student will like to learn.

- **Which social network do you usually use?**

An attempt to gather information about which of the social network they normally access and how many hours do they usually spend on them.

#### **4. The IT Professionals:**

The following set of questions is addressed to the IT Professionals.

- **Do you have an internet usage policy in your company?**

Asking such question will show that the expert have a direct interaction with the policy and he / she are familiar with it.

- **Is the Internet Usage Policy enforced?**

It is essential to know wither the Policy is enforced or not, because if it is not enforced what went wrong and how to fix it.

- **What kind of filters do you use?**

This question could help shape the future work.

- **What Kind of files do your company allows to download?**

Based on what kind of files they normally allow to download, the new Internet Usage Policy might follow it epically that I comes from a specialize area.

Things that been considered while developing these surveys:

- **Age:**

Age is a very important factor, in the study there is 4 different groups with ages range from 9 to 69.

- **Jargon:**

For each group the language was considered to avoid any inconvenience.

- **The credibility:**

Some of the questions were asked in altered form to ensure that the interviewer give the best answer and was not bias.

#### 4.2.5 Pre-test the questionnaire, if practical - Test the questions

The questionnaire pre-test was performed by an IT student, she looked at the questions from 3 points of view, the first one was the meaning of the questions and if they deliver the right context. The second one was the English of the question - whether it is too hard to understand or too easy - especially for the IT professionals and the students questionnaire. The last one was the questions relations and the flow of the questionnaires.

#### 4.2.6 Conduct interviews and Enter Data - Ask the questions

To distribute the questionnaire two methods were followed; the first one was online surveys and it started from the beginning of August. The second method was going to the centres and handing out the surveys, and this method took a place on the 17 of August.

The entering of the data was through Limesurvey .The online survey's response was directly saved in the Limesurvey. Later on it was exported to an Excel file. As for the hand out surveys, they were first written in limesurvey and then printed out; therefore the questions were already online / in Limesurvey. The Lime survey also gives the option to enter the data to the database and then export it to an Excel file.

#### 4.2.7 Analyse the data - Produce the reports

After the data was gathered and entered into analytical software, it was then analysed to find what the most popular choices by the audience and produce the report that will help shape the Internet Usage Policy. This step will be in detailed in the next chapter.

### **4.3 Statistics about using social networking:**

Some of the questions that were asked to the groups contained gaining views about the social networking and using the Internet in mobile device or hand held devices, the next 2 section will be a justification why those questions were asked.

Social Networking is becoming very popular every year that is why it is very important to include the social networks and look at it impacts.

In 2009 Erik Qualman gave some statistics about the how social networking such as Facebook is so powerful. He make a comparison how long took other media to grow to 50 million Users: Radio (38 Years), TV (13 Years), Internet (4 Years), iPod (3 Years)...Facebook added 100 million users in less than 9 months...iPhone applications hit 1 billion in 9 months. (Qualman, 2009)

Other facts such as:

- The YouTube considered being the second largest search engine in the world.
- The blogs numbers exceed 200,000,000 Blogs.
- “Because of the speed in which social media enables communication, word of mouth now becomes world of mouth”
- If for each article is posted on Wikipedia a person got paid 1 dollar that person would earn \$156.23 per hour.
- Hulu ( a streaming website like YouTube) has grown from 63 million total streams in April 2008 to 373 million in April 2009
- The amount of content that is shared in social Network Facebook exceeds 900 million pieces of content such as web links, news stories, blog posts, notes and photos.
- In statistic conducted in by the Face it stated that More than 750 million active users 50% of our active users log on to Facebook in any given day Average user has 130 friends People spend over 700 billion minutes per month on Facebook. (Facebook Statistics)

The previous points show how much the social networks are dominating a large amount of a lot of people daily life. Therefore, it will likely be seen as an important part to be included in the Internet Usage Policy.

#### **4.4 Mobile Internet Access:**

There are different ways to access the Internet, one of the popular ways that allows internet access is the mobile phones and other hand held devices.

To have an idea of how important Mobile internet access and hand held devices internet access is, the next section will show a statistics in the US and world-wide, and the one after

that will be about Ireland, United Kingdom and European Union presenting the Internet Access using different devices.

- 25% of Americans in the past month said they watched a short video...on their phone. (Qualman, 2009)
- There are more than 250 million active users currently accessing Facebook through their mobile devices. (Qualman, 2009)
- People that use Facebook on their mobile devices are twice as active on Facebook than non-mobile users. (Facebook Statistics)
- There are more than 200 mobile operators in 60 countries working to deploy and promote Facebook mobile products. (Facebook Statistics)

The following table is a survey by Irish Internet Association (IIA) and AMAS which shows the children's internet usage. The sample included over 25,000 children and their parents across 25 countries.

Children Online	Ireland	UK	EU
Access the internet using mobile phone	29%	33%	22%
Access the internet using hand held device.	23%	26%	12%

**Table 4. 1 this table shows the percentage of children who access the internet using their mobile phone or other devices.**

The policy should state clearly what guidelines that should be followed in terms of mobile and hand held devices.

## **4.5 Conclusion**

In conclusion this chapter was following a number of steps to develop the survey, starting with knowing the audience and how they will be involved to finally present the finished report in which all the information that will help build the Internet Usage Policy. The output

from this chapter will be the raw data that will enter the next chapter to be analysed to become useful information.



## **5 SURVEY RESULT AND ANALYSIS**

### **5.1 Introduction**

In this chapter the data that been gathered through the survey outlined in the last chapter will be analysed to gain the information needed to write the Internet Usage Policy. The chapter begins by reviewing the data analysis procedure that was used. The collected data is then analysed under a number of headings.

### **5.2 Analysis Process**

After acquiring the information from the contributors the data were entered to the statistical software (Excel). The next step was to do some data control, any incomplete field was deleted as will any information that was not related to the subject. There was also an inspection for bias responses. After the data was completely cleaned, it was ready to be represented and analysed.

#### **5.2.1 Data Analysis**

For analysing the data, two statistical tests will be used - the Analysis of Variance (ANOVA) and the Chi Square test. The following explains the two of these tests.

##### **1- Analysis of variance (ANOVA)**

Anova is a technique used to test that the means between 2 or more groups are equal with the assumption that the sample group is normally distributed.

There are a number of different types of ANOVA test. We often talk about either 1 way or two way ANOVA.

We can use 1 way ANOVA - global search and replace which use only one factor for example if there are a group of people and the experiment would be to measure the weight of them, the weight will be the factor 1 way Anova will be used to analyse the variance.

The second one is 2 way Anova, based on the example above if we used the weight factor with the age factor 2 way Anova will be used to analyses the variance.

## 2- Chi-square test

The Chi square test is slightly the same as Anova but for this one it only applies to categories. The Chi square test for independence determine whether the data that been gathered through the survey outlined in the last chapter have a noticeable difference between observed frequencies in one or more categories. For example: 2 types of fish Salmon and Tuna, and 2 test group Males and Females. The test question is what each group would prefer Salmon or Tuna. After that Chi square test for independence will run on the result and found out if there is a significant difference in preference for Salmon or Tuna between the two sample groups (Male and Female).

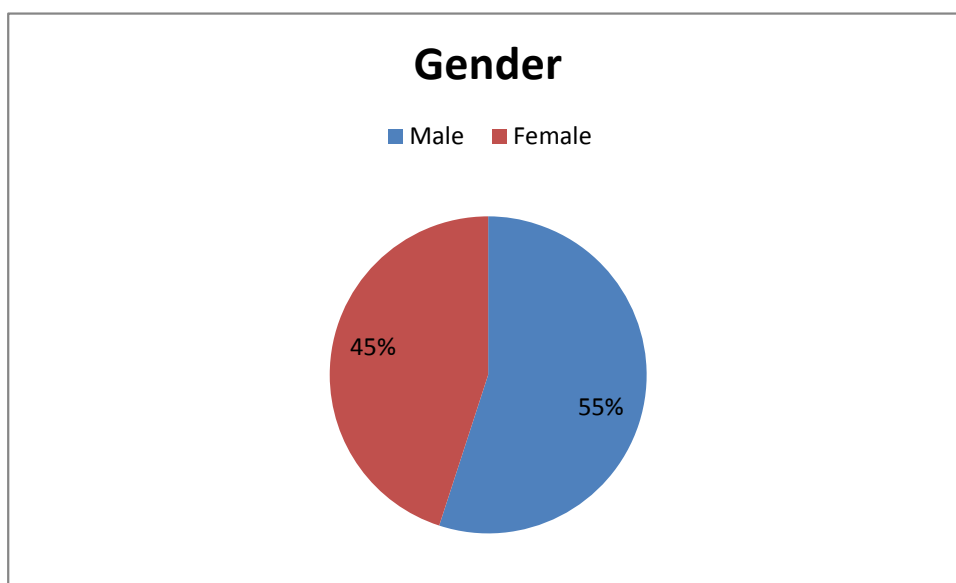
### 5.2.2 P Value

In statistical significance testing, the p-value is the value returned by the function that calculate the significant different, the smaller the P value is the more significant the observed frequencies. This will be but in to test in the following sections.

## 5.3 Demographics of Participants

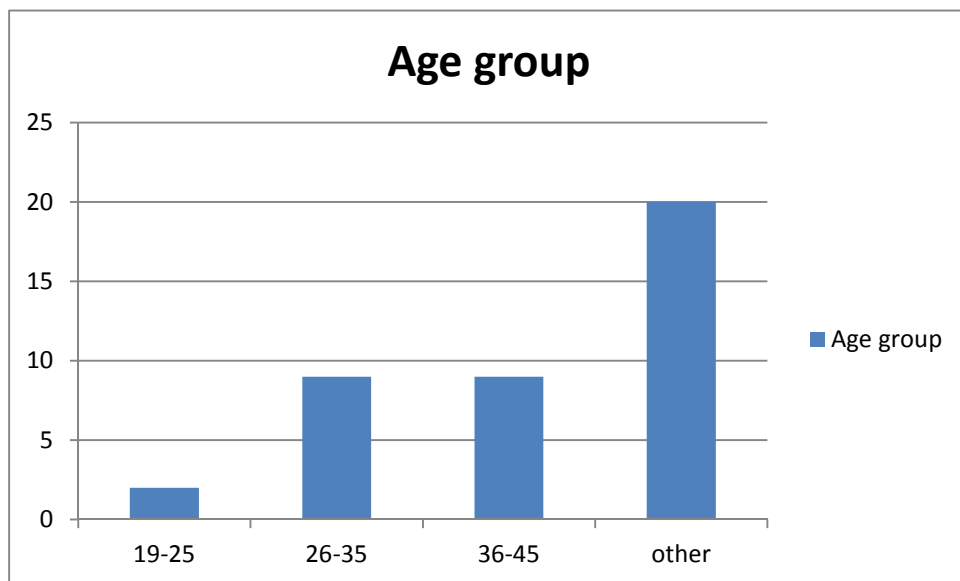
This section is general information about the participants of the survey. It shows the participants gender and ages. (More information and group age and gender break down in Appendix B)

The pie chart below shows that 55% of the participants in this study were men and they are 22 and the women participants are 18 with 45% of the total sample.



**Figure 5. 1** this graph show the male and female participant

There were 4 groups in this study each group has a different ages, as it appears in the graph below.



**Figure 5. 2 Participants Ages.**

#### **5.4 Previous Knowledge of and Attitude towards Internet Usage Policy**

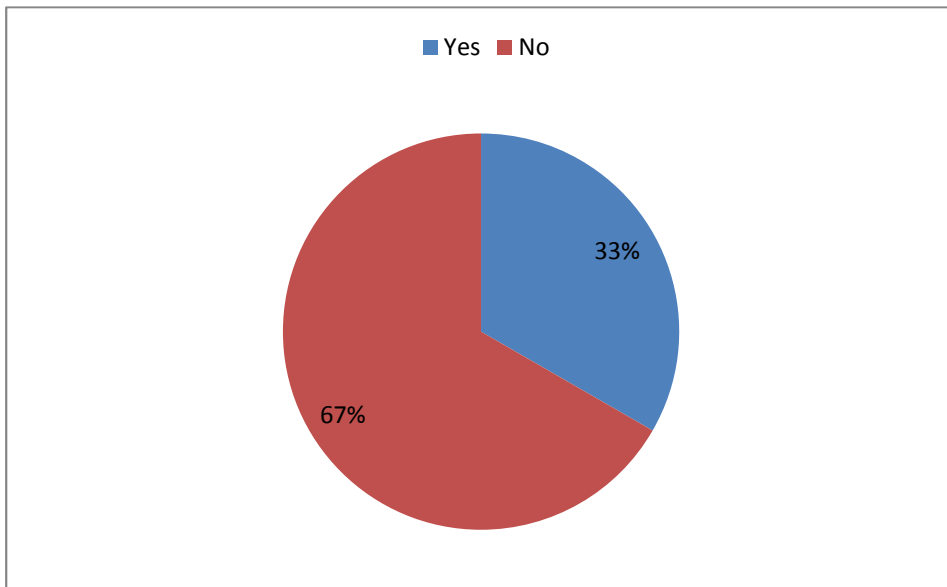
This section will present the information acquired from the groups about the Internet Usage Policy.

- **Internet Usage Policy, what is it?**

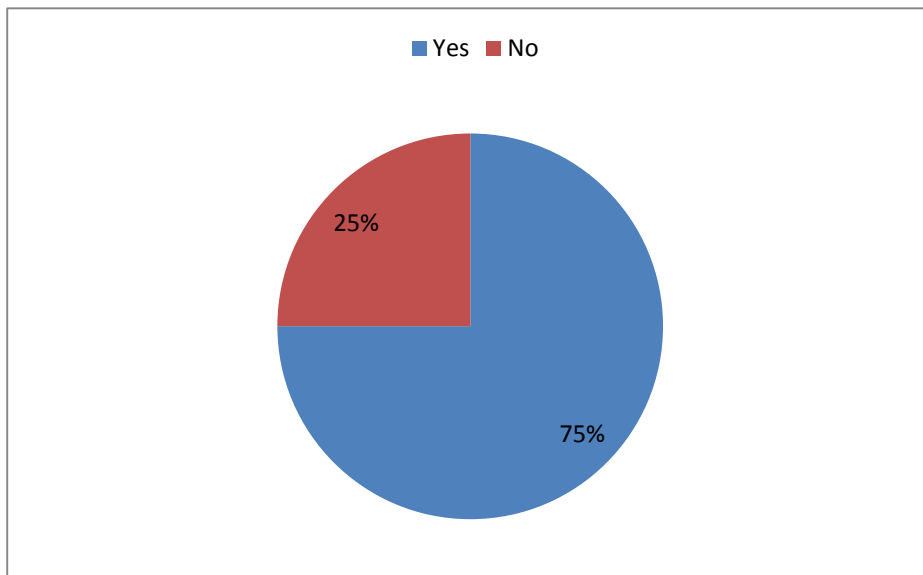
The first main question that requires an answer is, do the groups know what an Internet Usage Policy is? This is important for the Parents group and Students group.

The results shows that 67 % (see at Fig 5.3) of the students do not know what the Internet Usage Policy is, compared with their parent 75 % (Fig 5.4) who know what IUP is.

Although 75 % of the Parents group stated that they know what Internet Usage Policy is, when asked about their understanding of it, the result showed different.



**Figure 5. 3 Students Knowledge of Internet User Policy**



**Figure 5. 4 Parent's Knowledge of Internet Usage Policy**

After analysing the difference in value of Parents and Students knowledge of Internet Usage Police using Chi square test, Assuming a 11% confidence interval, it found no significant difference between these groups ( $p > 0.05$ ). It is however 'close to a trend', and might been significantly different if there were a larger sample size.

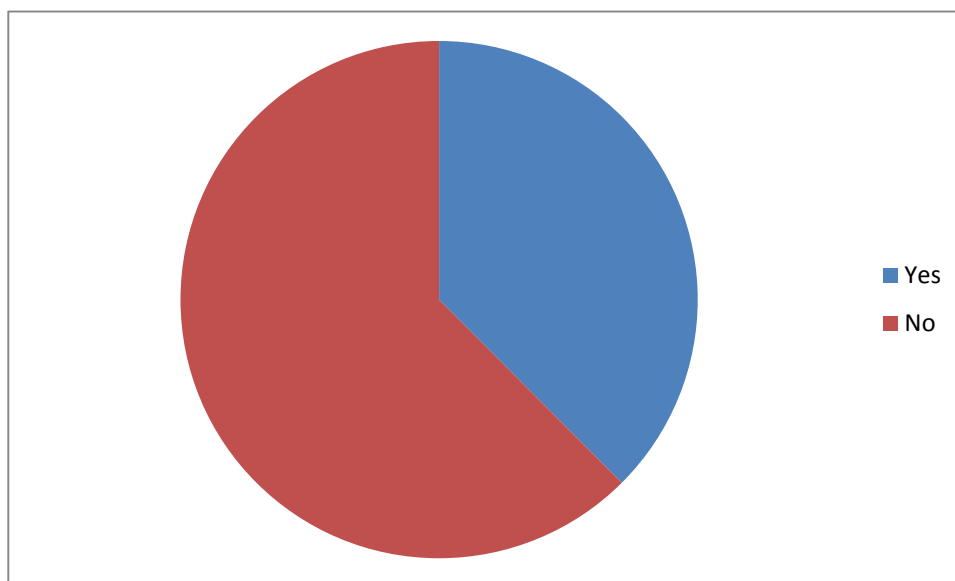
- **Is the Internet Usage Policy Important?**

From the point view of the different groups, do they think that the IUP is important? 100 % of the CLiC and the IT Professionals agree that the IUP is important. The CLiC group

members justify their answer by saying that leaving the organization resource without guidelines or rules can harm the organization itself in case. For example: if some used the computer facilities and engaged in any illegal activities, the organisation could be blamed. And they add the IUP is important because with clear guidelines it would be easy to resolve conflict arise.

IT Professionals think it is important for the same reasons as CLiC, and they emphasise that with rules in case of wrongdoing events everything is clear.

As for the Parents group it seem to be a mix opinion about how important is the IUP, half of the group think it is important while the other half think it is not. That might corresponds to the fact that when they asked about if they are facing any problems with their children in the internet, 63% said no. Fig 5.5



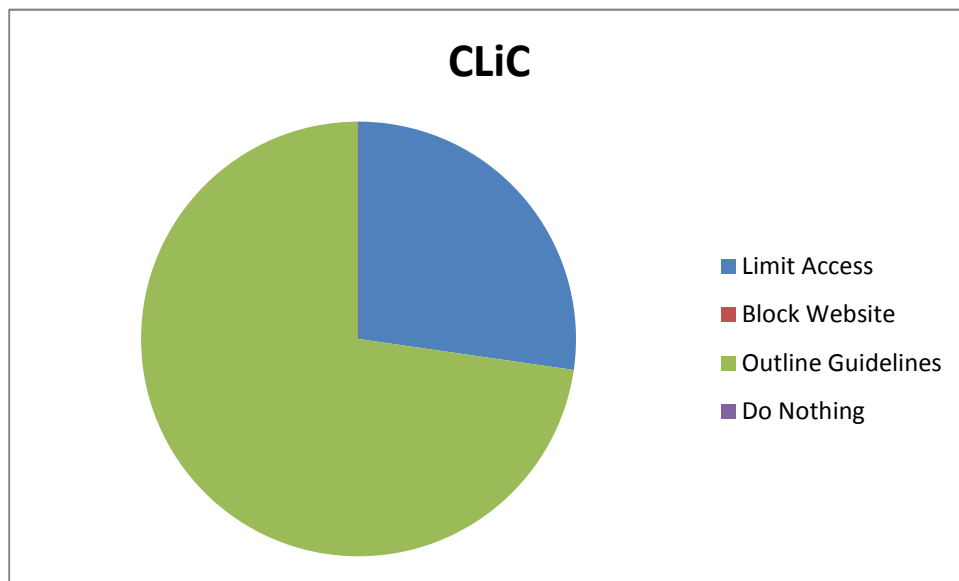
**Figure 5. 5 If the Parents are facing problem with their children**

- **What CLiC expect from the IUP?**

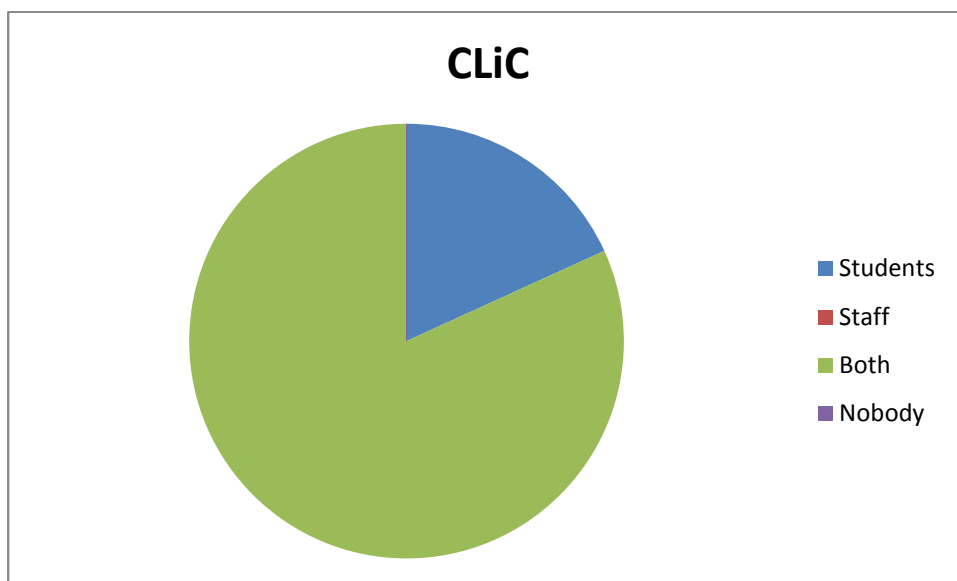
What do CLiC expect the Policy to do, and whom should it apply to.

73 % of CLiC stated that the policy should outline the guidelines and the rest agreed on limit the user access to the websites. Fig 5.6

82 % expected the Policy teams will be followed by both students and the staff, while the 18 % think that it only apply on the students. Fig 5.7



**Figure 5. 6 What CLiC think IUP should do by?**

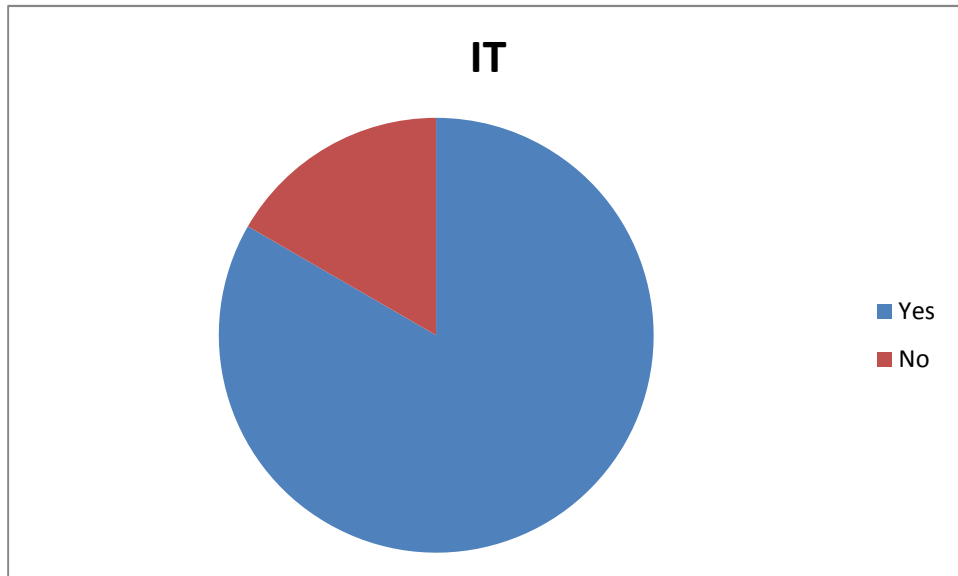


**Figure 5. 7 who should the policy apply on?**

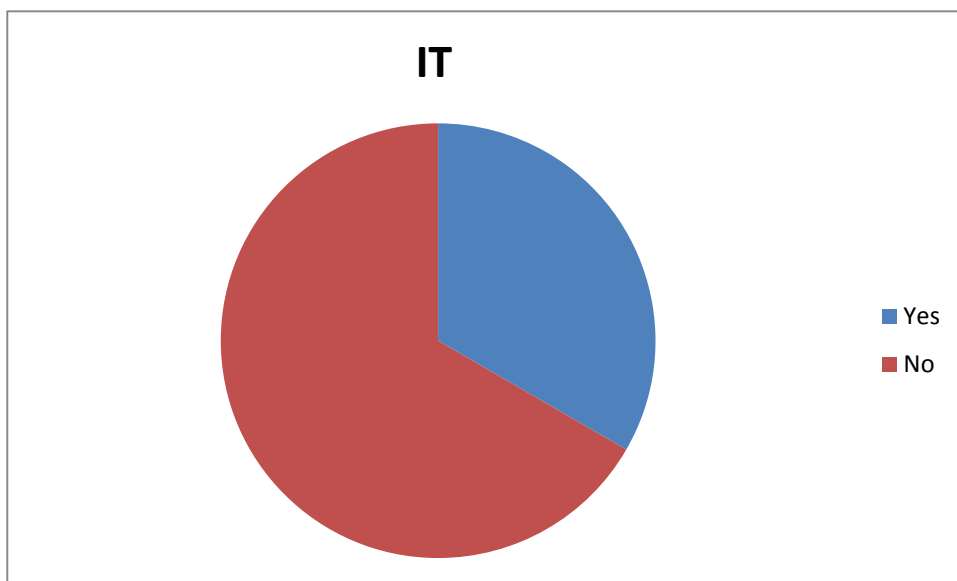
- **IT Professionals and Internet Usage Policy**

The IT Professionals are experts in this domain and know what is important and what is not, as well as the enforcement of the policy.

When the IT Professionals were asked if their company has an IUP 83 % said that their company has IUP while the remaining said they do not have IUP Fig 5.8. and when they asked if the Policy enforced in the company 67 % said it is not enforced while 33 % said yes it is enforced. Fig 5.9



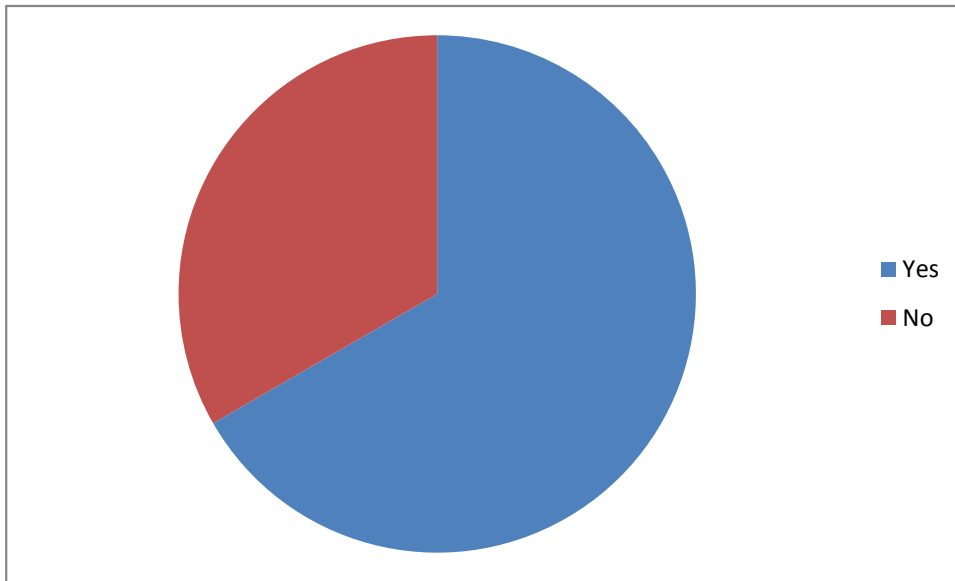
**Figure 5. 8 does the company has IUP**



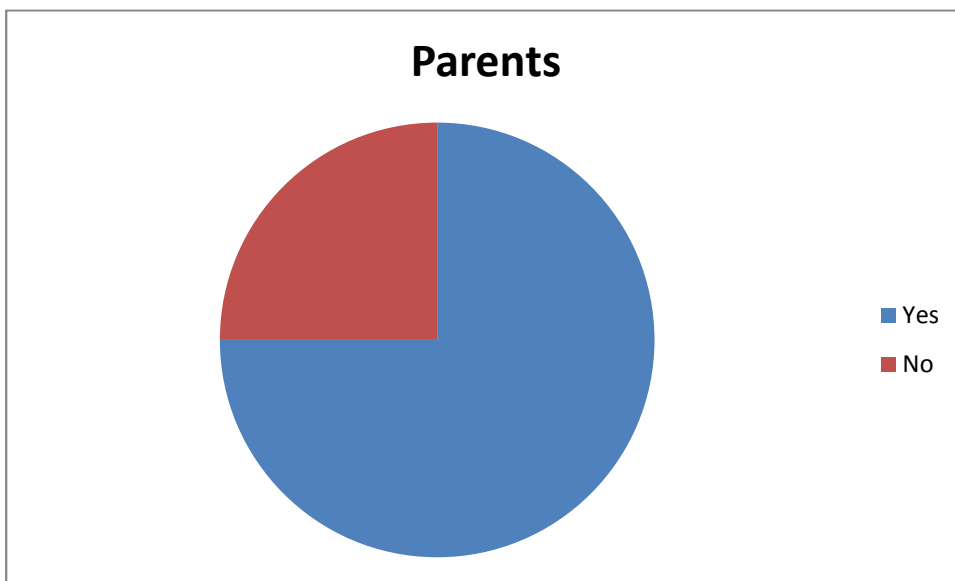
**Figure 5. 9 If the IUP enforced**

- **Enforcing the Internet Usage Policy:**

Enforcing the IUP is one of the key components that should be considered carefully. 67 % of the IT professionals think that the policy should be enforced fig 5.10, while 75 % of the parents think that the IUP should be enforced. Fig 5.11



**Figure 5. 10 Do IT Professionals agree on enforcing the IUP**



**Figure 5. 11 Do the Parents agree on enforcement of the IUP**

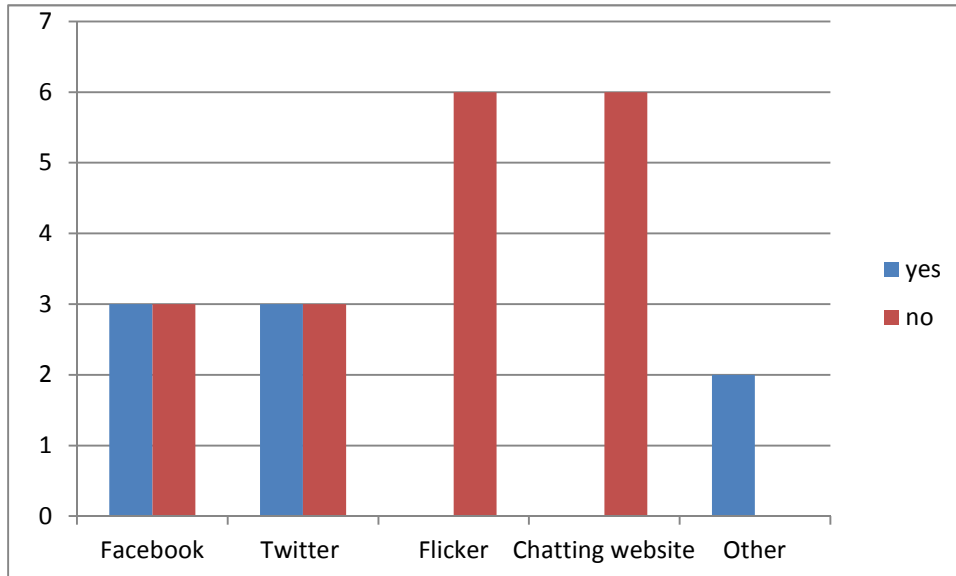
### **5.5 Attitudes towards Social Networking**

Social networking is taking over the internet; therefore, it is important to know what are the users' patterns when it comes to social networking.



- **Are the groups aware of social networking?**

When this question was address to the Students group, the entire student group stated that they are aware of what social networking is and they use the following sites as is shows in the fig 5.12

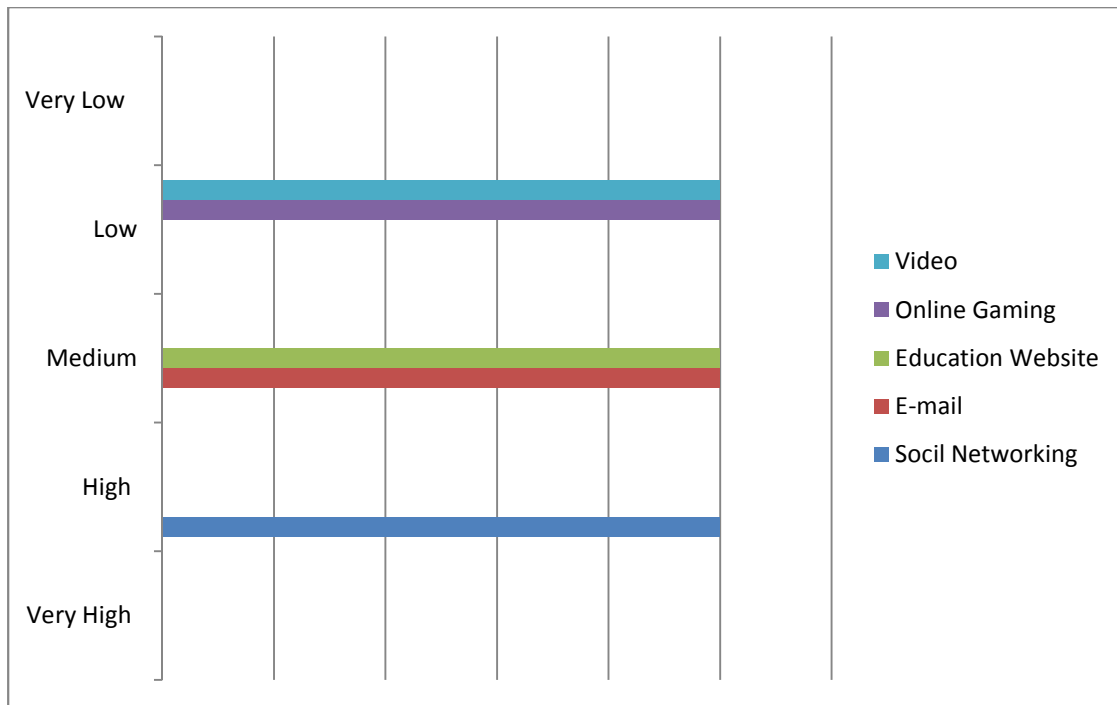


**Figure 5. 12 popular social networks by the students.**

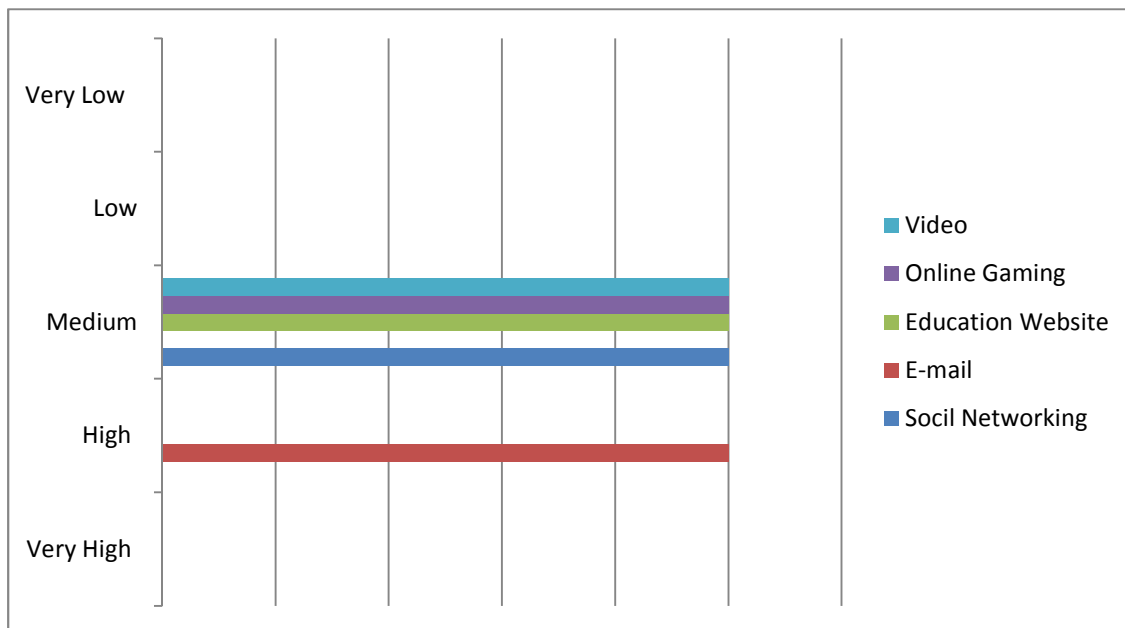
- **Social networking and time spent:**

Parents, Students and CLiC members were asked to rate some activity based on which one the user might spend a lot of time on and Their options were: Social Networking, E-mail, Educational websites and videos, The social network scored the height one in all three surveys only 5 from 25 (all the surveys together) think that social network dose not consume much time from the users. The second score was for Education Websites. The Online Gaming and Videos were equal in the third score. The last activity was the Email. Fig 5.13, 5.14 , 5.15

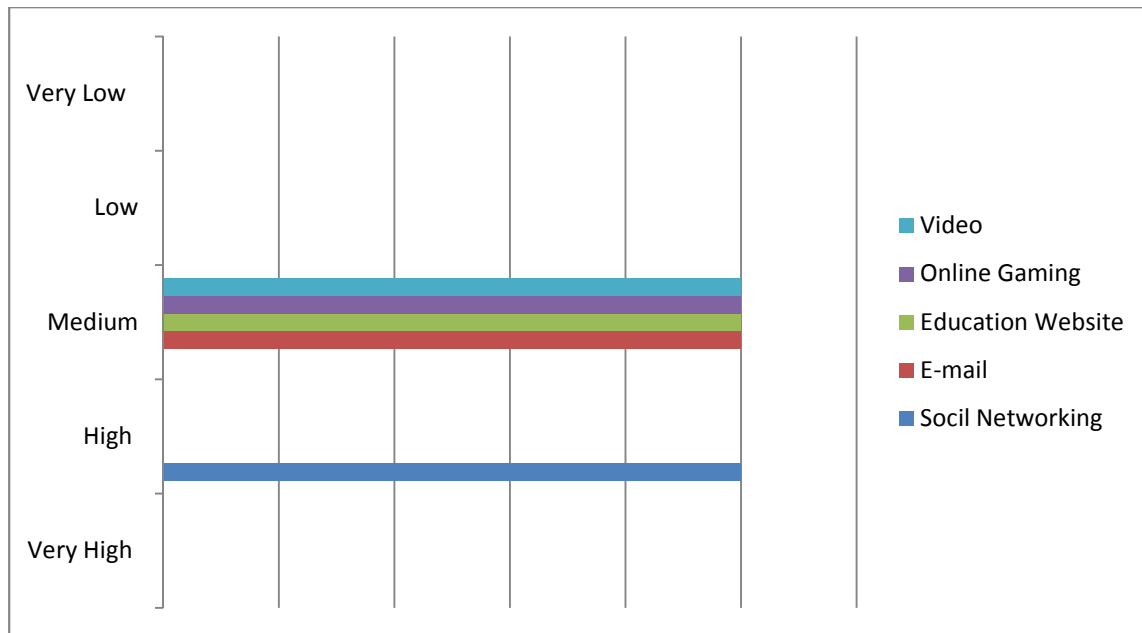
After analysing the difference in Value of Parents, Students and CLiC, knowledge of Internet Usage Police using Analysis of Variance (ANOVA) test, and Assuming a 22% confidence interval, it found no significant difference between these groups ( $p > 0.05$ )



**Figure 5. 13 Parent's Impression of Web Applications**



**Figure 5. 14 Student's Impression of Web Applications**



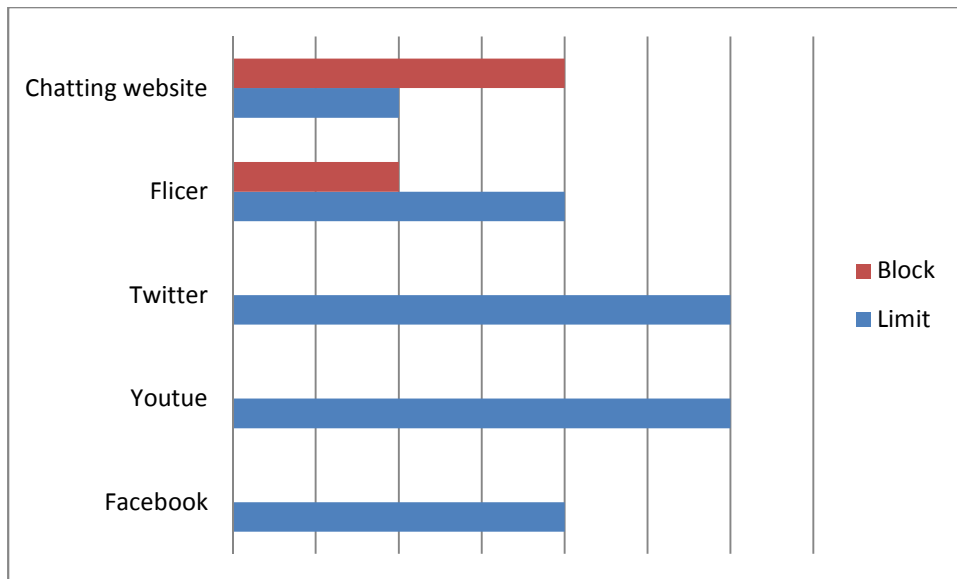
**Figure 5. 15 Impression of Web Applications from CLiC Community Members**

- **Blocking and Limiting websites:**

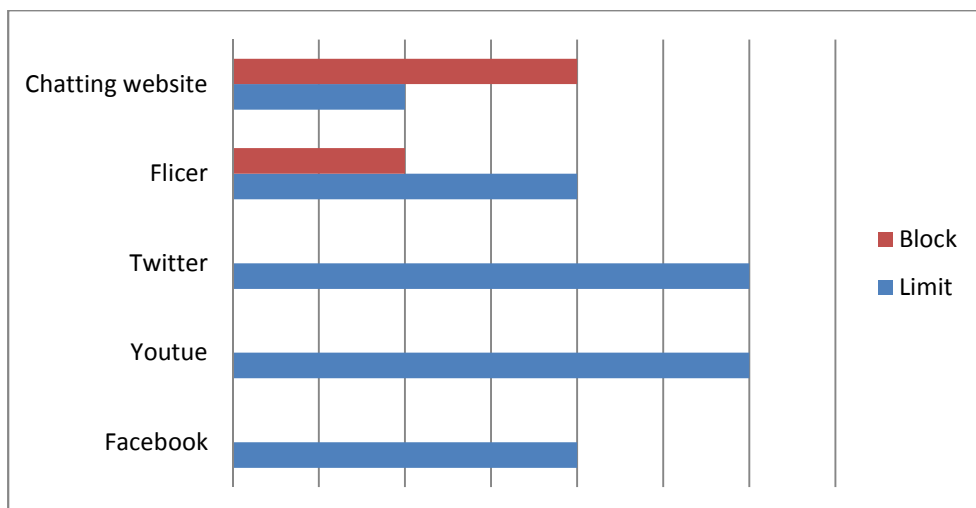
A question was asked to IT Professionals and Parents to see their view in which websites should be blocked and which one should be limited.

6 of the participants in this survey agreed on that both the Facebook and the YouTube should have a limit access and only one said that YouTube should be blocked completely. 5 of the participants said Twitter should be limited and no one thinks it must be blocked. As for Flickr 4 of the participants thinks it should be limited and only one think it should be blocked. At last Chatting website were 6 think it should be blocked and 3 thinks it should be limited. See Figs 5.16, 5.17 for the details.

After analysing the difference in Value of Parents and IT Professionals, knowledge of Internet Usage Police using Chi square test, it found no significant difference between these groups ( $p > 0.05$ )



**Figure 5. 16** this chart shows what IT Pro think should be Limited or Blocked to the users



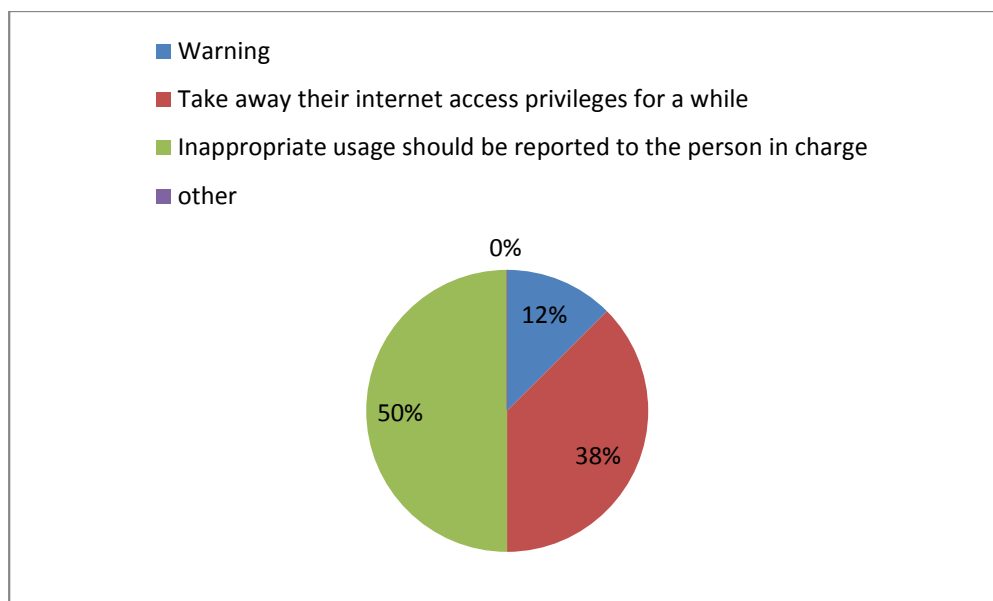
**Figure 5. 17** this chart shows what Parents think should be Limited or Blocked to the users.

## 5.6 Attitudes towards Breaches of Internet Usage Policy

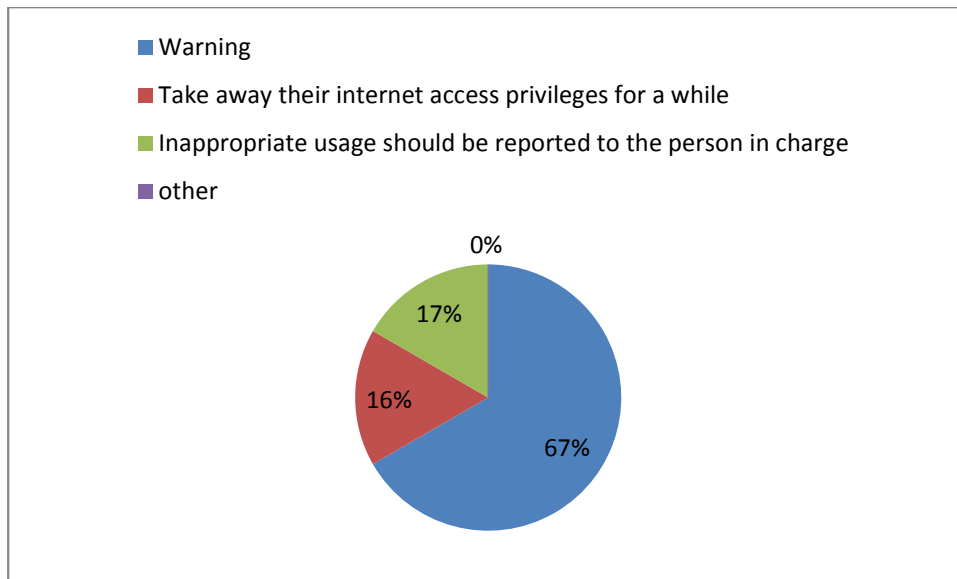
It is very important to know what action will be taken in case the policy terms were broken. This question was addressed to the Parents, IT Professionals and the CLiC. The Warning option was the most reasonable choice to 67 % of the IT Professionals and 36 % to the CLiC and it was the least favourite to the Parents with only 13 %. The second option Take away their internet access privileges for a while was popular choice in the Parent survey with 38 %

of them approve to this measure, as for the IT Professionals 17% of them think that is a good measure as well as the CLiC with 18 %. The Third option is Inappropriate usage should be reported to the person in charge was the most popular choice for the Parents with 50 % while only 17 % of the IT pro agree to and 27% of the CLiC think it is a good punishment. See fig 5.18, 5.19, 5.20

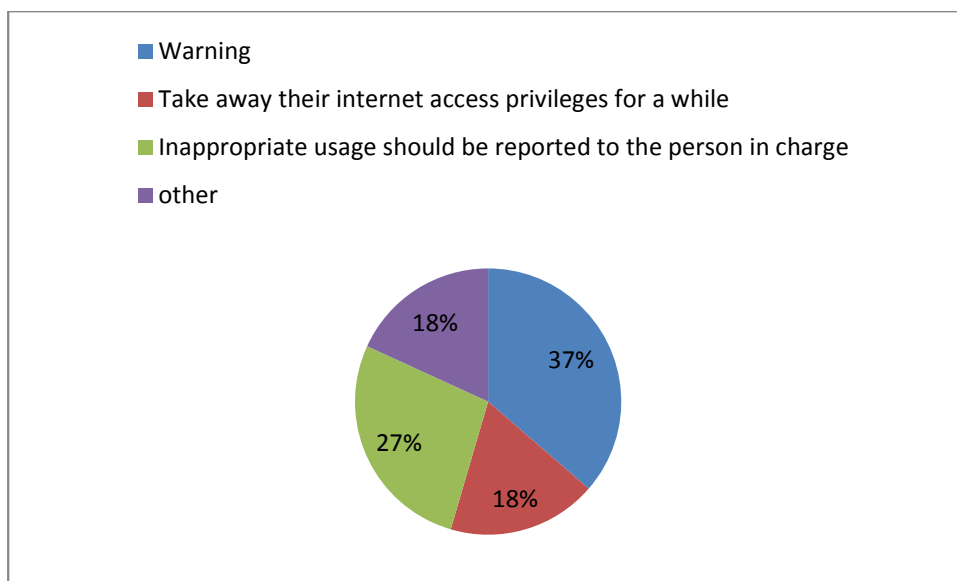
After analysing the difference in Value of Parents, CLiC and IT Professionals, knowledge of Internet Usage Policy using Chi square test, it found no significant difference between these groups ( $p>0.05$ ).



**Figure5. 18 Parent's Choices for IUP Violation Policy**



**Figure 5. 19 IT Professional's Choices for IUP Violation Policy**



**Figure 5. 20 CLiC Community Member Choices for IUP Violation Policy**

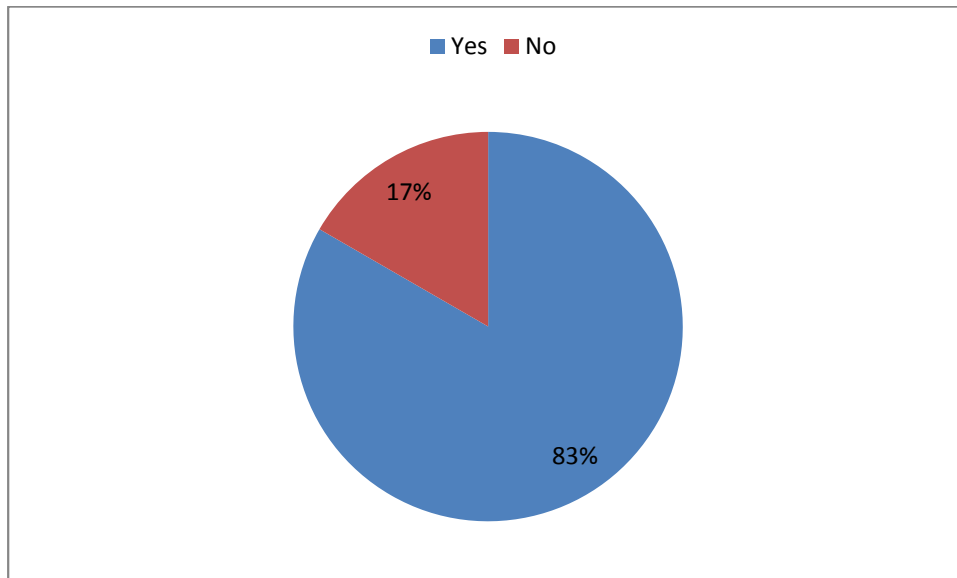
### **5.7 Attitudes towards Mobile phones and Downloading files:**

Mobile phones and hand held devices can be a major distraction especially that all the modern phones got internet access.

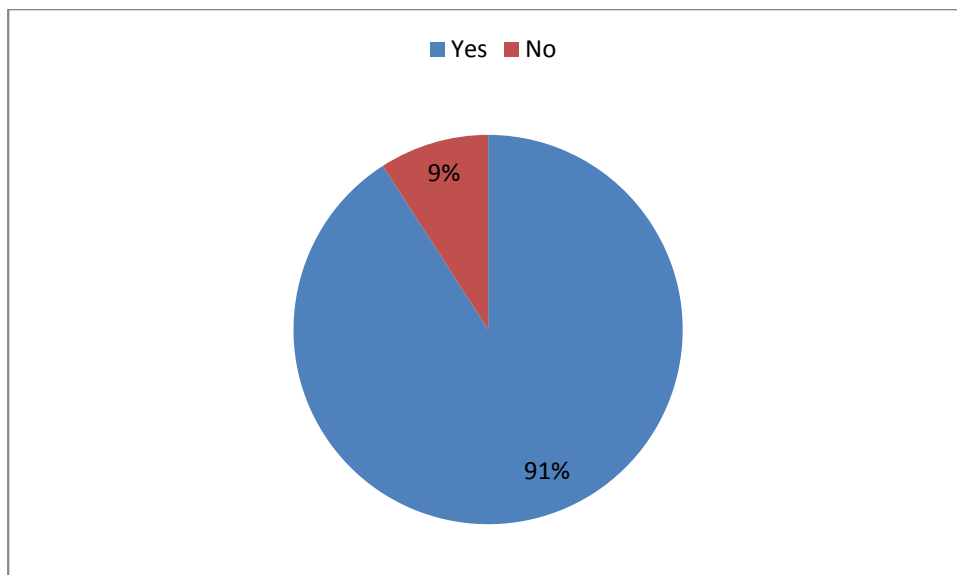
IT Professionals and CLiC were asked if the policy should include the mobile phones and the hand held device. 83 % of IT Professionals think that the terms should also apply to the use

of mobile while only 17 % think it should not. As for the CLiC the percentage is even higher 91 % think it should be applied on mobile, but the rest think the opposite. Look fig 5.21, 5.22

After analysing the difference in Value of Parents, CLiC and IT Professionals, knowledge of Internet Usage Police using Chi square test, it found no significant difference between these groups ( $p>0.05$ ).



**Figure 21** the pie chat shows whether the mobile use should be in the policy by IT Pro

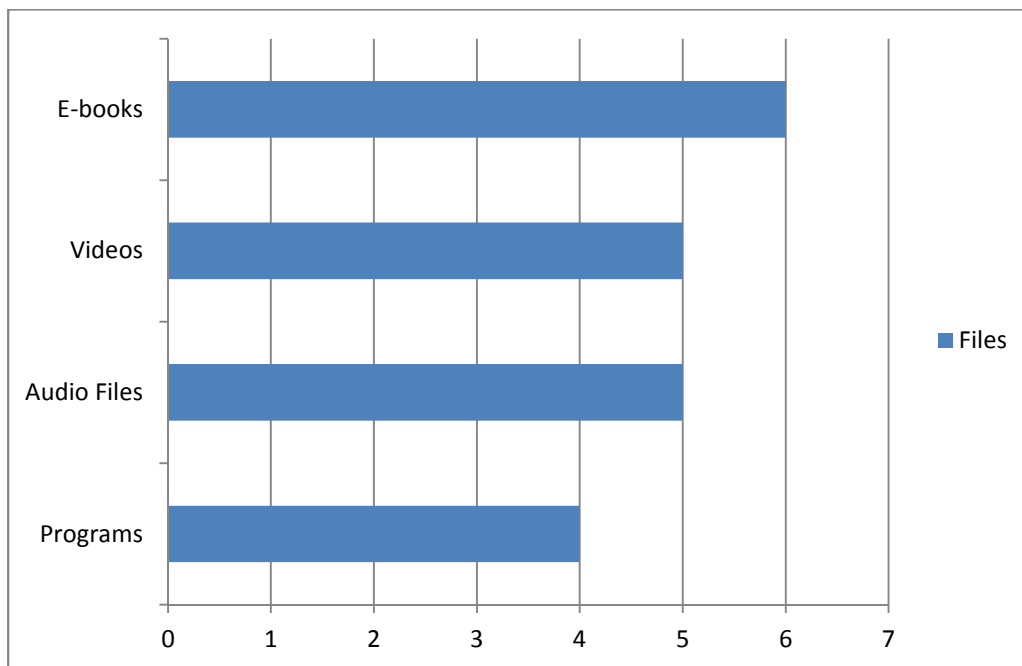


**Figure 22** the pie chat shows whether the mobile use should be in the policy by CLiC

- **File download:**

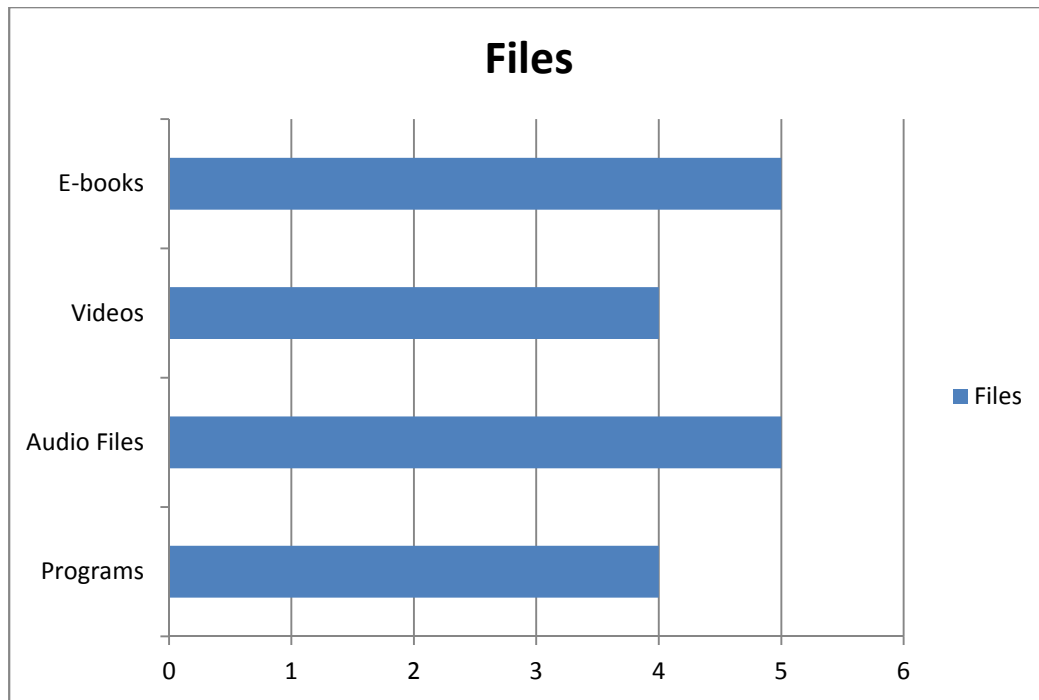
Some of the organizations restrict what types of files to download, both IT Professionals and CLiC allows downloading files in different 4 categories Programs, Audio file, Videos and E-books. E-books were the highest IT Professionals with 30 %. Come in second both of Audio files and Videos with 25 %. Programs was the least allowable to download by 20 %. As for the CLiC the highest percentage was for both E-books and Audio files with 28 %. Programs and Videos also have the same percentage 22%. Fig 5.23 , 5,24

After analysing the difference in Value of Parents, CLiC and IT Professionals, knowledge of Internet Usage Police using Chi square test, it found no significant difference between these groups ( $p>0.05$ ).



**Figure 5. 23 the chart shows the files that could be downloaded by IT Pro**





**Figure 5. 24 the pie chart shows the files that could be downloaded by CLiC**

## **5.8 Conclusion**

To summarize, this chapter analyse the data that been provide be the survey. This chapter also contain the most important data and its representation. The output of this chapter will help construct the Internet Usage Policy

## **6 WRITING THE INTERNET USAGE POLICY**

### **6.1 Introduction**

This chapter will pull together some of the ideas introduced in previous chapters. It will reintroduce some of the steps that been mentioned before like steps for DEVELOPING A POLICY from chapter 2. The result from this chapter will be the final Internet Usage Policy developed from interaction with the CLiC community groups.

### **6.2 Initiate and establish structure**

Chapter 2 outline guidelines by the National Centre for Technology in Education to develop the Internet Usage Policy (NCTE, Webwise 2006 Survey of Children's Use of the Internet, 2006):

- 1. Decide on who will have responsibility for putting this policy in place.**

The first of initiate and establish structure to design the Policy is to knowing stakeholders. The responsibility for the Policy will lie in the hand of the CLiC program; they make the important decisions as well as the enforcement of the policy

- 2. Establish a co-ordinating group or committee, if considered necessary.**

The next step will be finding the coordinate the groups that will be involved in sharing the information. All this is already known and discussed in chapter 4

- 3. Decide on how the information will be gathered from the audience.**

The last step in initiate and establish structure is to choose the appropriate method to gather the information from the groups. In this study will benefit from the use of questionnaires as it explained in chapter 4.

### **6.3 Review and research**

- 1. Define the purpose, the scope and goals of the Internet Usage Policy.**

The internet Usage policy is constructed for the CLiC. To build the Policy from four user group was used and based on their preference. The purpose, scope and goals are discussed thoroughly in chapter 2.

## **2. Interview with the stake holders and all the people involved in the process.**

To achieve this questionnaires have been used. They were distributed to 4 different groups. More details about this in chapter 4.

## **3. Look at similar cases to the one is being developed.**

During the research phase different cases been looked at, which they involve developing the policy. There were 2 different cases the policy that is developed for schools and the policy that is developed for the organizations. Each one has its unique quality and requirement, for example the organization's policy will be much more strict than the one found in schools and that because the productivity issues.

## **4. Gather and analyse information.**

The information is gathered in an Excel file and there was some data representation and statistical work.

## **6.4 Preparation of draft policy**

### **Start with a zero draft, organize and outline the policy and then write the rough draft.**

To help shape the finale Policy multiple template been looked at, as well as example written policy for different reasons which helped me understand what should be there in addition what sort of language to use.

#### **6.4.1 The Draft Zero**

With assistance of webwise the draft was constructed. See Appendix C

## **6.5 Circulation consultation**

- Circulate the draft policy.

The Draft been sent to the CLiC to review it and see if it could be adaptable by them and compatible with their need and objectives.

- **Amend the draft policy, as necessary, in light of the consultation process.**

## **6.6 Ratification and communication**

- Present the policy to the Board of Management for ratification.
- Make provision for the circulation of the policy to all parents/guardians and arrange to provide it to all students, including new entrants.
- Communicate the ratified policy to other members of the school community

Unfortunately the previous last steps will not be applied due to time available.

## **6.7 Conclusion**

In conclusion, this chapter was a set of steps followed to construct the Internet Usage Policy. Starting from initiating and establishing structure to ratification and communication. The result from this chapter is the Internet Usage Policy.

## **7 CONCLUSION AND FUTURE WORK**

### **7.1 Introduction**

This chapter of the dissertations will summarize the research definition and provide an overview of the research findings. And it will look at what kind of contribution this project has added to the body of knowledge. Reintroducing the experimentation and how it was evaluated as well as the limitation of the experimentation. At the end the chapter will also discuss the future work.

### **7.2 Research Definition & Research Overview**

Computer Learning in Communities (CLiC) have multiple programs, where they sponsor centres and schools and equip them with the necessary skills from the Information and Communication technology (ICT). The CLiC's students are from different ages. Therefore, CLiC are obligated to ensure the safe usage of the student, and requested an Internet Usage Policy that meets their goals and needs.

Internet Usage Policy is a tool that is used to set rules and guideline for all internet users within the organization. It has some components that must be stated clearly. For example: in case of policy terms been broken what actions to follow.

To achieve this task different groups of interested people in the Internet Usage Policy were gathered to gain there views about the subject.

### **7.3 Contributions to the Body of Knowledge**

This project contributed to the body of knowledge in many ways

Firstly, it gathered all the information that is concerned with the Internet usage policy in one document. As well as introducing improvement on some of the steps mentioned in the chapters.

Secondly, found a new way to implement the need of the user in the Internet Usage Policy. Furthermore, the dissertation gives insights about the groups understanding of the Internet Usage Policy, what important in their point view and must be included.

#### **7.4 Experimentation, Evaluation and Limitation**

Experimentation in this project was analysing the policy and its component based on the findings in a survey that was be conducted. There were 4 different groups; each group had its own criteria and set of information that can be used to build the Internet Usage Policy. The groups were the CLiC, the Parents, the IT Professionals and the last group which is the Users or The Students. Analysing the policy and its components that shall gave a clear idea what questions should be addressed to what group.

The evaluation was to use the information gained from the experimentation process, and build the Internet Usage Policy, and then the Policy was circled to all the stakeholders to see if it met their objectives and needs.

Limitations of the project were the number of population samples. These were relatively small which resulted in no significance difference in the data. The other big limitation is that the last the limited time scope for the dissertation meant that IUP circulation and implementation phases could not be addressed directly.

#### **7.5 Future Work & Research**

This project was about building Internet Usage Policy for the CLiC to protect the students from potential harms. In future research it should show how the CLiC itself can benefit from the use of Internet Usage Policy. And how can IUP ensure the safety for CLiC.

#### **7.6 Conclusion**

In conclusion, the purpose of this research is to build the perfect An Acceptable Internet Usage Policy for the CLiC to ensure the safe use of the internet to their students. This can be achieved through combining the different views of different people.

## Bibliography

- Knowledge Acquisition*. (2003, 11 20). Retrieved 8 31, 2011, from Epistemics : <http://www.epistemics.co.uk/Notes/63-0-0.htm>
- Al-Khayatt, S., & Neale, R. (2001). Automated Detection of Internet Usage Policy Violation. *IEEE*, 507-510.
- Al-Rawi, P. Z. (n.d.). *Writing Guide: Survey Research*. Retrieved 8 31, 2011, from <http://writing.colostate.edu/guides/research/survey/>
- Al-Rawi, P. Z. (n.d.). *Writing Guide: Survey Research*.
- Content-control software* . (n.d.). Retrieved 8 31, 2011, from Wikipedia: [http://en.wikipedia.org/wiki/Content-control\\_software](http://en.wikipedia.org/wiki/Content-control_software)
- Facebook Statistics*. (n.d.). Retrieved 8 31, 2011, from Facebook : <http://www.facebook.com/press/info.php?statistics>
- HWTF. (n.d.). *Change Starts Here: The Grass Roots Guide for Tobacco-Free Schools in North Carolina, NC Tobacco*. Retrieved 8 31, 2011, from north carolina health wellness trust fund: [http://www.healthwellinc.com/ForGrantees\\_Tobacco.aspx](http://www.healthwellinc.com/ForGrantees_Tobacco.aspx)
- InfoSec Acceptable Use policy*. (n.d.). Retrieved 8 31, 2011, from SANS Institute.
- Ireland, I. S. (n.d.). *Code of Practice and Ethics*.
- lime survey*. (n.d.). Retrieved 8 31, 2011, from limesurvey: <http://www.limesurvey.org/>
- NCTE. (2006). *Internet Safety Information and Advice for Schools*. Ireland : National Centre for Technology in Education .
- NCTE. (2006). *Webwise 2006 Survey of Children's Use of the Internet*. Ireland: National Centre for Technology in Education.
- Qualman, E. (2009, 8 11). *Statistics Show Social Media Is Bigger Than You Think*. Retrieved 8 31, 2011, from socialnomics: <http://www.socialnomics.net/2009/08/11/statistics-show-social-media-is-bigger-than-you-think/>
- Security, 8. (2011, 15 04). *Creating and Managing Effective*. Retrieved 8 31, 2011, from 86 Security: <http://www.m86security.com/downloads/>
- stats, I. W. (2011, 7 25). *EUROPEAN UNION*. Retrieved 9 1, 2011, from Internet World stats : <http://www.internetworldstats.com/europa.htm#ie>
- Stewart, F. (2000). Internet Acceptsble Use Policies: Navigating the Management, Legal and Technical Issues . *Security Management* , 46-52.

- Surowiecki, j. (2004). *The Wisgom of Crowds*. USA: Doubleday, division of Random House .
- Team, P. &. (1994). Guide to Writing Policy and Procedure Documents.
- Welebir, B., & Kleiner, B. (2005). How to Write a Proper Inter net. *Management Research News*, Volume 28 Number 2/3.
- Wikipedia. (2009, 2). *Acceptable use policy*. Retrieved 8 31, 2011, from Wikipedia:  
[http://en.wikipedia.org/wiki/Acceptable\\_use\\_policy](http://en.wikipedia.org/wiki/Acceptable_use_policy)



## Appendix A: The Questionnaires

### [Q1] You are a

- ☐ IT Professionals
- ☐ Member of the CLIC Group

### [Q2] Age Group

- ☐ 19-25
- ☐ 26-35
- ☐ 36-45
- ☐ Other

### [Q3] Gender

- ☐ Male
- ☐ Female

### [Q4] Your job position

.....

### Clic Specific

### [Q5] Are you in favour of using an internet usage policy?

- ☐ Yes
- ☐ No

### [Q6] Please justify your previous answer:

.....

.....

### [Q7] Do you think an internet usage policy will attract more centres and schools to join the clic?

- ☐ Yes
- ☐ No

**[Q8] What Internet Activity do you think that the users spent most of their time on within the working hours?**

Please choose **all** that apply:

- ☐ Social networking (facebook)
- ☐ E-mail
- ☐ Online gaming
- ☐ Video
- ☐ Other:

**[Q9] Rate the following sites from 1-5 based on which sites you believe users spend most time on (note that 1 being the highest and 5 being the lowest)**

	1	2	3	4	5
Social networking (facebook, etc)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
E mail	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Education websites	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Online gaming	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Video	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

**[Q10] In your opinion should the new Internet Usage Policy:**

Please choose **only one** of the following:

- ☐ Limit the users access to the websites
- ☐ Block the websites
- ☐ Outline the guidelines
- ☐ Do nothing

**[Q11] The internet usage policy should be applied to:**

Please choose **only one** of the following:

- ☐ Students
- ☐ Staff
- ☐ Both
- ☐ Nobody

**[Q12] Do Clic community allows currently allow the users to download files from the internet?**

- ☐ Yes
- ☐ No

**[Q13] If yes, what kind of files do you allow to be downloaded?**

Please choose **all** that apply:

- ☐ Programs
- ☐ Audio files
- ☐ Videos
- ☐ E -books (PDF, Doc)
- ☐ Other:

**[Q14] Do you want to allow users to download files from the internet?**

- ☐ Yes
- ☐ No

**[Q15] If yes, what kind of files do you allow to be downloaded?**

Please choose **all** that apply:

- ☐ Programs
- ☐ Audio files
- ☐ Videos
- ☐ E-books (PDF, Doc)
- ☐ Other

### **Final questions**

**[Q16] In case of the policy terms being broken, what measures should be taken:**

Please choose **only one** of the following:

- ☐ Warning
- ☐ Take away their internet access privileges for a while
- ☐ Inappropriate usage should be reported to the person in charge
- ☐ Other:

**[Q17] Should the policy terms apply to mobile internet access?**

- ☐ Yes
- ☐ No

**[Q18] Any other recommendation or comments:**

.....  
.....

Thank you for your Time

## **Intro**

**[Q1] You are a**

- ☐ IT Professionals
- ☐ Member of the CLIC Group

**[Q2] Age Group**

- ☐ 19-25
- ☐ 26-35
- ☐ 36-45
- ☐ Other

**[Q3] Gender**

- ☐ Female
- ☐ Male

**[Q4] Your job position**

.....

## **IT Professional Specific**

**[Q5] Does your company have an Internet Usage Policy?**

- ☐ Yes
- ☐ No

**[Q6] Do you think that Internet Policy is important ?**

- ☐ Yes
- ☐ No

**[Q7] Why do you think the use of an Internet Usage Policy is important?**

.....

**[Q8] Is the internet usage policy enforced in your company?**

- ☐ Yes
- ☐ No

**[Q9] Are you in favour of enforcing the internet usage policy?**

- ☐ Yes
- ☐ No

**[Q10] What is included in the policy:**

Please choose **all** that apply:

- ☐ Filters
- ☐ Security
- ☐ Privacy
- ☐ Guidelines
- ☐ Notification
- ☐ Other:

**[Q11] If you use filters, what kind of filters do you recommend?**

.....

**[Q12] Which of the following websites do you think it should be blocked and which should be limited .and why?**

	Status (Block or Limit)	Reason
Facebook		
Youtube		
Twitter		
Flicker		
Chatting website		
Other		

**[Q13] How do you know that the policy has been violated?**

.....

**[Q14] What kind of files do you allow to be downloaded?**

Please choose **all** that apply:

- ☐ Programs
- ☐ Audio files
- ☐ Videos
- ☐ E -books (PDF, Doc)
- ☐ Other:

### **Final Questions**

**[Q15] In case of the policy terms being broken, what measures should be taken:**

- ☐ Warning
- ☐ Taken away their internet access privileges for a while
- ☐ Inappropriate usage should be reported to the person in charge
- ☐ Other

**[Q16] Should the policy terms apply to the mobile internet access?**

- ☐ Yes
- ☐ No

**[Q17] Any other recommendation or comments:**

.....

.....

Thank you for your Time

## **Intro**

**[Q1] You are a**

- ☐ Parent
- ☐ Student

**[Q2] Age Group**

- ☐ 19-25
- ☐ 26-35
- ☐ 36-45
- ☐ Other

**[Q3] Gender**

- ☐ Male
- ☐ Female

**[Q4] Your job position**

.....

## **Parent Specific**

**[Q5] Do you know what an internet usage policy is ?**

Please choose **only one** of the following:

- ☐ Yes
- ☐ No

**[Q6] What is your understanding of an internet usage policy?**

.....

**[Q7] Are you aware of the potential problems that your children might face on the internet?**

- ☐ Fully aware
- ☐ Not at all
- ☐ Have an idea

**[Q8] Are you facing any kinds of problems with your children's internet usage?**



- ☐ Yes
- ☐ No

**[Q9] If yes, please explain**

.....

**[Q10] What Internet Activity do you think that the users spent most of their time on within the working hours?**

Please choose **all** that apply:

- ☐ Social networking (facebook)
- ☐ E-mail
- ☐ Online gaming
- ☐ Video
- ☐ Other:

**[Q11]Rate the following sites from 1-5 based on which sites you believe users spend most time on (note that 1 being the highest and 5 being the lowest)**

Please choose the appropriate response for each item:

	1	2	3	4	5
<b>Social networking (facebook, ets)</b>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<b>E mail</b>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<b>Education websites</b>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<b>Online gaming</b>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<b>Video</b>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

**[Q12] How many hours do your children spend on the internet per day?**

- ☐ 1-2
- ☐ 2-3
- ☐ 4-5
- ☐ 5 or more

**[Q13] Which of the following websites do you think it should be blocked and which should be limited .and why?**

	Status (Block or Limit)	Reason
Facebook		
Youtube		
Twitter		
Flicker		
Chatting website		
Other		

**[Q14] In scale from 1-5 how important you think internet usage policy is important**

.....

**[Q15] What is the best way to control your child's internet access?**

- ☐ Observation
- ☐ Block harmful sites
- ☐ No control
- ☐ Other

**[Q16] Would you like to be informed about the policy?**

- ☐ Yes
- ☐ No

**[Q17] In which way would you like to be informed?**

- ☐ Email
- ☐ Telephone
- ☐ Parents meetings
- ☐ Other

**[Q18] Would you like to be informed of each update / change to the policy?**

- ☐ Yes
- ☐ No

**[Q19] Would you like to be involved in future changes and the development process for the internet usage policy?**

- ☐ Yes

- ☐ No

**[Q20] How can you help improve internet usage policy? For example reporting harmful sites**

.....

**[Q21] Would you like the internet policy to be enforced?**

- ☐ Yes  
☐ No

**[Q22] Would you like to be informed in case some violation of the policy accrued?**

- ☐ Yes  
☐ No

**[Q23] Are you in favor of discipline the violators of the policy and why?**

- ☐ Yes  
☐ No

### **Final questions**

**[Q24] In case of the policy terms being broken, what measures should be taken:**

- ☐ Warning  
☐ Take away their internet access privileges for a while  
☐ Inappropriate usage should be reported to the person in charge  
☐ Other

**[Q25] Would you like to be notified after or before these measures are taken?**

- ☐ Before  
☐ After  
☐ Other

**[Q26] Any other recommendation or comments:**

.....

Thank you for your Time

## **Intro**

**[Q1] You are a**

- ☐ Parent
- ☐ Student

**[Q2] Age Group**

- ☐ 19-25
- ☐ 26-35
- ☐ 36-45
- ☐ Other

**[Q3] Gender**

- ☐ Male
- ☐ Female

**[Q4] Your job position**

.....

## **Student Specific**

**[Q5] Do you know what an internet usage policy is ?**

- ☐ Yes
- ☐ No

**[Q6] Do you approve of internet usage policy use?**

- ☐ Yes
- ☐ No

**[Q7] How many hours you spend on the internet daily?**

- ☐ 1-2
- ☐ 2-3
- ☐ 4-5
- ☐ 5 or more

**[Q8] Is there a particular website or activity you want to learn or you are interested in?**

.....

**[Q9] Are you aware of social networking?**

- ☐ Yes
- ☐ No

**[Q10] Which one do you use ?**

Please choose **all** that apply:

- ☐ Facebook
- ☐ Twitter
- ☐ Flickr
- ☐ Chatting websites
- ☐ Other:

**[Q11] Do you like online gaming?**

- ☐ Yes
- ☐ No

**[Q12] When you are in the center / school, do you watch videos online?**

- ☐ Yes
- ☐ No

**[Q13] What do you spend most of your time on while you are in the centre/ school?**

Please choose **all** that apply:

- ☐ Social networking (facebook)
- ☐ E-mail
- ☐ Online gaming
- ☐ Video
- ☐ Other:

**[Q14] Rate the following sites from 1-5 based on which sites you believe users spend most time on (note that 1 being the highest and 5 being the lowest)**

Please choose the appropriate response for each item:

	1	2	3	4	5
<b>Social networking (facebook, ets)</b>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<b>E mail</b>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<b>Education websites</b>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<b>online gaming</b>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<b>Video</b>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<b>Chatting websites</b>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

**[Q15] How many times per day do you check your email?**

.....

**Final questions**

**[Q16] Do you use the centres computers to download files?**

- ☐ Yes
- ☐ No

**[Q17] What kind of files do you download?**

Please choose **all** that apply:

- ☐ Programs
- ☐ Audio files
- ☐ Videos
- ☐ E-books (PDF, Doc)
- ☐ Other:

**[Q18] Any other recommendation or comments:**

.....

Thank you for your Time

## Appendix B

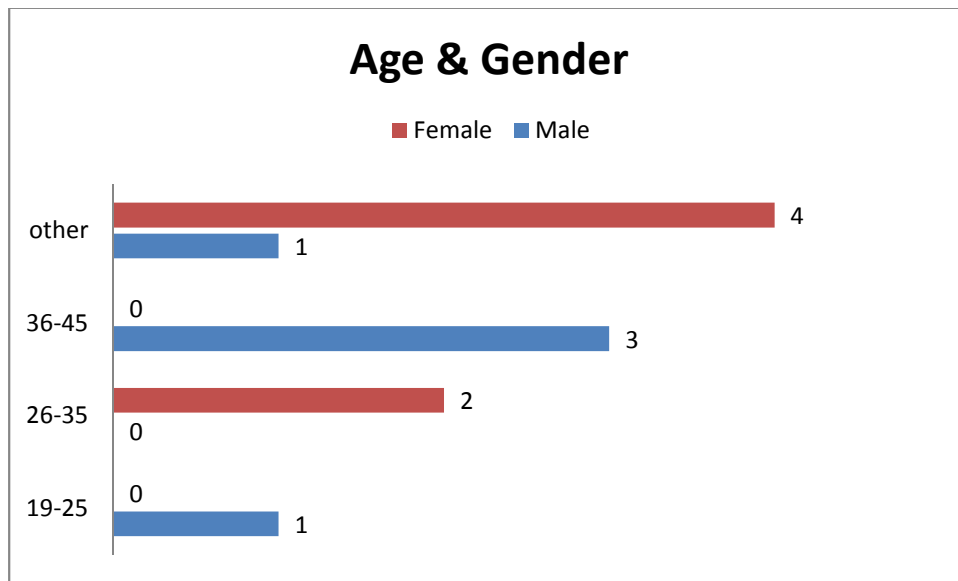


Figure 25 CLiC

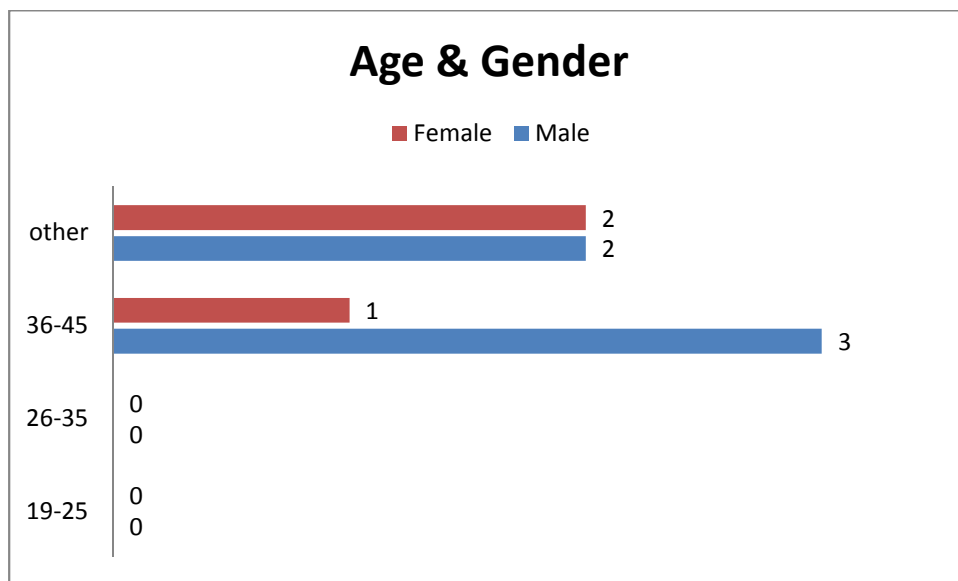
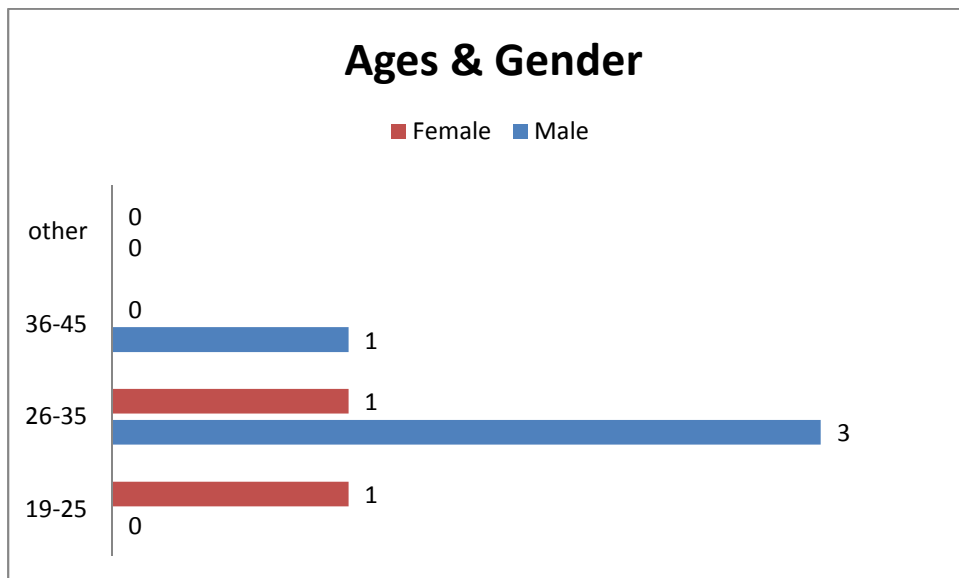
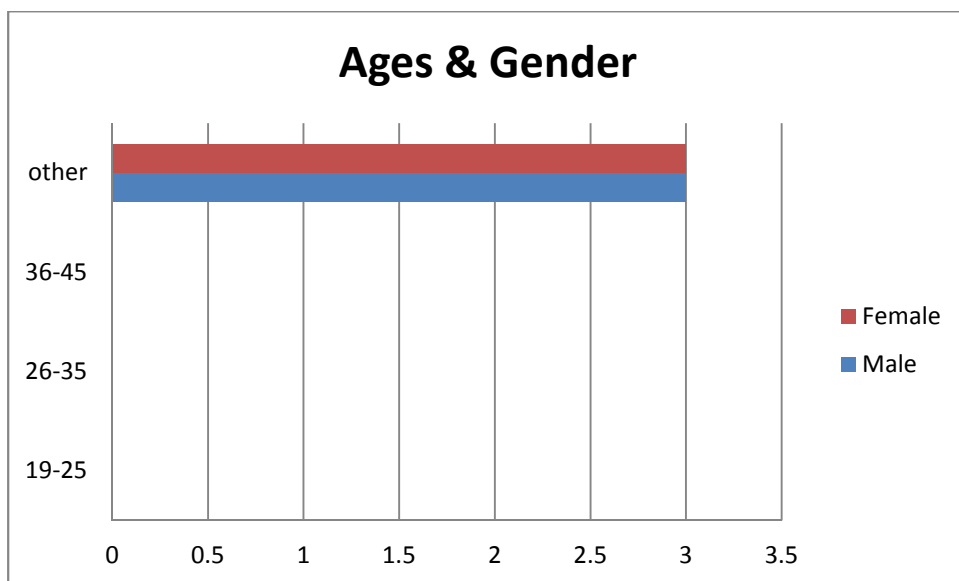


Figure 26 Parents

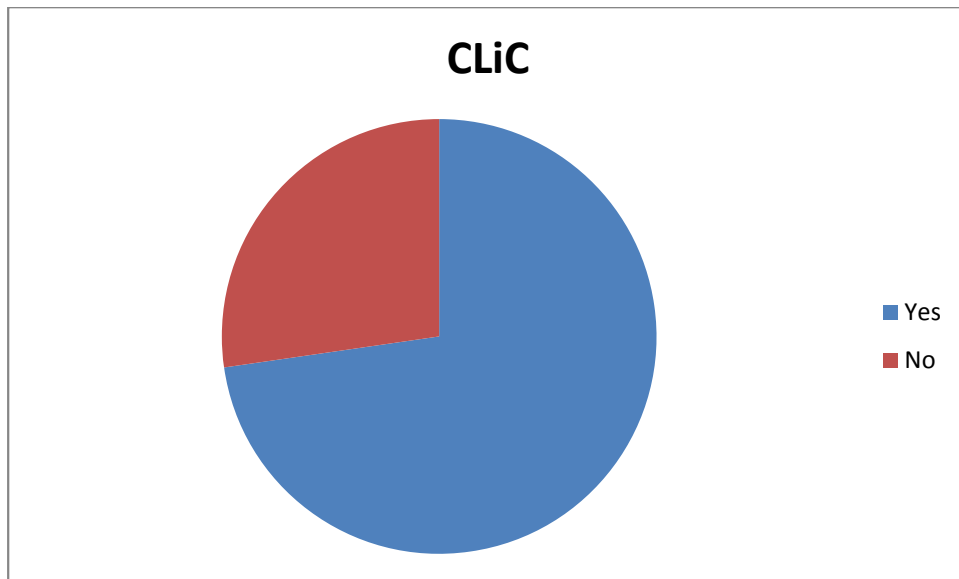




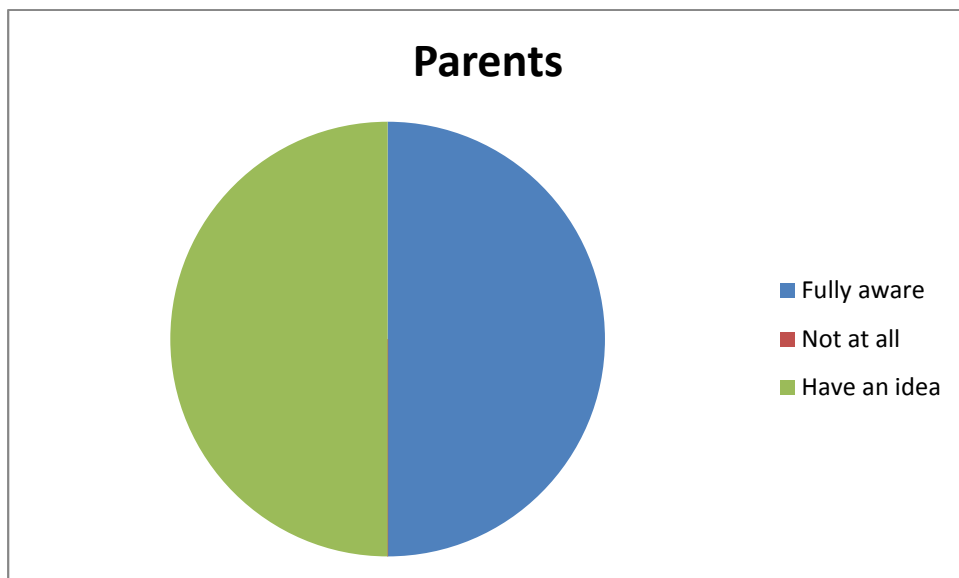
**Figure 27 IT**



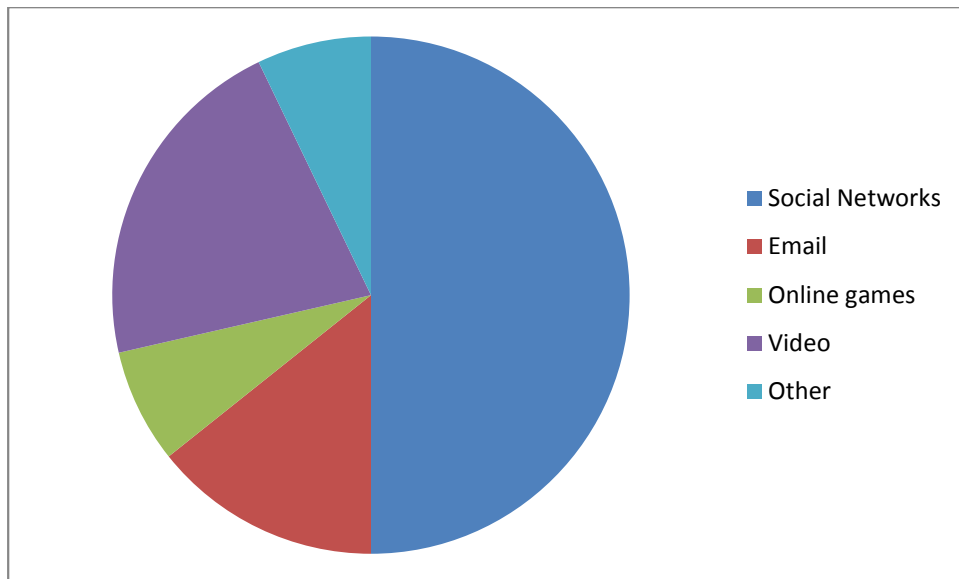
**Figure 28 Students**



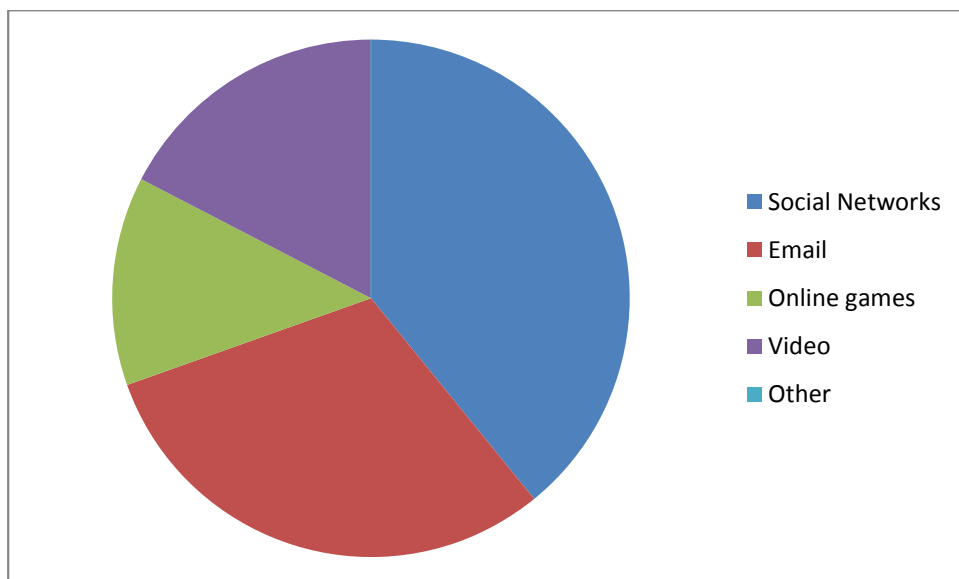
**Figure 29CLiC views if IUP will attract more centre**



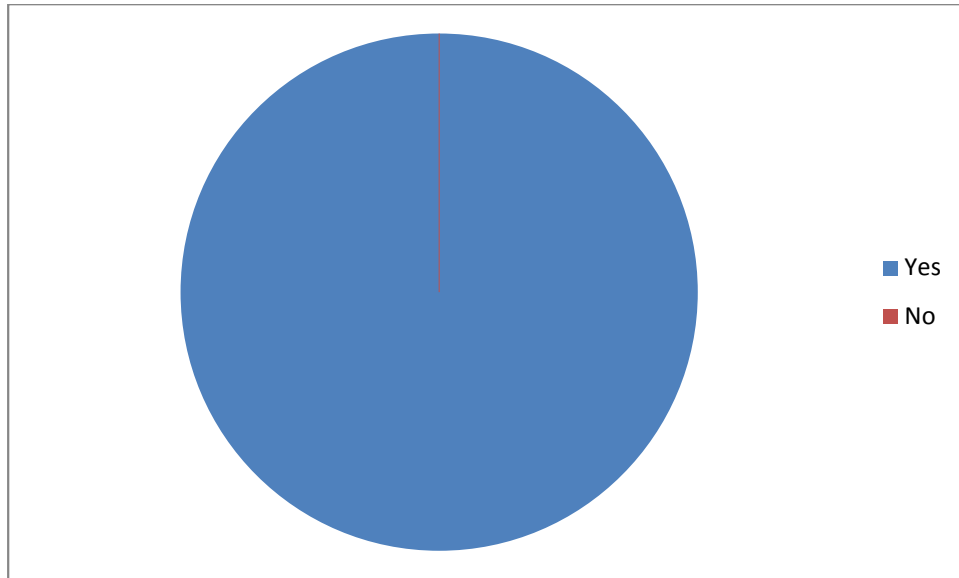
**Figure 30 Parents awareness about the problem in the Internet**



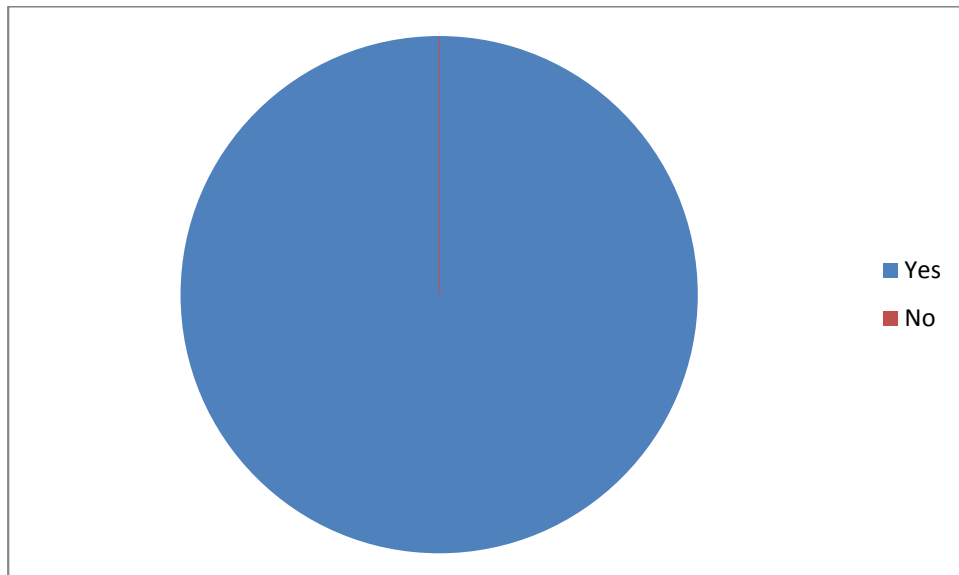
**Figure 31** this pie chat shows what Parent think their children spend most of their time on



**Figure 32** this pie chart shows what CLiC think users spend most of their time on



**Figure 33 do the IT Professionals think that IUP is important**



**Figure 34 do the CLiC think that IUP is important**

## Appendix C: The Draft Policy

School / Centre Name: .....

Address: .....



Computer Learning in Communities (CLiC) aims to engage, enhance self-esteem, build confidence and motivation, and empower individuals, families and local communities to fulfil their potentials via ICT training. Therefore students' safe usage of the school's / centre's internet resources is essential, Acceptable Use Policy will ensure that students' safe usage of the school's / centre's internet resources and profit from learning opportunities offered by schools / centres in an effective way.

Internet Usage Policy is: a form of control, it is used to control what the users can get access to on the internet, and it is also a kind of protection for the underage users that will keep them from the danger that they might face on the internet.

### **CLiC Strategy**

CLiC employs a number of strategies in order to maximise learning opportunities and reduce risks associated with the Internet. These strategies are as follows.

#### **GENERAL**

- The Policy terms will apply to both school/centre employees and the students.
- Internet sessions will be supervised by a teacher at all times.
- Filtering software and/or equivalent systems will be used in order to minimise the risk of exposure to inappropriate material.
- The school/centre will regularly monitor students' Internet usage.
- Virus protection software will be used and updated on a regular basis.
- Students will treat others with respect at all times and will not undertake any actions that may bring the school into disrepute.
- If a student need further information of what is acceptable use he / she needs to seek guidance from the teacher.

## **WORLD WIDE WEB**

- Students will not intentionally visit Internet sites that contain obscene, illegal, hateful or otherwise objectionable materials.
- Students will use the Internet for educational purposes only.
- Students shall not use the Internet access for commercial or political use.
- Student should seek permission if they intend to visit unfamiliar sites.
- Copying information into the assignment is considered to be a plagiarism and copyright infringement. Therefore, all the resources should be referenced properly.
- Downloading of any educational materials will be allowed with respect to the intellectual property.
- Student shall not download high bandwidth materials that might cause network congestion.

## **EMAIL**

- Students will not send or receive any material that is illegal, obscene, and defamatory or that is intended to annoy or intimidate another person.
- Students will note that sending and receiving email attachments is subject to permission from their teacher.

## **INTERNET CHAT**

- Students will only have access to chat rooms, discussion forums, messaging or other electronic communication form that have been approved by the school and will always be supervised.
- Other Chat rooms, discussion forums and other electronic communication forums such as Skype, are banned.
- The website will be regularly checked to ensure that there is no content that compromises the safety of students or staff.

## **MOBILE PHONES AND PERSONAL DEVICES**

Mobile Phones and Personal Devices users will adhere to all the rules and guidelines listed. However, students are not permitted to use their personal device without a previous permission from the teacher.

## **LEGISLATION**

The school will provide information on the following legislation relating to use of the Internet which teachers, students and parents should familiarise themselves with:

- Data Protection (Amendment) Act 2003 [Click Here](#)
- Child Trafficking and Pornography Act 1998 [Click Here](#)
- Interception Act 1993 [Click Here](#)
- Video Recordings Act 1989 [Click Here](#)
- The Data Protection Act 1988 [Click Here](#)
- Copyright Act (1963) [Click Here](#)
- Prohibition of incitement to hatred Act (1989) [Click Here](#)
- Criminal Damage Act (1991) [Click Here](#)
- Freedom of Information Act (1997) [Click Here](#)

## **SUPPORT STRUCTURES**

The school will inform students and parents of key support structures and organisations that deal with illegal material or harmful use of the Internet.

## **SANCTIONS**

Internet use and access is considered a school resource and privilege. Therefore, if there was misuse from the student will result in the following:

- The wrongdoing person will be warned for the first time. And might be also reported to his/ her guardians.
- If the action was repeated he / she will be reported to the person in charge and determine what kind of measurements will be taken. The disciplinary measures can be include written warnings, withdrawal of access privileges and, in extreme cases, suspension or expulsion.

## **USER COMPLIANCE**

It is recommended that school / centre and guardians revise the AUP annually. Before signing the AUP, it should be read carefully to ensure that the conditions of use are accepted and understood. And by signing the AUP it shall be an Acknowledgement of Receipt and Understanding form.

## **GLOSSARY**

Internet Services Providers Association of Ireland define illegal as “content which is contrary to criminal law” and define Harmful: Content which includes any unlawful, libellous, abusive, offensive, vulgar or obscene material or any activities deliberately calculated to cause unreasonable offence to others, which whilst not necessarily illegal, is none-the-less considered inappropriate and deliberately calculated to cause unreasonable anxiety inconvenience or stress to others.