CHAPTER I

INTRODUCTION
## CONTENTS

### CHAPTER 1 INTRODUCTION

| 1.1 | INTRODUCTION |
| 1.2 | EDUCATIONAL PSYCHOLOGY |
| 1.3 | THEORIES OF LEARNING |
| 1.4 | MODELS OF TEACHING |
| 1.5 | THE MEMORY MODEL |
| 1.6 | MEMORY |
| 1.7 | MNEMONICS |
| 1.8 | ENGLISH LANGUAGE AND ITS SIGNIFICANCE |
| 1.9 | ENGLISH SPELLINGS |
| 1.10 | RESEARCH QUESTIONS |
| 1.11 | STATEMENT OF PROBLEM |
| 1.12 | DEFINITIONS |
| 1.13 | RESEARCH OBJECTIVES |
| 1.14 | RESEARCH HYPOTHESES |
| 1.15 | VARIABLES |
| 1.16 | ASSUMPTIONS |
| 1.17 | SCOPE |
| 1.18 | LIMITATIONS |
| 1.19 | DE LIMITATIONS |
| 1.20 | METHODOLOGY |
| 1.21 | RESEARCH DESIGN |
| 1.22 | POPULATION |
| 1.23 | SAMPLE |
| 1.24 | METHOD OF SAMPLING |
| 1.25 | TOOLS FOR THE STUDY |
1.1 INTRODUCTION

Research in every field and more so in the field of education is the demand of the day. Progress in any field is directly linked with the researches done in that field. Thus, our problems and difficulties in the field of education necessitate a purposeful effort in research. This may be a huge task but consistent research will provide new directions to the educational theories propounded and practices undertaken. A researcher of any aspect of life needs to study the patterns, behaviors, cause and effects of the subject chosen. Amongst the various topics related to the subject the researcher has to point out to a certain aspect or part of the subject in which more study is needed to be done. To begin with, the researcher has to identify the area of interest and the need prevalent. The point of view of the research is then defined. With this background, the researcher can focus on the topic of research.

The researcher intends to perform study in the field of education. Education comprises of the process of teaching and learning. This is well understood and studied in Educational Psychology.

1.2 EDUCATIONAL PSYCHOLOGY

“Educational Psychology is that branch of Psychology which deals with teaching and learning”

–Skinner, C.E.

Educational Psychology is one of the important applications of Psychology to education. History tells us that teachers in ancient India, since the times of the “Rig Veda” to as recent as 12th Century A.D., followed Psychological principles to teach the young children between the preschool age and adolescence. These teachers knew the various developmental stages with their characteristic features of specific emotions in learning at
various stages which were based on external stimuli through sense perception. The reason is that they believed in the importance of the role of sense perceptions in the process of teaching learning and used optical sense, auditory sense, tactual sense, gustatory sense and olfactory senses as gateways of knowledge.

Apart from all these sense perceptions, imagination also played a vital role in the acquisition of knowledge. The ancient education system believed that sensations, perception and imaginations pave the way for memory.

The knowledge gained changed the perceptions and the ways of thinking of people and there was growth in civilization. The knowledge also formed differences in the world and the world went through a lot of revolutions and historical and political upheavals. It was in the modern era, that educationists felt the need to revive Educational Psychology.

In the modern times, educational Psychology was founded by several pioneers just before the beginning of the 20th Century. A major figure in shaping the field of educational Psychology was John Dewey. We are well aware that prior to Dewey it was believed that Education is best gained when the child sits passively in the class listening to the teacher. Dewey contradicted the prevalent idea by showing that learning happens most effectively when students do activities in the classroom.

“Educational Psychology as a tool in the teaching learning process helps teachers to comprehend and foster better understanding about human beings and how humans learn.”
(Bhargav, 2012, Page 40)

**Significance of Educational Psychology**

Thus, Educational Psychology is beneficial in …

**Method of teaching:** Educational Psychology helps the teacher to understand and implement the importance of various methods of teaching with respect to students’ need, interest, ability and difficulties.
Learning process: The teacher understands the learning process through Educational Psychology. It helps the teacher to modify the teaching process so that the learning is effective.

Evaluation: Comprehensive all round assessment of the student is possible. Educational Psychology helps in understanding the pattern of evaluation. Evaluation can be done based on the requirement also. Educational Psychology helps synthesizing the evaluation process and thus, proves helpful in the effectiveness of the evaluation.

Text books and curriculum: Educational Psychology helps in curriculum construction based on the various principles of Pedagogy. This helps in the creation of textbooks which fulfill key areas like comprehension, interest, skill and curiosity in the teaching learning process.

To understand growth and development: The core function of Educational Psychology is to understand and research the various growth and developmental phases of a child. All the aspects of teaching learning can be ideally achieved through this.

Educational Psychology is about teaching and learning process. Both these processes are studied in Educational Psychology in details. More emphasis is given on learning in the recent times as it focuses on the needs of the students. The learning process is studied in Educational Psychology from the point of view of its effectiveness in gaining knowledge. A lot of theories and practices are researched and formulated to explain how the process of learning happens.

1.3 THEORIES OF LEARNING

“Learning is an active process that needs to be stimulated and guided towards desirable outcomes.” (Crow and Crow, 1973, Page 225).
Learning is to understand and create new ways and methods to do things, to overcome problems and to adapt to new situations. There is a progressive change in the behavior of the individual to perceive and adapt to situations in order to meet the demands of the moment. Learning is a process of modification. It is an active process which involves both physical and mental activity. True learning affects conduct of the learner.

Thus,

Learning is also the acquisition of habits, knowledge and attitudes.

Learning is classified in two ways

Fig 1.1 Learning

Horizontal Learning

Vertical Learning
Horizontal learning

- What is learnt is integrated and organized as part of a functioning unit of expanding experiences

Vertical Learning

- Precision in performance increased, information is added to that already learnt.

Various theories of learning are

The connectionist theory: Thorndike: Learning is a matter of bond connections

Stimulus --- Responses (S --- R)

- Learning becomes so called trial and error process that applies particularly to mastery of more complex learning situations. (Crow and Crow, 1973, Page 231)

- Behaviourist theory (Pavlov’s theory of conditioning): Learning is habit formation resulting from conditioning.

- Insight in learning (Gestalt): Learning is concerned with the whole individual and arises from the interaction of a maturing individual with his environment.

All these theories explain the different ways in which effective learning takes place in a scientific way. This gives the researcher the choice to follow the particular way of organizing and implementing teaching activities so that the desired goals can be achieved. For this Educational Psychology also explains the steps involved in the learning process.

1.3.1 Steps in learning

- Motivation within the learner

- A goal becomes related to the motivation
• Tension arises

• Learner seeks an appropriate line of action to meet the goal

• Learner fixes appropriate line of action according to the nature of the goal

• Inappropriate behavior is dropped

After a detailed study, comprehension and thought, on the learning process, the researcher finds that the teaching and learning process is related to memorization. An integral part of any activity in learning involves a crucial role of memory. Memory is a measure of the internalization of learning which can be in the form of information, knowledge, skill or habit.

The teaching learning process has evolved since the ancient times. Teachers, for ages together, have followed a variety of methods in teaching their students. The evolution of Education and society brought about fundamental changes in teaching. The growth in knowledge and the progress of humankind in all the various fields justifies the effectiveness of these teaching methodologies. With the advent of Educational Psychology, a more thorough and focused research was possible on the various ways of teaching that were known and prevalent. The result of all this exhaustive study has come to us in the form of various models of teaching as an avenue to liberate student learning capacity and by doing so not only affirm effective learning but also purposeful teaching.

1.4 MODELS OF TEACHING

Models of teaching enable us to construct vital environments for our students. Models have come from the ages and all the teacher researchers who were courageous and creative enough to invent new ways of teaching. When these are researched and
developed they become formulae which can be used expecting desired goals in the classroom scenario.

The models of teaching are classified into four families.

- The behavioral system family
- The information processing family
- The social family
- The personal family

The researcher decided to study the information processing family for this research purpose.

**Information processing family**

The information processing family models help us to process information, make decisions, develop intellectual capacity and express and enhance creativity. The teaching models in this family emphasize peoples’ desires to make sense of the world by gathering and organizing data, determining problems, and finding solutions. All this is done in ways that may appear innovative or strange but eventually lead to process information in such an effective way that a better understanding is the outcome. Some models help us design courses where students organize information, build concepts and test and evaluate these concepts. Sometimes other models lay out concepts so that students can build structures to hold information based on these concepts. There are models which help us memorize information while a few which help us create new ideas.

This family includes the largest number of models all working on the common objective of creating powerful learners. The models included in this family are

- Thinking Inductively
• Attaining Concepts
• Picture-word inductive model
• Memorization (Memory model)
• Learning from Presentations (Advance organiser)
• Inquiry Training
• Synectics

Fig 1.2 Information processing family model

The researcher has decided to study and use the memory model for the present research

1.5 THE MEMORY MODEL

“The memory is a treasurer to whom we must give funds, if we are to draw the assistance we need”

- Rowe
This model has been developed on the work done by Pressley, Levin and their associates. The popular book by Harry Lorayne and Jerry Lucas, ‘The Memory Book,’ also has been influential in the construction of this model. In their book, Lorayne and Lucas emphasize that it is necessary to strengthen Attention, Association and Sensory Perception for enhancing our memory skills. This model includes these as the important principles of this model along with Awareness, Ridiculous Association and the Link System. These have been described in the Principles of Mnemonics.

**Syntax**

Step 1: Attending to the material. This is done using the techniques of underlining, listing, reflecting.

Step 2: Developing connections. Make the material familiar by making connections using key words, link word system, or other mnemonics.

Step 3: Expanding Sensory Images. Techniques of exaggeration and ridiculous association are used. Images are revised.

Step 4: Practicing Recall. Practice recalling the material until it is completely learned.

**Social System:**

The social system is co-operative. Teacher and students work as a team with the new material. Over the time the initiative should increasingly become the students’ as they understand the technique and use it to memorize the given material.
1.5.1 Principles of Reaction:

The teacher should help the students to identify associations by offering suggestions but should use the students’ frames of references. The familiar elements should be primarily from the students’ storehouse of material, experiences, images etc.

1.5.2 Support System:

The sensory richness of association should be increased with the help of a generous use of teaching aids. All the customary devices of the curriculum, Pictures, concrete aids, films, audiovisual devices should be used.

The Instructional and nurturing effects of this model are:

Mastery of facts and ideas.

Tools for mastering information and concepts.

A sense of intellectual power.

Self esteem.

Self understanding.

Self reliance and independence.

1.6 MEMORY

“A man’s real possession is his memory. In nothing else is he rich, in nothing else is he poor”

-Alexander Smith
“Memory like learning is fundamental process of adjustment. One of the most cardinal features of adequate adjustment is the ability to profit by past experience, and it is obvious that, in the absence of memory, this ability would be impossible. There is no phase of human living untouched by memory.”  

-Schneiders A. Alexander

From the time when man first began to depend on his mind for coping with his environment, the possession of excellent memory has been a step to positions of command and respect. (Buzan 2004, Page 35)

It is difficult to say exactly when the first ideas of memory were integrated. However, scholars attribute it to the Greeks about 600 years before Christ. Over all these ages, great thinkers and philosophers like Parmenides, Plato, Aristotle, Zeno, Stoic, Herophilus, Cicero, The great physician- Galen, St. Augustine, Descartes, Thomas Hobbes, Newton, The Czech physiologist Georg Prochaska have contributed to intricate theories on Memory. In the modern times, Hermann, Ebbinghaus, Wilder Penfield, David Bohn are contributors to the advancement in the study of memory.

Ancient Indian literature was memorized and conveyed from generation to generation through oral memorization. All the Vedas, Upanishads and even important verses and epics were chanted and remembered. The recitation method was also enriched by constructing the verses in a rhythmic pattern. This also helped in memorization. Verses about the Knowledge about all the aspects of life were created and transferred through generations by this method. Knowledge about memory was thus, not new for Indian Rishis.

1.6.1 Significance:

The mind is extremely complex in its capabilities, but without memory it cannot perform the simplest of tasks. The memory is the storage capacity of the mind. Every individual has specific capacity or power of collecting experiences which are specific and different from the others. Thus, these experiences are collected also in different manners by every
individual either in the conscious or sub conscious part of human mind and are referred to as memory or remembering. This is often neglected and unappreciated until some incident makes us take notice of how important it is for our well-being. For an individual, the best friend, guide and philosopher is memory. It enables a person to be efficient, both individually and socially. We are able to remember and recall important facts, ideas, names etc due to memory. Students are immensely worried about it and want a “good memory” to remember the studies. Therefore, one of the important functions of school instructions and curriculum is to enable and encourage the students to develop good memory for the purpose of examination, evaluation and also to face the challenges of life during the school years and afterwards. We remember what we have experienced in the past. We remember the skills that we acquired, the knowledge that we gathered and the various experiences gained. We have traces of attitudes, prejudices and disposition in our minds. Since infancy or for that matter even before that, i.e. from our mother’s womb we learn and recognize millions of things, objects, persons and events. We mystically retain and recall all these in our brains. As mentioned earlier “good memory” then is learning, retaining, recognizing, recalling or all of them. According to Bloom, the development of intellectual skills is movement through a series of levels, from the simplest to the most complex. Knowledge /Remembering is the initial step of using one’s intellectual abilities.

1.6.2 Definitions and Meaning of memory:

Psychology traces memory from the major power of the mind –MNEME. This is the general power of the mind to conserve the past experiences of the individual and the race. Mneme is derived from Greek language, meaning remembrance, memory.

**Woodworth**: Memory consists in remembering what has previously been learned.

**James Drever**: The characteristic of living organisms in virtue of what they experience leaves behind effects which modify future experience and behavior.
Ross: A new experience determined by the disposition laid down by previous experiences and the relation between the two being clearly apprehended.

Stout: The ideal revival, i.e. to revive the things, objects or experiences in the same order and form.

Thus, memory may be defined as the function of the mind by virtue of which it records, retains and processes ideas.

According to Woodworth the four main elements of memory are:

LEARNING – process of establishing association of the ideas in mind.

RETENTION – process of relegation of the past experiences in the sub-conscious mind of the individual in the form of a mental experience.

RECOGNITION - is the awareness of the experience that has been retained or stored up in the mind. It is knowing any object that has been experienced before.

RECALL – It is bringing again to mind the past experience on the basis of association of ideas.

Recall is of two types –

Spontaneous - make no effort to recall.

Deliberate – make an effort to recall.

Recall is dependent on association of ideas, which in turn is dependent on Laws of Similarity, Contrast, Contiguity, Regency, Frequency, Primacy and Vividness.

1.6.3 Process of memorization

It is important to form a clear image when we receive any sense stimulation and it is equally important that the mental image is recalled whenever desired. Without this
power of conscious recall or memory an individual’s powers of achievements would be almost nil. It is difficult to recall something that you have either not really learned or understood because memory functions as ideas are learned, retained, recalled and recognized. Memorizing is important to the extent that it provides useful material for thinking. Thus a person who learns to remember his experiences can become a better thinker. Memorization is blamed mostly because of the deadly drills. Contemporary research and innovative teachers have created methods that improve our efficiency in memorization and make the process delightful!

There are three types of memory.

**Sensory Memory:** The ability to look at an item and remember what it looks like with just a second of observation is an example of sensory memory. This memory is only for the initial 200 to 500 milliseconds after an item is perceived.
**Short Term Memory:** This memory allows recall for a period of several seconds to a minute without rehearsal. Its capacity is also very limited.

**Long Term Memory:** This memory can store much large quantities of information for potentially unlimited duration. (Sometimes a whole lifespan). Its capacity is immeasurably large.

As information is acquired through the sensory receptors, it passes through the sensory register into the short term store. Control process such as rehearsal or any other method of purposeful repetition permits the transfer of this information into long term store from where it can be retrieved. Thus, we see that any information that is rehearsed goes into the long term memory store.

In the absence of any kind of rehearsal or repetition, it is easily forgotten through the short term store. Memorization is the process of committing something to memory. This is a deliberate act performed in order to store relevant information in the memory for later recall.

### 1.6.4 Factors Improving memory

- Learning Method
- Saving Method
- Prompting Method
- Scoring Method
- Repetition
- Use of Modern Technology
- Meaningful organization of subject matter
- Interest
Attention

Motivation

Mnemonics

The researcher chose to focus on Mnemonics and the Memory model to be used and implemented on the school children in this given research.

1.7 MNEMONICS

Mnemonics are memory devices or learning techniques that help in retention of information. Mnemonics are used to translate information into a form that is easy for the human brain to store and retain.

The word Mnemonic is derived from the ancient Greek word “Mnemonikos” meaning “of Memory” and is related to Mnemosyne the name of the Goddess of Memory in Greek mythology. Mnemosyne was the most beautiful of all Goddesses and a favorite of Zeus. She bore nine muses. These Goddesses preside over Love Poetry, Epic Poetry, Hymns, Dance, Comedy, Tragedy, Music, History and Astronomy. Thus, for Greeks, the infusion of energy (Zeus) into memory (Mnemosyne) produced both creativity and knowledge.

True to this belief, with these twin improvements, our overall mental functioning and assimilation of knowledge can be accelerated to a fantastic pace.

(Buzan, 2010, Page 39-40)

Ancient Greeks and Romans classified memory into two types.

Natural Memory: This is inborn and so is used by everyone automatically, without thinking.
Artificial Memory: This is trained and developed through learning and practicing.

Mnemonics encompass all the methods, techniques, approaches devised or learnt by individuals or groups to memorize information. These are ways to simplify data for the brain which can easily be rehearsed. Mnemonics may not have an inherent connection with the material to be learnt but they impose meaning or structure on material that otherwise is not either meaningful or organized. They usually involve adding something to the material being learnt to make it more memorable and thus, are referred to by many researchers as visual or verbal elaborations. These elaborations create meaningful associations between what is already known and something to be learnt. Thus, Mnemonics helps remember information that is otherwise quite difficult to recall.

The human brain can code and interpret complex stimuli like images, colour, structure, sounds, smells, tastes, touch, spatial awareness, emotions language and many more. Mnemonics use these sophisticated interpretations made by the brain with the help of the environment and create good memory.

1.7.1 Basic Principles of Mnemonics.

MEANINGFULNESS:

Mnemonic techniques and systems help make material meaningful by using rhymes, patterns, and associations.

ORGANIZATION:

Mnemonic techniques and systems impose a meaningful organization on the material.

ASSOCIATION:

You associate the new material that you want to learn with the material that has been memorized previously.
VISUALIZATION:
This plays a central role in the mnemonic systems as the associations are usually made visually.

ATTENTION:
Mnemonic systems force you to concentrate on the material in order to form pictures and associate them. Mnemonics can foster attention as they tend to be more interesting and fun than rote learning.

1.7.2 Significance of Mnemonics
Research on Mnemonics began in 1960’s. By the early 1970’s several psychologists and researchers had suggested the potential value of mnemonics in education. Some of the important reasons for teaching mnemonics to students are

Mnemonics are versatile,

Mnemonics are time efficient,

Mnemonics are adaptable to student differences

Most children enjoy using mnemonics.

A great amount of research published since 1970’s has shown that mnemonics can help in the kinds of memory tasks required in school.

Specific subjects where mnemonics have found to be effective are –

• Spelling,

• Foreign language vocabulary,

• English vocabulary,
• Definitions,
• States and Capitals,
• Medical terms,
• Properties of minerals,
• Hardness scale of minerals,
• Cities and their products,
• Reading ,
• People’s names and their accomplishments, etc.

Extensive mnemonic programs have also been developed in the United States for such areas as reading, spelling, grammar and basic mathematics skills. It is strange that we expect students to learn, solve problems and remember a lot of material, but we seldom teach them how to learn, solve problems and remember. It is time to make up for this lack by developing applied courses in learning, problem solving and memory and by incorporating them in the academic curriculum for solving some memory problems.

Memorization is a low level mental skill to many educators, so they usually state the purposes of education in terms of loftier goals than remembering, such as understanding and applying principles, critical and creative thinking, reasoning and synthesizing. Such misconceptions must be dispelled, for memory research to make a positive contribution to educational practice. Two points may be made regarding the role of memory relative to the loftier goals in schools. First, whether we like it or not, there is a lot of straight memory work in school. Education consists of ‘basic school tasks’ involving list and paired – associate learning as well as ‘complex school tasks’ like meaningful prose learning. Secondly, remembered facts serve as the basis for the loftier goals. One of the conclusions stated in the U.S.
Department of Education book ‘WHAT WORKS’ is: “Mnemonics help students remember more information faster and retain it longer” (HIGBEE, 1988). Mnemonics have found to benefit good students as well as poor students. Even gifted students in Elementary Schools have benefited by using imagery Mnemonics. Memory plays an important role in decision making and problem solving, in areas such as Engineering, Computer Programming, Social Science, Reading Comprehension, Physics, Medicine and Mathematics. Mnemonics have been conceptualized as problem solving technique for solving some memory problem.

Many strategies or techniques have been devised and invented by researchers and educationists to make the work of memorization interesting and effective. Some of the popular devices are

- Acronyms or First Letters
- Association and Linking
- Attention
- Classification
- Flow Chart
- Key Words
- Meaning
- Organization
- Picture Making
- Rehearsal
- Mind Tools
- Pegging
The researcher is going to study the effect of Mnemonics on the acquisition of English Spellings on school children. The researcher has chosen the following Mnemonics especially for English spellings.

- Acronyms
- Picture making
- Chunking
- Pyramid
- Homophones
- Repetition of Rules
- Creativity

The researcher is a student of English language and hence decided to undertake study in the concerned area by narrowing down on one important aspect of English language – ENGLISH LANGUAGE SPELLINGS.

1.8 ENGLISH LANGUAGE AND ITS SIGNIFICANCE

Modern English is dated from about 1550, when United Kingdom became a colonial power. English served as lingua franca of the colonies of the British Empire. In post colonial period, many newly created nations opted to continue with English to avoid political difficulties inherent in promoting indigenous local languages. As a result, English was adopted in North America, India, Africa, Australia and many such regions.

English is spoken as a first language by a majority of inhabitants of several nations. It is the third most common native language in the world. It is widely learnt as a second
language and is an official language of the European Union, many commonwealth countries and United Nations as well as many world organizations.

English is often referred to as a world language, the *lingua franca* of the modern era.

Modern English is the required international language of communications, Science, information technology, business aviation, seafaring, entertainment, radio and diplomacy. A working knowledge of English has become a requirement in various fields, occupations and professions.

One impact of the growth of English is the reduction of native linguistic diversity in many parts of the world.

In independent India, English continues to be one of the official languages of business. The University Grant Commission and Secondary Education Commission have also recommended the study of English due to its importance worldwide.

**1.9 ENGLISH SPELLINGS**

**1.9.1 Introduction to English Spellings**

The English spelling was first developed in the 7th century but during coming ages it was continuously altered.

In the fifth century Germanic invaders entered Britain through the east and south coasts. These invading tribes spoke languages which in Britain developed into what we now call “Old English”. Old English was very different from today’s English and in today’s times, we might have great difficulty in understanding it! Though, the most commonly used words in modern English have been derived from this Old English. Old English was spoken until 1100 A.D.

Duke of Normandy (France) invaded and conquered England in 1066. The Normans brought with them a kind of French which was to become the language of the royal court
and the ruling and the business classes. Hence, there was a period based on linguistic class difference as the lower classes spoke English and the upper classes spoke French. By the 14\textsuperscript{th} Century English became dominant in Britain again but with the inclusion of many French words. This became the language of the middle ages of Britain which witnessed great poets like Chaucer, expressing prolifically. They too, are difficult, for the English learners to understand today.

Towards the end of Middle English era, a sudden and distinct change in pronunciation started with vowels being pronounced shorter and shorter. By the 16\textsuperscript{th} century, the British had established contact with many different peoples around the world. In addition, the Renaissance of classical learning resulted in the introduction of many new words and phrases into the English language. During this time another revolution happened in the field of language and that was the invention of printing! This meant that a common language was now available to all in print. Printing made books cheaper and more and more people learned to read. Printing also brought standardization to English. Spelling and grammar became fixed and the dialect of London became standard as most publishing houses were in London.

Owing to the assimilation of words from many languages through history, modern English contains a very large vocabulary. This was due to the need created for new words for the various terms, phenomena, actions, things that were a result of the Industrial revolution. Another important factor was the fact that the British Empire covered a major surface area of the planet and during their rule in these various regions the English language adopted many foreign words from these parts of the world, in the process enriching itself profusely. The Oxford English dictionary lists over 2,50,000 distinct words made up of 26 letters (consonants and vowels) in the English language.
1.9.2 Spellings

“It is true that English Spelling is a national misfortune to England and an international misfortune to the rest of the world”

- Max Muller

“Yet it cannot be denied that spelling ability in English is an important acquisition. It is regarded as one of the obvious indications of one’s education.“ (Bhatia and Bhatia, 2007, Page 333).

The spelling system or orthography of English is multilayered with elements of French, Latin and Greek spelling and to top it the native Germanic system. Orthography has not been able to keep pace with the complications which have arisen through sound changes. English spelling is not a reliable indicator of pronunciation and vice versa.

English spelling is based on sound letter correspondences, that is, it is basically phonemic. However, the system is not obviously consistent. Thus, sometimes letters relate to sounds, sometimes to linguistic units, sometimes to grammatical and semantic units.

Irregularity of English spellings with respect to letters and their pronunciations.

For example

TOO .... TWO,

SEAS .... CEASE

WRITE .... RIGHT (Letters are different but pronunciation is same)

GREAT... CHEAT

COME ... HOME

PUT ... BUT (Similar letters but different pronunciations)

PSYCHOLOGY, SOMBER, SUBTLE (Silent letters)
The ability to spell correctly shows that a person is an observant reader and a patient listener. Wide reading helps one to become good at spelling. Visual memory plays great role in learning spellings. We write the spelling when we are doubtful about it. Therefore the main appeal in teaching spellings should be through eyes. To some extent it depends upon finger muscular coordination.

1.9.3 English language spelling reform

For many years, individuals have advocated spelling reforms for English. They seek to make English spellings more consistent and more phonetic so that they follow alphabetic principles and pronunciations.

American Spellings-

Due to unreasonable and unsystematic nature of English spellings, attempts have been made by American linguists to reform it. Thus, we see many simplified spellings. However, they are not recognized as correct in England.

An example of the differences made by the American linguists over the British spellings is given below. There are many such words which are spelled differently by the Americans.

**Table 1.1**

**Table of British and American Spellings**

<table>
<thead>
<tr>
<th>British Spelling</th>
<th>American Spelling</th>
</tr>
</thead>
<tbody>
<tr>
<td>Behaviour</td>
<td>Behavior</td>
</tr>
<tr>
<td>Colour</td>
<td>Color</td>
</tr>
<tr>
<td>Centre</td>
<td>Center</td>
</tr>
<tr>
<td>Oestrogen</td>
<td>Estrogen</td>
</tr>
</tbody>
</table>
Orthography is a study of letters and how they are used to express sounds and form words. A phonemic orthography is a system for writing a language in which the graphemes (written symbols) correspond to the phonemes (significant spoken sounds) of the language. Scholars and Students of English have often termed Orthography as the practice or study of correct spelling according to established usage. English spelling is based for the most part on that of the 15th century, but pronunciation has changed considerably since then, especially that of long vowels and diphthongs. This was the extensive change in the pronunciation of vowels, known as the ‘Great Vowel Shift’. Many languages of India written in Brahmic scripts, such as Hindi (apart from schwa and nasal vowels), Tamil and Marathi, but not Bengali and Gujarati, have very high degree of phonemic orthographies.

Numerous changes, such as music for musick (c. 1880) and fantasy for phantasy (c. 1920), have been accepted in English Language, but spelling has continued to be in part un-phonetic. With time, pronunciations change and spellings become out of date, as has happened to English and French. In order to maintain a phonemic orthography such a
system would need periodic updating, as has been attempted by various language regulators and proposed by other spelling reformers.

1.9.4 Importance of correct spelling:

At the two ends of the educational pole are -

(1) An otherwise well-educated and intelligent person who prides himself for poor spellings and remarks that genius never could spell, indicating thereby his lack of concern regarding practical details of language.

(2) The traditional schoolmaster who makes a fetish of “spelling bees” in which children are expected to spell correctly words that are long or tricky, and the meanings of which often are not known even to the “star” speller. It is evident that the schoolmaster thinks that spelling should be taught for its disciplinary value rather than for its practical use in writing. It is necessary to develop an attitude based on these to extremes.

The preciseness of meaning is characteristic of the written language. A person’s writing vocabulary should include all the words he will need when he attempts any form of written expressions of ideas. Though, the present trend in writing is towards simplicity of vocabulary the learner should be motivated to learn new words and to spell them correctly.

Learning to spell is an individual matter. Perception of the word and inter-association of its parts is the process involved in learning to spell. Visual imagery is preferred to auditory imagery in learning to spell correctly as many words in English language are not pronounced as they are spelled. Spelling a word aloud is a vocal experience and writing is the kinesthetic experience.

Some studies support the method of generalization where on a common element words are grouped and instead of using the rules of spelling as a starting point for teaching the spellings they are used indirectly, while there are some studies which support otherwise.
Questions have been raised concerning use of rules in spelling, defining words as their spelling is taught, number of practice periods and their duration, use of various modes to develop spelling skills. Writing correct spelling is an acquired skill.

Spelling rules prove effective if they are applied as needed and not as a teaching end.

1.9.5 Common Methods used for teaching spellings

Pupils can keep individual word books having difficult words spelled correctly which cause them difficulty.

Word building

Memory games

Dictation Spelling bee

Oral Drill

Motor Drill \{ Rote Memorization \}

Visual Drill

Using Dictionary

1.9.6 Need and importance of the study of spellings

Today, technological advancements have given us modes of communication as internet, SMS etc. The language has become “Simple” or slackened. Where Gr8 is written and read as Great. The software used for writing come with an inbuilt dictionary which promotes correct spellings as per the vocabulary fed in. The significance of spellings is never been questioned by technological advancements to this magnitude. Still, the
spellings have not lost the importance as the building blocks of the language are spellings.

As an English teacher, the researcher has experienced students to have poor knowledge of English spellings. Surprisingly, even adolescents, the young generation and adults also are poor spellers. This is a result of teaching learning process during the school days.

Teachers use “Sentence” method and “Look and Say” method for reading. Due to these methods, attention of the student is drawn to the general patterns of shape of a word or sentence as a whole and not the component letters.

Over Emphasis is given on oral work in the early stages of learning English. Thus, depreciating the importance of written work which is very essential for correct spellings.

Teachers employ no suitable methods in teaching and improving this necessary ability. A majority of teachers use drill method which is done collectively, ignoring individual needs and difficulties.

A teacher needs to teach ways to the pupils about memorizing the spellings. Mnemonics is an innovative way of helping students to memorize things effectively. Our curriculum needs this kind of a change to upgrade itself.

Memorization has had something of a bad name, mostly because of bad drills. Contemporary researches and innovative teachers have created methods that not only improve our efficiency in memorization, and also make the process delightful. Another outcome of these various techniques is the improvement of imaging capacity and also other creative forms of learning required for information based learning.

Our capacity for remembering particular material is strengthened and we become more effective memorizers.
1.10 RESEARCH QUESTIONS

How can phonetically illogical spellings be memorized effectively?

How effectively can the memory techniques be taught to the students?

What are the various memory techniques?

How will memory model work with learning of spellings?

1.11 STATEMENT OF PROBLEM

To study the effectiveness of Memory Techniques and memory based model in memorizing of spellings for Std VI students.

1.12 DEFINITIONS

1.12.1 Conceptual Definitions

Effectiveness: A measure of the extent to which a specific intervention, procedure, regimen or service, when deployed in the field in routine circumstances, does what it is intended to do for a specified population.

Mnemonics:

Methods for aiding the memory
Any of several techniques or devices used to help remember or memorize names or concepts

**Memory:** The ability of the Brain to store, retain and subsequently recall information.

**Memorization:** Actively organizing and working with concepts or terminology to improve incorporating these concepts into memory.

### 1.12.2 Operational Definitions

**Effectiveness:** The strength of the learned response gathered after the implementation of the program based on Mnemonics and Memory Model.

**Mnemonics:** Certain Memory Techniques like Pyramid, Chunking, Acronym, Picture Making which aid in remembering English spellings

**Memory model:** A model of learning based on the memorization abilities of students to help them to memorize given spellings.

**Memorization:** The process of storing and retrieving spellings.

**Spellings:** Meaningful sequence of alphabetical letters.

**Standard VI students:** Students who have passed their Std V examination and are studying in Std VI of SSC Board English Medium School

### 1.13 RESEARCH OBJECTIVES

1. To study the difference between spelling ability of boys and girls through their pre-test scores.
2. To prepare a program on Mnemonics and Memory based Model for learning English spellings.

3. To study the effectiveness of the memory model on the memorization skills of the students through post test.

4. To study the effect of the program on the spelling ability of boys and girls through their post test scores.

1.14 RESEARCH HYPOTHESES

1. There will be a significant difference between scores of boys and girls before the implementation of the program.

2. Program based on Memory techniques and Memory model is effective in memorizing English spellings.

3. There will be a significant difference between scores of boys and girls after the implementation of the program.

1.14.1 Null Hypotheses

1. There will be no significant difference between scores of boys and girls before the implementation of the program.

2. Program based on Memory techniques and Memory model does not have significant difference in learning English spellings.

3. There will be no significant difference between scores of boys and girls after the implementation of the program.
1.15 VARIABLES

Controlled variables: Age and std of the students.

Independent variables: Memory techniques and Memory based model.

Dependent variables: Post test scores of the students.

1.16 ASSUMPTIONS

- Students have to learn new spellings in schools.
- Students make mistakes in writing correct spellings.
- Memory techniques can effectively help in recollection of spellings.
- Memory model can enhance memorization skills in students.

1.17 SCOPE

- This research study is applicable to std VI students of Maharashtra state board schools.
- This research focuses only on the various English spellings that the students learn till std VI.
1.18 LIMITATIONS

Some limitations of this study are

- It is difficult to provide attention to students individually.
- Various factors like age, maturity, attention, interest, fatigue on the part of the students cannot be controlled.

1.19 DE LIMITATIONS

- The present research study is limited to students of English medium schools in Pune city.
- The present research study is limited to students of STD VI of English medium schools.
- The present study has focused on memorization of spellings.
- Only memory techniques and memory model have been used.

1.20 SIGNIFICANCE OF THE RESEARCH

- As we are aware, there are more than 200 thousand spellings in English language. Each year, as the student grows new spellings will be introduced in the curriculum. Thus, to memorize spellings in rote way would be more and more difficult as these spellings will vary both in complexity and quantity.
• It will be beneficial for the students if some techniques to learn and memorize the spellings are taught to them. The present study is an attempt not only to help the students understand the structure of every spelling but also to use their creativity to analyze them so that easy learning is possible.

• The significance of this study would be when the students are able to use the various Mnemonics for a variety of content and subjects for effective learning and memorization.