CHAPTER I

INTRODUCTION

The emerging trend all over the world is towards more individualized and flexible forms of learning with an emphasis on the individual learning. The National Policy on Education (1986) has emphasized the application of Educational Technology to improve the Quality of Education at all levels. It has also laid a special emphasis on using computers in the teaching learning process. The rapid development in the computer technology, together with the use of computers by the teachers, paved the way for the introduction of computers in teaching and learning. With the advancement of technology, the computer has become more user friendly, so the teachers can attempt to develop E-content.

One of the important system of communication of the knowledge, in recent times, has been through web casting and its delivery through internet and now it is likely to be through broadband. One is able to see on the website whatever is hosted by the Information / Knowledge Providers. Content production in the electronic format is the need of the hour. With the powerful medium namely internet, the content can be communicated to the needy target group with less cost and more effectively.
E-content is a very powerful tool of education. E-content is valuable to the learners and also helpful to teachers of all individual instruction systems; E-content is the latest method of instruction that has attracted more attention to gather with the concept of models. Education is to enrich the qualities of head, hand and heart. Education is one of the basic needs of men and women. The rule of the education is the attainment of human excellence and perfection not just in the field of knowledge or activity but life in totality. Teaching plays a vital role in formal education system.

In spite of established sound theories of teaching, it still continues to be a challenging task. Teaching-centre and group oriented methods of instruction hardly provide for individual differences of the learners. E-learning is the new trend of education. The term covers a wide set of applications and processes, such as web-based learning, computer-based learning, virtual classrooms, and digital collaboration. Increased preservation, reduced learning time are other benefits to students. There are also particular advantages in e-learning:

- Convenient training to student
- Self-pacing facility to every learner
- Interactivity engages to users.
- To quick reference materials accessibility.
An important outcome of e-learning is E content.

E-learning is a process and E-content is a product. This approach of teaching has become an answer to the complicated modern, social, economic condition and an exploding population. E-content lesson is generally designed to guide students through information or to help them perform specific tasks. An E-content package can be used as teacher in the virtual classroom situation. Using E-content, the time and finance involved in the teaching process can be minimized. E-content is facilitating individualized instruction.

1.1 MEANING OF E-CONTENT

E-content technical definition: (Electronic-content) Digital content that can be transmitted over a computer network such as the Internet (Wikipedia definition)

E-content is termed as Electronic content that include text, image, graphics, animation, audio and video, sometimes e-content will be single element carrying anyone of the above element or all of the above together to display offline or online web-pages and also to be transferable to computer to another computer and internet.

Electronic content (e-Content) or digital content is defined by those involved in creating, providing and distributing information
as the digitized content, which is viewed on screen and not on paper. Contents that are produced and stored electronically rather than in print are the result of electronic publishing (e-publishing). The contents can be in any of the following forms:

- Any one information type (for example fully textual, only graphics content, or only audio content)
- Multimedia or hypermedia (i.e. mixing more than two information type)

Each category according to Borchers (1999) can be used in education (e.g. textbooks, research reports, theses), as reference (e.g. dictionaries, encyclopedias), leisure (e.g. novels, magazines, comics), browsing (e.g. newspapers) and advertisement (e.g. brochures).

1.2 NATURE OF E-CONTENT

- It is all forms of digital information that is used for multiple purpose in different fields and areas.

- It is the living expression of the life in country with all its images, sounds and recorded heritage.

- It is innovative application of computer in the teaching and learning process.
➢ It may be internet based which includes text, video, audio, animation and visual environment.

1.3 FEATURES OF E-CONTENT

✓ E-content is technologically friendly to pupil for downloaded text materials and used on any computer in independently for the purpose of learning process.

✓ E-content is having learner friendly for easy navigation.

✓ Another important feature of e-content is learner centric, it is useful in self instructional model.

✓ E-content is also teachers friendly, it is used in various teaching learning methods such as classroom, lecturing to a group, lab session.

1.4 THE OPULANCE OF E-CONTENT

The development of teaching and learning resources has always been integral to education and training and largely the domain of teachers. Several factors have led to an increased emphasis on content development now as a separate and more specialized activity, and often involving a consultative approach or team effort, or undertaken by people who may or may not be involved in the teaching. Some of the reasons for this relate to the
particular nature of online content, for example: Good online teaching and learning involves various forms of interactivity and consideration needs to be given to how to effectively design and develop the resources that make best use of the medium, have the right blend of activities, are motivational, accessible, and effective educationally.

Communication and interaction between students is an important part of effective online learning and this again has implications for content development and may need the involvement of special expertise to build this successfully into the online course or learning content.

Technical issues play a far bigger role in the development of online content than in traditional print-based resources.

Large online content development projects typically involve team members from a variety of organizations and this increases the need for more formal methodologies.

There are also changes which are not just specific to online content, but increase the need for more formal approaches to content development (i.e. involve greater project planning, liaison with others, greater need to fit with external criteria, and so forth). For example:
The increasing emphasis now on the reuse and adaptability of material (often spoken of under the terms of ‘learning objects’ and ‘flexibility’)

Greater emphasis now given to student and client-centered approaches – developing resources for particular client groups or even individual learners.

1.5 APPLICATION OF E-CONTENT PACKAGE IN EDUCATION

E-Contents use in education can be from the usual electronic journals (e-Journals), and electronic books (e-Books) to electronic research reports (e-Research-reports), electronic lecture modules (e-Lecture-modules), electronic lecture notes (e-Lecture-notes) and electronic lecture slides (e-Lecture-slides). Upon deciding to produce e-Content, authors should then select the file format from various alternatives. E-Contents are available in a wide range of formats, the simplest of which is plain ASCII-standard text. However, this format is extremely unappealing to read, cannot preserve formatting and cannot handle graphics. To solve these problems, the following formats can be used (Allen, 2000; Armstrong & Lonsdale, 1998; Hawkins, 2000)

- Adobe Acrobat’s Portable Document Format (PDF)
- Microsoft Reader’s Literature (LIT)
Rich Text Format (RTF)

Night Kitchen’s Tool Kit 3 (TK3)

Markup Language (e.g. Hypertext Markup Language - HTML, Standard Generalized Markup Language - SGML, extensible Markup Language - XML)

Software for PDAs such as AportisDoc for Palm Pilots and Pocketbooks, Palm Reader and MobiReader for Palm Hand-held, Handspring Visor, and Window CE devices.

1.6 ADVANTAGES OF E-CONTENT

Many institutions publish books, research reports, lecture modules, theses and other information for academic purposes. All these publications are usually in-print form and stored in library for fellow lecturers, researchers and students use. Are there compelling reasons why these in-print publications should be in electronic form? To answer this it is necessary to identify the advantages and disadvantages of printed content (p-Content) and e-Content. According to Bonime and Pohlmann, (1998) e-Contents benefit from

- Hyper linking - contents can be linked to other pages inside and outside the book;
Non-linearity - i.e. the order of access can be determined by users.

Addition of multimedia - i.e. content presentation is enhanced by mixing information type (i.e. sound, video and so on) data density - storage capacity is decreased while at the same time increasing portability.

Searching - the usefulness of the content is enhanced by the ability of the users to locate any piece of information, or to access any section instantly.

Students can take advantage of this new type of content presentation. Results of some studies suggest that involvement with computers through the use of E Contents and other new technologies, can promote positive attitudes towards learning and higher achievement among learners (e.g. Ebersole, 1997; Causey, 1996; AlKahtani, 1998; Cakir, 1999; Govil, 1997; Espinosa & Chen, 2001; McCreary et al., 2001). Studies also show that computer-based learning tools lead to significant gains in learner’s performance in reading, mathematics, computer knowledge and grammar (Shields & Behram, 2000). Furthermore, computers and technology tend to have more positive effects than negative effects (Seniuk, 2001).
The existing academic publications in most institutions are in printed and bound forms which pose some disadvantages. In addition, the publications have not been widely promoted and as a result their accessibilities have been very limited. Many researches and textbook publications by academics of the institutions, for example, have not been publicized properly and thus not noticed locally, and more importantly, internationally. These problems are easily tackled by producing e-Contents.

E-content is of two forms namely

i. Assembled form, ii. Created form.

**Assembled E-content:**

Assembled E-content constitutes compiled and assembled from several resources and book with due care taken for IPR and copyright issues. Here the authors will be main content providers. Content assembled will be given the credit as compiled by and editor by (if edited).

**Created E-content**

Content developed by the author based on various sources, as well as his/her own work. Here the authorship will be of the content creator. The content developer has to provide the written material in standard module format.
1.7 FORMS OF E CONTENT

Text, pictures, sound, Video, Animations and Presentation

Text

Text is most important element of any e-content. Computers of any level can help create text files, though Word Pad and MSWORD to create formatted text. One can save text files in the following format: .txt .doc .htm .pdf

Pictures - Photographs

One could store pictures in various formats: .bmp .gif .jpg .png

“.bmp” is an uncompressed format that stores pictures in millions of colours. This is the most popular format for exchanging pictures between different programmes. “.gif” is a compressed format that stores pictures in 256 colours. This is a very popular format for displaying pictures in web pages. “.jpg” is a glossy format that stores pictures in millions of colour in very small file size, thereby making it most popular format for E-content.

Sound

There are various formats of audio that can be used part of e-content. .wav .au .mp3 .mid “.wav” is most popular format of
audio deployed in E-content. This offers multi-track audio both in uncompressed, compressed and sampling rates. “.au” is a compressed format of storing audio from Sun Microsystems. “.mp3” is a highly compressed format for storing voice and music. This is perhaps the most popular format storing and exchanging digital music today. “.mid” is a popular format of storing music.

Video

Video is perhaps the most sensational medium in the E-content domain. With recent breakthrough in compression and streaming technologies, video has emerged as feasible E-content elements. Like other elements, digital video also comes in many formats: .avi .mov .mpg .rm .wmv .flv “.avi” is a very popular format of storing digital video in computers. It stores both in compressed and uncompressed forms. “.mpg” is a lossy and compressed format of storing video. “.wmv” is the latest offering from Microsoft for storing highly compressed and streaming video in Windows. “.flv” is a recent entry from Macromedia to deal with video content.

Animation

2D and 3D animations are powerful communications.

New compression technologies helped animations become a regular part of all E-content. Animations come in different formats:
.flc .swf .gif “.flc” is an old 2D animation format from AutoDesk. “.swf” is a recent format from Macromedia to store Vector based 2D animations. Some programmes also render 3D animations in this popular format. “.gif” can also animated frames.

**Simulation**

This realtime interactive E-content element can work as a virtual lab. Suddenly, teaching Mathematics, Physics and Chemistry with this new aid has made learning more interesting. One can design, store and display simulation applets in various formats: .swf .jar “.swf” is fast becoming a format for displaying simulation content. This is widely used because of 95% of desktops have access to Flash player. “.jar” is format that stores Java based interactive applets providing simulated contents.

**Presentations**

Electronic Presentations have become a standard tool and considered as a good teaching/learning aid.

The most popular format is PowerPoint from Microsoft.

The format should incorporate the following –

- **Objective** of the Module

- **Glossary** of terms used in the module
- **Frequently asked questions** with regard to content of the module.

- **Quiz** pertaining to content for formative evaluation.

- **Case Study**

- **Full content** (video) in text format for download

- **References**, if any

The module would require that text of subject content is divided into smaller chunks for better understanding by the learner. Hence, every content needs to be divided into module, unit, and granule. It is called chunking of content.

### 1.8 E-Content Development

An essential condition for effective ICT enabled teaching and learning is that there must be access to high quality, culturally relevant content. Although it may not provide such content, the Web can be a powerful tool for teacher educators, teachers and others to develop and share content that meets cultural, linguistic and educational needs of the Indian education system. School Net (Africa) and Four Direction Project (North America) are examples using the Web for indigenous and collaborative development and sharing of e-content that reflect the language, culture and resident
knowledge of the community. In the process of developing a techno-pedagogy for the ‘new’ learner in the ‘new’ environment, learning ‘new’ things using ‘new’ technologies, the first issue to be addressed is the development of content. It is imperative to note that many corporate organizations have entered this domain which should be totally under the control of the teachers.

The point of paramount importance is the fact that if teachers don’t create e-content, either no one else can or somebody else will. Of course, the task of developing e-content or Knowledge Packaging necessitates collaborative efforts by technologists and academics. In this context, the following observation of Vladimir Kinelev (2005) needs attention, “ICTs have not eliminated the most pressing of problems that education systems face. Attempts to improve education through ICTs suffer from the absence of sound education paradigms”. It is here that the teacher with clarity in content and depth in pedagogy assumes a pivotal role in creating the right instructional design and in creating appropriate content in effective manner.

Indeed, Knowledge Packaging has always been there since the Gurukula days in different forms like conversations, lectures, songs, stories, manuscripts, print, audio and what not. Now, the need for digital convergence of these forms is imperative to provide quality education to greater quantities of learners for the simple reason that
the reach and richness of e-content is quite high. Other salient features of e-content viz., bi-sensory learning experience, digital convergence of text, image, audio, video, animation etc. to create the effects of multimedia, accessibility, reusability, interoperability etc. are the supporting points in favour of the claim to give top priority to e-content development, among all academic endeavours. The question of content creation looms large in the backdrop of EDUSAT and exclusive educational television channels like Vyas, Gyandarshan, Ekalyva which are badly in need of content to telecast. Responding to the need, the UGC – Consortium of Educational Communication has taken up a mission of training the Higher Education teachers in the art and science of e-content creation. But, for a country like India with one of the largest higher education systems in the world, a single agency cannot serve the immediate purpose.

The need of the hour is a policy decision to train the teacher educators and personnel of other teacher development agencies in the country as trainers in e-content development, who in turn would carry the message and continue the mission of providing e-content development training to scores of teachers across the nation. Of course the question of creating the necessary infrastructure comes up. The solution is to exploit the potentials of EMMRCs and to create departmental level studios, like the one at the Department of
Educational Technology, Bharathidasan University. The cost involved will only prove to be an investment and not expenditure.

1.9 PHASES OF E-CONTENT

In this phase the processes are often concurrent and iterative. Processes and steps might differ between organisations and for different projects, but broadly the steps include:

- Establishing the assessment criteria and methods by which students will demonstrate skills, attributes, and understanding (at stages within the learning as well as at the conclusion). Time spent exploring options here can open up many more ideas for presenting content, and is more likely to produce meaningful and integrated assessment embedded within learning activities.

- Mapping and then sequencing the key elements of the content.

- Applying instructional design effective for online (choosing appropriate teaching strategies; presentation considerations; and building in scaffolding that will support the learners move to independent thinking as they become more familiar with the topic and the medium which is very important to do when learners are not in a face-to-face situation).
• Technical or multi-media decisions (specific technical treatments, next step beyond the broad-brush considerations in the planning phase).

• Deciding what should be presented on screen and what should be downloadable/printable.

• Deciding which is key content, and needs reinforcement, what material can become secondary links, and which comes under the heading of supplementary or additional learning resources.

• Doing a walk-through to confirm time allocations for each learning activity (including reading); congruence between assessment and learning objectives and learning content and learning tasks; clarity; and completeness.

• Defining and providing for (either in the content itself or in documentation) the learning support needs of the students, and also for teachers if the material is to be used by others.

1.10 MATERIALS DEVELOPMENT

This phase takes the material produced in the writing and planning phases and turns it into product. It can either be done during or immediately after the content planning and writing phase,
but in either case close liaison should occur between writers and the developers (if these are different people) throughout these stages.

1.11 TESTING AND FINAL CHECKING

It is an important phase. All your efforts above are of little value if the product is not accessible and usable. Consideration of usability factors actually begins in the planning phase but it should be formally tested during prototyping, then following full production. The importance of testing and considering the usability factors cannot be over-stressed.

These steps require:

- Knowing what standards should be aimed for (technical compliance and usability of the product being developed).
- Establishing means by which to measure or test that standards and usability objectives have been achieved.
- Considering when to measure, and how information from this will feed back into the development process to achieve best outcomes most efficiently.

1.12 EVALUATION, FEEDBACK AND REDEVELOPMENT

Evaluation is a positive step that can provide feedback on the effectiveness of your product; this will enable fine-tuning of the
product. It also provides valuable feedback to the production team on ways future developments can be improved.

1.13 HISTORY

We all live in the present. What is present today will become the past tomorrow; and our future would become present someday. It is saying that our past influences our present and our future as well. History is a subject, is the study of the past. In this era of modern technology, many people wonder why it is important to learn History as a subject. There are a host of reasons one can put in favor of this discussion. Whatever theories we study during our course of education, they actually come from the treasure house of past. By the study of history, we actually come to know about our glorious past. History is also important for the well being of a particular society. It helps us understand people and society. History is a storehouse of information about how people and societies have behaved and responded to events in the past.

History is often regarded as ‘His-story’, ‘his’ being a representative term for mankind. However, today the connotation of “his” is used in a broader sense, with it being significant of anything or any phenomenon that has a story connected to it. From the history of the universe to the history of this very article, everything is recorded with respect to the fourth dimension, “time”.
The word ‘history’ relates to the Greek term “historia”, which stands for the knowledge acquired through investigation. History is not just a subject which is studied in classrooms, but a genuine science that deals with the true origins and development of our planet and our species, following closely through the ages; ancient, medieval and modern. History involves discoveries, research and invention of new analytical methods to succeed in decoding historical facts and understanding them. Though history is deemed boring by some youngsters, it is one big story that can be read to and read by anyone who has even the slightest of interest. Below you will find a few facts which cement the importance of history in human lives.

- Understanding one’s Existence,
- For a better future,
- Learn from our ancestors,
- To understand working of the society
- To govern efficiently,
- Inventions and discoveries
- To have solid foundation.

1.14 MEANING OF HISTORY

History is anything that is past recorded, weather about culture, food or people. History is also about all the remaining facts of past time that is extincted to this day. Plenty of people use
history. History tells us about the people, places and events of the past, arranged in chronological order. It tells us about our ancestor lifestyles, occupations, customs and traditions, religious beliefs, social and political systems and cultural patterns. It also tells us about their problems, aspirations as well as their achievements. Herodotus was a Greek historian in 5th century B.C, he is considered to be the “father of history”, and, along with his contemporary Thucydides, helped form the foundations for the modern study of history.

1.15 DEFINITION OF HISTORY

A people without the knowledge of their past history, origin and culture is like a tree without roots

- Marcus Garvey

My reading of history convinces me that most bad government results from too much government

- Thomas Jefferson

History will have to record that the greatest tragedy of this period of social transitions was not the strident clamor of the bad people, but the appalling silence of the good people.

- Martin Luther King Jr.
A small body of determined spirits fired by an unquenchable faith in their mission can alter the course of History

- **Mahatma Gandhi**

History repeats itself, first as tragedy, second as farce

- **Karl Marx**

1.16 THE IMPORTANCE OF LEARNING HISTORY

History is learnt in schools throughout the world. It can be regarded as one of the most important subjects. Although people generally agree that it is crucial to study history, what part of history to study is a question that needs debate. Some people believe that if a certain topic is irrelevant to our daily lives, it can be ignored in our study. However, I beg to differ. History shouldn’t be studied as an inconsistent and fragmentary subject. In fact, today’s world is an accumulated result of the past. We should learn history as a whole, not parts of it.

History as art and entertainment serves a real purpose, on aesthetic grounds but also on the level of human understanding. The students of history develop the ability to access evidence, to accessing past examples of change. Historical study, in sum, crucial to the promotion of that elusive creature, the well informed citizen. It provides basic factual information about the background
of our political institutions and about the values and problems that affect our social well-being.

This subject helps us understand the change and the causes of change in human behavior. For example if we want to know the causes of alcoholism, we first need understand the human body metabolism. Through biological research, scientists have recognized specific genes that seem to cause an inclination toward alcohol addiction in some individuals. In this rapidly changing world, we sometimes feel like losing our own identity and are carried away by the concept of post modernism. Thus the importance of studying history as a subject mounts the most in present day.

1.17 NEED FOR THE STUDY

The point of paramount importance is the fact that if teachers don’t create E-Content, either no one else can or somebody else will. Of course, the task of developing E-Content or Knowledge Packaging necessitates collaborative efforts by technologists and academics. In this context, the following observation of Vladimir Kinelev (2005) needs attention, “ICTs have not eliminated the most pressing of problems that education systems face. Attempts to improve education through ICTs suffer from the absence of sound education paradigms”. It is here that the teacher with clarity in content and depth in pedagogy assumes a pivotal role in creating
the right instructional design and in creating appropriate content in
effective manner.

History as a subject plays a major role in relating to students how our culture, customs, the destructions and development of each nation. Such a subject is facing a major setback. Very few students are opting for History, as the methodology used for teaching History is still traditional chalk and talk method. Students feel it is tedious to learn the dates and various events. Learning History in Higher Secondary level is not considerably large at present. This means that the pupil’s attitude towards selecting subject like History is not appreciably large in number. This is not a simple statement and it is an acceptable truth from the teachers’ side as well as students’ side. When the investigator tending to find the real curse of this major problem, the following are some of the arbitrary reasons among the learners’ side, viz., the value and depth of the subject cannot be realized by the learners since it is entirely new subject when the pupils come from high school level to higher secondary level there is no attractive methods to teach/learn the subject joyfully, the learners think that the scope of the subject is very less, also the learner have unfaith on employability and the resources to be utilized to impart the subject is nor appropriately provided by the schools.
The teachers must certainly try some attractive methods to teach the subject joyfully. In order to provide an effective method in teaching Social science the investigator decided to develop the E-content material on social science to teach at IX standard level and further to analyse the effectiveness.

1.18 STATEMENT OF THE PROBLEM

In the present day context the need for digital convergence of teaching learning material is imperative to provide quality education to greater quantities of learners for the simple reason that the reach and richness of E-Content is quite high. The salient features of E-Content viz., bi-sensory learning experience, digital convergence of text, image, audio, video, animation etc. to create the effects of multimedia, accessibility, reusability, interoperability etc. are the supporting points in favour of the claim to give top priority to E-Content development, among all academic endeavours. It might be seen that there is a great lack in developing E-Content material for teaching Social science considerably. Hence, the investigator intended to develop E-Content in selected topic in Teaching Social science at IX std level. This research is intended to develop, validate and find out the effectiveness of E-Content in the normal teaching learning environment. The problem of the study shall be stated as follows “Developing, Validating and Measuring
the Effectiveness of E-Content in the subject social science at Secondary Level”

1.19 OPERATIONAL DEFINITION OF THE TERMS

Effectiveness

According to Oxford Advanced Learners’ Dictionary of correct English by A.S. Horn by (OUP) “effective” means the power to bring about a result. As far as the study is concerned, effect refers to impressive result in the improvement of achievement through the E-Content. The effectiveness is determined in terms of the gain scores obtained by the students in the experiment. The gain score is the difference between the pre-test score and the post-test score.

Achievement

Good (1959) defined achievement as “Accomplishment or proficiency of performance in a given skill or body of knowledge”. In this study achievement denote the relative standing of the student as measured by the achievement test in social science.

Social science Students

In this study it refers to the students studying in the IX standard.
**E-Content**

Oxford dictionary defines E content as - Digital text and images designed for display on web pages. Here in this study E Content refers to which includes electronic versions of books, journals, maps, media, and archival materials that can be used for teaching and learning.

The content available through TV, radio, phone, multimedia CD/DVDs and Internet can also be termed as E-Content. In this context the E-Content developed in the form of a Compact Disc is considered as E-Content material for the study.

**Conventional Method**

The usual talk and chalk traditional method in which teacher teaches the content of the subject matter given in the specified textbook.

**Secondary Level**

The secondary level refers to VI standard to X standard in the school education. For the convenience of the study the students of IX standard were considered as secondary level students.
1.20 OBJECTIVES

1. To develop and validate an E-content for teaching social science.

2. To find out the effectiveness of the validated E-Content for teaching social science.

3. To study the significant difference if any between the E-content group and Conventional Method group students’ achievement in social science Pre-Test scores.

4. To study the significant difference if any between the E-content group and Conventional Method group students’ achievement in social science Post-Test scores.

5. To study the significant difference if any between the E-content group and Conventional Method group students’ achievement in social science gain scores.

6. To study the significant difference if any between the achievement of Male and Female students in E-content group Post-Test scores.

7. To study the significant difference if any between the achievement of Male and Female students in Conventional Method (CM) group Post-Test scores.
8. To study the significant difference between the achievement of Rural and Urban students in E-content group Post-Test scores.

9. To study the significant difference between the achievement of Rural and Urban students in Conventional Method (CM) group Post-Test scores.

10. To study the significant difference between the achievement of students having Computer Knowledge and not having Computer Knowledge in E-content group Post-Test scores.

11. To study the significant difference between the achievements of students having Computer Knowledge and not having Computer Knowledge in Conventional Method (CM) Post-Test scores.

12. To study the significant difference between the achievement of students with school Level and Degree Level Parent Educational Qualification in E-content group Post-Test scores.

13. To study the significant difference between the achievement of students with Degree Level and
Professional Level Parent Educational Qualification in E-content group Post-Test scores.

14. To study the significant difference between the achievement of students with school Level and Professional Level Parent Educational Qualification in E-content group Post-Test scores.

15. To study the significant difference between the achievement of students with school Level and Degree Level Parent Educational Qualification in Conventional Method (CM) Post-Test scores.

16. To study the significant difference between the achievement of students with Degree Level and Professional Level Parent Educational Qualification in Conventional Method (CM) Post-Test scores.

17. To study the significant difference between the achievement of students with school Level and Professional Level Parent Educational Qualification in Conventional Method (CM) Post-Test scores.
1.21 HYPOTHESES

1. There is no significant difference between the E-content group and Conventional Method (CM) group students’ achievement in social science Pre-Test scores.

2. There is no significant difference between the E-content group and Conventional Method (CM) group students’ achievement in social science Post-Test scores.

3. There is no significant difference between E-content group and Conventional Method (CM) group students’ gain score in social science.

4. There is no significant difference between the achievement of Male and Female students in E-content group Post-Test scores.

5. There is no significant difference between the achievement of Male and Female students in Conventional Method (CM) Post-Test scores.

6. There is no significant difference between the achievement of Rural and Urban students in E-content group Post-Test scores.
7. There is no significant difference between the achievement of Rural and Urban students in Conventional Method (CM) Post-Test scores.

8. There is no significant difference between the achievement of students having Computer Knowledge and not having Computer Knowledge in E-content group Post-Test scores.

9. There is no significant difference between the achievement of students having Computer Knowledge and not having Computer Knowledge in Conventional Method (CM) Post-Test scores.

10. There is no significant difference between the achievement of students with school Level and Degree Level Parent Educational Qualification in E-content group Post-Test scores.

11. There is no significant difference between the achievement of students with Degree Level and Professional Level Parent Educational Qualification in E-content group Post-Test scores.

12. There is no significant difference between the achievement of students with school Level and
Professional Level Parent Educational Qualification in E-content group Post-Test scores.

13. There is no significant difference between the achievement of students with school Level and Degree Level Parent Educational Qualification in Conventional Method (CM) Post-Test scores.

14. There is no significant difference between the achievement of students with Degree Level and Professional Level Parent Educational Qualification in Conventional Method (CM) Post-Test scores.

15. There is no significant difference between the achievement of students with school Level and Professional Level Parent Educational Qualification in Conventional Method (CM) Post-Test scores.

1.22 SAMPLE

The present study aimed to find out the effectiveness of E-content in learning social science at IX std level. In order to find out the effectiveness, the investigator selected 180 students of IX std from three Schools. The distribution of the sample is as follows.
1.1 Distribution of Sample

<table>
<thead>
<tr>
<th>School Treatment</th>
<th>School I</th>
<th>School II</th>
<th>School III</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>E-Content</td>
<td>4</td>
<td>6</td>
<td>8</td>
<td>12</td>
</tr>
<tr>
<td>Conventional Method</td>
<td>6</td>
<td>4</td>
<td>7</td>
<td>13</td>
</tr>
<tr>
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<td>5</td>
<td>25</td>
</tr>
</tbody>
</table>

G- Girls B- Boys

1.23 VARIABLES USED

In this study E-Content method Conventional Method (CM) are the dependant variables, the gain scores of two treatment groups is independent variables and Sex, Residential Background, Computer Knowledge and Parent Educational Qualification of the students are the background variables.

1.24 DELIMITATION

- This present study confined only to three schools where the facility to use computer are available.
- The developed E-Content were used under the supervision of teachers for whom instructions have been given.
• The E-Content were developed only in a few topics at IX std level.

• The present study is limited to consider the following factors, viz.,

  ➢ Sex

  ➢ Residence

  ➢ Knowledge in Computer and

  ➢ Parent Educational Qualification

1.25 METHODOLOGY

The investigator followed an Experimental Research for this study. The aim of experimental research is to establish cause and effect relationship between variables and conditions. Establishing cause and effect relationship between the phenomenon is the fundamental concern of experimental research. Experimental research deals with three types of variables the dependant, independent and controlled. The setting in which experimental research is conducted is usually standardized and well-defined. The experimental research is conducted in highly controlled situations. The experiment is generally regarded as the most sophisticated research method for testing hypothesis.
In this present study, there are 180 sample were selected from three schools. The two groups were equated numerically based on their achievement in their quarterly examination marks in the social science subject. Out of divided two groups, first group was treated with E-Content called Experimental Group and the second group was treated with Conventional Method, called Control Group.

1.26 TOOLS USED IN THE STUDY

- The E-Content was developed by the Investigator
- The Achievement Test was prepared by the Investigator for Pre-Test and Post-Test.

1.27 STATISTICAL TECHNIQUES USED

1. Descriptive analysis
2. Differential analysis
3. Regression analysis

1.28 THE BRIEF RESUME OF THE SUCCEEDING CHAPTERS

The complete research report of this experimental study is provided in five chapters.
First chapter deals with the introduction. Second chapter provides the review of related literature. The third chapter explains to the software development for the present study.

Fourth chapter covers the Analysis and interpretation of Data.

Fifth chapter deals with the analysis and interpretations of data. It gives the statistical methods such as mean, ‘t’ test and ‘F’ test. In the sixth chapter the investigator has shown the summary of the findings, recommendation and suggestions for further studies.