CHAPTER I

INTRODUCTION
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1.1. INTRODUCTION

Social Science aims at creating educated individuals who can grow up to be responsible citizens of the nation and to enhance the ethical and moral values of the learners. It intends to build creative, caring and courteous human beings out of students and helps them to increase the possibility of becoming knowledgeable individual. It is necessary to revamp the brighter future of the society. The important aims of social science are to reflect an international dimension and a global perspective, developing the student’s awareness of the world as a set of systems which undergo constant change, providing opportunities for the students to investigate cultural heritages and understand the importance of geographical and historical influences upon the social systems and appreciating the global environment, developing moral principles and moral reasoning, fostering the understanding of the ideas and beliefs of others, including the study of how social systems are shaped by the values of interacting groups (i.e.,) the individual, the family and the community, fostering an understanding of the rights and responsibilities of individuals in communities, developing the ability to communicate with others, preparing the individual to participate in solving local and global problems, emphasizing the process of acquiring knowledge and fostering awareness of the consequences and implications of discrimination and inequality.
1.2. NEED OF SOCIAL SCIENCE

Social skills include respect and consideration for others, toleration of differences, adjustment of opposition and accommodation to compromises provided directly or indirectly by the subject of social science. These are very essential for the building up of a healthy, vigorous and dynamic society. It provides a lot of information about man’s relationships. It is a store-house of accumulated human experiences and knowledge, open to the child who gets it through reading, motion pictures, listening to others and many other activities connected with the teaching of social science. Some kind of social conduct has to be maintained by its members in every society. For example, society evolves standards for individuals, groups and institutions. The individuals are expected to speak the truth, obey the law, perform their duties and maintain a desirable behaviour. Groups are expected to help their members in all possible ways. Institutions like the state, the church, the school and the business concerns are expected to work for the welfare of the society. It describes the standards that society has evolved during the course of time and provides education for character and behaviour forming attitudes, ideals and standards. Social science is inevitable to learn about the different cultures and events of the past and present.

1.3. OBJECTIVES OF TEACHING SOCIAL SCIENCE

➢ To acquaint with the past and present.

➢ To appreciate the cultural heritage.

➢ To develop social competence.
➢ To prepare an enlightened citizen.

➢ To inculcate the virtues.

➢ To develop social commitments.

➢ To provide foundation for future specialization.

➢ To bring all round development.

➢ To socialize pupils.

➢ To develop a sense of belongingness.

➢ To develop sense of using leisure time.

➢ To develop the formation of habits and skills.

➢ To maximize the economic and social welfare.

➢ To foster national feeling.

➢ To promote International Understanding.

1.4. VALUES OF TEACHING SOCIAL SCIENCE

➢ It provides social awareness.

➢ It provides competence in tackling problems.

➢ It provides training in co-operation.

➢ It provides ample opportunities to help the slow and the backward children.

➢ It provides adjustability and flexibility.

➢ It offers skill of selection.
➢ It develops the sense of thinking and reasoning power.

➢ It helps to awaken the consciousness of personal role.

➢ It promotes international understanding.

1.5. TEACHING OF SOCIAL SCIENCE

The social science encompasses diverse concerns of society and include a wide-range of content, drawn from the disciplines of history, geography, civics and economics. The selection and organization of material into a meaningful social science curriculum, enabling students to develop a critical understanding of society, is therefore a challenging task. The possibilities of including new dimensions and concerns are immense especially in view of the student’s own life experiences. It is important to reinstate the significance of social science by not only highlighting its increasing relevance for a job in the rapidly expanding service sector, but by pointing to its indispensability in laying the foundations for an analytical and creative mindset. It is often presumed that only natural and physical phenomena lend themselves to scientific inquiry, and that knowledge areas pertaining to the human sciences (history, geography, civics, economics, etc.) cannot be, by their very nature “scientific”. But it is necessary to recognize that the social science lend themselves to scientific inquiry just as much as the natural and physical sciences do, as well as to articulate the ways in which the methods employed by social sciences are distinct (but in no way inferior) to those of the natural and physical sciences.
The social science carries a normative responsibility to create and widen the popular base for human values namely, freedom, trust, mutual respect, respect for diversity, etc. Thus, social science teaching basically should be aimed at investing in a child a moral and mental energy so as to provide his/her with the ability to think independently and deal with the social forces that threaten these values, without losing his/her individuality. Social Science teaching can achieve this by promoting children’s ability to take initiative to critically reflect on social issues that have a bearing on the creative coexistence between individual good and collective good. Powerful social science teaching combines elements of all the disciplines as it provides opportunities for students to conduct inquiry, develop and display data, synthesize findings, and make judgments. Critical reflection pre-supposes a comprehensive curriculum in which learners—both teachers and children—participate in generating knowledge without any latent and manifest forces of coercion. It is through this non-coercive and participatory mode that children and teachers stand the best chance of making teaching and learning interesting as well as enjoyable.

1.6. NEED OF SOCIAL SCIENCE IN CURRICULUM

In accordance with the statement of National Council for Education Research and Training (NCERT) the teaching and learning of social science are powerful when they are meaningful, value-based, challenging and active. It is integrative, addressing the totality of human experience over time and space, connecting with the past, linked to the present, and looking ahead to the future. The vital task of preparing students to identify, to understand, to become
culturally diverse, to form a democratic society and work to solve the challenges facing our secular nation in an increasing interdependent world. The disciplines of social science are diverse, encompassing in an expansive range of potential in the nature. The social science content engages students in a comprehensive process of confronting multiple dilemmas, and encourages them to speculate, think critically, and to make personal and civic decisions based on information from multiple perspectives. It builds the networks of knowledge, skills, beliefs, and attitudes that are structured around enduring understandings, essential questions, important ideas and goals. It also provides strategies and activities that engage students with significant ideas, and encourages them to connect what they are learning to their prior knowledge with regard to current issues, to think critically and creatively about what they have to do and how to apply that knowledge in an authentic situations.

1.7. PLANNING SOCIAL SCIENCE CURRICULUM IN SECONDARY STAGE

Social science comprises the elements of history, geography, civics and economics. The main focus will be on contemporary India and the learner will be initiated into a deeper understanding of the social and economic challenges facing the nation. Issues relating to history should be kept with epistemic shift proposed, contemporary India should be discussed from the perspectives of the adivasi, dalit and other disenfranchised populations and efforts should relate the content much as possible to the student’s everyday lives. India’s freedom struggle and the contributions of various sections/regions and independent nations
developments should be taught in the context of modern world. Issues relating to geography should be taught keeping in mind the need to inculcate in the student’s critical appreciation for conservation and environmental concerns. In civics the focus should be on discussing the philosophical foundations that underlie in the framework of the Indian Constitution and its values, i.e. an in-depth discussion of equality, liberty, justice, fraternity, dignity, plurality and freedom from exploitation. As the disciplinary area of economics is being introduced to the students at this level, it is important that the topics are discussed for the perspective of the masses. For example, poverty and unemployment may be derived from an understanding of the functioning of economic institutions and the inequalities sustained by economic relations and to acquire the economic efficiency to lead a successful life.

1.8. ELEMENTS OF SOCIAL SCIENCE

Social science draws its materials from the various social science such as history, geography, civics, economics, etc., but it is not history plus geography plus civics plus economics, etc. It is-a chunk from here and a chunk from there. It integrates the material of all these science in one conglomeration. That is why, it is called, ‘co-ordinated and co-ordinating by nature’. Social science consists of a fresh arrangement and different treatment for the purpose of achieving certain ends, described as social ends.

In order to arrive at a meaningful understanding of the subject, we would have to investigate our past(history), the environment in which we live(geography), how we will place ourselves in the society in which we live and
the influence we exert on others (civics), our needs and desires and how we are supported financially (economics). Thus social science reveals to the learner where she/he is in the context of time, space and society.

1.8.1. OBJECTIVES OF TEACHING HISTORY

- To promote self-understanding.
- To give proper conception of time, space and society.
- To enable the pupil to access the values and achievements of their own age.
- To teach tolerance.
- To cultivate valuable intellectual attitudes.
- To broaden the intellect.
- To teach moral principles.
- To cultivate a forward look.
- To impart mental training.
- To give training for handling controversial issues.
- To help resolve our contemporary social and individual problems.
- To foster national feelings.
- To develop international understanding.
- To cultivate historical sense.
- To develop wisdom.
- To enlight awareness.
➢ To cultivate ethical and heritage values.

➢ To inculcate idea of development.

➢ To develop a particular way of thinking.

➢ To master and understand the present.

➢ To widen one’s mental horizon.

➢ To develop some useful mechanical skills.

1.8.2. OBJECTIVES OF TEACHING GEOGRAPHY

➢ To help students identify the varieties in the distribution of physical and economic phenomena over the surface of the earth, that are associated and which give a distinctive character to particular parts of the earth’s surface.

➢ To help the students analyze the ways of life of the people on the world, their problems in the varying environment and their stages of economic and technological developments.

➢ To help students make generalizations with the help of geographical concepts, the knowledge of which is of great value in understanding, evaluating and reaching decisions about world problems.

➢ To develop an appreciation of inter-dependence of various geographical regions.

➢ To acquaint the pupils with the living conditions of men in different parts of the globe.

➢ To enable the pupils to acquire a knowledge of natural resources.
➢ To develop in pupils an understanding of how environment and climatic factors have influenced our life.

➢ To help the pupils to acquire knowledge of their physical and social environment and thus to broaden their outlook.

➢ To develop them an understanding of basic concepts, principles and theories relating to geographical phenomena.

➢ To train the pupils in nature study.

➢ To develop the power of thinking, reasoning, memory and power of imagination of pupils.

➢ To develop their ability to draw conclusions and to generalize.

➢ To develop a love for nation and to develop cosmopolitan and internationalist outlook.

➢ To develop the creative talents of pupils and to develop and attitude of discovery of them.

➢ To develop the bills of reading maps and globes, to develop drawing and measuring the skills, and to develop the skills of using and manipulating geographical instruments.

➢ To enable the pupils to appreciate the natural beauty and other physical forces.

➢ To adjust human life in accordance with geographical circumstances.

➢ To develop geographical attitude and to develop the ability to draw valid conclusions and independent thinking.
➢ To develop an appreciation of the value of co-operative effort at the local, national and world levels for development activities.

1.8.3. OBJECTIVES OF TEACHING CIVICS

➢ To develop intelligence, understanding the structure and working of the civic and political institutions of India.

➢ To promote active and intelligence citizen who have necessary civic competence to participate in the community affairs effectively.

➢ To help the students appreciate the role of the United Nations and India’s contribution towards maintenance of world peace.

➢ To develop in the student an understanding that there is a need for international peace and co-operation.

➢ To acquaint the student with the machinery of the government at different levels.

➢ To promote general knowledge of the various problems of individuals and social life.

➢ To provide the student with intelligent understanding of the various social responsibilities and civic processes.

➢ To inculcate in the student the values of egalitarianism, democracy, secularism and national integration.

➢ To help in the fulfillment of political responsibility.

➢ To create political consciousness and social efficiency.
➢ To promote civic life in the community, local government, how we can co-operate with local authorities, preservation of public property and what should be our role.

➢ To provide total development.

➢ To solve current social and economic problems facing the country and the problems relating to the environmental preservation, arms race and human rights.

➢ To promote an active and intelligent citizenship.

➢ To develop an intelligent understanding of the structure and working of the social and political institutions.

➢ To help the student understand our constitution and the values enshrined in it.

➢ To promote among the student the feeling of oneness with the people and their institutions.

➢ To create scientific outlook.

➢ To make the student conscious of the contemporary social and economic problems and issues.

➢ Instilling in him/her, thereby, a sense of responsibility to face them effectively.

➢ To promote cosmopolitan outlook.

➢ To cultivate socialization.

➢ To develop mental powers.

➢ To develop consciousness of rights and duties.
1.8.4. OBJECTIVES OF TEACHING ECONOMICS

- To acquaint students with the contemporary economic problems and to help them appreciate the efforts being made to solve these problems at local and national levels.

- To foster an urge among students for effective participation in the tasks of national reconstruction.

- To prepare students to cope with the stress and strain that occurs in the process of economic reconstruction.

- To develop an understanding of the nation’s physical and human resources and their potentialities for a better tomorrow.

- To develop among students a favourable attitude towards conservation and wise use of our natural resources, avoiding their misuse and wastage.

- To help students understand that various sectors of the Indian economy are interlinked and that all the sectors must develop simultaneously, through planned and well co-ordinated efforts.

- To develop among students a passion for social justice and an urge to resist exploitation in any form by men or by the state.

- To familiarize students with the basic terminology and elementary ideas of economics.

- To help students acquire skills in interpreting simple statistical data.
To make the students able to acquire knowledge of various economic terms like various definitions of economics and economy, capitalistic, socialistic and mixed economy, developed and developing economy.

To make the students able to understand the economic exploitation of consumers, rights of consumers in society.

To make the students understand the significance of the various sectors in the national economy and their inter-relationship, output of various sectors and their productivity, importance of productivity in economic development.

1.9. CAUSES FOR THE INDUSTRIAL REVOLUTION IN ENGLAND

Enormous Expansion in Overseas Trade of Britain

Enormous expansion in Britain’s trade in overseas markets was one of the major causes of Technological Revolution. During the seventeenth and eighteenth centuries Britain had carved out an extensive colonial empire and successfully excluded the other powers like Spain, Holland and France from their markets. As a result, she acquired a sort of monopoly in these markets. The growing demand for the British goods in these markets gave a stimulus to the British manufacturers to take to machine methods. It is well known that the mechanical inventions of the eighteenth century such as spinning jenny of Hargreaves, the water-frame of Arkwright, the mule of Crompton and the power-loom of Cartwright etc., were invented to increase the production of cotton cloth which was in great demand in India. According to Birnie, “These inventions are sometimes spoken of as the primary cause of the Industrial Revolution. In reality, they were a secondary cause
only. Machines for turning out cheap goods in large quantities are useless unless there is a market capable of absorbing the increased output. The market must come first; the inventions follow. Mechanical discoveries have often the appearance of being due to accident, but unconsciously the successful inventor works within limits laid down for him by the changing needs of society.”

Availability of Capital

The vast amount of capital which England had accumulated out of profits of her growing trade enabled her to make large outlays on machinery and buildings, which in turn contributed to new technological developments. In addition England also possessed a large amount of loanable capital obtained by the Bank of England from the rich trade of other countries. This capital also helped England to steal a march over other European countries.

Practical bent of mind of the English Researchers

Another factor which contributed to England lead in the technological revolution was that the English scientists and engineers had a very practical bent of mind. They made inventions keeping in view the needs of the time. They concentrated mainly on those inventions of science which had practical utility. This was in complete contrast to the continental scientists who concentrated on research in electricity, chemical etc., which were not of immediate applied relevance.
Small Population

The small size of England’s population, which could not cope with England’s growing trade, also necessitated that new devices should be found out to keep production in line with the growing demand. This is best exemplified by the changes in the textile industry as well as the coal industry. The shortage of the labour force compelled the owners to encourage and apply new mechanical devices.

Social and political stability

Britain not only enjoyed complete freedom of trade but also an insular position which saved her from the disastrous consequences of war, which ravaged the countries of Europe. This social stability prevailing in England encouraged the people to invest in sectors where they could hope to receive high dividend in future. This led to adoption of new techniques and promotion of new industries.

The availability of coal and iron mines close to each other

The location of the coal and iron mines close to each other encouraged the English to evolve new techniques for the manufacture of iron and utilization of the coals. It is well known that the availability of coal and iron ores in large quantities greatly helped the growth of numerous industries in England. The need for large quantities of coal for smelting of iron ores, transportation etc., necessitated improvement in the techniques of coal mining. Metal cages and tubs were used to lift coal. Even the use of wire ropes for lifting of coal was started a little later. Engines were invented to pump out the water from the mines.
The agricultural revolution

In Britain the agricultural revolution had already taken place which greatly transformed the English society. It not only made available necessary raw materials to run the new industries but also provided a large number of agricultural laborers for employment in the new factories.

Presence of enterprising people

The technological changes in England were made possible because of the presence of a sizable section of people who possessed enterprising spirit and requisite technical qualities. Further this class of people also possessed organizing abilities and was accustomed to the handling of large enterprises and labour force. These people were willing to invest money for the discovery of new techniques and give a fair trial to these techniques.

Risk-taking Private Sector

The presence of a sizable private sector in the country with great capacity of the individual businessmen to take risks also greatly contributed to the industrial revolution. These businessmen were willing to take a chance on new things. In this way they were also supported by the government.

Better means of transport

England possessed a far better network of means of transportation than any other country of Europe which greatly helped the industrial revolution. In this task the government played an important role which spent considerable amount on the improvement of roads and construction of canals.
Geographical location

The geographical location of England also greatly helped in industrial revolution. Being cut-off from the mainland of Europe, England remained immune from wars and upheavals of Napoleonic conflicts and conditions remained quite stable in the country. These stable conditions enabled England to develop their industrial capacity without fear of battle, damage or loss of life.

Flexibility of English social and political system

Above all the flexibility of the English social and political system also greatly contributed to industrial revolution in England. The members of the upper classes in Britain, unlike their counterparts in the continent, pursued their wealth in the new industrial framework with great enthusiasm. They worked in close cooperation with the middle classes and artisans which greatly facilitated the industrial revolution. In short, it can say that in comparison to other European countries England was more favourably placed in many respects and no wonders stole lead over them in the field of technological revolution and industrialization.

1.10. CONDITIONS FAVOURABLE FOR THE BEGINNING OF AN INDUSTRIAL REVOLUTION IN ENGLAND

In the 18th century many innovation in agricultural methods and organizations had brought a reaching changes. The traditional patterns of farming were breaking up. Agriculture became more and more capitalist enterprise. Peasants freed from manorial obligations joined the ranks of entrepreneurs and tenants. The demand for English goods went on increasing. The expansion of
commerce was the result of the discoveries of the new lands and new sea routes. The population in European countries expanded rapidly for several factors. More efficient agriculture and better food distribution reduced malnutrition which meant more births. The progress of science revolutionized the method of production.

The widespread production of rural handicrafts provided the foundation for the rapid expansion of trade. This expansion resulted in a search for new markets. The capitalists encouraged the scientists to invent machines. Further the European countries exploited the colonies and their exploitation gave birth to capitalism. The capitalists wanted production of more goods in order to gain more profits and for this they required factories. With the help of newly invented machines the people produced goods on large scale. These factors helped the fast industrial changes in Europe. Before Renaissance scientific knowledge was not put into practice. But now there was awakening all around.

England in the 18th century was in a most favourable position for an Industrial Revolution. It had become the leading maritime and colonial power of the world. Her colonial and naval supremacy provided incentive for the development of the industry as the colonies provided raw materials as well as markets. Britain also possessed many natural advantages, her coastal line and climate promoted the trend towards industrialization. The role played by private enterprises in England’s economic development was extraordinary and unique. The engines of industrial revolution made England so rich and powerful. Many protestant artisans of Spain and France migrated to England due to religious
persecutions. The English government provided them shelter and monetary help and in return made full use of their skills. It gave impetus to industries in England.

1.10.1. COURSE OF THE INDUSTRIAL REVOLUTION IN ENGLAND

Revolution in the Textile Industry

The industrial revolution brought a change from handicrafts to machine manufacture and from human or animal power to other forms of energy such as steam. The cotton textile industry was the first to gain momentum from the outburst of inventions. John kay’s (1733) “Flying Shuttle” speed up the process of weaving and thus increased the demand for thread. James Hargreaves’s “Water Frame” and Crompton’s “Spinning Mule” (1779) supplied the demand for thread. Catwrigth’s “Power Loom” (1785) improved weaving methods. Whitney’s “Cotton gin” (1793) made a large and cheap supply of raw cotton for spinning. Elias Howe invented the “Sewing Machine” (1846).

Invention in Powers

The most important invention of the Industrial Revolution was the steam engine. James Watt studied Newcomen’s steam engine and invented a new steam engine in 1769. Steam replaced horse and water power in the textile industry. George Stephenson invented steam locomotive engine in 1825. In 1830 the first passenger railway between Manchester and Liverpool was operated. The steam printing press in 1814 decreased the cost of printed materials. Later on Faraday invented the Dynamo. Abraham Derby made experiments in the substitution of coke from charcoal for smelting iron ore. In 1760, John Smeaton improved the
“Derby process” by the addition of water power. Humphrey Davy invented the Miner’s safety lamp which enabled the miners to do the work with safety. In 1784, Henry Cort introduced the pudding process for the purification of pig iron. In 1856, Bemberg invented a new method of making steel. From this time onwards coal and iron went hand in hand with steam as foundation of industrialization.

Revolution in Transport

Changes in mining, metallurgy speeded changes in other industries especially transportation and communication. John Metcalfe and John McAdam made tremendous improvements in roads making. McAdam devised the method of making pucca roads, which were called “Macadamised” roads. John Brindley constructed a network of canals and important towns like London, Birmingham, Liverpool, Manchester, etc., were soon linked by canals.

Revolution in the means of Communication

‘Sir Rowland Hill’ invented the “Penny post system” by which the business people were able to carry on their correspondence with customers and clients from far and near. Morse invented the method of sending messages through telegraph wires. In 1835 the first electric telegraph came into existence.

Revolution in Agriculture

The revolution in agriculture had started before the Industrial Revolution. New farm machinery included the steel plough and harrow for breaking the ground, the mechanical drill for seeding and horse drawn cultivator to replace the
hoe. There were also machines for reaping and threshing. The practice of crop rotation was adopted to maintain soil fertility. Clover is one of the plants which add fertility to the soil. Land owners in England began to enlarge their farms. The strips that lay scattered about the village were so consolidated that could hold all their lands in one piece thereby increasing the production.

1.11. RESULTS OF THE INDUSTRIAL REVOLUTION IN ENGLAND

Economic Changes

➢ Expansion of world trade.

➢ Factory system was established.

➢ Mass production of goods.

➢ Industrial capitalism raised.

➢ Standard of living increased.

➢ Unemployment decreased.

Political Changes

➢ Decline of landed aristocracy.

➢ Growth and expansion of democracy.

➢ Increased government involvement in society.

➢ Increased power of industrialized nations.

➢ Nationalism and imperialism stimulated.

➢ The power of business people was raised.
Social Changes

- Development and growth of cities.
- The earning power of women and status was improved.
- Increase in leisure time.
- Increase in population.
- There were certain problems such as economic insecurity, increased deadliness of war, urban slums, etc.,
- Science and research stimulated.

1.12. EFFECTS OF THE INDUSTRIAL REVOLUTION IN ENGLAND

Social Effects

The Industrial Revolution left a deep impact on all sides of the European life. The changes in agricultural production, business organization and technology had revolutionary effects in society and politics. People were drawn from countryside into cities, it gave rise to a number of industrial towns. The overcrowded towns lacked the barest sanitary amenities. Air pollution, water and noise pollution affected the health of people. The industrialists found more profitable to employ women and children in their factories. Mass under employment became one of the greatest social problems. It also destroyed the old division of the society and created two distinct classes, the ‘capitalists’ and the ‘labours’. The division of people into ‘haves’ (rich) and ‘have not’ (poor) became pronounced. As industries developed in many of the European countries, they were forced to
set up their colonies in other continents to get direct raw materials and to sell their goods. This search for colonies led to colonial imperialism.

**Political Effects**

The emergence of big towns necessitated parliamentary reforms. A number of parliamentary reforms were introduced. The factory acts were passed in 1819, 1833 and 1847 to improve the conditions of labourers and to give them protection from the exploitation of capitalists. In 1825 trade unions were organized to fight for their rights. It also gave rise to ideas of rationalism and internationalism through means of communication and transport. This also gave rise to the demand for democratic government on economic basis i.e. Socialism.

**Economic Effects**

The Industrial Revolution changed the economic face of England which became the most advanced country in the world. It developed its trade relations which increased the national income. Cottage industries could not compete with the factories and they met their natural death in course of time. The establishment of factories established many new industrial towns like Manchester, Lancashire, Birmingham and Sheffield. The birth of new classes Capitalist and Labour made the poor poorer and the entire capital of the country went to the coffers of the capitalist. It was therefore as someone said “The Industrial Revolution made the rich richer and the poor poorer”.

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Rise of New Idealism

The Industrial Revolution gave births to many political terminologies which are frequently used. Capitalism was born out of mass production of goods which led the owners of the big industries amassing wealth. The large scale factories began to develop mercantile capital, this was the beginning of Capitalism.

Rise of Socialism

The slogan of socialism was raised by the labour classes against capitalism. The motive behind socialism is that there should be just distribution of wealth and the gap between the rich and the poor. Nobody should starve and everybody’s need must be met. Industrialisation sharpened the distinction between the middle class and the labouring class. Socialistic demands were meant to narrow this gap. Robert Owen was the first person to coin the word “Socialism”.

Rise of Marxism

Marxism is a theory developed by Karl Marx who is a socialist of Germany. His theory is based on the assumption that production and physical forces have an intimate relationship, and the surplus value of products should go in favour of the working class. The industrial revolution gave birth to Marxism and philosophies which are sufficiently advanced those days.
Theory of Laissez-Faire

It was a result of Industrial Revolution that the theory of *Laissez-Faire* or “free trade” came to the forefront. By this theory capitalist and traders pleaded that the states had no right to interfere in the affairs of the factories and trade.

1.13. DEFECTS OF THE INDUSTRIAL REVOLUTION IN ENGLAND

Due to Industrial Revolution man became the slave of the machines. The owners of the factories ruthlessly exploited their employees. The hour of work in the factory varied between fourteen to sixteen hours a day. The women and children were employed at low wages and also required to work on dangerous machines, it also created serious problem of under employment. The people began to live unnatural life.

The Industrial Revolution had both good and as well as evil effects. But it is undoubtedly clear that these effects were far reaching. Davies says, “The Industrial Revolution was not however an unmixed blessing. The domestic system of industry which it brought to an end was in many respects more conducive to the happiness of the workers.” It bestowed great material benefits to mankind. In brief the Industrial revolution has made the modern world what it is today.

1.14. METHODS OF TEACHING HISTORY

The teaching is much more difficult task. It requires different type of methods, techniques and teaching aids. The selection of these methods and techniques depends upon the nature of the task, learning objectives, learner abilities and student’s entering behaviour. The learning objectives and task
analysis provide the basis for effective presentation of teaching. In order to bring the desirable change in the behaviour of the learner, teacher has to employ the devices i.e. the teaching strategies and teaching tactics. The common history teaching methods may be of three types:

1. **TELLING METHODS**  : Lecture, Question/Answer, Discussion, etc.,

2. **SHOWING METHODS**  : Dramatization, Field Trip/Excursion, etc.,

3. **DOING METHODS**  : Project, Role-Playing, Problem-Solving, etc.,

**1.14.1. LECTURE METHOD**

It is the oldest teaching method given by philosophy of idealism. As used in education, the lecture method refers to the teaching procedure involved in the clarification or explanation to the student of some major idea. This method lays emphasis on the presentation of the content. Teacher is more active and students are passive but he uses question-answer to keep them attentive in the class. It is used to clarify matters, to expand content and motivate the students. By changing his voice, by impersonating characters, by shifting his position and by using simple devices, a teacher can deliver his lesson effectively. While delivering his lecture, a teacher can indicate by his facial expression, gestures and tones, the exact shade of meaning that he wishes to convey.
MERITS OF LECTURE METHOD

➢ It is economical as it needs no apparatus and no laboratory. A large number of students can be taught at a time.

➢ It saves time and covers syllabus in a limited time.

➢ It is very effective in giving factual information and in relating some of the thrilling anecdotes with historical persons. The life stories of great adventures, experimenter, investigators and thinkers can become very interesting and valuable talks by a teacher.

➢ Lecturing makes the work of the teacher very simple. He need not make elaborate arrangements.

➢ A good lecture not only stimulates the students but also lingers long in their imagination and it motivates students to become good orators.

➢ It provides better scope for classification and for laying stress on significant ideas.

➢ It brings a personal contact and touch to impress or influence the pupils.

➢ It provides flexibility, as the teacher is in close and intimate contact with the pupils, he can adjust his technique in accordance with their abilities, aptitudes and interests.

➢ It gives the students training in listening.

➢ It gives the students training in taking notes rapidly.

➢ It develops good audience habits.

➢ It provides opportunities of the correlating events and subjects.

➢ It enables the linkage of previous knowledge with the new one.
DEMERITS OF LECTURE METHOD

➢ There is a very little scope for pupil activity.

➢ It does not take into consideration individual differences.

➢ Lecturing is against the principle of ‘Learning by Doing’.

➢ It spoon-feeds the students without developing their power of reasoning.

➢ Speed of the lecture may be too fast for the learner to grasp the line of thought.

➢ An average student may not be able to fix up his attention to a lecture of forty-five minutes.

➢ A lecture is likely to cover more content without realizing that little learning takes place.

➢ A lecture may become monotonous to the students after a while. Very few teachers can keep the interests of the student’s upto the end.

1.14.2. QUESTION-ANSWER METHOD

To make the teaching of history, effective, the experts have developed a method of teaching, which may be called the conversational method or the question-answer method. In this, students are asked question in such a manner that their answers lead to the development of the lesson to the presented. Questioning is an important means of teaching history. Unfortunately it is often used badly; but when we used, it provides a ladder, for the pupil climbs towards fuller and deeper understanding.
MERITS OF QUESTION-ANSWER METHOD

- The question-answer method or the conversational method in the teaching of history helps the teachers to help the students to assimilate topics taught in the classroom situation.
- This theory receives an indirect support from psychology.
- The students utilize their past experiences for the solution of present problem and they derive new experience.
- A teacher is skillful in the art of questioning can present a lesson from history in the form of a problem and the students are motivated to solve the problems.
- This method develops an insight into the solution of problems.

DEMERITS OF QUESTION-ANSWER METHOD

- Sometimes the history teacher uses Question-Answer method in a wrong way.
- While narrating a new lesson to a group of students some teachers ask recapitulatory questions to test their memory of what has been told.
- These types of questions are in no way connected with the past experience of the students.
- The teacher also failed to present lesson in the form of a problem to the students.
- Therefore, this method has failed to be accepted as a good method at the school stage of education.
1.14.3. DISCUSSION METHOD

Discussion has been described as a thoughtful consideration of the relationships involved in a topic or problem under study. It is concerned with the analysis, comparison, evaluation and conclusions of these relationships. It aims at uniting and integrating the work of the class. It is carried out by organizing, outlining and relating the facts studied. It encourages the students to direct their thinking process towards the solution of a problem and to use their experiences for a further clarification and consolidation of learning material. Discussion is very important in stimulating mental activity, developing fluency and ease in expression, clarity of ideas in thinking and training in the presentation of one’s ideas and facts. The exchange of ideas and opinions offers valuable training to students in reflective thinking.

MERITS OF DISCUSSION METHOD

- It helps in clarifying issues.
- It helps children in crystallizing their thinking.
- It helps students in discovering what they do not know and what they have overlooked.
- It engenders more reflection. It is far away from role learning.
- It represents a type of pooled knowledge, ideas and feelings of several persons.
- It develops team spirit.
- It engenders toleration of views which are at variance.
➢ It affords opportunities to the students to learn together, make suggestions, share responsibilities, comprehend the topics, evaluates the findings and to summarises the results.

➢ To provide opportunities to the students to speak distinctly, stand and sit correctly, respect the ideas of others, share interests, ask pertinent questions and comprehend the problems before the group.

➢ It helps the teacher in discovering talented students who have potential for becoming good leaders.

**DEMERITS OF DISCUSSION METHOD**

➢ It is not suitable in all topics.

➢ It is likely to be dominated by a few students.

➢ It is likely to go off the track.

➢ It may lead to unpleasant feelings.

➢ It may create emotional tensions.

➢ It may involve unnecessary arguments.

**1.14.4. DRAMATISATION METHOD**

Of the many methods followed to teach social science in the class in an interesting and effective manner dramatisation is one. Dramatisation is an important method for making the teaching of social science interesting, effective and real. All children like acting and dramatic instinct is a very dominant one in the child’s mental make-up. Due to the dramatic instinct a young child often does
something quite spontaneously in imitation of another’s action. By the technique the natural tendency of the young mind is harnessed to an educational end. Thus historical dramatisation is an attempt at presenting historical events with the help of the students. Hence, through dramatisation the students develop insight into the historical scenes and actions.

**MERITS OF DRAMATISATION METHOD**

- Dramatisation makes history real and interesting for the pupils.
- It develops the emotional attitude in the pupils towards the persons and events of the past. They find themselves involved in the human activities of the past.
- The emotional catharsis provided in this method of teaching helps the children to maintain mental balance.
- Through dramatisation we can develop the creative instincts of the children.
- The speaking ability of the pupil is developed through this method.
- It also develops the power of imitation, appreciation and imagination of the children.
- It is an activity method of teaching and the students have many activities to do—composing dialogues, monologues, settling the stage for performance and acting. It is a form of play for them.
Dramatisation makes an appeal to many senses. It also appeals to the emotions and the intelligence. We easily remember things about which we have felt deeply.

Broad understanding of history, inculcation of human values and development of the mind are possible by teaching through this device.

DEMERTS OF DRAMATISATION METHOD

Method of dramatisation requires teaches having dramatic aptitude and dramatic bent up mind which are lacking amongst the teachers.

There is difficulty in the preparation of dialogues both by the students and the teachers. It requires ability, interest and time. So there is little chance of success.

The teacher should carefully deserve whether the class is taking dramatisation seriously or not. In case, the students are not serious, efforts at dramatisation should be abandoned in the class.

While introducing dramatisation there is apprehension of discipline in the class.

It is a time consuming devices and the course may not be completed in time.

Many schools may not be implemented this method for want of funds.

All the topics in history cannot be dramatized.
1.14.5. FIELD-TRIP/EXCURSION METHOD

Field trip/Excursion provides students first-hand knowledge and enabled them to see how a number of skills and processes are integrated. The experiences which students get from field trip and excursion contribute towards effective and permanent learning. The educational importance of field trips/excursions had been acknowledged everywhere and in the progressive countries such activities have been made as an integral part of the curriculum. Field trips and excursions are good in general. But in teaching history these activities are indispensable.

MERITS OF FIELD-TRIP/EXCURSION

➢ Field trip/Excursion provides the student with the opportunity of having first-hand knowledge of happening in our environment.

➢ It helps to generate and sustain student interest in the subject.

➢ It aids retention of information since the experiences are long lasting.

➢ It can help the student to develop interest in certain professions.

DEMERITS OF FIELD-TRIP/EXCURSION

➢ It may be a waste of time and resource if not well planned.

➢ It is externally difficult to carry out especially when it requires long distance.

➢ Accident may occur in the course of field trip/excursion.

➢ It results in extra financial expenses on the part of the school parents and even the students.
1.14.6. PROJECT METHOD

The project method is one of the most effective activity methods. Through this method of teaching the child draws some kind of conclusion by involving himself / herself in some physical and mental activity. The method is the gift of the Prof. John Dewey’s philosophy of education and Prof. Kilpatrick gave it a proper shape and called it a “whole-hearted purposeful activity, proceeding in a social environment”. But as C.V. Good says, “A project is a significant unit activity, having educational value and aimed at one or more definite goals of understanding. It involves investigation and the solution of problem and frequently the use and manipulation of physical material. It is planned and carried to completion by the pupil and the teacher in a natural life-like situation.”

MERITS OF PROJECT METHOD

- This method is in consonance with the psychological principles in laws of learning
- The experience derived and the materials learnt are properly retained for a much longer period.
- Students develop independent thinking and working habits while working on a project.
- Project work develops fellow-feeling and democratic spirit among members of a group.
- It gives the child to learn through activity and experiment.
➢ This provides opportunity to students for guided self-learning and they get the pleasure of it.

➢ It stimulates the growth of both the teacher and the students.

➢ Proper co-ordination is established between different subjects.

➢ Students are stimulated to further creative work.

➢ It also develops various kinds of desirable personality attributes in the learners.

**DEMERITS OF PROJECT METHOD**

➢ It puts lots of strain on the teacher.

➢ School works get disorganized.

➢ No balanced learning is possible for all students.

➢ Often it is expensive.

➢ Neglecting intellectual method.

➢ Haphazard and unconnected teaching.

➢ Upsetting of the time-table.

➢ Neglecting of drill work.

➢ Difficulty of suitable textbooks and artificial correlation.

**1.14.7. ROLE-PLAY METHOD**

Role-Play involves presenting a short spontaneous play based on possible real life situations. For the purpose of understanding and/or changing one’s
behaviour and attitude, role plays can be built around either a hypothetical situation or can be allowed to form spontaneously around examples suggested by participants or problems that arise during the training. Role-Plays engage the group in real life situations. These participatory methods provide opportunities to try out new approaches safely with feedback aimed at helping the person what he or she can do differently. Role-Play also allows one to experiment with unpredictable emotions and to deal with the feelings that are not always brought into discussions, case study or analysis.

MERITS OF ROLE-PLAY METHOD

- It is an effective strategy to create awareness among the children.
- Role-Play emphasizes learning through playing.
- Topics on current problems can be taught through this method.
- It is a participatory approach to teaching-learning process.
- It satisfies the natural urge of the students to learn by playing or doing.
- This promotes better understanding of the topics and events.
- It provides an opportunity to the students to apply their knowledge and understanding to solve the problems faced by them in real life.

DEMERITS OF ROLE-PLAY METHOD

- Some students, at times, resist involvement in role-plays. They think that in their role-plays they may be criticized by others.
- Only some selected topics can be taken up for this method.
- The method fails if the participants hesitate to play the role.
1.14.8. PROBLEM-SOLVING METHOD

Problem solving method or problem method is very much appreciated now-a-days as a method of teaching social science. In this method, different topics in social science are presented before the students in the form of problems. The students are stimulated to realize the seriousness of the problem and try to find the solutions. It is a method in which a person uses his ability to solve problems which confront him. It enables a person to exercise control over his activities and environment. It is an instructional strategy where the teacher and the pupils attempt in a conscious, planned, purposeful effort to arrive at explanation or solution to some educationally significant difficulty.

MERITS OF PROBLEM-SOLVING METHOD

- Every human being is confronted with problems all through life and this method prepares a child to master the technique of solving problems in real life situations.
- It transforms the students from passive members of a class into active ones.
- Pupils are encouraged to take initiative and think independently.
- It develops the traits of open mindedness and tolerance.
- It develops the power of critical judgments.
- They learn to plan, think and reason properly.
- Good and harmonious relations between teacher and pupils are established and promoted.
The problem can be adjusted to groups and to individual.

Knowledge is gained as a result of purposeful activity, connected with the pupil’s everyday life.

DEMERITS OF PROBLEM-SOLVING METHOD

- Problem method cannot be followed in higher classes.
- It requires good libraries and reference material.
- A teacher of Social science has to cover the assigned syllabus which is not possible if he takes to teach by this method.
- The teacher should have necessary competence, ability and interest required for the purpose.
- It is more a method of organization of facts or subject-matter than a teaching method.
- If students continue working on one problem for days or weeks together they lose interest in it.

1.15. BRIEF HISTORY OF VIRTUAL EDUCATION

Virtual learning environment emerged about the same time when computers, emails and remote conferencing were developed. Essentially, the practice of distance learning existed almost 100 years prior before the invention of computer. In 1840s, there were classes that were being offered by correspondence courses through the mail in England (Moore & Kearskey, 2005). This type of educational programme became increasingly popular through the improvement of the postal service. Television, video recorders, and even radio have made a
contribution to distance learning. Since computer was invented, distance learning has made major improvement. Distance learning eventually earned the name “e-learning”.

Many online courses marked the beginning of e-learning era. In 1971, Open University, the world’s first university to teach only at a distance, admitted more than 24,000 students in its first year. Students learned from specially-produced textbooks, TV and radio programs, audio and video tapes, computer software and home experiment kits. Now, Open University becomes Britain’s largest single teaching institution. More than two million people have taken its courses since 1971. In 1989, University of Phoenix (UOP), the fifth largest private university in the United States at the time, had launched its online program. Now UOP Online program offers 14 undergraduate, 22 graduate and 4 doctoral degrees (Erthal, 2005). A brief timeline of virtual education’s history is indicated in Table 1.

Table No: 1

Table showing the brief history of virtual education

<table>
<thead>
<tr>
<th>(Weiss, 2006) YEAR</th>
<th>EXAMPLE</th>
</tr>
</thead>
<tbody>
<tr>
<td>1861</td>
<td>Telegraph is Invented</td>
</tr>
<tr>
<td>1876</td>
<td>Telephone is Invented</td>
</tr>
<tr>
<td>1969</td>
<td>Computer data networking is Invented (ARPANET)</td>
</tr>
<tr>
<td>1971</td>
<td>Email is Invented</td>
</tr>
<tr>
<td>1971</td>
<td>Computer Conferencing is</td>
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<tr>
<td>Year</td>
<td>Event</td>
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<tr>
<td>--------</td>
<td>----------------------------------------------------------------------</td>
</tr>
<tr>
<td>Mid 70's</td>
<td>University Courses are Supplemented by Email and Conferencing</td>
</tr>
<tr>
<td>Mid 70's</td>
<td>Virtual Communities of Practice</td>
</tr>
<tr>
<td></td>
<td>Scientists use EIES to collaborate</td>
</tr>
<tr>
<td>1981</td>
<td>First Totally Online Courses (Nonformal, Adult Education)</td>
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<tr>
<td></td>
<td>The Source; EIES</td>
</tr>
<tr>
<td>1982</td>
<td>First Online Program (Executive Education)</td>
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<td></td>
<td>WBSI Executive Education (EIES)</td>
</tr>
<tr>
<td>1983</td>
<td>Networked Classroom Model Emerges (Primary and Secondary Schools)</td>
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<tr>
<td></td>
<td>ICLN Research Project in 4 Countries</td>
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<tr>
<td></td>
<td>RAPPI: Canada X-Cultural Project I Countries</td>
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<tr>
<td></td>
<td>SITP (1990)</td>
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<tr>
<td>1985</td>
<td>First Totally Online Graduate Courses</td>
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<tr>
<td></td>
<td>Connect-Ed (New School of Social Research)</td>
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<tr>
<td>1985</td>
<td>First Totally Online Labour Education Network</td>
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<td></td>
<td>Solinet (Canadian Union of Public Employees)</td>
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<tr>
<td>1986</td>
<td>First Totally Online Undergraduate Classroom</td>
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<tr>
<td></td>
<td>Virtual Classroom (NJIT)</td>
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<tr>
<td>1986</td>
<td>First Online Degree Program</td>
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<tr>
<td></td>
<td>Connect-ED (1986)</td>
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<tr>
<td></td>
<td>1989 University of Phoenix</td>
</tr>
<tr>
<td>1986</td>
<td>Online Professional Development Communities Emerge</td>
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<tr>
<td></td>
<td>OISE Ontario Educators Online Courses</td>
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</tbody>
</table>
### 1.16. STATEMENT OF THE PROBLEM

Students of standard IX had hurdles in learning Industrial Revolution in the conventional methods. Learners of different level in standard IX of Equitable education syllabus in Tamil Nadu text book had problems in learning industrial revolution in Social Science by practicing conventional methods of teaching. Students scored minimum marks by the conventional methods which discouraged the learners. Hence the researcher selected the title “Effectiveness of Virtual Learning Package in Learning Social Science at Standard IX”.

### 1.17. NEED OF THE STUDY

Social Science is an important subject at secondary level. It has unique place to understand the past, present and future. Understanding the present situation and geographical conditions of the world can be perceived through learning the book of Social Science. It is a basic subject to comprehend the different events happened and to learn different cultures and politics prevailing in international level. Acquiring knowledge in scientific advancement and
technological development for the growth of the industries can be learnt through Social Science. Thus learning Industrial Revolution in Social Science is inevitable at secondary level. In the scientific advanced level, many fruitless methods discouraged the learners. Learning industrial revolution through conventional methods was not helpful to the learners to score more marks at standard nine in Coimbatore district. Creating awareness among the learners on social science is an emerging trend for saving the historical values of the younger generation. Young learners tries to learn through technological based Virtual Learning. Such expected learning of young learners can be given by preparing a package of Virtual Learning with help of a technocrat. Hence the Researcher prepared a Virtual Learning Package to motivate the students for scoring more marks in Industrial Revolution.

1.18. OPERATIONAL DEFINITION

Effectiveness- It refers to Virtual Learning Package which is successful in accomplishing learner’s educational objectives in Industrial Revolution in Social Science.

Virtual Learning Package- Virtual Learning Package is one of the ways of providing computerized learning.

Learning- refers to Students of Standard IX learning Industrial Revolution.

Social science- referred the subject given for Standard IX in Tamil Nadu Text Book.
Industrial revolution - The rapid development of industry that occurred in Britain in the late 18th and 19th centuries, brought about by the introduction of machinery. It was characterized by the use of steam power, the growth of factories, and the mass production of manufactured goods.

1.19. GENERAL OBJECTIVES

1. To find out the problems of the students in learning social science through conventional methods.

2. To find out the effectiveness of Virtual Learning Package in learning Industrial Revolution in Social Science at Standard IX.

1.20. SPECIFIC OBJECTIVES

1. To find out whether there is any significant difference in achievement mean score between Pre-test of Control groups and Post-test of Control groups in learning industrial revolution in social science by using Conventional methods in the classroom transaction.

2. To find out whether there is any significant difference in achievement mean score between Pre-test of Experimental groups and Post-test of Experimental groups in learning industrial revolution in social science by using Virtual Learning Package in the classroom transaction.

3. To find out whether there is any significant difference in achievement mean score between Post-test of Control groups and Post-test of Experimental groups in learning industrial revolution.
4. To find out whether there is any significant difference in achievement mean score between Pre-test of Control group and Post-test of Control group in learning industrial revolution in five types of schools.

5. To find out whether there is any significant difference in achievement mean score between Pre-test of Experimental group and Post-test of Experimental group in learning industrial revolution in five types of schools.

6. To find out whether there is any significant difference in achievement mean score between Post-test of Control group and Post-test of Experimental group in learning industrial revolution in five types of schools.

7. To find out whether there is any significant difference in achievement mean score among Pre-test of Control groups in learning industrial revolution in five types of schools.

8. To find out whether there is any significant difference in achievement mean score among Post-test of Control groups in learning industrial revolution.

9. To find out whether there is any significant difference in achievement mean score among Pre-test of Experimental groups in learning industrial revolution in five types of schools.

10. To find out whether there is any significant difference in achievement mean score among Post-test of Experimental groups in learning industrial revolution in five types of schools.

11. To find out whether there is any significant difference in achievement mean score of the students between Govt. School and Aided School with respect
12. To find out whether there is any significant difference in achievement mean score of the students between Govt. School and Corporation School with respect to (a) Pre-control (b) Post-control (c) Pre-experimental and (d) Post-experimental.

13. To find out whether there is any significant difference in achievement mean score of the student between Govt. School and Matric. School with respect to (a) Pre-control (b) Post-control (c) Pre-experimental and (d) Post-experimental.

14. To find out whether there is any significant difference in achievement mean score of the students between Govt. School and Anglo-Indian School with respect to (a) Pre-control (b) Post-control (c) Pre-experimental and (d) Post-experimental.

15. To find out whether there is any significant difference in achievement mean score of the students between Aided School and Corporation School with respect to (a) Pre-control (b) Post-control (c) Pre-experimental and (d) Post-experimental.

16. To find out whether there is any significant difference in achievement mean score of the students between Aided School and Matric. School with respect to (a) Pre-control (b) Post-control (c) Pre-experimental and (d) Post-experimental.
17. To find out whether there is any significant difference in achievement mean score of the students between Aided School and Anglo-Indian School with respect to (a) Pre-control (b) Post-control (c) Pre-experimental and (d) Post-experimental.

18. To find out whether there is any significant difference in achievement mean score of the students between Corporation School and Matric. School with respect to (a) Pre-control (b) Post-control (c) Pre-experimental and (d) Post-experimental.

19. To find out whether there is any significant difference in achievement mean score of the students between Corporation School and Anglo-Indian School with respect to (a) Pre-control (b) Post-control (c) Pre-experimental and (d) Post-experimental.

20. To find out whether there is any significant difference in achievement mean score between Pre-test of Control groups and Post-test of Control groups in learning industrial revolution with respect to (a) Introduction, (b) Conditions favourable for the beginning of an industrial revolution, (c) Factors responsible for industrial revolution, (d) Revolution in the textile industry, (e) Invention in powers, (f) Revolution in transport, (g) Revolution in the means of communication and (h) Revolution in agriculture.

21. To find out whether there is any significant difference in achievement mean score between Pre-test of Experimental groups and Post-test of Experimental groups in learning industrial revolution with respect to (a)
Introduction, (b) Conditions favourable for the beginning of an industrial revolution, (c) Factors responsible for industrial revolution, (d) Revolution in the textile industry, (e) Invention in powers, (f) Revolution in transport, (g) Revolution in the means of communication and (h) Revolution in agriculture.

22. To find out whether there is any significant difference in achievement mean score between Post-test of Control groups and Post-test of Experimental groups in learning industrial revolution with respect to (a) Introduction, (b) Conditions favourable for the beginning of an industrial revolution, (c) Factors responsible for industrial revolution, (d) Revolution in the textile industry, (e) Invention in powers, (f) Revolution in transport, (g) Revolution in the means of communication and (h) Revolution in agriculture.

23. To find out whether there is any significant difference in achievement means score between Post-test of Experimental groups and Retention test in learning industrial revolution.

1.21. HYPOTHESES

1. There is no significant difference in achievement mean score between Pre-test of Control groups and Post-test of Control groups in learning industrial revolution in Social Science by using Conventional methods in the classroom transaction.

2. There is no significant difference in achievement mean score between Pre-test of Experimental groups and Post-test of Experimental groups in
learning industrial revolution in Social Science by using Virtual Learning Package in the classroom transaction.

3. There is no significant difference in achievement mean score between Post-test of Control groups and Post-test of Experimental groups in learning industrial revolution.

4. There is no significant difference in achievement mean score between Pre-test of Control group and Post-test of Control group in learning industrial revolution in five types of schools.

5. There is no significant difference in achievement mean score between Pre-test of Experimental group and Post-test of Experimental group in learning industrial revolution in five types of schools.

6. There is no significant difference in achievement mean score between Post-test of Control group and Post-test of Experimental group in learning industrial revolution in five types of schools.

7. There is no significant difference in achievement mean score among Pre-test of Control groups in learning industrial revolution in five types of schools.

8. There is no significant difference in achievement mean score among Post-test of Control groups in learning industrial revolution.

9. There is no significant difference in achievement mean score among Pre-test of Experimental groups in learning industrial revolution in five types of schools.
10. There is no significant difference in achievement mean score among Post-test of Experimental groups in learning industrial revolution in five types of schools.

11. There is no significant difference in achievement mean score of the students between Govt. School and Aided School with respect to (a) Pre-control (b) Post-control (c) Pre-experimental and (d) Post-experimental.

12. There is no significant difference in achievement mean score of the students between Govt. School and Corporation School with respect to (a) Pre-control (b) Post-control (c) Pre-experimental and (d) Post-experimental.

13. There is no significant difference in achievement mean score of the students between Govt. School and Matric. School with respect to (a) Pre-control (b) Post-control (c) Pre-experimental and (d) Post-experimental.

14. There is no significant difference in achievement mean score of the students between Govt. School and Anglo-Indian School with respect to (a) Pre-control (b) Post-control (c) Pre-experimental and (d) Post-experimental.

15 There is no significant difference in achievement mean score of the students between Aided School and Corporation School with respect to (a) Pre-control (b) Post-control (c) Pre-experimental and (d) Post-experimental.
16. There is no significant difference in achievement mean score of the students between Aided School and Matric. School with respect to (a) Pre-control (b) Post-control (c) Pre-experimental and (d) Post-experimental.

17. There is no significant difference in achievement mean score of the students between Aided School and Anglo-Indian School with respect to (a) Pre-control (b) Post-control (c) Pre-experimental and (d) Post-experimental.

18. There is no significant difference in achievement mean score of the students between Corporation School and Matric. School with respect to (a) Pre-control (b) Post-control (c) Pre-experimental and (d) Post-experimental.

19. There is no significant difference in achievement mean score of the students between Corporation School and Anglo-Indian School with respect to (a) Pre-control (b) Post-control (c) Pre-experimental and (d) Post-experimental.

20. There is no significant difference in achievement mean score between Pre-test of Control groups and Post-test of Control groups in learning industrial revolution with respect to (a) Introduction, (b) Conditions favourable for the beginning of an industrial revolution, (c) Factors responsible for industrial revolution, (d) Revolution in the textile industry, (e) Invention in powers, (f) Revolution in transport, (g) Revolution in the means of communication and (h) Revolution in agriculture.
21. There is no significant difference in achievement mean score between Pre-test of Experimental groups and Post-test of Experimental groups in learning industrial revolution with respect to (a) Introduction, (b) Conditions favourable for the beginning of an industrial revolution, (c) Factors responsible for industrial revolution, (d) Revolution in the textile industry, (e) Invention in powers, (f) Revolution in transport, (g) Revolution in the means of communication and (h) Revolution in agriculture.

22. There is no significant difference in achievement mean score between Post-test of Control groups and Post-test of Experimental groups in learning industrial revolution with respect to (a) Introduction, (b) Conditions favourable for the beginning of an industrial revolution, (c) Factors responsible for industrial revolution, (d) Revolution in the textile industry, (e) Invention in powers, (f) Revolution in transport, (g) Revolution in the means of communication and (h) Revolution in agriculture.

23. There is no significant difference in achievement mean score between Post-test of Experimental groups and Retention test in learning industrial revolution.

1.22. DELIMITATIONS OF THE STUDY

Due to the constraints of time and administrative difficulties, the investigator delimitated the study as given below.

1. The study was confined to the students of standard IX in Coimbatore district only.

2. Five types of schools were considered for the study.
3. The sample size of each type of school was sixty only.

4. Virtual Learning was created as a Package for teaching Industrial Revolution in Social Science.

5. The study was confined to the syllabus and the textbook of Social Science prescribed by the Tamil Nadu textbook society for standard IX only.

6. Learning Social Science was considered to take only one difficulty unit Industrial Revolution in the study.

1.23. LIMITATIONS OF THE STUDY

The limitations of the study were:

1. Retention test was administered to the Experimental groups also.

2. Case study was conducted in the study.

1.24. VARIABLES


   **Intervening Variable:** Hesitation.

1.25. METHODOLOGY IN BRIEF

   Equivalent group Experimental Method was adopted in the study. **Sample:** Five types of High and Higher Secondary schools in Coimbatore district were selected for the study. Three hundred students studying in Standard IX were selected from five types of (one High and four Higher secondary) schools in equal
strength of both control group and experimental group in the study. **Tools:** Four researcher-made tools were used in the study. One was the Problem Inventory from the Teachers, the second tool was an Achievement test which was used for testing the effectiveness of Virtual Leaning Package in learning Industrial Revolution in Social Science among the students, the third tool was the Retention test which was used to find out the retention of the Virtual Leaning Package in learning Industrial Revolution and the fourth tool was the Case Study. Pilot study was administered for both the tools. After establishing Reliability and validity of both the tools, they were considered for the Final study.

**1.26. DATA COLLECTION FOR THE FINAL STUDY**

Selected five types of (one High and four Higher secondary) schools in Coimbatore district were considered by the researcher for identifying the problems of the students in learning Industrial Revolution in Social Science at Standard IX. The researcher approached the headmasters and the managements of the five schools for collecting data and conducting the Virtual Leaning and Conventional Methods in teaching Industrial Revolution in Social Science. Researcher planned the activities of the Virtual Learning Package and discussed with the experienced teachers of those who were practicing the Conventional Methods in the five types of schools. After preparation of the activities of the Package and Teaching Learning Material, it was validated by the teachers of different schools who were handling Social Science at Standard IX. Achievement test was prepared on the basis of the blue print. Five types of schools were selected with the acknowledgement of headmasters and managements for
conducting the study to find out the effectiveness of Conventional Method and the impact of using VLP in learning Industrial Revolution in Social Science.

1.27. STATISTICAL TECHNIQUE USED IN THE STUDY

Descriptive statistics and inferential statistics were adopted in the study. ‘t’ test, ANOVA test, and Scaffe post hoc test were adopted as statistical techniques for the study. SPSS package was used for data analysis.

1.28. CONCLUSION

Acquiring knowledge in Social Science is necessary at High school level for understanding the culture, economic conditions, social mobilization, different revolutions, etc. Students of Standard IX faced problems in scoring more marks in the Industrial Revolution in Social Science. Learners got less mark in Social Science in Equitable education of Tamil Nadu syllabus by using Conventional Methods of teaching. Using an innovative method such as Virtual Learning can attract the learners and eliminating the hurdles in learning the Industrial Revolution in Social Science.

1.29. CHAPTERISATION

Chapter - I

It deals with Introduction, Objectives and Values of teaching Social Science, Teaching of Social Science, Planning Social Science curriculum in secondary stage, Objectives of teaching elements of Social Science, Background of the Industrial Revolution in England, Methods of teaching History, Brief history of Virtual Education, Statement of the problem, Need of the study,
Operational definition, Objectives of the study, Hypotheses of the study, Delimitations of the study, Limitations of the study, Variables, Methodology in brief, Data Collection for the final study, Statistical technique used in the study and Conclusion.

Chapter - II

This chapter deals with review of related studies. It illuminates the different experimental studies on virtual learning, social studies and critical studies on virtual learning in international level and national level.

Chapter - III

This chapter highlights the research methodology adopted in the study. It consisted of selected sample for the study, tools used in the study, establishing validity and reliability of the tools, data collection and statistical techniques adopted. It shows the appropriate way of selecting methodology and procedure of the study.

Chapter - IV

This chapter discusses the using of analysis, interpretation, finding the mean differences between experimental groups and controlled groups, case study, retention test and effectiveness of the Virtual Learning Package.

Chapter - V

This Chapter recapitulates what has been done before, appropriate findings, educational implications and suggestions for further research.