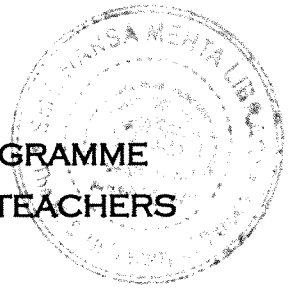
Chapter 1
Introduction

DEVELOPMENT AND IMPLEMENTATION OF A PROGRAMME FOR ENHANCING INFO-SAVVY SKILLS IN STUDENT TEACHERS



1.1 INTRODUCTION

The world's most successful economies are no longer powerhouses of industry, but rather powerhouses of information. For developing countries to compete in the new, knowledge-based economy, they must provide access to the latest information, regardless of subject. Educators, hence, have a challenging job in their hands. The teaching learning process now cannot be confined within the rigid dimensions of a classroom with the traditional teaching tools. It is becoming imperative to make use of any resource available within the reach of an educator, so as to enhance the teaching learning process. One such resource is that of Information and Communication Technologies (ICT).

Informatics as a science deals with the design, realization, evaluation, use, and maintenance of information processing systems, including hardware, software, organizational and human aspects, and the industrial, commercial, governmental and political implications of these. In other words, ICT is an umbrella term that includes any communication device like: radio, television, computers, and satellite systems as well as the various services and applications associated with them, such as videoconferencing and distance learning. The importance of ICTs lies less in the technology itself, than, in its ability to create greater access to information and communication. Greater is access to information and communication, narrower is the gap between the information giants of haves and have-nots.

According to United Nations Development Programme (2000) ICTs stand for Information and Communication Technologies and are defined, as a "diverse set of technological tools and resources used to communicate, and to create, disseminate, store, and manage information." These technologies include computers, the Internet, broadcasting technologies (radio and television), and telephony.

According to United Nations Educational, Scientific and Cultural Organization (2002) the term, information and communication technologies (ICT) refers to forms of technologies that are used to create, store, share or transmit, exchange information. This broad definition of ICT includes such technologies as: radio, television, video, DVD, telephone (both fixed line and mobile phones), satellite systems, computer and network hardware and software; as well as the equipment and

services associated with these technologies, such as videoconferencing and electronic mail.

According to WORLD BANK (2002) Information and Communication Technologies consist of the hardware, software, networks, and media for collection, storage, processing, transmission and presentation of information (voice, data, text, images), as well as related services. ICTs can be divided into two components, Information and Communication Infrastructure (ICI) which refers to physical telecommunications systems and networks (cellular, broadcast, cable, satellite, postal) and the services that utilize those (Internet, voice, mail, radio, and television), and Information Technology (IT) that refers to the hardware and software of information collection, storage, processing, and presentation.

With information growing at a mind boggling pace, ICT provides the necessary help and technical support required to keep up with the information growth. In the field of education, ICT provides the teacher with variety of tools which help transform the oft seen teacher centered classroom into a rich, student focused, and knowledge rich environment. ICT demands that the educational systems wake up to the call of transformation in the paradigm of traditional learning. Many educators believe that creating a paradigm shift in the views of the learning process, coupled with application of new information technologies, may play an important role in bringing educational systems into alignment with the knowledge based information rich societies. Department of School Education and Literacy, MHRD (Ministry of Human Resource Development), Government of India (2009) prepared a draft on National Policy on ICT in School Education. In this draft it was stated that by the end of XIth plan ICT will be covered under government and government aided secondary and higher secondary schools.

To maintain the learner centered environment it is necessary that the process of learning be well understood. Today learning is viewed as a natural, social and active process that is based on the student's abilities, interest and culture. There is a shift in the role of the teacher from being a knowledge transmitter to a learning facilitator, from a source of information and answers to a collaborator, mentor and knowledge navigator. This shift has not taken place overnight. It has been built on the shift in understanding of the human mind and the way humans learn. It draws from psychological principles and theories which are now shaping the young, interested minds into moulds which are capable of multidimensional capabilities.

Today the learning process is viewed as the process of "meaning making" in a social, cultural, historical and political environment. Learners are active agents who engage themselves in their own knowledge construction by integrating new information into their schema or mental structures. The focus is towards the constructivist view of learning, where it is maintained that the students construct their own knowledge by testing ideas and approaches based on their prior knowledge and experience, applying this knowledge to new tasks, contexts and situations, and integrating the new knowledge gained with pre existing intellectual constructs. ICT, it is argued has considerable potential to catch the tentative nature of knowledge in Constructivism, as the use of ICT involves drafting and redrafting, editing and selecting, making connections and reflecting on the knowledge learnt. The Piagetian Cognitivist and Constructivist theory and Cybernatic theories have contributed significantly in the area of independent construction in the field of ICT.

Some of the educational institutions in India have already been offering ICT in Education either as a core course or as a special area. ICT in Education is offered as core course in B.Ed. at the Department of Education, The M.S. University of Baroda, Vadodara. ICT is offered as a core course in M.A. Education 4th semester at the University of Jammu, Jammu. Also ICT is offered as a core course in B.Ed. at the H.M. Patel Institute of English Training and Research, Vallabh Vidya Nagar, Gujarat. Many colleges of Education in India are offering ICT in Education as an optional area. Most of these courses find Internet/Intranet as one of the units. The introduction of these courses has initiated the student teachers into the areas of Info-Savvy Skills.

In ICT, computer is one part of it. Computer has been used most during the last decade because it is a powerful medium for exchanging information. The use of computer is rapidly increasing. One of the reasons for this is omnipresence of Internet. It is a network of networks which is connecting millions of computers together to form a global network. Any computer can communicate with any other computer connected through Internet.

Earlier only computers were the medium of using Internet but now mobile phone also have Internet browsing facility. Use of mobile phones increased and one of the reasons for that is availability of Internet browsing. Now people who don't have computer they can also surf information through mobile phones. And because of 3G

technologies in mobile phones surfing become more faster. It shows that one can search information at any place and at any time. So the use of Internet increased in a rapid way

Internet is most popular network to gather information. Frequent use of the Internet promotes self-efficacy among students (Yang, 2003). So, it is the duty of a teacher to teach students appropriate ways of using Internet. For teaching students the use of Internet, a teacher needs to have clear understanding of usage of Internet. For this reason, now, in many teacher education institutions a course, namely, Information and Communication Technology in Education has been introduced. This course is very helpful to the student teachers and especially to those student teachers who know little about the computers. In this course, they also learn about the use of the Internet. This course is taught theoretically and practically. Teacher education programme is constituted of various courses, namely, core courses, methods, special field, practical work and practice teaching. They require lots of information. Internet is a very useful medium for information gathering. But every student teacher is not in a position to find out information easily on Internet. Internet requires various skills for seeking information. These skills are known as Info-Savvy Skills which help them in finding suitable information efficiently.

1.2 INTERNET: A LEARNING RESOURCE

The Advanced Research Project Agency Engineers of the US (United States) Defense Ministry created Internet in 1969. From its origin it got its name as ARPANET which later developed into Internet. In India, Internet was implemented in 1994.

Now a days Internet is a very common medium for communication and information gathering. It includes so many ways for gathering information. An individual can acquire and provide information through Internet. An individual can also interact with other individuals through e-mail, chatting, on-line video conferencing etc. These are some of the ways through which an individual can acquire information. There are various useful ways of seeking information, such as, searching divergently, skimming, scanning, skipping, hyper linking, cross validating. By using various ways an individual can get information from anyone, anywhere. Some of the ways are as follows.

- **E-mail:** It is the short form for electronic mail, the transmission of messages over communications networks. E-mail is used by an individual for sending messages across the world through the Internet. At a time message can be sent to many persons, which saves time and energy.
- **E-Chat:** E-Chatting is used for directly interacting with other person in written form.
- **Blog:** A blog (a contraction of the term "web log") is a type of website, usually maintained by an individual with regular entries of commentary, descriptions of events, or other material such as graphics or video. Entries are commonly displayed in reverse-chronological order. "Blog" can also be used as a verb, meaning *to* maintain or add content to a blog. Many blogs provide commentary or news on a particular subject; others function as more personal online diaries. A typical blog combines text, images, and links to other blogs, Web pages, and other media related to its topic. The ability of readers to leave comments in an interactive format is an important part of many blogs.
- **Twitter:** Twitter is a social networking and microblogging service that enables its users to send and read messages known as tweets. Tweets are text-based posts of up to 140 characters displayed on the author's profile page and delivered to the author's subscribers who are known as followers.
- **E-reader:** A handheld device specialized for reading electronic books. Starting in the late 1990s, e-book readers began to appear; however, it took nearly 10 years to gain any traction due to the many formats on the market. In addition, until E Ink electronic paper technology was used for the display, battery life was a limiting factor. An e-reader (electronic reader) is a device for reading content, such as e-books, newspapers and documents. A standalone e-reader typically has wireless connectivity for downloading content and conducting other Web-based tasks. Popular dedicated e-readers include Amazon's Kindle and Sony Reader.
- **On-line video conference:** Now a days with the help of web camera on-line video conferences are done. In this type of conferences although we are not at the place of conference yet we participate virtually.
- **Facebook:** Facebook is a social networking website that was originally designed for college students, but is now open to anyone 13 years of age or older. Facebook users can create and customize their own profiles with photos,

videos, and information about themselves. Friends can browse the profiles of other friends and write messages on their pages.

- **World Wide Web (www):** The concept of the www began in March, 1989 and was developed by Tim Berners-Lee of the European Laboratory for Particle Physics in Geneva, Switzerland. World Wide Web was the first web browser.

Some people use words Internet and the www as same but both are different from each other. Internet is a network of networks, whereas, the www is a way of accessing information through Internet. The www is just one way of sharing information over the Internet. In simple terms the www is the collection of documents and informations that are held on and sent through the Internet. Most popular search engines are Google, Yahoo, Altavista, Excite, GoTo, HotBot, Infoseek, Lycos, Northern Light, and PlanetSearch. There are thousands search engines available on the Internet. So it is difficult to choose one search engine.

A recent trend in Web searching is the Metasearchers, which search numerous engines simultaneously which will solve the problem of searching one search engine at a time. Name of some Metasearch engines are Dogpile, Excite, HotBot, Mamma and Metacrawler. . Earlier there was only one Internet Explorer browser used. And now there are different types of browsers available for computers and mobile phones. Mozilla Firefox, Google Chrome, Safari, HotJava, Voyager and Opera these are some names of computer web browsers. Whereas UC browser, Opera mini, Android, and Bolt are mobile browsers which have special features because of which people can surf easily on mobile phones. This type of new trends increases more and more ways for getting information through the www. The www is most popular way to search through the information content of the Internet, the network of networks which has become part of everyday life for millions of people in all sectors of the community. Education is also one of the sectors which use the www on wide bases. Students use the www for pursuing information for their academic studies. Teachers impart information to students by using the www.

A teacher needs to equip himself with the upto date information. It is important for a teacher to learn Info-Savvy Skills for gathering information from the Internet.

A computer is an electronic device utilized to process data. A computer system can be termed as an information generating system. Information is generated by

processing data. A computer system consists of four parts- hardware, software, processor and data.

Now a days there is an explosion of information. Because different types of resources available in the market. Out of them electronic resources are used frequently. Let us see the capacity of saving information, in 2003 it was 5 Billion Gigabytes or 5 Exabytes and in 2009 it was raised by 500 Exabytes. It shows that out of this much information one has to find out information which is appropriate for him/her. If we search information through books, newspapers, journals and magazines then it will require lots of time and energy. But because of Internet and other digital resources it is easy to search information.

1.2.1 Meaning of Data and Information

To know about Info-Savvy Skills first we have to understand the meaning of Data and Information.

Data: The word 'data' is plural of datum. Often, 'data' is used as both in singular and plural forms. Data can be defined as any fact, text, numbers, graphics, audio, video images, sounds or any combination of these that may or may not be useful for performing a particular task. They are factual materials used for discussion or decision. Data may be numerical, alphabetical, alpha-numeric and special symbols.

Information: it means organised or classified data that has same value to the receiver. When data are placed in a meaningful context to the user for a particular task then it can be termed as information. So data are raw material whereas information is finished product.

1.2.2 Data Processing

It implies to reordering of data by people or machine. Data processing may be manually or electronically. Following operations are performed for data processing

1. Recording: It implies transcribing data into format form.
2. Classifying: It implies grouping of data.
3. Starting: It means arranging data in ascending or descending order.
4. Calculating: It means adding, subtracting, multiplying or dividing data.
5. Summarizing: It means consolidating data.
6. Reporting: It means presenting information in a format.

- **Kinds of Data Processing**

Input	→	*Processing*	→	*Output*
Data		Manually Mechanically Electronically		Information

- **Data Processing System**

Mechanical Processing: It uses electro-mechanical devices to process data. It is also known as unit record method or Electrical Accounting Machine process. Data are punched on a separate card which is manipulated by unit record machine for output. These systems are suitable only for small and medium organisations.

Manual Processing: It relies on human operators. Information generated by manual processing is very slow and may be based on biasedness. This is traditional system of data processing which is not appropriate for the needs of modern business organisations.

Electronic Data Processing: Under Electronic Data Processing data are entered in the computer by input devices, which are processed electronically. Processing is done at significantly high speed and accuracy. Monitors or printers are used for output. It is most suitable system for data processing in big organisations.

1.2.3 Features, Types, Sources of Generating Information and Characteristics of Good Quality Information

❖ **Features of Information**

- Information is processed data.
- Information updates the level of knowledge.
- Information reduces uncertainty.
- Information helps in decision-making.

❖ **Types of Information**

- **Primary Information**

  Original material that has not been interpreted or analysied.

  Examples: Statistics, Research articles, Blogs, Websites

- **Secondary Material**

  Created from primary material, interpretating original material.

  Examples: Textbooks, Review articles

- **Tertiary Material**

  Acts as a tool in understanding and locating information

  Examples: Databases, Subject Gateways, Dictionaries, Bibliographies

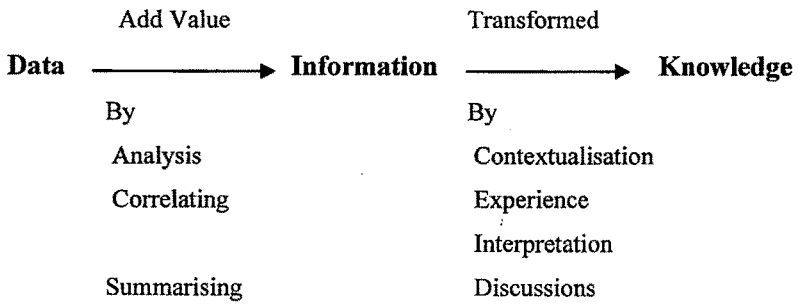
❖ **Sources of Generating Information**: Following sources can be used for generating information

- **Observation:** It implies generating information by observing the objects. Accuracy of observation will decide the quality of information. Survey: Market survey, opines polls are instances of survey. The instruments used in survey decide the quality of information.
- **Estimates:** Opinions of experts are used for future estimates.
- **Transaction Processing:** Ledgers, statements and reports of organizations are processed to generate information.
- **Publications:** Various government publication and other organizations, publications are available for generating information.

❖ **Characteristics of Good Quality Information**

- Impartial
- Relevant
- Reliable
- Accurate
- Consistent
- Verifiable

❖ **Transformation of Information into Knowledge**



1.3 PRESENT SCENARIO OF TEACHER EDUCATION PROGRAMME

MHRD introduced National policy on ICT in School Education. This policy was introduced at Secondary and Higher Secondary level. For that they will take help of State also. UGC has also changed its syllabus according to change in the society and included ICT as a compulsory subject at Teacher education curriculum. Now a days so many technological changes also occur which also affect our educational system it shows that role of a teacher also change according. Teacher has to perform different types of roles during teaching-learning process and afterward also. When a student outside the classroom wants to learn by himself then it is the duty of teacher that he will not face any difficulty. Now self learning concept was used by so many students during their school life and in college life also. Once if a student starts self learning then he has to need regular guidance of someone and for a student best person is teacher. Even in the society people think that teacher has to have all kind of knowledge. If a teacher fails in giving proper guidance to students then it may be possible that students don't rely on that teacher. A student always wants something new to learn because only bookish knowledge is not enough for him. New activities and projects inspire them to do something innovative and discover new visions.

Once if a person start learning then he always tries to get new information from books, newspapers, magazines, journals, internet, websites, and computer. Every person in the world is a learner because every moment he learns from his surroundings. It may be formal or informal way of learning. When we say that a person is skillful it means he has a skill which helps him in doing particular work but we can't say that now there is no need for him to learn more. Because every moment in our world new things and technologies were discovered by the people and innovations always help a person to gain some new knowledge.

A teacher may be of any level, prepares the future citizen. Teacher's knowledge helps in the progress of the society. Teacher's inefficiency can result in the downfall in the nation. For that reason, teacher has to have well established information.

Teacher Education Programme prepares student teachers who are well equipped with the informations. According to the change in the curriculum teachers also update their knowledge. He/she should be able to deal with the innovations made in education. One of the innovation is ICT. In school curriculum ICT is being integrated. So to provide knowledge to teachers about ICT many institutions

included ICT as a compulsory course in the Teacher Education Programme. This course helps student teachers in gathering information.

In the B.Ed. institutions we find student teachers of all streams. They may come from different places like some student teachers from urban areas while some student teachers from rural areas. Generally, we find that student teachers who were from science and commerce streams have some knowledge about computer while student teachers who were from arts stream possess less knowledge about computer. Just like that, student teachers who were from urban area possess good knowledge about computer as compared to the rural area. So, it is very helpful for those student teachers who were from arts stream or from rural area, to know about computer and increase their knowledge. As we call this period as technology period, so, it is essential for every teacher to have some knowledge about computer. And now a days, computer education is compulsory at school level. So that as a future teacher computer knowledge becomes an essential requirement for student teachers. This knowledge will also help student teachers in their B.Ed. programme.

Thus, student teachers required knowledge about the computer and also about the Internet. But every student teacher is not able to get all the information required because they don't possess all required skills which will help them in finding suitable information. For searching information on the Internet certain skills are required which are called Info Savvy Skills. These Skills will be helpful to a student teacher in their future life to become a successful teacher.

Albert Einstein once said...

"Know where to find the information and how to use it. That's the secret of success."

1.4 INFO-SAVVY SKILLS

Info-Savvy Skills mean raising problem specific questions analytically, seeking related information from various media, analysing information meticulously, such as, complete or incomplete, authentic or inauthentic, good or bad, fact or opinion, applying the analyzed information in the form of suitable formats to the initially identified problem and then assessing the entire process of asking questions, accessing information, information analysis, its application to the problem and assessment of the entire process spontaneously, cybernitically and naturally. A

person who possesses all these skills is called info-savvy. According to Jean-LUC Picard, Approach to solving problems, following are the info-savvy skills.

1. ASKING

The Asking stage is the key to engaging students in the learning process. The teacher introduces a topic and guides the students to generate their own questions related to that topic. This more clearly defines the boundaries for research. Questions posed by students and teachers clarify the information needs and define possible paths for inquiry using the Internet, as well as other electronic or traditional paper-based sources. Asking skill has the following components.

(a) Identification of problem

Student teachers should be in a position to identify the problem. They have problems in their method subjects, general papers, practice teaching, assignments, and practical work.

(b) Identifying key words and forming question around them

After identifying the problem student teachers should identify the key words where the problem lies. Then after identifying the problem and key words questions should frame around that problem.

(c) Brain storming

Through brainstorming on the identified problem, the student teachers verbalize certain things and so suppression gets expression. They are in a position to shape their key words and questions more comprehensively.

(d) Thinking laterally/divergently

Student teachers should not think in one direction only for the problem but think for alternatives also. They should make many hypotheses.

(e) Understanding ethical issues

The ethical issues in the problem should be identified. Student teachers should address in such a way that they take care of ethical issues. Every profession has its protocol and rules. They have to go by that. Some of ethical issues are-

- Trustworthiness
- Respect
- Responsibility
- Fairness
- Caring
- Citizenship

(f) Listening deeply, viewing wisely and speaking critically

Listening deeply means student teachers should listen deeply not just at the surface level, they should receive and reflect upon that. When they are viewing, they should view it wisely; view all the details, purpose, and composition. They should be highly critical while speaking. They should speak in appropriate structure, socially acceptable phrases, words etc. They should duly reflect before communication.

(g) Filtering information from noise

Student teachers should retain relevant information and filter out noise. It means they have to filter out information which he/she get from their sourroundings.

(h) Sharing personal knowledge and experience

Student teachers should share their personal knowledge and experiences.

2. ACCESSING

In the Accessing stage, student teachers should engage in the data-collection component of the Info-Savvy process. Now the initial questions have been defined, and the research boundaries narrowed, the time for considering possible data sources and how to access them is at hand. This skill has the following components.

(a) Determining where the information is located

The information whether it is located in newspaper, library, Internet etc. is determined first.

(b) Determining what skills are needed to find information

Wherever information is located student teachers should have skills to locate the information on various media. They need to have skills of surfing the Internet, if the information is located on Internet.

(c) Using a variety of paper and electronic sources

Whatever information is required student teachers should get it from variety of media, such as, radio, print, over head projector, television, Internet etc.

(d) Prioritizing searching strategies

What is their priority depending upon nature of information. They can prioritize the information and corresponding media.

(e) Skimming and scanning resources for pertinent data

Skimming means going to the heading not to the whole text but sometime student teachers need to scan i.e. going through each and every bit.

(f) Using filtering skills

What is fact, what is belief, what is opinion, how to differentiate it out student teachers should know.

(g) Taking smart notes

Student teachers need to take smart notes.

3. ANALYSING

Analyzing is the organizing stage of the Info-Savvy process. As the data is checked for relevance to the topic, accuracy and authenticity, it begins the process of being turned from data into usable information. Student teachers determine if the assembled data is sufficient to answer the questions, or whether more research is necessary. Documentation of data is a vital part of the Analyzing stage. It includes the following components.

(a) Differentiating the data into different categories

Out of the available data some are relevant and some are irrelevant.

(b) Identification of relevant data

Identified relevant data from irrelevant data.

(c) Establishing authenticity and credibility of the data

Check authenticity and credibility and establish it.

Authenticity

- Who wrote the page i.e. where is the information coming from?
- The affiliation of the authors to an organisation, company or educational institution.
- If sponsorship is clearly evident on the page.

Accuracy and Reliability

- The information is correct.
- One can easily verify the information on the website using another source.
- The author is qualified to be writing about this topic.
- It means references to other sources backing up the author's claims are clearly given.

Objectivity

What is the purpose of the website – is it trying to

-Inform you,

-Advocate a particular argument in favour of an issue,

-Sell or promote something,

-Provide you with news,

Or is just someone's personal website?

Currency

- When the site was last updated – is there a "last created" or "last updated" date clearly visible?
- That the links provided by the author are live?
- That there are no dead links on the page, a sign that the site is not checked regularly?

Content and coverage

- That the level of detail in the information is suitable for your purpose?
- That the information on the site is well presented?
- That the information on the site increases your understanding and is not just a list of links?

(d) Differentiating the facts from the opinion

From opinion differentiate facts.

(e) Finding relationships amongst different data

When student teachers find out so many data, they have to find out relationship among the data.

4. APPLYING

After the material has been organized and analyzed, it must be presented in a finished form or product. During the Applying stage, presentations are created in a variety of ways using combinations of the four formats of information – text, images, video, and sound. As the presentation is developed, it completes the process of turning data into information and usable knowledge.

5. ASSESSING

Assessing is the final stage of the Info-Savvy process. Assessment confirms that learning has occurred, while allowing student teachers to make connections to previous experiences, as well as laying the groundwork for dealing with future information problems. It seeks the answers to the following questions.

(a) Is the problem identified in proper manner?

(b) Is related question asked?

(c) Is data collected sufficient?

(d) Is data analyzed properly?

(e) Is information applied usefully?

(f) Is problem solved or remaining?

When a student teacher gives proper answer to all these five stages, he/she is known as Information fluent. So student teacher has to possess these Info-Savvy Skills to become information fluent, i.e., Info-Savvy. But it requires awareness and frequent use of Internet by student teachers. Then only they can become Info-Savvy.

1.5 RATIONALE OF THE STUDY

Now a days we find that the role of teacher is changing very fast. The teacher is a facilitator of knowledge. This can be possible if teacher has enough knowledge about the new ways and means of getting information.

In this age of information explosion it has almost become essential for everyone, particularly teacher and students to develop expertise in the area of information seeking and its timely application. The problem is that inspite of media implosion, Internet and World Wide Web, at times the very much needed information, although readily available is not retrieved by the person who is in dire need. It is because there is lack of technological culture in teacher education institutions and so in schools. Universities having their web portals, educational institutions being on the Internet, sophisticated technology labs have become more of status symbols, but with little educational substance. It is because we have more of media crowd and less of media culture. Inspite of indiscriminant flow of funds from apex agencies and focus on ICT we have information poverty. Is not it a paradox that on one side we have information explosion, on the other side information poverty. How to bridge the gap? The teacher education institutions can contribute significantly in this area by designing developing and implementing programme in the area of Info-savvy skills.

Internet is a very useful medium of getting information from all over the world. According to Joshi (1999) most of the students were eager to know more about the utilization of Internet for their educational work. According to Dhodi and Goel (2004), students who were aware about Internet adopted different approaches for finding suitable information. Students also felt that there was a need for developing skills through which one can get information easily and precisely.

In this age of Information and Communication Technology it is expected that all the Student Teachers have ICT literacy. It becomes almost an essential requirement that all the Student Teachers have technological aptitude, technological attitude, and

Info-Savvy Skills. It is desirable to study the technological aptitude, technological attitude and Info-Savvy Skills of the Student Teachers, so that they are better equipped in the area of information. The enhancement of Info-Savvy Skills in Student Teachers is likely to facilitate better integration of technology in education. An attempt was made by the investigator to develop a programme for enhancing Info-Savvy Skills in Student Teachers.

1.6 STATEMENT OF THE PROBLEM

DEVELOPMENT AND IMPLEMENTATION OF A PROGRAMME FOR ENHANCING INFO-SAVVY SKILLS IN STUDENT TEACHERS

1.7 OBJECTIVES OF THE STUDY

1. To assess the level of Info-Savvy Skills in Student Teachers.
2. To develop a programme for enhancing Info-Savvy Skills in Student Teachers.
3. To study the effectiveness of the developed programme in terms of:
    a) Gain on Info-Savvy Skills by Student Teachers,
    b) Narratives of Student Teachers, and
    c) Reactions of the Student Teachers towards the developed programme.

1.8 HYPOTHESES

1. There will be no significant difference in the observed frequencies and the frequencies expected against equal probability against various points of the rating scale.
2. There will be no significant difference between the pre-intervention rating and post-intervention ratings against various statements of the rating scale.
3. There will be no significant difference in the observed frequencies and the frequencies expected against equal probability against various points of the Reaction Scale.

1.9 OPERATIONALISATION OF THE TERMS

Various terms used in the study were Info-Savvy Skills and Programme for Enhancing Info-Savvy Skills. These terms have been operationalized as follows.

- **Info-Savvy Skills:** The Info-Savvy Skills in the context of present study mean the following skills

1. Skill of Asking
2. Skill of Accessing
3. Skill of Analysing
4. Skill of Applying
5. Skill of Assessing

(The skills have been differentiated into components as mentioned earlier.)

- **Programme for Enhancing Info-Savvy Skills:**

  The programme has the following components-

1. Theoretical inputs on Info-Savvy Skills through PowerPoint presentation
2. Demonstration on Info-Savvy Skills through surfing on the www
3. Surfing on the www by the Student Teachers
4. Focussed Group Discussion on the Info-Savvy Skills functionally employed while surfing

1.10 DELIMITATION OF THE STUDY

The present study was delimited to-

1. B.Ed. students
2. The Info-Savvy Skills employed by Jean-LUC Picard Approach to solving problems