THE EXTENT TO WHICH LEARNING STRATEGIES INFLUENCE ACHIEVEMENT IN HISTORY

By

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Submitted in accordance with
the requirements for the degree of

MAGISTER EDUCATIONIS

in the Department of Education
at Vista University

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Welkom 1996

DEDICATION

This dissertation is dedicated in the first place, to the Lord of my life and to the following people for their support in completing this work:

My family

My mother

My friend Mandla Bhotile

ACKNOWLEDGEMENT

The writer wishes to express his sincere thanks to his study leaders, Professor Dr. HM Freeman and Mrs AC de Beer for their patience, good advice, guidance and encouragement throughout my studies.

It is with immense pleasure to have learnt to know so well someone so understanding, and so kind.

The writer also wishes to thank most sincerely the Circuit Inspector, Mr TS Kgaje of Education Culture, Sport and Recreation in the Klerksdorp Area, who is responsible for the Klerksdorp North Circuit, for permission to conduct research at the following secondary schools:
Tshedimosetso, Metebong and Matlosane.

The writer also thanks the staff of the schools concerned for efficient, courteous and patient help.

The writer is also deeply indebted to his wife Lucky, son Mophethe and three daughters Mamokone, Madile and Naledi for the sacrifices required of them during the writing of this manuscript.

DECLARATION

I hereby declare that:

THE EXTENT TO WHICH LEARNING STRATEGIES INFLUENCE THE ACHIEVEMENT IN HISTORY

is my own work, that all the sources used or quoted have been indicated and acknowledged by means of complete references, and that this dissertation was not previously submitted by me for a degree at any other university.

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f) **SUMMARY**

This is an investigation into the use of learning strategies and their influence on achievement in History.

As a principal of Matlasane Secondary School, with many years of experience in the teaching field, the researcher has for a long time been concerned about the difficulties pupils encounter in learning.

Very often, pupils are taught without any prospects of achieving better marks because of non-use of learning strategies.

Strategies can be a variable that might affect achievement in History. This study investigates the extent to which learning strategies influence learning in History, for the purpose of the investigation, a study was made of research findings pertaining to the influence of learning strategies on achievement by the standard eight History pupils at Tshadimosetso-, Metebong and Matlosane Secondary schools in the Klerksdorp area.

A pre-study conducted of learning strategies influenced achievement of better marks.

It was then decided to select three groups randomly from the three secondary schools where academic performance was low, average and weak, and thus, they became the subject of this research.

The respondents of the research were monitored at regular intervals to determine their progress with regard to mastery of the subject.

This research indicated that learning strategies are the major factors in the pass rate of the pupils.

In the light of these findings, it is recommended that schools, especially teachers, should address the problem of a higher failure rate by employing learning strategies. Different syllabi should also include the use of learning strategies to go along with respective subjects.

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f) **OPSOMMING**

Hierdie is 'n ondersoek in verband met die toepassing van leerstrategieë en hul invloed op prestasie in Geskiedenis.

As skoolhoof van Matlosane Sekondêre skool met jare ondervinding in die onderrigveld, was die navorser vir 'n geruime tyd bekommerd oor die probleme wat studente met studie ondervind.

Leerlinge word dikwels sonder enige vooruitsig om beter te presteer onderrig omdat nie van leerstrategieë gebruik gemaak word nie.

Strategieë kan 'n faktor wees wat prestasie in Geskiedenis kan beïnvloed. Hierdie studie ondersoek die mate waarin leerstrategieë onderrig in Geskiedenis beïnvloed. Vir die doel van hierdie navorsing is 'n studie gemaak van die bevindings van navorsing rakende die invloed van leerstrategieë op prestasies van die Standerd agt Geskiedenisleerlinge te Tshedimosetso-, Metebong en Matlosane skole in die Klerksdorp distrik.

'n Vooraf-studie is gedoen om vas te stel of leerstrategieë beter resultate tot gevolg het.

Vir hierdie studie is die prestasies van drie groepe lukraak van drie sekondêre skole, waar akademiese prestasie swak, gemiddeld en baie swak was, geselekteer en nagevors om vas te stel of leerstrategieë wat korrek geïmplimenteer is, in werklikheid prestasie in Geskiedenis bevorder.

Die deelnemers aan hierdie proefneming is op 'n gereelde basis gemonitor om vordering met betrekking tot die bemeestering van die vak te bepaal.

Hierdie navorsing het getoon dat leerstrategieë 'n belangrike faktor in die bepaling van die slaagsyfer van leerlinge is.

In die lig van hierdie bevindinge, word dit aanbeveel dat skole, veral waar die onderwysers die probleem van 'n hoë druipsyfer moet aanspreek, leerstrategieë moet toepas. Verskillende sillabusse moet die gebruik van leerstrategieë in die onderrig van verskillende vakke insluit.

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CHAPTER 1

INTRODUCTION

1.1 INTRODUCTION

Matric results in South Africa have indicated clearly that History achievement is not up to standard. This is especially the case in Klerksdorp, Jouberton.

The principals of the three secondary schools, Matlosane, Metebong and Tshedimosetso at Jouberton have made their 1993 standard eight results in the subject of History available. The general performance is below average. The pass-rates are 30%, 34% and 35% respectively. The fact that the three secondary schools within the former Department of Education and Training are fraught with learning problems among pupils, suggests that learning problems have to be unravelled. Therefore, the reasons for the below average performance of the students have to be investigated so that ways and means of helping them perform according to their capability be identified. One of the factors could be that pupils do not implement learning strategies (Weinstein and Mayer 1986:315).

History is one of the content subjects which is instructed in secondary schools throughout the country. Mastery of the subject is an essential prerequisite for performing well in History as a subject and, this can be achieved through correct use of learning strategies (Mayer 1989: 44).

1.2 RELATED RESEARCH

The importance of formal use of learning strategies has been endorsed by several research projects. According to a questionnaire which was submitted to headmasters and history subject teachers, in the Klerksdorp Area in 1994, by the Subject Advisor, 99% of

subject teachers expressed themselves in favour of using learning strategies (History questionnaire on learning strategies in Klerksdorp Area).

1.3 RESEARCH PROBLEM

This study was confined to establishing the use of learning strategies of standard eight pupils in History and the relationship between students' knowledge, academic achievement and the implementation of learning strategies. An attempt was made to determine whether such a relationship between students' knowledge and usage of learning strategies and academic achievement does exist. In History the research problem will include the following secondary questions:

Do the use of learning strategies influence academic achievement in History?
Do children who are exposed to learning strategies achieve better results than those who are not?
Do teachers who encourage the use of learning strategies succeed in letting their class pupils achieve higher marks in History than those who do not?

These questions imply that the researcher has certain aims in mind which should be met.

1.4 AIM OF THE STUDY

The aims of this study are to investigate:

* whether any relationship exists between students' knowledge of the use of learning strategies and achievement in History; and
* how learning strategies influence academic achievement in History with special reference to standard eight pupils at the Jouberton secondary schools.

1.5 DEFINITION OF CONCEPTS

The following concepts will be used in the study and therefore need to be defined.

1.5.1 Learning strategies

Weinstein and Mayer (1986: 315-316) define learning strategies as behaviours and thought that a learner engages in during learning and that are intended to influence the learner's encoding process (Mckeachie, Pintrich and Lin 1986: 24). Dansereau (1985: 273) define learning strategies as the mental operations or thinking viz, steps that are used to encode, analyse and retrieve information.

Learning strategies encompass behaviour and ideas that will assist a person to learn and process information. Learning strategies can be considered to be equivalent to study methods (Langah 1992:25).

1.5.2 Achievement

Achievement is the process of achieving something which someone did or which happened especially after a lot of effort. At school it thus will mean the percentage of marks a pupil obtains in a certain examination or test after he studied that particular subject.

Achievement is specifically meant to measure degree of learning in specific content area, for example in History. Tests also work with fairly limited and abstract forms of reasoning, and the education value places a high value on achievement in tests (Winch 1990:39; Goldstein and Hersen 1990:65). In addition to this explanation, the I.Q. ideology implies that the high - I.Q. and academically able pupils are potentially better at achieving than non-academically pupils. The responsibility to create achievement depends on a particular institution not the pupil. The use of resources can help to bring about achievement in a particular learning area (Gipps and Murphy 1994:12).

1.5.3 Average child

Average is a term used of a person or thing to indicate that they are of a standard or normal type. Something average is neither very good nor very bad in quality. This is medium: the average achiever usually achieves a mark around 55%. An average is calculated by adding amounts together and dividing them by the number of amounts.

Because achievement of 80% is regarded as excellent and below 40% is regarded as a failure an average student can be regarded as one that achieves (80 + 40)/2 = 60%. For the present study pupils achieving between 55% and 60% were regarded as average achievers.

1.6 RESEARCH HYPOTHESIS

The following research hypotheses are tested in present study:

1.6.1 Pupils who are exposed to learning strategies at standard eight level achieve better results in History than those who are not exposed to learning strategies at that level.

1.6.2 Variables included are:

Independent variables: learning strategies; previous achievement; age and sex.
Dependent variables: academic achievement in standard eight History.

1.7 METHOD OF RESEARCH

This study mainly makes use of a literature study and quantitative research.

This study aims to undertake a study of standard 8 pupils in three secondary schools in

Jouberton in the Klerksdorp area, namely Tshedimosetso-, Metebong- and Matlosane Secondary School. To achieve this aim a literature study and empirical quantitative research are undertaken.

1.7.1 Literature study

The main purpose of the literature study is to investigate findings about learning strategies and to obtain more information on what students need for guaranteed academic achievement. Related literature study enables researchers to place their questions in perspective and find a link between one's study and the accumulated knowledge in one's field of interest (Ary, Jacobs and Rajavich 1990:68). Literature forms the foundation upon which the present research is built (Borg and Call 1989:116).

Journals, bulletins, theses and periodicals and other primary and secondary sources of information related to the study were consulted.. A DIALOGUE-search was performed using the following keywords: learning, learning strategies and academic achievement.

1.7.2 Case study

The standard 8 pupils at the three secondary schools at Jouberton performed badly in History. Learning strategies were taught and explained to them. They used Learning strategies and applied them to their learning materials and found it easier to cope with the work and as the result they performed well in History when writing examinations again.

Characteristics of case studies

According to Borg and Gall (1989:402) the main characteristic of the case study

involves an Investigator who makes a detailed examination of a single subject, a group or a phenomenon.

Most case studies are based on the assumption that a case can be viewed as an example of a class of events or a group of individuals. Once such a case has been found, in-depth observations followed accompanied by a collection of other data about the single case. The collected information can provide insight into the class of events from which the case has been drawn (Borg and Gall 1989:404).

1.7.3 Experimental design

Experimental design is a conceptual framework within which the experiment is conducted (Ary, Jacobs and Rajavich 1990:310). The design serves two functions: to establish the conditions for the hypothesis of the experiment and to enable the experimenter to make a meaningful interpretation of the results of the study.

1.7.4 Study population

The target population for this research is all standard eight pupils from the three high schools in Jouberton.

1.7.5 Sample

According to Mulder (1987: 55) and Ary, et al (1985: 138), the small group that is observed is called a sample and the larger group about which the generalization is made is called a population, for example, 70 standard eight pupils drawn from Matlosane Secondary School constitute a sample and are the pupils of the said institution. The effort involved in sampling does not permit a researcher to study all possible members of a population. The main purpose of drawing a sample from a population is to obtain information concerning that population. It is important that the sample must be representative if one is to be able to generalize from the

sample to the population (Ary, et al 1985: 138). Individuals in the defined population have an equal and independent chance of being selected as a member of the sample, that is, the selection of one individual does not affect in any way the selection of any other individual (Borg and Gall 1989: 220).

The accessible population from which the sample has been selected for this research is all standard eight pupils in Jouberton Secondary schools , offering History as a subject. A random cluster sample of N:210 standard eight pupils was drawn (Isaac and Michaels 1982: 193). A cluster sample selects pupils as heterogeneously as possible. A sample is constituted within a cluster. the size of a sample bears the size of a cluster which in this case is N:210.

1.7.6 Variables

A variable is an event, category, behaviour or attribute that expresses a construct and has different values, depending on how it is used in a particular study for example, learning strategies and previous achievement (McMillan and Schumacher 1993: 81).

1.7.7 Instrumentation

The research instruments to be employed are questionnaires. A pretest and a post test, to which both the experimental group (E) and the control group (C) were exposed were administered.

1.7.7.1 Questionnaire/Tests

According to Borg and Gall (1989: 431) the questionnaire must be attractive, questions easy to complete and items and pages numbered. The questionnaire should include brief and clear instructions, name and address printed in bold type. The questionnaire deals with factual material and provides specific

information that contributes to the overall picture that should be obtained. Thus, it is possible to look upon the questionnaire as a collection of one-item tests (Longman 1986, 1608). The questionnaire accommodates MSLQ and LASSI:

(MSLQ) Motivated Strategies for learning questionnaire.
(LASSI) The learning and study skills inventory.

Questionnaires will be completed by identified pupils for assessing their progress. They can be used at schools as diagnostic tools and as bases for designing individualized intervention. They are used for individual assessment and prescription and the data obtained from the questionnaires will be used for experimental training programmes (Weinstein and Underwood, 1985: 248).

1.7.8 Statistical techniques

Statistical techniques are ways and means of obtaining information in regard to statistics that is used in the experiment, and help the researcher to analyse and interpret their data for communication (Ary, et al 1985: 75).

1.7.9 Delimitation of study.

The study is confined to Klerksdorp Area at Jouberton where three secondary schools are affected by bad results in History.

1.8 COURSE OF STUDY

Chapter 1	:	Introduction and statement of the problem
Chapter 2	:	A literature study to study learning and information
Chapter 3	:	The relationship between learning strategies and academic achievement
Chapter 4	:	History as a school subject

Chapter 5	:	Data collection : Empirical research
Chapter 6	:	Statistical analysis
Chapter 7	:	Summary, conclusion and recommendations

1.9 CONCLUSION

Chapter one provided the significance of the study and the statement of the problem to be researched in this study. The method of research was also explained and hypotheses formulated. Chapter two is devoted to a literature study which provides the basis for the study and investigates learning and information processing theories.

CHAPTER 2

LEARNING AND INFORMATION PROCESSING

2.1 INTRODUCTION

The application of learning strategies implies that learning can be facilitated therefore learning theories have to be understood as a prerequisite for the correct implementation of learning strategies.

Learning is an interactive process, the product of pupil and teacher activity within a specific learning environment, or classroom. It consists of cognitive and motivational processes and perceivable outcomes and products (Keefe 1986:3; Mayer 1989:45). The activities of instruction by teachers and learning by pupils show wide variation in pattern, style and quality (Keefe 1986:3).

In chapter two, attention is mainly given to the learning process, the structure of the memory, information processing, control of executive processes and components of learning. Since learning is the common denominator, attention is first given to definitions thereof.

2.2 DEFINITION OF LEARNING

According to Gagnè (1977:3) learning can be defined as a change in human disposition or capability which persists over a period of time, and which is not simply ascribable to processes of growth. Psychologists generally agree that learning brings about a more or less permanent change in behaviour which results from activity, observation or training (Lovell 1969:125; Lefton 1985:63; Shuell 1988:278). Schmeck (1988:4) defines learning as the process whereby the nervous system is transformed by its own activity. Common to these definitions is a more or less permanent change in behaviour which occurs as a

result of practice. These definitions emphasize the end result of learning, namely, the behaviour that is manifested after the learning has taken place (Kimble 1961: 2).

A very important feature of learning is that there must be a cumulative improvement in behaviour. This involves acquisition of skills, knowledge and retention (Behr 1985:45; Withers 1994:75). It must be pointed out that there are changes in permanence which may not be attributable to learning as such. When a child learns something new, for example, studying History in order to acquire a skill as how to master it over time, he may show a steady improvement in it simply because he is growing and maturing physically (Longman Cheshire 1993:54).

Learning results often manifest in a change in behaviour where one can do something after learning has taken place. Learning must not be seen as change of a cognitive nature only. When learning takes place, affective and even motor activities are involved. Gate (1963:326) states that the individual learns new patterns of behaviour as a means of attaining his goals.

The concern for learning focuses on how people acquire new knowledge and skills and modification of existing knowledge and skills. Conceptions of learning are the ability to do something, change which results from practice or experience and change in enduring something. General agreement appears between behavioural and cognitive conceptions. According to Stevenson (1983:214) behaviour must be the result of learning rather than that which itself is learned.

Behavioural approaches focus on changing the environment in order to influence learning. Cognitive approaches focus on changing the learner by encouraging the use of learning strategies.

The discussion that follows focuses on those theories that have most influenced thinking and research on cognitive learning. Learning being defined, attention is given to an overview of learning theory.

2.3 OVERVIEW OF LEARNING THEORY

Behr (1988:46) posits that there are two main groups of learning theories viz, the behaviouristic theories or stimulus-response (S-R), and the cognitive theories. Important assumptions and practices are shared by these theories of learning (Morgan, King and Robinson 1986:592).

One shared assumption is that much of the behavioural patterns originate from learning. This implies that behaviour originates somewhere in the learning history of the individual, as early as childhood (Miller 1983:196).

Another assumption is that current conditions in the individuals' environment help to maintain learning behaviours. Learning and behavioural theorists for example, Pavlov (respondent conditioning), Thorndike (theory of bond connections), and Skinner (operant conditioning) believe in open evaluating their theories and therefore focus on observable events and behaviour (Vrey 1979:225-226; Behr 1988:46-51).

Cognitive theories refer to the processing of information from the environment as received through the senses (Morgan, King and Robinson 1986:169). Cognitive processes involve the selection of information, the making of alterations in the selection of information, the association of information with other data, the elaboration of information in thought, the storage of information in memory, and the retrieval of stored information. Morgan et al (1986:169) maintain that the major source of information of new ideas concerning how learning may be viewed has been provided by theories related to information processing, storage and retrieval. With cognitive theories, emphasis is on the learning process (Gagnè 1977:53). The cognitive group of theories propose an elaborate set of internal processes to account for the learning and retention of information.

The behaviouristic theories give little attention to comprehension and retention. Cognitive and behaviouristic theories believe that associations are formed and stored as a result of learning (Miller 1983:184).

In conclusion, behaviour is the result of learning and both external environmental factors and factors internal to the learner contribute to learning behaviour. Cognitive theories place an emphasis on mental processes and knowledge structures that can be inferred from behaviour.

Learning theories have adopted a model that posits internal structures of the human learner which is the memory system.

2.4 THE MEMORY SYSTEM OR STRUCTURE

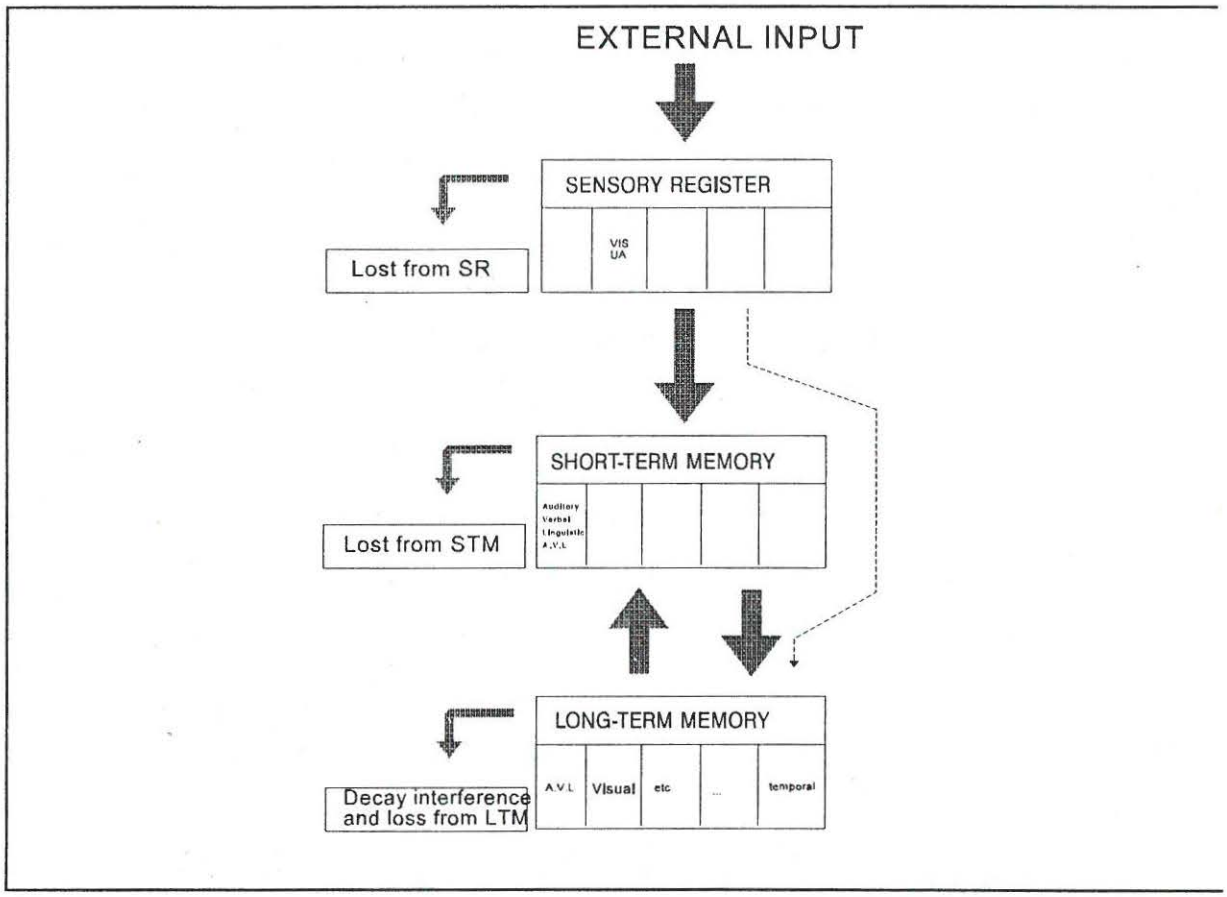
The structure of the memory system is divided into three components diagrammed in Figure 2.1 viz, the sensory register, the short-term and the long-term memories (Atkinson and Shiffrin 1968:92; Bower 1972:10; Miller 1983:259; McShane 1991:162).

The arrows in the figure on memory structure indicate that the information reaching the sense organs is retained by the sensory registers. Furthermore, they show any information selected for further processing to a short-term memory where a limited amount of information is maintained and then transferred to long-term memory. The long-term memory retains the information within a complex mental organization. During retrieval, information is summoned out of the long-term memory into the short-term memory. (See figure 2.1 on page 15).

2.4.1 Sensory register

The first component in the memory system is the sensory register. Sensory register refers to the visual system (Atkinson and Shiffrin 1968:92; Bower 1977:10). According to Bower (1977:10) the visual registration allows one to positively identify the system as a distinct component of memory. The memory information in other sense modalities also receives an initial registration (Loftus 1976:8).

Figure 2.1 STRUCTURE OF THE MEMORY SYSTEM



Source: (Atkinson and Shiffrin 1968:93).

Information from the various senses is registered in a few hundreds of a second. Components of the sensory register which persist for a longer period must be the object of the process of attention. From the sensory register information is transferred to the short-term memory (Schunk 1991:140).

2.4.2 Short-term memory

According to Atkinson and Shiffrin (1968:92) and Bower (1977:10), the second component of the memory system is the short-term memory. The short-term memory refers to the subject's working memory (Schunk 1991:40; Bower 1977:10). Information entering the short-term memory is assumed to decay and disappear

completely, but the time required for the information to be lost is considerably longer than that for the sensory register (Schunk 1991:52). Atkinson and Shiffrin (1968:92) and McShane (1991:162) argue that a word presented visually may be encoded from the visual memory register into an auditory short-term memory. The information in the short-term memory is influenced by subject-controlled processes (Bower 1977:10). The subject involves the rehearsal mechanism that manufactures the information in the short-term memory. Thus, the information represented in the auditory-verbal-linguistic memory is lost within a period of 15-30 seconds (Miller 1983:259; Loftus and Loftus 1976:8).

The capacity of the short-term memory is its ability to carry out silent, mental repetition of the information to the long-term memory.

2.4.3 Long-term memory

The last major component of the memory system is the long-term memory. Information entering the long-term memory does not decay and become lost (Bower 1977:11). Information in encoded form is stored in the long-term memory (Gagnè 1985:73). The flow of information is under the control of the subject (Bower 1977:12). Information remains in the memory from which it is transferred and decays according to the decay characteristics of that store (Miller 1983:259).

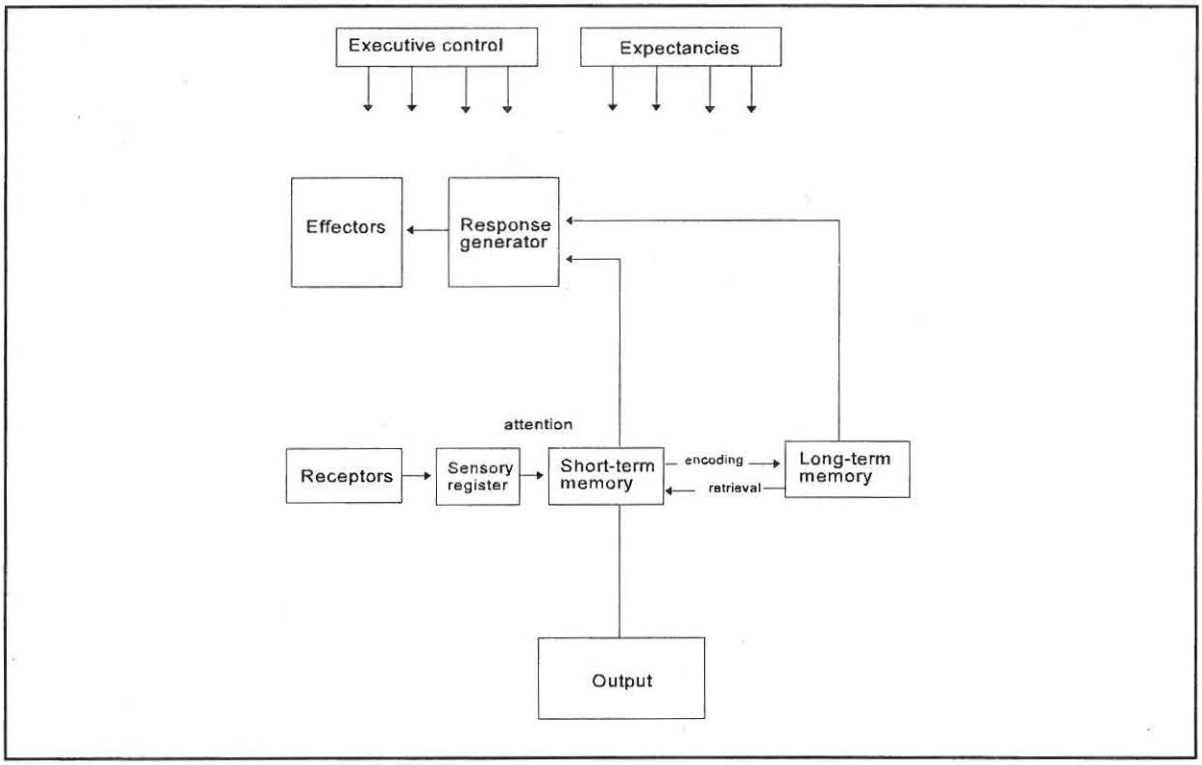
From the memory system, one can identify phases of processing during information-processing. The role of learning can be articulated from a cognitive or human information-processing perspective. Thus, the next point under discussion is information processing.

2.5 INFORMATION PROCESSING

Information processing researchers study the flow of information through the cognitive system (Miller 1989:271). The model of information processing in Figure 2.2, indicates

phases of processing of information (Gagnè 1977:52). Information processing begins with an input and ends with an output, which could be information stored in the long-term memory (Miller 1989:271).

Figure 2.2 A MODEL OF INFORMATION PROCESSING THEORY



Source: Gagnè 1977:52

2.5.1 Flow of information

According to Lefton (1985:307) and Gagnè (1985:71) the learner receives stimuli which activate his receptors and transform the stimuli to neural information from the environment. Initially, this information enters a structure called the sensory register where it persists for a very brief interval (Gagnè 1977:52; Miller 1983:259). The information that is received from the environment is carried on to the sensory register. This is discussed in the next section.

2.5.1.1 Sensory register

The sensory register receives the information and holds it briefly in sensory form (Schunk 1991:140; Gagnè 1985:71). It is here that pattern recognition occurs, which is the process of assigning meaning to a stimulus. The wordings given by a teacher during the lesson are represented as visual sensory stimuli. Weinstein et al (1988:14) and Gagnè (1977:53) maintain that the sensory memory is that part of the memory that operates a whole, one is experiencing an event with one's senses. All learning begin in this memory structure with the processing of stimuli by the senses. The sensory register transfers information to the short-term memory, which is a working memory and corresponds to awareness, or what one is conscious of at a given moment (Schunk 1991:40).

The short-term memory is discussed under the next sub-heading.

2.5.1.2 Short-term memory

Information in the short-term memory is kept active by regulatory processes like rehearsal (Schunk 1991:141). Incoming information is stored for a short time, and is worked on by being rehearsed. Gagnè (1977:15) contends that the process of rehearsal takes place after the information has reached the short-term memory, and the learner can think about the material. A learner could, for example, rehearse by attempting to find causal links between two economic measures in the textbook material.

Metacognitive strategies, such as how to monitor and plan learning, are involved because the responsibility for monitoring learning is transferred from teachers to pupils (Paris and Winograd 1989:2). Rehearsal extends the capacity of the short-term memory to store items for longer periods of time intervals. The new rehearsal process may also aid the encoding of information as input to the next structure, the long-term memory.

2.5.1.3 Long-term memory

The next step in information processing is to transfer information from the short-term memory to the long-term memory, hence encoding. According to Bower (1977:33) encoding means to relate information in the long-term memory with the new information temporarily stored in the short-term memory.

The information is assimilated and changed in the short-term memory, and only after this procedure, the structured information is taken to the long-term memory to be put in the already structured knowledge base. The information that is available as certain perceptual features in the short-term, is transformed into a meaningful mode. This transformation of information can be done through the process of coding (Gagnè 1977:54; Weinstein et al 1988:15).

When the information is transferred from the long-term memory to the short-term memory it is regarded as retrieved (Bower 1977:14). In order to be verified as learned, information must be retrieved from the long-term memory. The process called retrieval requires that certain cues be provided, either by the external situation, or by the learner (Gagnè 1977:73).

Provision cues depend for example, on learning strategies, teaching strategies and learning (Keefe 1986:5; Weinstein and Mayer 1986:315; Gagnè 1977:55)

The following transformation along the route of information flow is accomplished by the response generator (Gagnè 1985:74). The generator on a structure determines the basic form of human responding that is, whether the performance will involve speech, the large muscles, the trunk, the small muscles of the hand, or whatever (Gagnè 1977:56).

The penultimate stage of information processing consists of the addition of the effectors, this results in patterns of activity that can be externally observed. If

what has been learned is a capability of stating the sense of a set of proportions, then "telling" is performance that shows that learning has occurred. Gagnè (1977:56-57) contends that if a motor skill such as writing with a pen has been acquired, then this performance may be exhibited, in its occurrence it verifies to an external observer that this capability has been learned.

Learning is a process which appears to require the closing of a "loop" which begins with stimulation from the external environment (Gagnè 1977:57). Learners try to deduce ideas of how well they have remembered the material. Feedback is provided by the learners' observations of the effects of their performance. This event provides learners with confirmation that learning has been achieved. Gagnè (1977:57) states that although feedback usually requires a check which is external to the learner, its major effects are obviously internal ones, which serve to fix learning to make it permanently available.

Information flowing from the sensory register, through the short-term memory as well as the long-term memory is registered by control (executive) processes.

2.6 CONTROL OR EXECUTIVE PROCESSES

Control processes refer to processes that are not permanent features of memory (Atkinson and Shiffrin 1987:106). These control processes are transient phenomena under the control of the learner, and their appearance depends on the instructional set, the experimental task and the past history of the learner (Bower 1977:24).

Cognitive strategies are described as executive control processes (Gagnè 1985:77). As control processes they occur prominently as part of the model of information-processing theories of learning and memory (Schunk 1991:41; Gagnè 1985:77).

Other control processes include coding (putting information into a meaningful context) imaging (visually representing information), implementing decision rules, organizing

information, monitoring one's level of understanding and using retrieval strategies (Schunk 1991:41). Control processes influence attention and determine what features of the contents of the memory register will be entered into the short-term memory (Gagnè 1985:78). These processes may determine what is rehearsed in the short-term memory, and thus, what is retained for longer storage. They may influence the choice of an encoding scheme. Whether the learner finds meaning in small or large chunks, determines how the information is stored in the long-term memory.

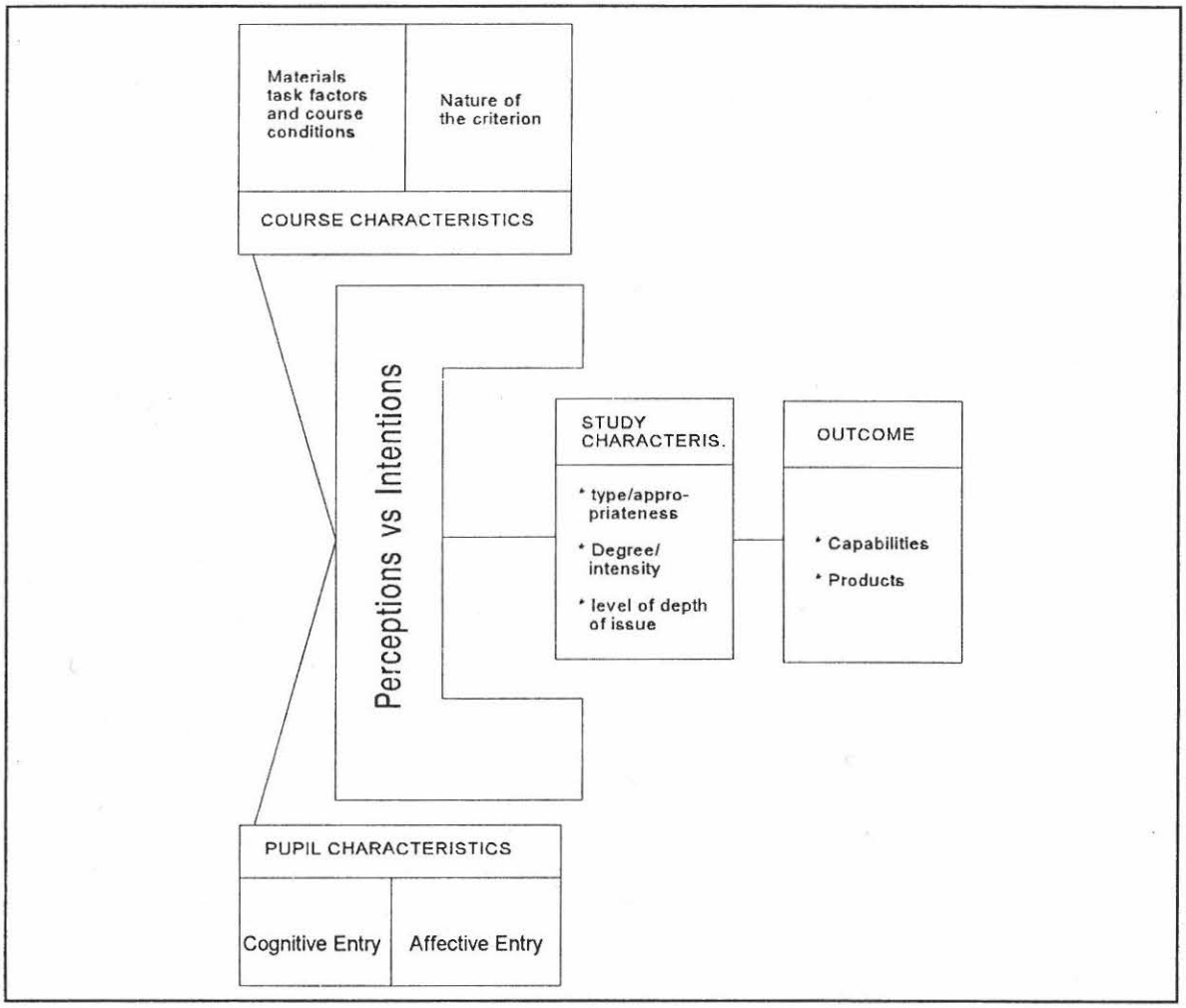
Executive control processes have a subclass called expectancies (Gagnè 1985:78). Expectancies represent the specific motivation of learners to reach the goal of learning. Gagnè (1985:75) states that an expectancy is a continuing set, oriented towards goal accomplishment, which enables learners to select the output. The executive control processes and expectancy play crucial roles in any information processing account of human learning and memory.

Control processes can determine the learners' strategies and thus influence the quality of learning. Control processes can influence the learners' thoughts and what is learnt. Components of learning can also improve learning.

2.7 COMPONENTS OF LEARNING

The model of Thomas and Rohwer (1986:23) will be used as a basis for discussing the components of learning factors that influence and improve learning as categorized by Thomas and Rohwer (1986:24), as four components of studying. According to this model the four components of learning are: Pupil characteristics, study activities, course characteristics and learning outcomes. It is important to outline the relevant components in the learning process in order to understand them (see Fig. 2.3).

Figure 2.3 STRUCTURE OF COMPONENTS OF LEARNING



Source: Thomas and Rohwer 1986:23

2.7.1 Pupil characteristics

Pupil characteristics can be divided into two main classes, viz, cognitive entry behaviour and affective entry characteristics (Keefe 1986:4). Cognitive entry behaviour entails experience and ability which indicates the extent to which the pupil has already learned the basic prerequisites to learning to be undertaken. Affective entry characteristics imply the extent to which the pupil is or can be motivated to engage in the learning processes (Keefe 1986:4; Thomas and Rohwer

1986:26).

Age-related changes in pupil cognition, across the period ranging from early childhood and the early years of schooling through adolescence and college years, proceed along a number of dimensions that include self-awareness, meta-cognitive proficiency, memory and thought processes and affective cognitive capacity (Paris and Winograd 1989:2; Thomas and Rohwer 1986:27). Across this period, and especially during the high school years, pupils additionally acquire increasingly sophisticated learning strategies, skills in their development and knowledge of the range of their utility (Schunk 1988:12).

Studying may be influenced by general ability which is referred to as an attribute such as intelligence in which an individual displays stable differences and is used for the explanation of the existence of relatively stable differences, as well as the power to memorize (Lewin and Allen 1976:33).

Pupils can master learning goals more effectively if they have experienced the demand before, have previously used a particular learning strategy to master the goal and have practiced and received feedback in the use of the strategy. Spiro (1980:254) and Thomas and Rohwer (1986:27) contend that a central aspect of learning is the integration of new information with a pre-existing information base. Pupils who have more prior knowledge should be more adept at learning content than less knowledgeable pupils. Content knowledge can be differentiated from the actual execution of processes such as planning and monitoring which are collectively referred to as metacognition (Lundberg 1987:408; Pintrich 1989:132-133; Thomas and Rohwer 1986:27).

Pupil characteristics, as well as study activities, consist of behaviours both covert and overt and are generated by learners. These are discussed under 2.7.2.

2.7.2 Study activities

Study or learning activities comprise a variety of processes and behaviour, both covert and overt, and occur during learning (Thomas and Rohwer 1986 :23; Klauer 1988:354). Study activities include primary task-focused activities as well as support or learner-focused activities. Functions involved in learning activities can be divided into two classes, namely, cognitive activities which facilitate information processing or improve criterion performance, and self-management activities which maintain and enhance the attention, effort and time pupils devote to learning (Brown 1984:213).

Study activities are influenced both by pupil characteristics (see 2.7.1) and course characteristics.

2.7.3 Course characteristics

Thomas and Rohwer (1986:26) and Blumenfold, Mergendollar and Swanthout (1987:136) refer to course characteristics and the numerous external factors and conditions that influence studying or learning. They mention lecture characteristics, grading practice, reading assignments, exercises and projects. These course characteristics can influence what and how pupils learn as well as what teachers deduce about what pupils have learnt (Thomas and Rohwer 1986:26).

Course characteristics make an appeal to teacher-guidance, teacher-aids, text-aids and check on the progress made by pupils. An amount of independent work and even out-of-class work is engendered by course characteristics, as well as learning outcomes which are discussed under 2.7.4.

2.7.4 Learning outcomes

Learning results are specific outcomes that can be classified into two categories: capabilities and informational products (Thomas and Rohwer 1986:23). For example, pupils can read a History textbook or listen to a teacher in preparation for writing a test. Pupils may also obtain the information from the History textbook, which is less complex than the form in which it is presented for evaluation, hence the informational product. It may be easier for pupils to extract the necessary information than to display it appropriately.

Categories in the second set, differ in terms of what pupils can do in dealing with each of the forms of informational products that is, they can recognize, produce and generalize them. For example, pupils may be called upon to discriminate correct answers from incorrect statements. The History teacher can for instance, assign pupils with false and correct statements from which they must choose correct answers.

Learning theories, learning and components of learning link with strategies to improve learning and achievement.

2.8 CONCLUSION

In chapter two learning has been defined as a change in modifications of patterns of behaviour, which influences future performance. It was pointed out that pupils need strategies in order to be able to sharpen their skills of performance and understanding. The flow of information have been discussed and indicates how experience is processed in the memory. In the next chapter (chapter 3), learning strategies will be discussed, to see how they can improve academic performance.

CHAPTER 3

THE INFLUENCE OF LEARNING STRATEGIES ON ACADEMIC ACHIEVEMENT

3.1 INTRODUCTION

The aim of chapter three is to define learning strategies, to discuss the influence they have on achievement, and to investigate how the learning strategies influence the learners' encoding process, that is, the processing of information from the learning material into memory (Weinstein and Mayer 1986:315). This is done to eventually determine the influence learning strategies have on the achievement in History as a school subject (see chapter 4).

According to Weinstein and Mayer (1986:316), the goal of learning strategies is to affect the learners' motivational state and the way in which the learner selects, acquires and integrates new knowledge. Hence, Mckeachie et al (1986:30) emphasize the need to teach pupils learning strategies. Learning strategies have learning facilitation as a goal and are intentional on the part of the pupil (Weinstein and Mayer 1986:315).

3.2 DEFINING LEARNING STRATEGIES

Learning strategies are defined as both learning behaviours and cognitive processes that a pupil uses to organize and integrate new information with existing knowledge in order to promote comprehension and to learn and retain information (Weinstein and Mayer 1986:315; Mckeachie et al 1986:24; Dansereau 1988:11).

Examples of learning strategies are:

* providing own centre and side headings in a passage and presenting the material in a logical, organized manner;
* outlining the key and main ideas of a chapter; lecture, paraphrasing, analysing;

* monitoring information during learning; and
* managing resources such as time and people

(Pintrich 1988a:75; Weinstein et al 1986:315; Mayer 1988:11).

Learning strategies can be divided into categories.

3.3 CATEGORIES OF LEARNING STRATEGIES

Pintrich (1989:129-234) and Thomas and Rohwer (1986:25) distinguish the following main categories: cognitive-, metacognitive- and resource managerial strategies, while Weinstein and Mayer (1986:316) and Shuell (1988:278) differentiate between rehearsal-, elaboration-, organizational-, comprehension- and affective strategies.

An analysis of categories of learning strategies drawn up by researchers such as: Weinstein and Mayer (1986:317); Pintrich (1989:130-131); Thomas and Rohwer (1986:25); and Shuell (1988:278) reveals that the following learning strategies are common to most of the categories:

* cognitive strategies such as rehearsal strategies, elaboration, organizational;
* metacognitive strategies such as planning, monitoring and regulating; and
* affective and resource management strategies.

Each of the categories of the learning strategies can influence encoding of cognitive processes and in that way, achieve certain learning aims (Weinstein and Mayer 1986:317). Rehearsal behaviours for example, are aimed at the acquisition and selection of information, whereas organizational and elaboration behaviours are aimed at construction and integration.

According to Weinstein and Mayer (1986: 317) the encoding process can be analysed into four main steps:

* Selection - The pupil actively pays attention to some information that is impinging on the sense receptors, and transfers this information into his working memory (Schuck 1991:158).

* Acquisition - The pupil actively transfers the information from the working memory into the long-term memory for permanent storage (Gagnè 1985:160).

* Construction - According to Schunk (1991:158) the pupil actively builds connections between different ideas in the information that has reached the working memory.

* Integration - The pupil searches for prior knowledge in the long-term memory and transfers this knowledge to the working memory. According to Mayer (1984 in Weinstein and Mayer 1986:317), the pupil may then build external connections between the incoming information and prior knowledge.

3.3.1 Cognitive strategies category

The cognitive category of strategies includes learning strategies related to pupils' learning and encoding of the material, as well as strategies to facilitate retrieval of information (Pintrich 1989:130; Gagnè 1977:35).

The basic cognitive learning strategies in the cognitive category are outlined by Weinstein and Mayer (1986:316) and Pintrich (1989:130-131) as rehearsal-, elaboration- and organizational strategies, and each type has both a basic and a complex version, depending on the nature of the task to be learned.

3.3.1.1 Basic rehearsal strategies

Basic rehearsal strategies involve the reciting and naming of items to be learned (Pintrich 1989:130). In History for example, events can be recited and named so that learners should be able to name places where actions took place and people

who were responsible for these actions. Through cognitive strategies, learners are able to exercise control over their own attention span (Gagnè 1985:139). In learning from a text, learners can utilize any cognitive strategy that is available to them and that may previously have been learned.

Basic rehearsal strategies are related to the attention and encoding components as the learner brings information into the working memory, for example, setting questions to evaluate themselves by reading, underlining important facts and summarizing during History lessons in order to remember the chronological order of History events (Weinstein and Mayer 1986:317).

Cognitive strategies enable learners to retrieve names, dates and unconnected events from their memories and also to associate names and events (Gagnè 1985:141).

Cognitive strategies such as image forming strategies, enable learners who have practised learning strategies to excel over a new learner who has not yet used them (Gagnè 1985:140). Basic rehearsal strategies and rehearsal strategies for complex tasks compliment one another.

3.3.1.2 Rehearsal strategies for complex tasks

Rehearsal strategies for complex tasks include learning material from a test, and strategies that are used in the learners' day-to-day studying, for example, saying the material aloud as one reads (Pintrich 1989:130). During History learning, pupils for instance, copy the material into a notebook and take notes as they read, underline and highlight a specific section of the text (Pintrich 1988a:76).

Pupils who are engaged in underlining words and sentences recall substantially more information and achieve better marks than pupils who do not employ such learning strategies (Pressley 1986 in Pintrich 1988:76).

Rehearsal strategies are supplemented by elaboration strategies that help pupils to integrate the information.

3.3.2 Elaboration strategies for basic tasks

Elaboration strategies for basic tasks include learning foreign words, concepts and involve the keyword method for acquiring knowledge especially in History (Weinstein and Mayer 1986:319).

Elaboration strategies that are used for the basic tasks include forming of a mental image and generating a sentence that connects two or more items to help relate and represent items in pairs (Weinstein and Mayer 1986:319). To remember a word pair such as `ANGLO-FRENCH' agreement, for example, a learner may form an image of two people representing England and France simultaneously.

The keyword method for acquiring a foreign word is the most popular attempt to teach a type of imaging strategy that also uses elaboration (Weinstein and Mayer 1986:319). In memorizing South Sotho vocabulary for example, `CANNON' which is translated as `KANONO', the keyword must sound like part of the foreign word.

The keyword method involves two stages. First a verbal acoustic link must be established in which the foreign word is changed into an easily pronounced English `keyword'. `KANONO' for example, can be converted into `CANNON'. Secondly, an imagery link must be formed between the keyword and the corresponding English word. The learner, for example, can picture the heavy gun, naturally a `CANNON' (Raugh and Atkinson 1975 in Weinstein and Mayer 1986:319).

3.3.2.1 Elaboration strategies for complex tasks

According to Weinstein and Mayer (1986:319) and Weinstein (1987:592), elaboration strategies for complex tasks help learners to store information in the

long term memory, by building internal connections between new and old information or prior knowledge.

Pupils engage in generative note-taking, paraphrasing, summarizing, explaining, and question and answer and asking which help the learner integrate and connect new information with the existing knowledge (Pintrich 1989:131).

By paraphrasing, that is, stating meaning of paragraphs in other words than that in the book, learners actively connect the new text information with their prior knowledge and their organizational framework for the subject matter area. In the same manner, generative note-taking, where pupils do not take notes verbatim, but try to take notes using their own words, should result in better storage and retrieval of the information and give rise to academic achievement (Pintrich 1989:131).

In History for example, learners are instructed to generate summary sentences for each paragraph, or summarize the causes of a war.

Elaboration strategies are supported by the organizational strategies for both basic and complex tasks to store, retrieve and improve learning.

3.3.2.3 Organizational strategies for basic tasks

Organizational strategies for basic tasks help the learner organize in groups or to order the to-be-learned items from a list into groups on the basis of shared attributes (Weinstein and Mayer 1986:321; Weinstein 1987: 592; Pintrich 1989:131). Common school tasks in the category include organizing keywords and events into chronological order, that is, happenings which are arranged according to dates. These strategies require actual involvement by the learner.

Organizational strategies for basic tasks are complemented by organizational strategies for complex tasks.

3.3.2.4 Organizational strategies for complex tasks

According to Weinstein and Mayer (1986:317), common school tasks in this category of strategies include outlining assigned chapters in the textbook. In History, for example, an outline of events in `NAPOLEON'S RUSSIAN CAMPAIGN' can be given by learners. Building links or attaching one event to another is one of the learning strategies that can be developed to help learners identify main ideas (Pintrich 1989:131).

Organizational strategies for complex tasks help learners select appropriate information and construct connections among the information to be learned. Learners can analyse the text material in terms of important concepts in contrast to a focus on memorization of facts and details. It is assumed that through this analysis learners will come to comprehend the material better and be able to integrate it with prior knowledge and improve achievement (Pintrich 1989:131). In History, for example, words such as `TOTALITARIAN STATE, CONSTITUTION and POWERS' could be used as key concepts.

Cognitive strategies, which also give rise to organizational strategies, form an important relationship with metacognitive strategies.

3.3.3 Metacognitive strategies

Metacognition can be defined as pupils' knowledge of cognition, that is, knowing or becoming aware of a fact, and their ability to use, monitor, evaluate and control that knowledge (Weinstein 1987:590; Lundberg 1987:408; Pokay and Blumenfeld 1990:42).

According to Paris and Winograd (1989:2,7) research on metacognition supports the importance of metacognitive development and academic learning as metacognition helps learners become active participants in their own performance rather than the passive recipients of instruction and imposed experience.

The pupils' knowledge as well as their knowledge of the learning task, and of learning strategies are important variables that influence achievement (Flavell 1979:907). According to Mckeachie, Pintrich and Lin (1985:154) knowledge regarding learners' own abilities will help them adapt their learning to the learning task. In support of the statements, learners should know if they have the ability to perform a task and that they should be assertive.

According to Pintrich (1989:132) self-regulation, planning and monitoring are three general processes that make up metacognitive control strategies and when learners study History, they should be consciously manipulating cognitive strategies by planning, monitoring, checking and thinking about their reading processes. They must be able to plan their summaries and be aware of keywords.

3.3.3.1 Planning strategies

Planning strategies include setting goals for studying, generating questions before reading the text, and doing a task analysis of the problem (Pintrich 1989:132). All these activities help the learner plan the use of strategies and the processing of information. In addition, they help to activate relevant aspects of prior knowledge that make organizing and comprehending the material easier.

Much of the research on planning, and metacognition in general, suggests that good learners engage in more planning and more metacognitive activities than poor learners (Pressley 1986 in Pintrich 1989:132). Planning is followed by monitoring as discussed under 3.4.9.

3.3.3.2 Monitoring strategies

Monitoring is an important aspect of metacognition. A broad view of monitoring includes self-monitoring during any cognitive activity.

Monitoring involves tracking of attention as one reads, self-testing to ensure comprehension of the material and use of certain kinds of test-taking strategies (Weinstein and Mayer 1986:317; Pintrich 1989:133).

Emphasis put forward by these strategies is that learners should check understanding of the material presented in class by using questions. To attain achievement for instance, in History, learners are expected to establish learning goals for an instructional learning activity, and assess the extent to which these goals are being met, and even modify these strategies which are meant to meet goals. These various monitoring activities assist the learner in understanding the material and integrating it with prior knowledge (Shuell 1988:293; Weinstein 1987:590-592; Pintrich 1989:133).

Monitoring strategies can be improved with brief instruction, for example, learners can be explicitly instructed to keep track of their ongoing performance and check their progress toward cognitive goals and monitor some error and problems of listening comprehension (Vasta 1987:4).

After monitoring, learners engage in activities which concern self-regulation and review the learning material thus, the next section will deal with self-regulation strategies.

3.3.3.3 Self-regulating strategies

Self-regulation strategies are related to monitoring activities and include re-reading portions of a text to improve comprehension, reviewing material and

strategies such as skipping questions and coming back to them later, especially in the examinations (Pintrich 1989:133).

Self-regulating strategies are assumed to improve performance by assisting learners in correcting their behaviours as they proceed with a task. On the other hand, the learner is expected to maintain motivation by adopting affective strategies.

3.3.3.4 Affective strategies

Affective strategies include those methods pupils use to help create and maintain climates for learning (Weinstein 1987:593). In learning History, for example, learners can concentrate and create skills to avoid distraction during lessons. The learner is expected to overcome test anxiety by managing his learning environment and studying in a quiet place, free of distractions. Affective strategies are complemented by the resource management strategies.

3.3.4 Resource management strategies

Resource management strategies concern learner's strategies to control resources such as time, effort, learning environment and outside support that influence the quality and quantity of their involvement in a learning task (Pokay and Blumenfeld 1990:42; Pintrich 1989:130). All these strategies aid pupils to adapt to the environment, as well as changing the environment to fit their needs (Stenberg 1985 in Pintrich 1989:133). Pupils need to utilize the said resources in order to achieve better marks at school.

One of the ways of using the above-mentioned resources to the full is time management.

3.3.4.1 Time Management

Time management is an important self-management activity in studying (Thomas and Rohwer 1986:27). Different levels of time management vary from monthly and weekly scheduling or to manage an evening of studying (Pintrich 1989:133).

Learners can for example, draw up their time-tables indicating the date and time for learning History. This kind of scheduling involves planning regarding chapters, notes, questions and summaries as to their completions, and regulating activities with regard to time. Such activities are metacognitive in nature. Study schedules that are drawn up on monthly and weekly bases need to be flexible enough to allow for adaptations in respect of course demands, for example, if a learner has set aside three hours one evening for studying, he or she must be able to schedule the use of those three hours efficiently (Pintrich 1989:134).

Management of time includes a defined area of study, which could be seen as the study environment.

3.3.4.2 Study environment

The learner is destined to define an area for studying, for example, in a variety of settings, such as the library, study hall, dormitory with a kitchen table (Deese and Deese 1979 in Pintrich 1989:134). In the schools, especially at Jouberton, pupils manage their study environment after hours when there are no loud noises, movements and loud conversations by others.

Quality engagement in studying is not always possible in the presence of distractions, the learning environment should be both visual, auditory and quiet. The learning environment needs to be organized in such a way as to increase the level of attention, promote performance and prevent thoughts from directing attention away from the test and towards fears of failure (Pintrich 1989:133).

Another aspect of the environment that pupils should manage is the support of others.

3.3.4.3 Support of others

Learners should know when and how to seek and obtain help. Learners in other words, should know or be able to identify human resources for assistance.

At some schools at Jouberton, some learners organize study groups and discuss History. Adults are rarely involved, except teachers sometimes.

Learners' actual use of a review session, that is, going over the material again by means of questions and summaries, is related to their attributional pattern and past performance (Ames and Lau 1982 in Pintrich 1989:134).

Learners who achieved good marks in the examinations, attribute their good performance to interest and hard work, and those who do poorly, attribute poor performance to lack of interest, the difficulty of the examinations, or the instructor. Motivational problems, successes and learning achievement are related to learners' help-seeking behaviours. The said learning strategies enhance performance and improve achievement.

The above-stated learning strategies demand more effort from the learners in order to apply them.

3.3.4.4 Effort management

Effort management is related to the learners' motivational pattern (Pintrich 1989:135). Effort management may be one of the most important learning

strategies and should be at the nexus of the interaction between motivation and cognition.

A good learner should display knowledge of the task and know task requirements and manage that knowledge. He should have knowledge of learning strategies that are available, and manage those learning strategies. The learner should have knowledge of how the task is to be evaluated, because the results will help him to adopt more strategies which will help him to achieve better marks. He will know for example, that different learning strategies may be needed depending on a particular task.

Learning strategies show particular functions: cognitive, metacognitive and resource management. Even though their implementation and functions are not the same, their effects indicate some similarities such as positive learning and better achievement. It is therefore important that pupils should be made aware of strategies through teaching as is discussed in 3.4.

3.4 THE TEACHING OF LEARNING STRATEGIES

Teachers are experts and mentors who transmit information concerning learning strategies by explaining, demonstrating and teaching (Dansereau 1988:308). Therefore, pupils are taught how to use learning strategies for future learning, for example, note-taking is handy for summaries and is worth learning because it saves time and facilitates revision.

In addition, learners need to be taught how to monitor their use of learning strategies and how to encode information, that is, attaching meaning to the information.

Teaching of learning strategies requires knowledge about cognition and regulation of cognition. Knowledge about cognition includes knowledge about the person, task and strategy variables that affect performance as well as various cognitive strategies that improve learning (Mckeachie, Pintrich and Lin 1985:154). Types of knowledge are

discussed in the next paragraph.

Different types of knowledge are declarative, procedural and conditional (Pintrich 1988a:75). Declarative knowledge refers to pupils' knowledge about the content of learning strategies. Learners can know, for example, that summarizing the main idea, like in a History textbook chapter, is a useful strategy that should improve performance. Procedural knowledge refers to pupils' knowledge about how to perform learning strategies. Pupils may, for example, know that summarizing is a good learning strategy. Conditional knowledge refers to pupils' knowledge about when and how to use different learning strategies (Pintrich 1988a:75).

Learners can enhance their learning by becoming aware of their thinking as they read, write and solve problems at schools, and this awareness can be promoted by teachers by informing pupils about affective problem-solving strategies and discussing cognitive and motivational characteristics of thinking (Paris and Winograd 1989:2).

The learner should be allowed to provide ideas and suggestions for selected daily activities, keeping within the general parameters of the required curriculum elements, that is, course of study in a school, so that they should have an input into their education and be more motivated to complete assignments (Hoover 1989:36).

It is important for teachers to make a follow-up to the strategies taught to pupils to ensure whether they are still employing those strategies (Palincsar 1986:124). This means continuous evaluation should take place.

Learners should be taught learning strategies, and be made aware that different learning strategies exist. Teaching learning strategies presupposes that the teacher presents the material at a certain time in a certain way, and learning strategies imply that the learner should be actively involved in organizing and elaborating about the presented material.

Teaching of learning strategies imply that the learner is influenced therefore, the next

section will deal with the influence learning strategies have on achievement.

3.5 THE INFLUENCE OF LEARNING STRATEGIES ON ACHIEVEMENT

Learners who use learning strategies such as the keyword method in learning academic tasks, recall better than learners who do not use the keyword method was established by Weinstein and Mayer (1986:319).

Learning strategies influence learners to monitor, plan, manage and evaluate performance on academic tasks, and those learners who adopt these learning strategies achieve better in academic tasks than learners who do not use them (Schmeck 1988:321). Furthermore learners who adopt self-questioning were found to be more motivated because they tend to take the initiative and become functional because of strategies (Derry 1990:359), but in spite of these findings there are pupils who never use them.

There are certain reasons why pupils do not use learning strategies hence, the next sub heading deals with reasons why pupils do not use learning strategies.

3.6 REASONS WHY PUPILS DO NOT USE LEARNING STRATEGIES

There are five major reasons why learners fail to use learning strategies in order to enhance learning:

* poor cognitive monitoring (see 3.6.1);
* primitive routines that get the job done (see 3.6.2);
* attributions and classroom goals that do not support strategy use (see 3.6.3);
* a meagre knowledge base (see 3.6.4); and
* minimal transfer of strategic activity to the new, related situations (see 3.6.5).

These reasons are discussed in detail under 3.6.1 - 3.6.5.

3.6.1 Poor cognitive monitoring

If learners do not notice that they are not learning, they are unlikely to seek a strategic remedy, and if they have an illusion of comprehension, they will not engage in additional learning activities (Garner 1990:518). Perceived high achievers are more often called on by teachers than perceived low achievers and are given praise and feedback more often with the result that low achievers are not given additional learning activities (Eggen and Kauchak 1988:40).

Some situations are more likely to elicit cognitive monitoring than others. When learners do not need to act on instructions or descriptions, they are unlikely to monitor cognitions vigorously (Garner 1990:519). When memory resources are strained, monitoring is not likely to occur. If a task is viewed as unimportant, and if a learner is not devoting conscious attention to it, monitoring is unlikely to occur (Garner 1990:549).

Poor cognitive monitoring is supported by primitive routines that get the job done.

3.6.2 Primitive routines

Well practised routines that produce a learning outcome, can also inhibit the use of learning enhancing strategies. When learners bring to task approved routines that enhance learning, the process and outcomes should be valued (Garner 1990:519).

Learners should not get the impression that they must disguise inventive tactics that assist them in learning. Instead, what they most probably have in mind are routines that do not enhance learning. The routine is maladaptive because it does not produce deep processing of text and reader information (Garner 1990:520).

Primitive routines are complemented by attributions and classroom goals that do

not support use of learning strategies.

3.6.3 Attributions and classroom goals that do not support use of learning strategies

Learners are unlikely to invoke learning strategies demanding time and effort, if they know that the strategies will not make any difference, and they will fail to perform successfully despite being strategic (Garner 1990:521).

Attributions may be an important factor in studying. Learners who tend to attribute failure to effort, might ask: "What must I do differently to succeed?" On the other hand, learners who tend to attribute failure to ability, might ask a very different question such as: "Do I understand the work?" Learners who are doubting their ability are likely to assume that performance is not in their control (Garner 1990:521).

The barrier to learning strategy use in the classroom, is the presence of goals that do not support learning strategy activity (Garner 1990:521).

Learners who rated their classroom as mastery-oriented or used skills and knowledge reported using more learning strategies than peers who rated their classrooms as performance oriented (Garner 1990:522).

Attributions and classroom goals that do not support strategy use which are worsened by a meagre knowledge base.

3.6.4 A meagre knowledge base

Learning strategies are not directed into action because of knowledge deficiencies, that is, insufficient knowledge or information (Garner 1990:520).

A high school pupil who knows that it is wise to prepare for an essay examination

and a multiple-choice examination in different ways, but has not been given any information by his teacher about the format of the next day's text or test, will not know how to study for the test. The learner may be ready to use a strategy, but he or she is blocked by the absence of non-strategy information (Garner 1990:552; Nisbet and Schuchsmith 1986:19). It is the teacher's duty to provide the knowledge base for the pupil to plan his studies properly.

A meagre knowledge base and minimal transfer of strategic activity are closely related.

3.6.5 Minimal transfer of strategic activity to new, related situations

The intention of the teacher should be to instruct learners in how to use a particular routine to solve a set of related problems. Learners then apply the routine which the instruction provided (Garner 1990:522; Brown, Bransford, Ferrara and Campione 1983:78) in the course of their learning.

In the absence of instruction that engages learners as active participants in their own immediate and future learning, learners will not use learning strategies and remain passive learners.

Learners should also be made aware of the importance of learning strategies and especially metacognitive strategies..

3.7 THE IMPORTANCE OF METACOGNITIVE LEARNING STRATEGIES

Metacognitive learning strategies can provide learners with knowledge and confidence that enable them to manage their own learning, and empower them to be inquisitive and jealous in their pursuit of knowledge (Paris and Winograd 1989:13).

Learners need to know the nature of the variables that influence their learning. Thus,

knowledge about their own abilities and characteristics, for example, knowing that they are better at recognizing tasks such as multiple choice tests, will encourage learners to adapt their learning to the requirements of the learning task (Mckeachie, Pintrich and Lin 1985:154).

Metacognitive learning strategies help learners become active participants in their own performance rather than passive recipients of instruction and imposed experiences (Paris and Winograd 1989:7). This enables learners who employ learning strategies to reduce feelings of anxiety and to prepare positively for a test (Weinstein and Mayer 1986:315). Metacognitive learning strategies will allow pupils to gain better insight into a subject like History which is discussed in chapter 4.

It is thus clear that metacognitive strategies may help a pupil to understand and to remember his work better. These strategies will give a pupil a feeling of self confidence and security. Soon he will experience a feeling of self-worth and pride because of his academic achievements. The ability to use and control knowledge in an enriching and positive way may without a doubt hold tremendous positive future benefits for the pupil.

3.8 CONCLUSION

Chapter three focused on the influence of learning strategies on academic achievement. Categories of learning strategies such as cognitive-, metacognitive- and resource management learning strategies have been included.

Important also, is the fact that instruction in learning strategies develops skills and strategies for further learning.

According to the literature, study of learning strategies influences achievement. It is claimed that learners who adopt them mostly perform better than learners who do not use them.

Learning strategies are important variables that influence performance in History at school level (Flavell 1979:907). This statement indicates that there is a relationship between learning strategies and achievement, and that mastery of content of a subject and better performance and achievement especially in History, mostly indicate the extent to which learning strategies can influence achievement.

The concept History, as well as its nature, teaching, learning and evaluation will be discussed in chapter 4 in order to illustrate how achievement in History as a subject is influenced by the application of learning strategies.

CHAPTER 4

HISTORY AS A SCHOOL SUBJECT

4.1 INTRODUCTION

Learning strategies have been defined and discussed in chapter three and it was emphasised that strategies improve the handling of skills during learning and improve academic achievement.

The aim of chapter four is to discuss the concept History as a school subject, the reasons why History should be taught, learning strategies in relation to achievement in History, methods of teaching and learning History and evaluation to assess progress made by the learners.

4.2 CONCEPT HISTORY DEFINED

History is a record of human activities, a reliable methodical record of what happened in the past, and also what human beings do. History is a means through which we understand humanity as a whole which implies, the human beings of the past as well as of the future (Esterhuizen et al 1991:1; Fines 1983:20).

In addition, History is the story of grown men and women and of the society in which they lived and this story has to be told to pupils (Board of Education 1927:114). Therefore, the emphasis placed on History is that, History is generally something that historians do rather theorise about and it is a practical activity (Brown and Daniels 1983:115). The above mentioned conceptions imply that History is concerned with specific episodes in the past, and that it can enligthen pupils about individuals and their actions. Pupils are required to communicate the results of historical study orally, visually and in writing, using a range of learning strategies such as narratives, descriptions and explanations. History provide

pupils with a foundation of knowledge, skills and insights to equip them to make their own independent choices about the values and attitudes raised through the study of history.

4.3 REASONS WHY HISTORY SHOULD BE TAUGHT

History equips pupils with a clearer sense of their own identity through a knowledge of how their world has come to be, and it enables the society to take its bearings to place itself in relation to its own past, and in relation to other activities a process that establishes a sense of identity (Levine 1981:13). This means that pupils will have knowledge and ideas about certain individuals which enables them to set aims in learning history. History has essentially to do with personal development in that it takes, as the object of study, the roots and origins of groups and those of individuals to compare and examine how they have changed over time (Brooks, Aris and Perry 1993:16).

History is one of the essential elements of a humane education in that it informs pupils about man in his various activities and environments and thus contribute towards understanding of human beings.

Another advantage studying History has, is that it enables people to understand present development and situations and so assists more appropriate reaction to development and modern situations. The capacity to imagine will vary from one individual to another and in accordance with the historical situation (Levine 1981:16). In addition one of the aims of learning History is to understand the development of the shared values and culture which continue to shape attitudes. The main reason for teaching History maybe, is that it provides a record of the influence for good or evil exercised by great personalities (Bourdillon 1994:10). Teaching of History suggests that it must be presented as chronicles to ensure that pupils are well informed and as a result there will be understanding, clarification and elucidation, therefore the nature of History needs be given attention.

4.4 NATURE OF HISTORY

According to Bourdillon (1994:28-31) it is necessary to distinguish three common concepts in order to understand the essence of history. These concepts are knowledge as information, knowledge as understanding chronology and as a content.

4.4.1 Knowledge as information

In order to understand historical events pupils need to acquire historical information, that is, the names, dates and places (Bourdillon 1994:28). It is through acquisition of this knowledge that the frame of reference is provided within which the items of information, the historical facts, find their place and meaning.

4.4.2 Knowledge as understanding chronology

By historical chronology, it is meant sequence of events in time. Chronology therefore, provides a mental framework or map which gives significance and coherence to the study of History. Chronological teaching of History will move from pre-history to the present day (Bourdillon 1994:29; Brown and Daniel 1986:6).

4.4.3 Knowledge as content

The dimensions of the study of History include technological and political development; ancient as well as modern history, skills and fundamental issues about human society such as moral, ethical, social, religious and economic values that are derived from the past (Brown and Daniels 1986:123; Bourdillon 1994:33).

4.5 HISTORY AS SUBJECT IN SCHOOL CURRICULUM

History is included as a subject in the school curriculum on the basis that it will help pupils to understand the present in the context of the past and arouse interest in the past

(Brooks, Aris and Perry 1993:14).

History arouses curiosity, raises fundamental questions and generates speculation and helps to give pupils a sense of identity (Bourdillon 1994:28). Thus, through history pupils can learn about the origins and story of their family and of other groups to which they belong, they also learn of their community and country and of institutions and beliefs, values, customs and of institutions and beliefs all of which prepare pupils for adult life (Brooks, Aris and Perry 1993:15). To facilitate the study of History learning strategies are applied.

4.6 LEARNING STRATEGIES IN RELATION TO ACHIEVEMENT IN HISTORY

In relation to achievement in History the teacher has to use equipment, text materials in every lesson and establish personal co-operation within the classroom as essential to the variety of learning situations (Brooks, Aris and Perry 1993:81). The teacher must also have his/her own rooms where he/she can display materials and motivate pupils and where he/she can reinforce learning by the use of artifacts which the pupils can handle (Benjamin 1994:36). This includes reference materials such as atlases, dictionaries and visual materials for study and the teacher should always strive to maintain active involvement of pupils in their learning (Esterhuizen et al 1991:62). In relation to learning strategies which help to improve quality of teaching History for a better performance, the latter must be considered for discussion.

4.7 TEACHING OF HISTORY

Teaching methods are applied to communicate subject content to the pupils' minds and are subdivided into two groups, that is, the general and the specific (Esterhuizen et al 1991:63).

4.7.1 General methods

General methods include chronological order which arranges the themes and events in order of time (Esterhuizen et al 1991:63).

4.7.2 Specific methods

Specific methods comprise the following:

4.7.2.1 Question and answer

The teacher applies purposeful and systematic questioning and leads his pupils to the gradual and step-by-step discovery of new relationships in history (Levine 1981:21; Stuart and Pretorius 1985:31; Esterhuizen et al 1991:65).

4.7.2.2 Narrative method

The teacher narrates and talks to the pupils, making use of language and involving strong method and supplying of information (Fines 1983:125; Stuart and Pretorius 1985:31; Esterhuizen et al 1991:65).

4.7.2.3 Discussion method

Discussion method requires pupils and a teacher to have acquired knowledge of the lesson content as they are all expected to take part in the discussion. The pupils can be taught to express their thoughts verbally (Levine 1981:29; Fines 1983:124; Esterhuizen et al 1991:65).

4.7.2.4 Assignment to self-activity

Textbooks help pupils to systematise the basic knowledge and to be ready for

discussion, thus they may be involved meaningfully in the teaching of history (Esterhuizen et al 1991:65; Fines 1983:124; Stuart and Pretorius 1985:37).

4.7.2.5 Explanations method

The teacher can present history as chronicles and inform pupils to stress clarification, elucidation and explanation (Esterhuizen et al 1991:65).

4.7.2.6 Textbook method

The textbook method emphasizes independent study of the text within the didactic situation with the library fulfilling an important function. Textbooks and other reference books can be consulted in the media centre (Stuart and Pretorius 1985:38; Brooks et al 1993:155).

4.7.2.7 Dramatising

An historical event can be dramatised and the pupils play the roles themselves and are clothed in the costume of the time (Fines 1983:124; Stuart and Pretorius 1985:28; Esterhuizen et al 1991:65).

4.7.2.8 Drilling and training

Drill method comes about as a result of play and assignment. By this method an effort is made to ensure that pupils will have facts readily available and it is right when doing revision work in the history class (Stuart and Pretorius 1985:33; Esterhuizen et al 1991:66). Teaching of history can be discussed in conjunction with combination methods which follows in the next section.

4.8 COMBINATION OF METHODS

Various forms of lesson method should be combined with the type of lessons presented. Methods should vary continually, otherwise one specific method can become too stereotyped (Esterhuizen et al 1991:68). Learning of history is complex and deserves special attention.

4.9 LEARNING OF HISTORY

Learning is the way in which subject content is assimilated by pupils, through dialogue which is based on language, through play which is the dramatisation of an historical event and, an assignment which is given by a teacher to do, and through teaching by a teacher (Esterhuizen, Gunning and Mocke 1991:62) employing different teaching methods to encourage the use of a variety of learning methods.

4.9.1 Learning methods

Various learning methods include:

4.9.1.1 Taking notes

It is essential for the learners to take notes especially on what teachers emphasize as important and they should reread notes later in the day on which they were written (Levine 1981:45; Brown and Daniels 1986:8; Benjamin 1994:30).

4.9.1.2 Class participation

Many teachers encourage class participation as another way of learning and understanding the learning material in history. Questions are also involved during the process of participation (Benjamin 1994:36).

4.9.1.3 Excursions and films

The learners may be given more information in History through the use of a film, a tape, the teacher, books or information work-sheets (Levine 1981:7; Fines 1983:57; Brown and Daniels 1986:5).

4.9.1.4 Use of dictionaries, encyclopedias, atlases

Dictionaries, encyclopedias, atlases and yearbooks are general reference books. All these sources can provide general information on a particular subject, locate geographical areas and obtain statistical data (Benjamin 1994:36).

4.9.1.5 Maps

History can be learned in conjunction with area maps which show the layout of villages or the outcome of battles. Maps are an important aid in understanding History because they display the physical relationship between places (Bourdillon 1994:197; Benjamin 1994:22).

4.9.1.6 Tasks

Pupils can learn by way of tasks or projects written in workbooks (Levine 1981:7).

4.9.1.7 Reading and underlining

Pupils can underline most prominent information. Reading must be done with a view to understand, analyse, question and criticize (Benjamin 1994:16).

4.9.1.8 Primary sources

Primary sources include visual evidence, statistical and oral information. The

primary sources can be used by pupils because they have a vivid quality of information through their instructor (Brown and Daniels 1986:31; Bourdillon 1994:78). Artifacts can be produced by participants and commentators in an attempt to reconstruct and explain history (Brown and Daniels 1986:32).

4.9.1.9 Secondary sources

Pupils can be encouraged to read secondary sources to elicit learning for example, books, essays and articles (Brown and Daniels 1986:89; Bourdillon 1994:79). Different methods of learning history must be evaluated to prove their validity.

All the abovementioned learning methods are supported by appropriate learning strategies to improve achievement in History in examinations or other evaluation methods.

4.10 EVALUATION AND EXAMINATION

Examinations are corrective measuring instruments and are part of the evaluating process and also an aid in the teaching of History (Esterhuizen et al 1991:125; Stuart and Pretorius 1985:95). Therefore, testing and evaluation are discussed in the next subheadings.

4.10.1 Testing

Testing may be seen as the formal examination at the end of a school year. Questions based on understanding, knowledge and insight are set. Questions must determine the pupils' progress and also ascertain whether aims have been realized. Marking should be done promptly to submissions of work by pupils (Brooks, Aris and Perry 1993:202). During the process of examining the idea is to quantify achievement and obtain a particular mark or symbol (Stuart and Pretorius 1985:94;

Esterhuizen et al 1991:125).

4.10.2 Evaluation

Evaluation is concerned with quality. Testing supplies the necessary information on which evaluation is based. Evaluation is concerned with the learners' achievement. The teacher is expected to assess features like interest, working habits, perseverance and willingness. Daily observation of pupils by the teacher is a very important aspect of evaluation (Fines 1983:184; Stuart and Pretorius 1985:94; Esterhuizen Gunning and Mocke 1991:123). Regular evaluation will enable the teacher to determine whether learning strategies are successfully implemented by the pupils.

4.11 CONCLUSION

Chapter four attempted to discuss History as a school subject by dealing with it in terms of learning strategies and effective teaching and learning so that the outcome is a better achievement. Achievement in History is not merely implying the mastery of content but also the handling of skills in this study with reference to standard 8 pupils.

Attention is also focused on examining and evaluation of the pupils' work. Testing and evaluation help the teacher to identify deficiencies in his instruction, and to discover lack of knowledge and ability in his pupils and also motivate them towards higher achievement.

In the next chapter (5) method of research will be discussed in accordance with the extent to which learning strategies influence achievement in History.

CHAPTER 5

COLLECTION OF DATA

5.1 INTRODUCTION

Learning strategies have been defined and discussed in chapter three and according to the literature studied, they should facilitate learning and result in better achievement by pupils.

The empirical research will be conducted by consulting with schools and thereby drawing equal numbers in accordance with both the experimental (E) and the control (c) groups. Chapter four includes the empirical research which comprises of the following variables: experimental design, study population, duration, procedure and research hypothesis. The aim of this investigation is to determine the extent to which learning strategies influence achievement in History. A description of the empirical research done, follows in section 5.2

5.2 EMPIRICAL RESEARCH

Variables are factors which may vary or change especially in an experiment. They are used in the study of performance, for example, by pupils.

5.2.1 Variables

Independent variables, that are variables which are not influenced by other factors to produce certain results, relevant to this study are: learning strategies, previous achievement.

The dependent variable is the variable which can be influenced by other variables

to produce the required results. An example is: academic achievement in the standard eight History examination.

Learning strategies and academic achievement in History will function as dependent variables in the present study.

Variables that influence academic achievement are controlled and their influence on both the experimental and the control groups are the same.

In a typical experimental investigation, two sets of data relating to the independent and dependent variables respectively, are gathered in order to compare their influence on achievement.

The investigator hypothesizes the independent variable and then compares two groups as the experimental group (E) which has been exposed to the independent variable, and the control group (C), which has not been exposed to the independent variable. The experimental and the control groups are not equated by assignments. These two groups are examined and the differences, if any, are accounted for. The independent variable is beyond control and it is therefore non-manipulable, while the dependent variable is manipulated. The experimental design is discussed under 5.2.3.

5.2.2 Experimental design

In a broader perspective, an experimental design is the conceptual framework within which the experiment is conducted, as in the case where the sample is tested to find out whether the procedure used is valid and reliable to produce the expected results (Stein, Smith, Du Toit 1994:509).

The specific design is needed because it establishes conditions for the comparisons that are required by the hypothesis of the experiment, and it makes

it possible for the experimenter to make a meaningful interpretation of the results of his study, which in this case is the extent to which learning strategies influence achievement in History.

The experimental design used is illustrated in Table 5.1.

TABLE 5.1

Experimental design

GROUP	PRE-TEST	POST-TEST	PROGRAMME
E	Y1	Y2 post	X manipulation
C	Y1	Y2 post	- non-manipulation

E	-	experimental group
C	-	control group
X	-	manipulation through instruction
-	-	no manipulation, traditional method
Y1	-	pre-test
Y2 post	-	Post-test

Both groups were tested in History before and after the experiment, to ascertain whether there was any difference in academic achievement between the experimental- and the control groups. The two groups form the study population which will be the next topic.

5.2.3 Study population

Standard eight pupils from the three high schools namely, Matlosane, Metebong and Tshedimesetso in Jouberton, Klerksdorp were used in the investigation as a

research population. The researcher endeavoured to involve all standard eight pupils taking History as a school subject in order to make valid deductions. A stratified sample was taken to obtain subjects in which academic achievement was equally distributed.

Looking at the previous percentages of high, medium and low scores obtained by 210 pupils, the results were: The number of pupils obtaining high marks were 55 (above 60%), and 80 pupils were average between 40% and 60%, while 75 pupils obtained low marks that is, below 40%. The sample is represented in table 5.2. Marks obtained were based on 100% in order to determine the percentage pass.

TABLE 5.2

SUMMARY OF THE STUDY POPULATION

DIMENSION	SCHOOL			TOTAL
	A	B	C	
High	14	25	16	55
Average	25	28	27	80
Low	26	14	35	75
TOTAL	65	67	78	210

Table 5.2 explains how pupils were classified according to their achievement. This summary represents the above mentioned three high schools according to achievement. The subjects were randomly given numbers, from one to two hundred and ten. Subjects were then divided into two groups that is, the subjects with odd numbers belonged to group A (experimental group), and the subjects with even numbers belonged to group B (control group).

Certain criteria were used to select the study population.

5.2.3.1 *Criteria for selection of pupils*

1. The three high schools namely, Matlosane, Metebong and Tshedimosetso at Jouberton, Klerksdorp (Department of Education and Training).

2. From these three schools, all pupils doing History in standard eight, were used for stratified sampling.

3. Girls, as well as boys were included.

4. Pupils of different age, from all socio-economic status, were included.

After the criteria for selection of pupils, follows the collection of data.

5.2.3.2 *Collection of data*

Official permission was obtained from the Area Manager in the Klerksdorp Area Office for the purpose of research. All relevant principals of schools were approached for permission to use identified pupils at the schools. After consultation with the subject-teachers, heads of the department of History and subject-advisors, the necessary arrangements were made before collection of data was initiated.

5.2.4 Duration

A learning strategy programme experiment was conducted during the months of April, May and June 1995. Attention was given to one school at a time. Periods were once a week, from 8 a.m. to 12 a.m. Forty five minutes were allocated per period with a recess of 10 minutes in between.

The procedure followed is explained in the next section.

5.2.5 Procedure

Pupils were informed about the investigator during the preparatory session, and were highly motivated to attend by indicating that this programme would help them to achieve better results in the examinations.

With the experimental group, study and teaching programmes were introduced, while the traditional method was applied in the cases of the control group. The traditional method entails handing down facts about stories, opinions, beliefs and ways of doing things from one person or group to the other. No flexible methods to deal with the learning material were applied.

The learning strategy programme consisted of four short chapters in History. Pupils in the control group were not made aware of learning strategies. Subjects in the experimental group were taught learning strategies to assist mastery of knowledge in said four chapters.

An improved performance and the use of learning strategies could be transferred to other content subjects. Pupils in the control group could use any method of study, which they know of or which they had been using in the past.

Pre-tests were conducted during April 1995, while post-tests were given to both groups after the teaching of the learning strategies and learning content in July 1995.

5.2.5.1 *Pre-tests*

Pre-tests were applied to both experimental- and control groups to obtain pupils' achievement before the actual experiment was conducted. These tests, being accepted as correct by the researcher and subject-teachers, were used to assess the progress of pupils through comparison. The results were compiled in

consultation with the subject-teachers.

Pre-tests were followed by post-tests after the exposure of E-group to learning strategies.

5.2.5.2 *Post-tests*

Post-tests were moderated and compiled with the help of subject-teachers and three heads of the department of History, from the three secondary schools included in the experiment to ensure that they were correctly dealt with.

5.2.6 Research hypothesis

There is a significant difference between the achievement of a group which was exposed to learning strategies and a group that was not. Standard eight pupils who are exposed to learning strategies, achieve better results in History than those standard eight pupils who are not exposed to learning strategies.

5.2.7 Validity of research

Validity of research refers to the degree to which a test succeeds in measuring what is has to measure. Learning strategies test must succeed in determining achievement. Tests were evaluated by 3 subheads and the subject teachers to ensure validity.

5.2.8 Reliability research

Reliability research refers to the degree of correspondence, to show whether researcher could rely on the scores.

5.3 CONCLUSION

In chapter five research methodology was discussed, dependent and independent variables defined and the experimental design explained. The study population was identified and sampling explained. A detailed description was given on procedure and pre-tests as well as post-tests explained. In chapter six, statistical analysis will be dealt with to explain the outcome of the test performance.

CHAPTER 6

STATISTICAL ANALYSIS

6.1 INTRODUCTION

Chapter six is devoted to the analysis of the results of the investigation. Statistical techniques are employed in order to compare groups and test results. This is done so that the extent to which learning strategies influence achievement in History, can be determined.

6.2 SUMMARY OF THE RESULTS

The scores of all the pupils are added and analysed. Mean and standard deviation are used to indicate progress and differences in performance (Mulder 1987:17-24). Mean indicates that the scores of all the pupils are added and divided by the number of pupils, and the standard deviation is the square root of the mean of the squared deviation of scores from the arithmetic mean (Mulder 1987:25; Stein et al 1994:99) as indicated below:

$$\overline{X} = \frac{\sum X}{N} \quad \text{and}$$

$$SD = \sqrt{\frac{\sum \left(\overline{X} - X\right)^2}{N}}$$

$$\hat{S} = \sqrt{\frac{N_E \times \left(SD_E\right)^2 + N_c \times \left(SD_c\right)^2}{N_E + N_c - 2}}$$

$$= \sqrt{\frac{105 \times \left(6,4\right)^2 + 105 \times \left(5,9\right)^2}{105 + 105 - 2}}$$

$$= 6,18$$

$$S_{E-c} = \hat{S}\sqrt{\frac{1}{N_E} + \frac{1}{N_c}}$$

$$= 6,18 \times \sqrt{\frac{1}{105} + \frac{1}{105}}$$

$$= 6,18 \times 0,138$$

$$= 0,85$$

$$E = \frac{\overline{X_E} - \overline{X_C}}{S_E - C}$$

$$= 25,6 - 0,4 = 25,2$$

$$= 29,6$$

$$a = \frac{T_E^2}{T_E^2 + T_c^2}$$

$$= \frac{(0,16)^2}{(0,16)^2 + (-0,64)^2}$$

$$= \frac{0,0256}{0,4352}$$

$$= 0,06$$

$$= 0,1$$

$$a = 0,1$$

$$DF = \frac{104 \times 104}{104 \times (0,1)^2 + 104 \times (0,9)^2}$$

$$= \frac{10816}{1,04 + 84,24}$$

$$= \frac{10816}{85,28}$$

$$= 126,8$$

A summary of results is found on page 66, table 6.1.

TABLE 6.1 SUMMARY OF THE RESULTS

1	2	3	4		5		6		7		8		9	10	11
Subject	Group	Number	Pre-test		Post-test		Post-pre test		Pre test		Post-test		T Test	DF	P
			$\bar{x}$	SD	$\bar{x}$	SD	$\bar{x}$	SD	$\bar{x}$	SD	$\bar{x}$	SD			
History	E	105	47,7	6,56	73,3	6,65	25,6	59,94	0,1	0,02	25,3	0,5	29,6	126,8	0,01
	C	105	47,6	6,54	48,0	5,90	0,4	-0,64							

Table 6.1 indicates the results of statistical techniques used to determine whether there is improvement in achievement in History, after the implementation of a study programme in the experimental group and the traditional method in the control group.

In table 6.1 column one, the subject in which two groups participated, namely, History, is shown. Column two of the table shows the sample which consists of two groups, that is, the experimental group (E) and the control group (C). The experimental group comprises 105 pupils while the control group consists of 105 pupils. These numbers are entered in column three of the table. Columns four and five represent the means, as well as the standard deviations of each group for the pre- and post-tests in History. Column six of table 6.1 represents the differences in academic achievement between the means of the pre- and post-tests for the experimental and control groups. Column seven represents the differences in achievement between the experimental and the control groups for the pre-tests in History. Column eight represents the differences in achievement for the means and standard deviations between the experimental and the control groups after the implementation of the study programme in the subject.

Column nine represents the t-test values of the subject for the difference between the experimental and the control groups with regard to the improvement. Column ten represents the degrees of freedom.

The results of the pre- and post tests are illustrated in figures 6.1 - 6.3.

FIGURE 6.1 RESULTS OF THE PRE-TESTS

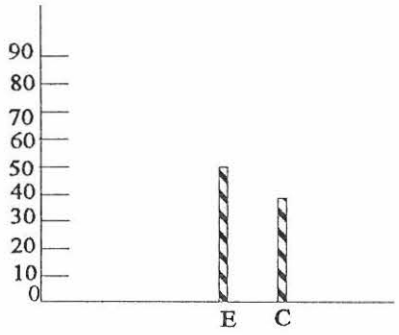


FIGURE 6.2

RESULTS OF THE POST-TESTS

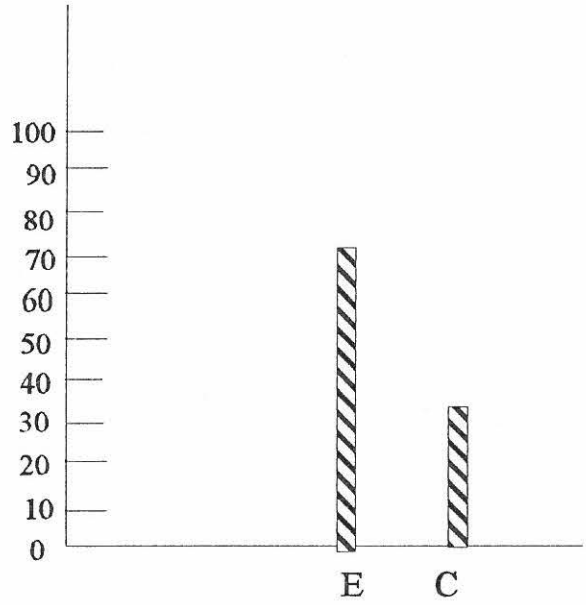
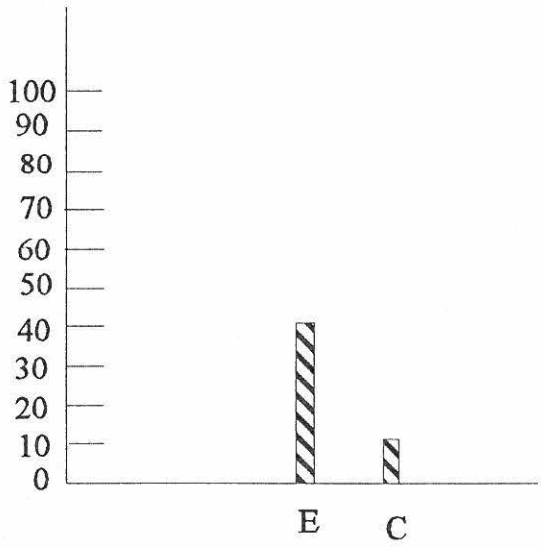


FIGURE 6.3 DIFFERENCE IN PERFORMANCE OF E AND C GROUPS

The difference between the experimental and the control groups before and after implementation of the study programme in History.



In **figure 6.1** achievement is represented by using the means in the pre-test for both the experimental and the control groups and take into account calculation of scores. The achievement by the experimental group is better than that of the control group.

Figure 6.2 indicates achievement in the post-test. Means are used for both the experimental and the control groups as a measure to describe a distribution of scores. The achievement by the experimental group has improved extremely well compared to that of the control group. As indicated in the figure 6.3 the performance of group E is 40% while that of C is 10%.

Figure 6.3 indicates the difference between the experimental and the control groups before and after the implementation of the study programme in History. The researcher will be able to determine progress before and after the experiment, that is, performance. Progress is determined through comparison of the graphs. According to Fig. 6.2 performance by both groups is high.

6.3 HYPOTHESIS

6.3.1 Hypothesis 1

Pupils who are exposed to learning strategies at standard eight level achieve better results in History than those standard eight pupils who are not exposed to learning strategies in History, was the hypothesis to be tested. According to the results as shown in figure 6.1 - 6.3, the hypothesis seems to be accepted.

6.4 CONCLUSION

The results indicate that achievement in History was affected by the use of learning strategies. The experimental groups improved more in achievement than the control group. The subjects in the experimental groups were taught learning strategies as they studied History (see appendix 2).

The control group did not improve in achievement to the same extent probably because of traditional methods which were used to study History. The subjects in the control group were not taught but just instructed to read and answer questions.

The results of the research indicates clearly that learning strategies influence achievement in History. When using learning strategies pupils assumed much of the responsibility for managing their own learning. Pupils participated actively in the learning process. They aimed at being more self-regulated learners, knowing how to learn in a reasonably efficient manner.

Learning strategies assisted pupils to set and use realistic, yet challenging, learning goals which in turn gave them direction concerning study- and learning activities. Those who did not make use of learning strategies, had no idea of what they were trying to achieve in learning and could not evaluate themselves.

With the use of learning strategies, pupils could understand the nature and requirements of academic tasks, which were in an area of strategic learning. In addition, they could use prior knowledge and relate it to what they were trying to learn and this would help them to improve and achieve better marks in History.

Chapter seven is devoted to conclusion and recommendations.

CHAPTER 7

CONCLUSION AND RECOMMENDATIONS

7.1 AIM OF THE RESEARCH

The aim of this research was to determine the extent to which learning strategies influence achievement in History. To achieve this objective a literature study was undertaken (see chapter two) and the experimental research was carried out by using standard eight pupils (see chapter six).

7.2 OVERVIEW OF THE LITERATURE STUDY

In the literature review it was found that learning strategies are defined as behaviour and thinking patterns that a learner engages in during learning and that are intended to influence the learner's encoding process. Learning strategies can improve scholastic progress.

The encoding process can be analysed into four main components: selection, acquisition, construction and integration. Learning strategies, on the other hand, are grouped into three broad categories: cognitive, metacognitive and resource management. All these learning strategies or categories are related to the pupils' learning and facilitate retrieval of information. All these strategies interact with one another as the result of learning in order to ensure positive influence on performance and improvement of achievement.

In the teaching and learning environment pupils and teachers deal with learning strategies to enhance learning.

The literature study also investigated theories on learning. Learning is the tracks left behind by thoughts. It results in permanent change of behaviour. The change occurs as a direct result of processing of information. Learning is an interactive process, the product of the interaction between the activities of teachers and pupils within the learning environment of

the school. Learning is an active, constructive, cumulative and goal-directed activity, in that pupils are active while processing incoming information in order to absorb the learning content meaningfully.

Instruction and learning are directly inter-related, and variables such as pupils, teachers, and the school environment ultimately influence the outcome of the learning process.

Learning consists of components such as study activities, course characteristics, outcomes and pupil characteristics.

Study activities include all the necessary activities and functions that the pupil should engage in and perform when studying, that is, cognitive activities which facilitate information processing and improve performance and, self-management activities which maintain and enhance attention, effort and time which is devoted to learning.

Course characteristics refer to both internal and external factors that influence studying, such as teaching characteristics, grading practices, review and instructional support practices. Additional assignments in class, exercises, projects and review activities are also included.

Concerning outcomes, pupils are expected to recognize, produce and generalize information products.

Pupil characteristics mean that the pupil must be both goal- and achievement-orientated and should have an academic ability so that he should be able to define effective activities that will foster progress towards learning.

All the above components of learning must be considered if one intends to improve the pupil's learning.

Included in the literature study is the teaching of learning strategies. The teaching of

learning strategies makes the learner aware of the learning strategies and information processing, such as storage and retrieval of information. Theorists, state that pupils can enhance their learning by becoming aware of thinking processes as they read, write and solve problems. Learning strategies can ensure successful learning.

7.3 METHOD OF RESEARCH

The research was conducted with two hundred and ten (210) standard eight pupils from Jouberton in the Klerksdorp area of Education. Pupils were divided into an experimental and a control group, consisting of hundred and five pupils (105) each. Both groups were tested before the experiment and once again after the experiment. Study and reading programmes were introduced to the experimental group, whilst the traditional method was applied in case of the control group.

Pupils in the control group were not made aware of learning strategies. The pupils in the experimental group were made aware of learning strategies which were taught to them and they were also told that it was possible to improve achievement in History by means of these strategies.

Instrumentation was set up comprising pre-tests, as well as post-tests. The two tests were applied to measure pupils' achievement before and after the actual experiment. A T-test was used to test the following hypotheses:

Pupils at standard eight level who are exposed to learning strategies achieve better results in History than those who are not exposed to a learning strategy programme.

Pupils who are exposed to learning strategies at standard eight level will achieve better results, even in other subjects, than those who are not exposed to learning strategies because learning strategy experience will be transferred to learning other subjects.

7.4 RESULTS AND CONCLUSIONS

The traditional method which was applied by pupils in the control group was not as effective as the teaching and study programmes which were applied by the experimental group (see figures 6.1-6.3). The experimental group indicated an improvement in achievement in History, after the application of the programme (see Figure 6.2). There was little improvement in the achievement of the control group in History although application of learning strategies was not actively encouraged. Pupils who were taught learning strategies achieved better in History.

The results indicated a significant difference in the improvement in the achievement of the experimental group and the control group in History. The pre-tests, as well as the post-test, indicates a remarkable difference in History-achievement. This improvement can directly be attributed to the study programme which the experimental group was exposed to.

Prior to the application of the teaching and study programmes some of the following learning problems were discernible:

- Pupils' knowledge stems from conscious awareness;
- pupils lack the capacity to summarize passage content by listing parts;
- pupils lack the ability to comprehend the subject-matter meaningfully and comprehension is viewed as a product of the learning strategies;
- self-questioning during and after reading presents a problem to reach deeper levels of meanings and this affects recall abilities;
- pupils cannot identify the main idea of each paragraph and use this as a basis for questions, and indicate the inability to distinguish;
- during learning pupils find it difficult to identify and underline important segments of the learning material;
- pupils are not aware of what and how they should learn and develop self-awareness and control learning.

7.4.1 Learning strategies used.

Learning strategies, which can assist the child in learning, include the following: naming of items when answering certain questions, copying learning material into a notebook, underlining keywords, summarizing important facts to give an overview of the chapter, selecting main ideas which will give direction to learn effectively and successfully.

7.4.2 Reasons why learning strategies can help pupils to achieve better marks in History.

The following are the reasons why learning strategies facilitate learning:

* learning strategies can assist pupils to decompose difficult learning material in the textbook;

* pupils develop the capacity to summarize passage content and are able to abstract the significant portions of a text into written summaries;

* pupils can locate and extract meaning and become proficient and are adept at finding meaningful elements in a text;

* closely related to their ability to recognize major ideas because of learning strategies, is the capacity to summarize major aspects of the content matter;

* when pupils are aware of a variety of learning strategies, they can form an image of what they are studying about, reread parts of passages, change their reading speed for effective comprehension, identify unknown words and anticipate the meaning that may be ahead;

* learning strategies for rehearsing can help pupils to repeat the information in the material for themselves and, ensure effective recall and restoration of the

information;

* learning strategies can help learners to benefit and learn more from a test, and they can be used when comprehension fails, thus, this indicates that learning strategies can assist learners to solve their learning problems and achieve better marks in History;

* the information interpreted during the pre- and post-tests was not the same. After using learning strategies, it was significant that performance of pupils was better in History than when the pre-test was conducted. Suffice to state that the results of the post-tests were better than those of the pre-tests.

7.5 IMPLICATIONS AND RECOMMENDATIONS FOR FURTHER RESEARCH

It has been deduced that the learning strategies applied in this programme improved pupils' achievement in History.

Improvement in achievement in History, could be attributed to effective teaching and study programmes.

Pupils in secondary schools should be taught learning strategies in order to improve their achievement in History and other subjects.

Teaching strategies should be part of the pupils' basic studies from the primary phase up to the secondary phase to ensure optimum performance and better results.

More time should be allocated in schools to teaching learning techniques, and follow-up studies should be made to ensure that learning strategies are implemented in an effective way.

Teachers should be encouraged to resort to and employ learning strategies in order to

influence learning and teaching and ensure optimum retrieval of information after the lessons.

7.6 LIMITATION OF STUDY

This study has the following limitations:

* only three schools in Jouberton were involved in the research experiment, which minimizes generalisation;

* results can also not be generalised to all schools because only one variable, learning strategies, was involved. Many factors can contribute to better achievement in History, of those learning strategies represents one.

7.7 CONCLUSION

The hypothesis, that pupils can improve achievement by using learning strategies, that was tested in this study proves to be true. It was also detected that pupils who do not perform well at standard eight level, do not generally use learning strategies.

The conclusion arrived at indicates that there is a positive improvement in achievement in History when pupils learn in an organised manner. Achievement indicates the extent to which learning strategies influence pupils. Learning strategies play an important role in education, assisting in creating solutions for some of the learning problems.

Pupils' History performance could be improved, achievement could be more positive and the results could improve tremendously when learning strategies are incorporated, because the study supported the usefulness of learning strategies to improve achievement in History.

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APPENDIX 1

PRE-TEST HISTORY QUESTIONNAIRE

HOW TO COMPLETE THE QUESTIONNAIRE:

1.1 Instructions on how to complete the questionnaire are given at the beginning of each part. Study the instructions very carefully.

1.2 Give correct answers only.

1.3 Please do not write your name on the questionnaire.

1.4 The questionnaire consists of five sections:
A, B, C, D and E.

1.5 Answer all sections, please.

SECTION A

Fill in the correct information in the appropriate space provided, that is, the information that applies to you.

1.	Date of this pre-test	
2.	Subject (of this pre-test)	
3.	Standard	
4.	Age in years	
5.	Sex	

SECTION B

1. Read the passage that is provided in section B.
2. The sentences given below the passage are incomplete, complete them by choosing the correct word(s) from the passage below.

Early history

In the early months of 1488 Bartholomew Dias, in command of two caravels, discovered what was subsequently named the Cape of Good Hope, and rounded the southernmost tip of the continent of Africa.

Prince Henry the Navigator, questing spirit of the Renaissance, had 73 years before, from his own doorstep in Portugal, started the lonely search of the uncharted Africa near to the South.

It was to take another ten years after Dias's first voyage round the Cape before Vasco da Gama passed the farthest pint that Dias had reached, named Natal on Christmas Day, 1497, and sailed through to the Malabar coast of India.

For another century the Portuguese ships braved the sea of storms round the Cape to bring their precious cargoes home, but in all this time South Africa remained a great unexplored land where brown-skinned men the Portuguese encountered only when they filled their barrels at watering places, bartered sheep or cattle, or found themselves shipwrecked on the coast. Compared with the profits of the East, the land seemed to have nothing to offer, and its interior was shunned by the Portuguese crews.

By 1600, the Indian trade monopoly was being wrested from the group of the Portuguese by trade rivals: the English, the Dutch and the French.

While Portugal's spice ships were a royal monopoly, the Dutch, the English and the French

in the 17th century set up Chartered Companies of shareholders to exploit the Eastern trade. At the Cape the bay under Table Mountain acquired new importance. Table Bay, rarely visited by the Portuguese, became a halfway house on the long voyage to the East Indies, the rendezvous of passing ships of many nations. But it was only in 1652 that a community was founded by the Dutch East India Company (VOC) to provision its fleets and to hospitalise its sick sailors.

Reference: Joubert, C.J. 1983. History for Standard 8. (eds) Johannesburg: Perskor Publishers.

1. In 1488 _____ discovered the _____ and sailed around the southernmost tip of the continent of Africa. (2)
2. _____ was the navigator from Portugal. (1)
3. _____ discovered the furthest point named Natal in 1497 before sailing through to _____ coast. (2)
4. Ships from _____ sailed round the Cape. (1)
5. Bartering sheep or cattle could be done between _____ and _____ in South Africa. (2)
6. By 1600 the Indian trade monopoly was taken over by trade rivals _____, _____ and the _____. (5)
7. _____, _____ and the _____ set up chartered companies. (3)
8. _____ became the halfway house on the long voyage to the _____. (2)
9. The _____ company was founded in 1652. (1)
10. _____ Mountain was frequently visited at the Cape. (1)

SECTION C

1. Read the passage that is provided in section C.
2. Answer all questions.
3. Number your questions and provide one answer by choosing from answers provided. E.G. Where was Napoleon arrested? Egypt, Italy, America

Answer: Egypt.

Contribution of the French Philosophers.

The state of affairs in France in the 18th century was criticized by many French writers whose ideas spread throughout France and also to several other countries in Europe. There philosophers based their ideas mainly on reason, and they condemned everything which was based on authority and tradition.

The church was fiercely attacked because it was based on authority. The ignorance and carelessness of the clergy made them an easy prey for their critics. Everything was criticized and condemned by the philosophers, the privileges of the nobles, the system of taxation, the courts of law, and the conditions in which the peasants lived.

Yet, the views of these men were not always sound. They easily condemned the existing state of affairs without, however, suggesting alternatives. Some philosophers compared French with British institutions, but failed to realise that the latter could not be successfully transplanted into France.

Montesquieu was one of the great thinkers of the 18th century. He was a learned lawyer who made a study of the governments of other countries. In his book **L'Esprit des Lev** (The spirit of the Law) he compared the French government with that of Great Britain. He considered that the prosperity of Great Britain, the growth in her trade, and her success in war and in establishing colonies, were due to the complete separation of the three parts of government - executive, legislative and judicial. He failed to understand that the executive and legislative powers in Britain were closely connected. This doctrine o the separation of powers, as advocated by Montesquieu, was embodied in the constitution drawn up at the time of the French Revolution. Democracy to him was the ideal form of government, yet he favoured a constitutional monarchy in which the three powers of government were separated. His other book was **Persian Letters**.

Voltaire wrote many essays, pamphlets, and poems in addition to longer works. In a gay and witty style he criticised the many evils which existed in the 18th century. He, more than the others, based his views on reason: everything which could not be defended intellectually was condemned by him. He drew attention to the abuses and corruption of serfdom, and advocated the abolition of torture and exemption from taxation.

Reference: Joubert, C.J. 1983. History for Standard 8. (eds) Johannesburg: Perskor Publishers.

1. Who criticised the state of affairs in France? (Philosophers, Church leaders, Workers) (1)
2. On what did these men base their ideas? (Church, reason, French) (1)
3. Why was the church attached? (because of authority, clergy, carelessness) (1)
4. Which government institutions were compared with one another? (French with British, French with Portuguese, French with Polish) (1)
5. Give the title of the book written by Montesquieu. (Necker, L'Esprit des Lev, Britain) (1)
6. One of the three powers in the government of France was: (judicial, Girondins, assembly) (1)
7. On what were the views of Voltaire based? (reason, writing, democracy) (1)
8. Voltaire's reforms included among other things: (exemption from taxation, monarchy, work) (1)
9. Who advocated democracy? (Miracheau, Montesquieu, Caxton) (1)
10. The kings of France were overthrown during the: (French Revolution, Assembly, separation of powers) (1)

APPENDIX 2

1. Appendix 2 consists of part D and part E.
2. Read the statements which are outlined below.
3. Check to what degree/extent you are uncertain, agree or disagree with the following statements.
4. Answer all questions, please. Try to be as open-minded/honest as possible.
5. Give your sincere answer.
6. In part of section D symbols represent the following values:
   A = disagree
   B = uncertain
   C = agree

2. Cross the correct symbol, please.

Section D

1.	The most important Code of Napoleon was the Civil Code.	A	B	C
2.	During the Napoleonic era the reform of the army was started by Carnot.	A	B	C
3.	Farmers were encouraged to resort to scientific methods of the Belgian and English farmers.	A	B	C
4.	The standard currency of France was known as Franc.	A	B	C
5.	For the purpose of rewarding citizens, Napoleon introduced the Legion of Honour.	A	B	C
6.	The finance of France was controlled by means of the Bank which was founded in 1800.	A	B	C

7.	To promote education the government took care of secondary, technical, trade and military schools.	A	B	C
8.	Napoleon concluded the Concordat with the Pope, whereby the Catholic church would become the official church of France.	A	B	C
9.	Church officials in France were appointed by the government.	A	B	C
10.	the University of France was subdivided into 17 subordinate institutions.	A	B	C
11.	Napoleon did not proclaim complete religious freedom for everybody.	A	B	C
12.	Napoleons' aim was to cultivate loyal and obedient citizens.	A	B	C
13.	Napoleon wars began in 1803.	A	B	C
14.	Genoa was converted into the Ligurian Republic.	A	B	C
15.	Cisalpine Republic was called the Italian Republic.	A	B	C
16.	The Civil Code was introduced and the old laws were replaced by more just laws.	A	B	C
17.	One of Napoleon's reforms was abolition of class distinction.	A	B	C
18.	The Peace of Campo Formico had an influence on the German states.	A	B	C
19.	The Congress of Vienna was held in 1815.	A	B	C
20.	Napoleon was finally defeated at the **Battle of Waterloo**.	A	B	C

Section E

1. In section E symbols represent the following values:

   A = True

   B = False

   C = Neutral

2. Cross the correct symbol.

The French history

1.	On 17 June the Third Estate declared itself to be the National Assembly.	A	B	C
2.	The Oath of the Tennis Court was taken outside the Tennis Court.	A	B	C
3.	Necker was dismissed as the minister of finance.	A	B	C
4.	The National Guard was under the command of Lafayette.	A	B	C
5.	The Declaration of the Rights of Man contained ideas of philosophers, the American "Declaration of Independence" and the English "Bill of Rights".	A	B	C
6.	Proportionate taxation was not introduced.	A	B	C
7.	The constitution of 1791 established France as a constitutional monarchy.	A	B	C
8.	Leaders of the Cordeliers were among others: Danton or Marat or Desmoulins.	A	B	C
9.	Two opposing revolutionaries were the Jacobins and the Girondins.	A	B	C

10.	The Duke of Brunswick issued the Brunswick Manifesto, demanding the freedom of the French king.	A	B	C
11.	A committee of Public Safety was established first with Danton and later with Robespierre as the leader.	A	B	C
12.	The government of France was headed by a Directory consisting of five members.	A	B	C
13.	The legislative power of France was vested in two houses viz, the Council of five Hundred and the Council of Ancients.	A	B	C
14.	The National Convention ensured that the will of the people remained supreme in the new constitution.	A	B	C
15.	The Directory of France was replaced by Napoleon Bonaparte's military dictatorship.	A	B	C
16.	In June 1791 the king and his family were in flight and were arrested at Varennes.	A	B	C
17.	At the suggestion by bishop Talleyrand, all church land was confiscated and used as security for the issue of assignats.	A	B	C
18.	Before the French Revolution, the executive, legislative and the judicial powers wee in the hands of the king.	A	B	C
19.	After the French Revolution, sovereignty of the people was applied, enabling the people to elect the various government bodies.	A	B	C

Reference: Joubert, C.J. 1983. History for Standard 8. (eds). Johannesburg: Persk Publishers.

APPENDIX 3

POST-TEST HISTORY QUESTIONNAIRE

1. Appendix 3 consists of part F.
2. Read the passages that are provided in section F.
4. Answer all questions in this section, please.

SECTION F

The trek of Andries Hendrik Potgieter

Potgieter came from the region of Tarka in Colesberg. His was the first trek to leave the Cape. He led a party of about 200 which included 35 armed men from the Cape. At Smithfield 20 trekboer families under Sarel Cilliers joined Potgieter. Among them was Kasper Kruger and his young son Paul who later became president of the South African Republic.

In September 1836 Maritz left Graaff-Reinet with 700 people, including 250 men. He was a great democrat. He arrived at Thaba'Nchu in November 1836.

At Thaba'Nchu Potgieter met the missionary Archbell whom he could not persuade to become their minister of religion. In April 1836 the trek arrived at the Vet River. Potgieter, Sarel Cilliers and nine other men wen in search of Trichardt to the north of the Vaal. The commission found Trichardt at the fort of the Zoutpansberg Mountains.

On 17 April 1837 the second peoples' meeting was held. Retief was elected "Governor" and "Commander-in-Chief". Maritz was elected chairman of the new Council of Policy. The Council was to mange administrative matters, but the highest authority was vested in the people. However, the "Verenigde Maatskapij" was the beginning of a democratic republic.

Reference: Joubert, C.J. 1983. History for Standard 8. (eds) Johannesburg: Perskor Publishers.

1. Who came from the region of Tarka in Colesberg? (Potgieter, Maritz, Van Riebeeck).
2. Who joined Potgieter at Smithfield? (Retief, Potgieter, Cilliers).
3. Who had eventually became president of the South African Republic? (Trichardt, Van Rensberg, Kruger).
4. Who left Graaff-Reinet with 700 people? (Kruger, Maritz, Cilliers).
5. Who was doing the missionary work among the people at Thaba'Nchu (Kasper, Archbell, Paul).
6. In which year did most of the treks take part? (1837, 1836, 1736).
7. Name any common place where the Voortrekkers met. (Tarka, Thaba'Nchu, Table Bay).
8. He was the chairman of the new Council of Policy. (Retief, Maritz, Potgieter).