Teaching historical time, causation and empathy
in the senior primary school:
A theoretical and empirical study.

by

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"To be ignorant of what occurred before you were born is to remain always a child. For what is the worth of human life, unless it is woven into the life of our ancestors by the records of history?"

Cicero, Orator (46 B.C.)
Dedication

In memory of my beloved grandmother and mother who believed in the importance of a good education.
ABSTRACT

The writer is of the opinion that the teaching of history is a skilled, complex and challenging activity which demands a highly professional approach. History teaching should enable children to identify and acquire certain skills and perspectives that support and develop their interest in and knowledge of the past. There has been some concern that history may not be an appropriate school subject for children and young adolescents because it requires a level of cognitive development that they may not yet have attained. Fortunately, there is a substantial body of research that addresses this question. Most of it is grounded in Piagetian theory and is concerned with the development of logical thinking in history learning (Downey and Levstik 1988:338). The writer believes that sophisticated and potentially difficult concepts like historical time, cause and effect and empathy are capable of being explained and discussed at a level that most pupils can grasp. The most frequently quoted statement of Jerome Bruner lends support to this view: "Any subject can be taught effectively in some intellectually honest form to any child at any stage of development" (1977:3).

This research focused on the three pivotal concepts of historical time, cause and effect and empathy. The purpose of the empirical study was to establish how significant a rôle these concepts play in the teaching and learning of history at the senior primary level.

The study was undertaken by means of the illuminative method of research within the context of the ethnographic tradition. The writer observed and described the teaching of history in seven schools in the Durban area. Ten lessons were given by Fourth Year students from a college of education and five were taught by senior primary teachers. The depth of teaching experience in this group ranged between one year and twenty.
In most of the lessons, content predominated over the reinforcing of concepts. Teachers stated openly that they experienced difficulty in teaching the concepts of historical time and cause and effect at senior primary level. This was borne out by the pupils' oral and written responses. However, most teachers did encourage pupils to empathise with the subject matter.

The results of this research suggest that there is a need to heighten teachers' awareness of the centrality of the concepts of historical time, cause and effect and empathy if the teaching of history at senior primary level is to become more effective.
DECLARATION

The work described in this dissertation was carried out under the supervision of Mrs J. Prosser of the Department of Education, University of Natal, Durban.

This whole dissertation, unless specifically indicated to the contrary in the text, is the candidate’s own original work, and has not been submitted to any other university for any degree.

C-A Simchowitz
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1. Introduction

Before discussing the motivation for undertaking this research into the teaching and learning of the concepts of historical time, cause and effect and empathy at selected senior primary schools in the Durban area, the writer feels that it is important to consider briefly the nature of children's thinking.

Many volumes of research advocating numerous, often divergent, theories of cognitive development in children have been produced. No attempt has been made to collate or summarise this vast body of writings. Such an undertaking is clearly beyond the scope of this research. However, selected readings on the development of the concepts of historical time, cause and effect and empathy in children have been spotlighted and discussed in Chapters Two, Three and Four. Where appropriate, recommendations have been made on how to approach the teaching of these concepts. These recommendations are offered as guidelines and not in any prescriptive spirit.

As good a name as any to begin with is that of Jean Piaget, the pioneering Swiss child psychologist whose prolific researches, often produced with collaborating authors, have, during the greater part of this century, dominated the area of cognitive development in children. Whether cognitive-developmental psychologists agree or disagree with Piaget's findings, they generally end up using his work as either a point of reference or of departure.

Piaget's research on cognitive development in children is chiefly concerned with the stages through which children's thinking evolves and with the conceptual frameworks, the acquisition of which enables them to make sense of their world. In Chapter Two a summary of his cognitive-developmental theory is presented. According to Piaget, most children of senior primary school age would be
functioning at the level of concrete operations, which characterises the cognitive profile of children in roughly the seven to eleven age group. At this level children become capable of various logical operations but only in the realm of concrete things (Gage and Berliner 1988:115). At approximately eleven years of age they begin to demonstrate a capacity for abstract reasoning. Piaget says that at this point they begin in effect to think scientifically i.e. draw conclusions, offer interpretations and develop hypotheses. Their thought has become more flexible and powerful. Commenting on Piaget’s theory, Gage and Berliner state:

The age designations for each stage are approximate, not hard and fast. Moreover, a stage does not end suddenly. Rather it trails off. A child may still think preoperationally in some areas while performing more logically in others (1988:108).

There are researchers (Hallam 1969; Sleeper 1975) who believe that Piaget has been responsible for an increased awareness of the centrality of concepts in the teaching and learning of most school subjects, including history, with respect to which, according to Gunning

some people have been led to the extreme (but unnecessary) conclusion that since [it] is full of abstract concepts, it is not suitable as a subject at all for students under sixteen (1978:11).

This is a claim to which the writer will return later in the Chapter.

2. The nature of children’s thinking

As early as the Eighteenth Century Jean Jacques Rousseau, the French philosopher and writer, made the insightful comment in his book on education, Emile, that children were not miniature adults and that childhood had its unique characteristics (Boyd 1975:5,6). Rousseau’s observations of children’s abilities were later confirmed by empirical research on cognitive development begun in the late Nineteenth Century (Case 1985:6).

Piaget (1958) says that children’s thinking, particularly that of young children, is pre-adult in the sense that it is often different in kind from adult thinking and not merely low-grade or inefficient adult thinking. The normal adult has acquired a conceptual framework which generally enables him to see his world as an orderly
system, framed in space and time, made up of objects which persist and causally affect one another. Moreover, he can perform complicated logical feats, such as distinguishing various classes of things, and seeing relationships between things. The adult can also transcend the merely concrete and think in terms of contingencies and hypotheses – of what might be the case. He can, that is, think abstractly as well as in concrete terms. In Piaget's (1958) view the young child's mind works, by contrast, in such a way that, to begin with, many of these adult distinctions are not made, or are made imperfectly. The very young child, according to Piagetian theory, does not readily distinguish between himself and the world about him. There is a stage where he does not clearly see the world as consisting of separate and persisting things. The adult categories of space, time, number, causality are seldom clearly grasped by the child. The point made by cognitive-developmental psychologists is that the child is not born with adult thinking patterns and therefore cannot think as an adult does (Langer 1969). Thinking as an adult thinks is a skill he has to acquire. The implications of such a cognitive-developmental model are of the greatest importance to teachers, as Moore points out:

Methods of teaching which may be appropriate for adults or adolescents might be most inappropriate for young children. Moreover a teacher must bear in mind the gap which may well exist between her language and thinking in the classroom and that of her pupils (1984:70).

This point will be expanded on later in the Chapter. The writer believes that it is appropriate at this point to consider the nature of concepts.

3. The nature of concepts

A concept is an abstraction which represents a general class of events, but is not restricted to any specific example of that class. For example, there are creatures in the world which are "dogs", but the concept of "dog" is "in the head" and not in the world outside (Reber 1985:141). Concepts are man-made and culturally determined. They reflect people's efforts to systematise experience and knowledge and to reduce the amount of confusion in their world. Since people communicate principally through the medium of language, they try to assign an identifying verbal label and a description or definition to most concepts. These labels are not the
concepts themselves but only ways we have devised to make it possible for people
to talk and write to each other effectively about them.

Concepts range from very simple, concrete referents such as "dog" or "car", to
complex, abstract ones such as "beauty" or "truth". In order to shape a concept a
person must, at some stage, have seen or experienced objects or events that
contribute to the concept, though the perception or experience need not occur at
the time the individual is actually forming the concept. As no two people ever
have precisely the same set of experiences shaping their concepts, so no two people
ever have exactly the same set of concepts (Hudgins 1977:110). This is a variable
that can lead to a breakdown in communication if it is not recognised and allowed
for.

Concepts form an integral part of one's cognitive structure though they do not
represent the totality of it. One's cognitive structures also include broader
generalisations and principles, as well as specific facts and information, but
concepts are the building blocks that enable a learner to think effectively in a field
(Hudgins 1977:111). The first thing a pupil learns about a field is its broadest
principles and leading propositions. These are superordinate to less general ideas,
which emerge somewhat later in the learning process, and also to specific facts and
details that are the last to be clarified. For example, a child may initially identify a
"dog" as a creature which has four legs and a tail. Later he may add specific
characteristics and details that are associated with different breeds of dogs.

During the pre-operational stage (covering the ages from two to seven, the last
three years of which are viewed as an "intuitive" phase) the child is limited to the
acquisition of primary concepts. At this stage, when a child is presented with the
critical attributes of a new concept, he would be unable to relate these to his
cognitive structure, unless he was first able to test them against particular
exemplars of the concept. Frequent contact with many exemplars of the concept is
necessary for concept acquisition, albeit at a low level of abstraction, to take place
Clearly, the pre-operational child's dependence on concrete-empirical experience limits him to the acquisition of those primary concepts whose referents are perceptible and familiar objects and events (such as "cat" and "home"). Succeeding the pre-operational stage is the concrete-operational one during which the child's acquisition of concepts proceeds "at a much higher level of abstraction and yields correspondingly more abstract concept meanings" (Ausubel 1968:524). The child is now able to cope with secondary concepts whose meanings he may learn without actually coming into contact with the concrete-empirical data from which they are derived. It is important to note that only the less complex kinds of secondary concepts, that is those that are not too remote from the learner's sphere of personal or vicarious experience, can be acquired during this stage. For example, a young child may be able to identify a saw as a "tool" without having seen or used one. His classification would be based on his experience of other tools in his environment and the conceptual attributes he assigns to such implements.

The highest level of abstraction in concept acquisition is reached with the stage of abstract logical operations (beginning at about age eleven). At this stage, the criterial attributes of complex and higher-order secondary concepts can be integrated directly into cognitive structures without recourse to the concrete-empirical props. The emerging products of conceptualisation are moreover refined by verbalisation which yields more precise, explicit and genuinely abstract generic ideas.

On the basis of the model postulated above, Ausubel draws the conclusion that concepts are generally attained more rapidly and efficiently with increasing age (1968:525).

If this conclusion is warranted, it follows that the responsibilities of teachers at junior, senior primary, and secondary schools ought to be different as far as their roles in guiding students' concept acquisition is concerned. In this context the junior primary and senior primary teacher ought to pay particular attention to
identifying concepts that are central to the pupils' recent as well as current learning. They ought to see to it that concepts are built up through their pupils' experiencing objects and events, through discovery learning and repetition (Van Biljon 1986:54).

Elementary concept development seems to be one of the principal contributions made by the junior and senior primary schools to the child's learning process. In the secondary school emphasis should shift to the development of more abstract thinking and to the relationships of abstract ideas to one another (Hudgins 1977:113).

As far as the teaching of history is concerned, there appear to be three concepts which by common consent are held to be essential to historical understanding. These three basic concepts, to which all others relate, are cause, change and evidence (History in the Primary and Secondary Years. An HMI view. 1985:14).

On cause the HMI Report¹ says:

Pupils are often presented with, or already hold, simple causal explanations for events ... Genuinely historical explanations, however, are necessarily tentative, demand qualifications and must admit to exceptions. Events may have a multiplicity of causes ... Consecutive events do not inevitably have a causal relationship. Many are precipitated by factors neither sought nor anticipated by the participants. These are difficult connections to make, but there is evidence that they are within the capacity of many pupils of a wide range of ability (1985:3).

The nature of causal understanding in children is discussed further in Chapter Three.

On the child's ability to appreciate change and continuity in history the HMI Report offers the following example:

A boy in the top class of a primary school was trying to find out about changes in the cost of living. To do so he was comparing a photocopy of an inventory of household goods of the 1870s with its values attached, with the price[s] of the same articles in an illustrated catalogue of a departmental store, issued in the 1900s, and with current prices in the shops.
What this example illustrates is that, however complex the ideas of change and continuity may be, in a simple form they are accessible events to young children (1985:3).

On the nature of evidence the HMI Report makes this comment:
All historical judgements depend on the evidence available. The range of that evidence may be very diverse ... Even the youngest pupil can be aware of this diversity ... Because of the range and diversity of the evidence, and the possible interpretations of it, historical judgements are always provisional and tentative. Thus a study of the past can begin to encourage a measure of informed doubt ("We cannot be sure"), or responsible scepticism ("How do we know this to be true?") ... There is no reason why an awareness of evidence should not permeate the teaching of history for all pupils, however young (1985:2).

The question of the interpretation of evidence is given further consideration in Chapter Three.

In the classroom some practical aids to instruction can help in the development of historical reasoning. Ausubel's "advance organizer models" utilise the structure and logic of a discipline to generate readily intelligible hierarchically-organised schemata. At the top of the hierarchy are found those very broad concepts which encompass the ones appearing at successively lower stages of the scheme. Based upon the Piagetian model of cognitive development, the conceptual organisation of the hierarchy reflects a movement from concrete to abstract. Ausubel argues that as each discipline's concepts are unique, teaching its key concepts to the pupil provides him with an invaluable "road map" of the discipline (Hudgins 1977:61). By way of an example of an "advance organizer model", here is a rudimentary one on "land transport", a topic covered in the Standard Four history syllabus:

```
Land transport
  | walking
  | running
  | dragging heavy goods
  | rolling logs
  | using domesticated animals
      - dogs
      - horses
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4. **Is history an appropriate subject for senior primary pupils?**

A matter directly relevant to the whole issue of the teaching and learning of specific historical concepts, is the pivotal question of the appropriateness of history as a school subject, given the level of cognitive development of senior primary children.

Research in this area is extensive and so the discussion which follows will merely outline and highlight some of the salient issues of the debate.

Between 1955 and 1980, no fewer than twenty-four theses and dissertations applying Piagetian theory to history learning were completed in the United Kingdom alone (Booth 1980:245). From this body of research Hallam's work is perhaps the best known. Hallam concluded that logical structures, similar to those described by Piaget, could be detected in children's historical thinking. On the basis of his respondents' answers, an ordering of the data in terms of the Piagetian stages of cognitive development was suggested, as follows:

1) **Pre-operational thought**

At this level the child fails to see a connection between the information provided and the question posed. There are isolated centrings on only one feature of the data given. Transductive reasoning is present: i.e. moving from one element to another without considering all the factors involved.
2) **Concrete operational thought**

The child is able to give a coherent answer to a question but is limited by what is immediately apparent in the text. He has the ability, however, to forecast a result from the evidence available.

3) **Formal operational thought**

At this level the child realises that there are multiple links in the text. He can envisage many possible explanations and through logical analysis determine which answers appear well-founded. He can postulate hypotheses and test their validity. His thinking is flexible enough to allow for oscillations and reversals of direction as between reality (the "stated facts") and multiple, unstated possibilities of interpreting them.

(1970:164-165)

Hallam's subjects responded to questions based on narrative historical passages in ways that seemed to him suggestive of Piaget's stages of pre-operational, concrete operational and formal operational thinking. However, his subjects reached the concrete and formal operational stages considerably later than Piaget's subjects - the former at about the age of thirteen years (compared to age seven or eight in Piaget's experiments), the latter at about the age of sixteen years (compared to age twelve in Piaget's research).

According to Hallam's study, pupils who deal with historical data develop the ability to think at formal abstract levels on average up to four years later than do pupils in mathematics and science (1970:166). Consequently, Hallam advises history teachers working with pupils younger than sixteen years to focus on more "concrete" topics. "A great deal of ancient history", he observes, can be taught as concrete subject: the homes, daily life, industries, agriculture and trade of the prehistoric period" (1970:169). Hallam suggests that with more intelligent children it is possible, in the early years of the secondary school, to introduce some abstract ideas in a simple manner while bearing in mind the advisability of linking them to the pupils' everyday life (1970:169).
Assuming that Hallam's conclusions are well founded, the message for teachers is important. They should design lessons for younger pupils that are based on concrete operational models, but at the same time provide sufficiently challenging material to prepare them for higher levels of thought.

In the lessons observed by the writer as part of the empirical study, only a few of the teachers, it has to said, satisfied the above criteria. The findings of the empirical study are presented in Chapter Five.

There are researchers like Egan (1982) who are opposed to the cognitive-developmental approach to historical understanding advocated by Hallam. Egan states:

Piaget's theory is very influential in the planning of curricula for young children today. People who find Piaget's theory persuasive ignore the fact that it focuses on only a narrow range of logico-mathematical concepts within the broad band of human cognitive development. This is not criticism of Piaget, but of those people who tend to see that narrow range as the whole, or even the most important part, of conceptual development (1982:439).

Egan makes a valid point when he says that if one were to conduct a simple inventory of the kinds of concepts children must have in order to understand the stories they most enjoy, one would discover that children have in fact acquired a set of concepts rather well adapted to the learning of history. Egan goes on to say that the content of children's everyday experience also yields the basic concepts needed to understand the world, concepts such as: love/hate, fear/security, good/bad, courage/cowardice, and so forth (1982:440). The task teachers have to set themselves, in Egan's view, is to encourage children to apply these basic concepts to new content, otherwise they "will surely fail to undergo refinement or elaboration" (1982:440). Egan provides the following example of the process of "conceptual elaboration":

The story of Robin Hood helping the poor against rapacious barons led by the Sheriff of Nottingham is comprehensible to young children because they know what those relationships mean most basically; they know courage and daring, they know oppression and resentment, they...
know greed and anger. At the same time, they elaborate their concept of oppression, for example, by using it to make sense of this content, which is quite different from their own experience. We might see it too as the encouragement of imagination: using concepts derived from immediate experience to make new worlds and relationships meaningful (1982:440).

In her book, *Children's Minds*, Donaldson points to the dependence of the mind on a context which makes personal sense to the subject. We cannot easily cope with tasks which require what she calls "disembedded thinking". She writes that while young children can be shown to display egocentric and non-logical thinking, so can adults, when they are placed in situations which "move beyond the bounds of human sense" (1978:76). She maintains that even very young children, in the right circumstances, can show perfect logic (1978:77). Donaldson makes the point that teachers tend to underestimate children's competence as thinkers and overestimate their understanding of language (1985:61). This is a point with significant implications which will be dealt with later.

Research conducted by Levstik and Pappas (1987) would appear to confirm Donaldson's findings. Details of their research are presented in Chapter Two. In brief, they conclude that eight-year olds know something about time in relation to history. They are also able to understand certain abstract concepts provided they are "embedded" in appropriate stories (1987:14). Such narratives, it would seem, provide a kind of scaffolding that renders historical understanding, at an elementary level, anyway, accessible even to young children (1987:1).

What may prove a stumbling block to historical understanding in young children is the fact that it depends to an exceptional degree on language skills, in particular on the precision and clarity with which language is used. Wilson argues that effective teaching is unlikely to take place unless the history teacher pays special attention to the following:

1) the linguistic demands of history as a subject discipline,
2) the teacher's use of language in communicating,
3) the demands placed on the pupils' use of language (1982:22).
Ambiguity and confusion may arise from unforeseen meanings being attributed to the simplest words and phrases: for example, there is the case of a pupil who thought that Wolsey shot the Pope because he was accused of "having aimed at the papacy" (Bernbaum 1972:40). So close attention should be paid to the language used in teaching and learning, given that it is through language that new understandings are arrived at and new patterns of thinking formed (Culpin 1984:24). It was Professor W.H. Burston who said that increased literacy is perhaps the most important by-product of history-learning (1963:49). This is of course true if pupils are encouraged to do their own research and reading and are not simply given teacher-duplicated notes to reproduce.

The writer taught history in senior primary schools for twelve years and is aware of the difficulty involved in finding linguistically appropriate historical materials for young children. It is most important that the language used be accessible to, and compatible with, the pupils' understanding and experience. The onus is on the teacher to choose suitable books and to take care when producing "home-made" teaching resources. If the language needs to be simplified, that does not mean that the intellectual tasks involved are necessarily made easier. Indeed, by simplifying the language opportunities may be created for enhancing the level of intellectual demand. Equal care and foresight should be brought to bear when planning and preparing lessons, for what may often appear perfectly simple and self-evident to the teacher may be altogether "foreign" to the pupils. Most teachers have at some stage encountered "history howlers": amusing as these are, they testify, as often as not, to a want of congruence between pupils' capacities and the linguistic, conceptual and explanatory levels at which teachers pitch their lessons.

Questions of linguistic competence aside, Laville and Rosenweig (1982) have argued that a learner's inability to get to grips with history may be due not to delayed conceptual development, but rather to the use of ill-judged methods in the teaching of history. In this context, the British psychologist E.A. Peel, calls attention to the difficulties faced by a learner when concepts with new, unfamiliar names are introduced into discussion without being properly explained in the
process (1967:166). The writer has already mentioned, in this connection, the value of using "advance" [concept] organizer models" in lesson planning and presentation.

Even if it is true, as Hallam's research suggests, that children arrive at the stage of abstract conceptualisation so indispensable to genuine historical understanding only in their mid-teens, this still does not constitute an argument for postponing the teaching of history until mid-adolescence. Teachers can, and should, introduce elementary historical ideas into the conceptual frame of reference that young children have already developed, while in the later years of schooling there will undoubtedly be scope for inculcating a more refined and sophisticated historical understanding in pupils. The main task of education is after all to establish solidly the groundwork for that understanding (Hallam 1969:12).

Some psychologists, among them Jerome Bruner, believe that the child acquires mastery of the more complex concepts and rules of a discipline only gradually, but that, in theory at least, no concept or rule is too difficult for a child to learn in some form at just about any age. Endorsing this view is Bruner's most frequently quoted observation: "Any subject can be taught effectively in some intellectually honest form to any child at any stage of development" (1977:3).

This approach stresses the importance of mastering concepts, procedures and skills. The main concern of the learner should be to master what Bruner calls "structures of the subjects" i.e. the characteristic concepts, skills and mode of enquiry of a given subject. In terms of this approach it is essential for the teacher to have a clear understanding of these fundamentals in order to teach effectively. For the history learner, the principal goal is to become acquainted with:

- the characteristic procedures of a professional historian and to master the central concepts of the historical discipline, like "evidence", "source" and the notion of the tentative, provisional nature of historical judgements (Gunning 1978:12).

The idea of learning a set of skills peculiar to historians appears to have had a considerable influence on the approach to teaching history in the United Kingdom
(Schools Council Projects History 13-16) and in Natal. More will be said on this in the next section.

In conclusion: young children appear to have an innate curiosity about the past which, initially, is haphazard and unschooled. (HMI 1985:2). Hence the lives and deeds of heroes, presented as stories, often have a strong hold on their imaginations (Egan 1982:439). What formal history teaching seeks to do is to enable them to identify and acquire certain skills and perspectives which, hopefully, will build on, nurture and develop their natural childhood interest (HMI 1985:2). That being so, the writer believes that history is an appropriate subject for study at senior primary level.

5. **Background and motivation for the research**

Nicol (1984) says that behind every history teacher's practice there should be a clear understanding of the nature of the discipline. An academic discipline, he continues, consists of three interrelated types of knowledge: propositional (know that), procedural (know how) and conceptual (organisational) (1984:14). In history, propositional knowledge is the body of information that historians produce on a topic. Procedural knowledge relates to how historians reach their conclusions - the process of inquiry. Conceptual knowledge involves the concepts which historians use to organise propositional and procedural knowledge.

According to Nicol "teachers should be as concerned with the process of inquiry as with the imparting of received knowledge" (1984:14). Consequently, in answer to the question whether teachers should stress the teaching of content or should rather aim to develop an understanding of skills and concepts, Nicol makes the valid point that this is probably a false dichotomy, since both elements are of equal importance for the development of historical understanding (1984:11).

Before the early 1970s the content-based approach to history teaching in Natal schools appeared to predominate. An examination of the questions set in Natal Senior Certificate History papers prior to about 1972 clearly shows that the
content-based orientation was the presiding one: few questions on the paper required candidates to give critical or interpretive answers.

By the mid 1970s changes were brought about in the Natal Senior Certificate History paper by examiners such as Mr M. Spencer (now a senior lecturer in the History Department at the University of Natal, Durban) and Mr J. Nisbett (who was then a senior history teacher at Hilton College). The rationale behind these changes was to make the teaching and learning of "school" history "more academic". Matric candidates would henceforth be required to have some insight into the procedural and conceptual aspects of historical study as well as have a thorough grasp of the content. It was hoped that changing the approach to the Matric History Paper would prompt teachers to re-examine their teaching strategies in order to successfully prepare their candidates for the examination. These changes at Matric level were meant to permeate to the senior primary school. However, no official policy statements on this "new" approach were made with respect to senior primary schooling; changes were instead introduced on an ad hoc basis by the Natal History Subject Committee under the chairmanship of the late Mr I. Adendorff, then History Inspector for Natal.

In 1978, Mr Nisbett introduced members of the Natal History Subject Committee to the work of the United Kingdom Schools Council 13-16 History Project (1972) whose materials were already being used at Kearsney College and Hilton. The Department was willing to consider an experiment in Government schools in Standard 7. The Schools Council History Project 13-16 was established in 1972 as a result of teachers' dissatisfaction with "traditional history learning" which tended to focus on content. Teachers in the United Kingdom also appeared to be concerned at the apparent erosion of the position of history within the secondary curriculum (Shemilt 1980:1). The general curriculum objectives of the Schools Council History Subject Committee were:

a) to examine the role of History in an era of curriculum change;
b) to revitalize History teaching in schools by giving institutional support to what seemed to be the best aspects of current practice;
c) to encourage pupil participation in learning;
d) to investigate ways of assessing understanding rather than rote-learning in public examinations.

(Shemilt 1980:1)
"Designed to lead pupils to a new style G.C.E. or C.S.E. examination" (Steele 1976:94), the 13-16 History Project viewed the discipline not simply as a body of knowledge to be learnt, but rather as "a method of analysing the past through the application of particular skills and concepts" (Steele 1976:94). Shemilt elaborates:

The Project rationale hinged upon the fusion of two ideas: first, that for school History to be relevant, it must answer the personal and social needs of adolescents, and second, that for historical knowledge to be grounded in reason, adolescents must understand something of the subject's perspectives, logic and methods (1980:2).

Most of the members of the Natal History Subject Committee were enthusiastic about the Project. Concern had already been expressed by members about the waning interest of high school pupils in history as reflected in a decline in the number of matric candidates taking this subject. The Project seemed to offer an opportunity to revitalise "school" history by offering an alternative to the content-based approach. Selected Natal schools were chosen to introduce it on a trial basis. The Minutes of the History Committee, dated 18 October 1978, read:

The Department [has] agreed to make funds available in 1979 or 1980 for a pilot project in 5 or 6 schools. It was suggested that it might be offered on an experimental basis to an Afrikaans medium school too.

In parallel with these developments, several workshops and in-service courses, intended to acquaint teachers, primarily high school teachers, with the new thinking and with the 13-16 Project, were organised by the Natal Teachers' History Society and the Natal Education Department.

The late 1970s saw the tentative introduction at senior primary level in Natal of the concepts-skills-based approach to history learning and teaching. The driving force behind this development was Mr J. Pretorius, then newly appointed as the Senior Primary Subject Advisor in the Natal Education Department. At a meeting of the History Subject Committee held on 8 March 1979, Mr Pretorius requested that the possibility of introducing the Schools Council History Project 13-16 at senior primary level be investigated. In the early Eighties, several in-service courses for senior primary teachers in Natal were organised at which the concept-
and-skills-based approach was highlighted. Several History Syllabus Committee members were involved in these presentations, including the writer who presented a paper on the biographical approach to history teaching. The appointment of an Advisor at Senior Primary level was an important development in Natal Education Department policy as there would now be someone in charge of planning, coordination, and the development of a specific senior primary philosophy. Mr Mathfield and Mr Vosloo were appointed in the Eighties to assist Mr Pretorius.

In the 1980s, Mr H. Macintosh, the Examiner for the Southern Regional Board in Great Britain, was invited to Natal by the Conference of Private Schools' Heads to promote the concepts-and-skills-based approach to history teaching. Other visiting lecturers from overseas who held workshops in Natal were Mr Martin Booth and Mr Antony Boddington. Both had been involved in Schools Council work. As mentioned earlier, the Project 13-16 approach was supported by the Natal Teachers' Association and although not official Natal Education Department policy with respect to senior primary schooling during the Seventies and early Eighties, it was nonetheless given a fair degree of support by the then History Inspector, Mr I. Adendorff.

Much of the emphasis in the Schools Council 13-16 History Project was placed on methods of historical inquiry and on recommended resource materials. Set exercises were planned which reinforced certain historical skills and concepts that the traditional teaching of history had not directly addressed (Shemilt 1980:2). In tackling these exercises, pupils were encouraged to think of themselves as historians and hence to ponder questions of procedure, sources and evidence. The source materials selected for study pertained exclusively to British History. And as good as these were, being uniquely British, they were obviously better suited to schools in Britain than in South African ones. But a problem at the time was that comparable materials had not yet been produced in this Country, as this extract from the Minutes of the History Subject Committee, dated 21 May 1981, makes clear:

No South African material was as yet available from publishers and lack of test and exercise material was a problem.
Even so, the winds of the new thinking were being felt in Natal; changes were clearly in the offing and the implications for history teaching were plain enough: teachers would have to plan lessons with specific concepts and skills in mind, and a purely content-based approach would no longer be acceptable. As for the senior primary teacher, her specific task would be to introduce elementary historical concepts and provide adequate opportunities for pupils to develop appropriate skills. The secondary school teacher could then, hopefully build on this foundation.

In effect, then, by the early Eighties, the thinking of educators in Natal was philosophically in tune with Egan's (1982) argument that the early learning of history was important for later understanding, that to defer the learning encounter with historical concepts and skills until the secondary years was educationally unsound. To quote further from Egan:

What is learned early is not simply a prerequisite for later understanding, it is a constituent of it. So however refined our understanding becomes, it is a refinement of those basic concepts that we learn in our earliest years (1982:441).

General acceptance of this line of thinking coupled with the difficulty of giving practical effect to it owing to the lack of locally based materials, led before long to a much needed project by Mrs I. Machin, then Head of Department at the Edgewood College of Education, and Mr J. Mathews, senior lecturer in History at Edgewood, who collaborated in the writing of text-books, based on a concept-and-skills approach for Natal senior primary schools. The first book was produced for the Second Phase Syllabus and introduced into Natal schools in the early Eighties.

By the mid Eighties the Natal Education Department had made explicit its views on the goals of Senior Primary schooling, as well as on the means (broadly conceived) required for their attainment. Bulletin 42 of 1986 provides teachers with fairly clear guidelines:

The aim should be for learning to culminate in abstract reasoning and concept-formation. This places the onus on the teacher to plan and present learning situations in such a way that they lead to abstract thought and concept formation (Van Biljon 1986:13).
In May 1985, an In-Service Course for Natal Senior Primary Principals was held. Titled *Education is more than facts*, its primary objective was to make them more aware of the concepts-and-skills-based approach. Teachers in their schools, it was argued, needed to be "weaned" from content-based teaching methods while pupils were to be encouraged to actively participate in lessons and were guided towards attaining the following skills:

- To find information from a variety of sources in a variety of ways, e.g. books, documents, personal accounts, pictures, graphs, maps, etc.
- To deduce and to evaluate information.
- To formulate and test hypotheses and generalisations.
- To recognise similarity and difference, cause and consequence and continuity and change.
- To communicate findings through an appropriate medium.

Reflecting the spirit of this orientation, the preamble to the Senior Primary History Syllabuses 2, 3 and 4 calls attention to the importance of teaching pupils to work independently and to acquire the skills associated with historical inquiry.

Clearly this Preamble, which gives expression, and is intended to give effect, to current policy-thinking in the Natal Education Department, reflects acceptance of the orientation and philosophy underlying Project 13-16 - reflects acceptance, in other words, of a shift away from rote and content-based teaching and learning towards skills and concept development.

The principal aim of the present inquiry is to determine whether, *in practice*, the challenge implicitly contained in the Preamble to the Senior Primary History Syllabus is being taken seriously by teachers (or by teachers-to-be) or is merely being paid "lip service". Since concept development is so important an aspect of the new orientation, it seemed to the writer that a useful way of addressing this whole issue would be to focus upon three fundamental historical concepts - time, cause and effect and empathy - and seek to determine to what extent, in the planning and presentation of their lessons, senior primary history teachers and Fourth Year student teachers (from a college of education) actually took account
of them. This objective led to the writer's conducting an empirical inquiry in selected schools in the Durban area between July and September 1991.

The three concepts mentioned above were selected for investigation as mastery of them is indispensable to any kind of historical understanding worthy of the name (HMI 1985). The writer is also of the opinion, having taught history at senior primary level for twelve years, that these concepts are possibly the most difficult ones to teach to young pupils.

The HMI Report has the following to say on the time-sense of young children:

> The question of children’s sense of time worries many teachers who see it as a stumbling block in the development of historical understanding ... When children move from infant to junior classes, they often have the beginnings of a chronological framework that enables them to put objects or pictures in correct sequences ... There is no reason why children, by the time they leave primary schools, should not have acquired a chronological structure.... (1985:4).

On cause and effect the Report states:

> Pupils are often presented with, or hold, simple causal explanations for events ... Genuinely historical explanations, however, are necessarily tentative ... Events may have a multiplicity of causes ... These are difficult connections to make, but there is evidence that they are within the capacity of many pupils of a wide range of ability.... (1985:3).

On empathy:

> Empathizing is not the same as identifying with, still less sympathising with, people in the past; it is simply a word used to describe the imagination working on evidence, attempting to enter into a past experience while at the same time remaining outside it ... Historical empathy should be part of the whole age and ability range.... (1985:3).

In May 1991, the writer interviewed the Deputy Superintendent of Education - Natal Education Department (Academic Senior Primary Education). Questioned on the current approach to history teaching, he affirmed that the subject was viewed as encompassing more than just the acquisition and reproduction of factual content and that the development of appropriate skills, concepts and attitudes is a key objective. He felt confident that most senior primary teachers were in tune with this approach and were implementing it in their classrooms.
How justified is this confidence? Are senior primary history teachers aware of the centrality of teaching concepts and skills? Is a "catch-as-catch-can" approach to teaching them a thing of the past? Or is it not? These are the kinds of questions this study attempts to answer. Moreover, to what degree are senior primary history teachers-in-training in Natal familiar with the current philosophy and outlook? In this regard, it should be noted that certain subject departments at a college of education in Natal actively encourage their students to adopt a concepts-skills-based approach to teaching involving a movement away from the exclusively verbal transmission of knowledge. At this particular college of education, the head of department for curriculum studies, has, for the past three years, mounted a Fourth Year Project that takes place about three weeks before practice teaching begins. Students in this project select an area of the syllabus judged to be appropriate for a process approach to teaching. They design a teaching programme and produce all the classroom materials that will be needed. Ordinarily each student works independently on her project, under the guidance of a tutor. The aim of the programme is to introduce students to alternative teaching methods and styles, notably to the process approach, some of whose principal features are the following:

- Learning is defined in terms of process rather than its end products.
- Emphasis is on the learning experience (educational encounter) rather than learning outcomes.
- Behavioural or other specific objectives are rejected.
- The learning of the child is stressed, rather than the teaching of the teacher.
- Pupil experiences and discovery learning are emphasized rather than instruction by the teacher.
- Practice is improved by critical reflection on what happens in the classroom, rather than by increasing clarity about ends (behavioural objectives).
- Utilitarian and instrumental views of knowledge are rejected.
- The child is the most important factor.

(Fourth Year Senior Primary Project 1991)

The writer interviewed the head of the department of History at this self-same college of education in June 1991. Questioned about the philosophy underpinning the training of senior primary teachers-to-be, he said, referring to the history
specialists (i.e. those students who study history as a major for four years) that they are "made well aware of the need to include in their lessons strategies for developing in their pupils basic historical concepts and skills" (1991). As for the non specialists, they do a one-semester history course in their first year and a module in curriculum studies in their third year. The one-semester course is mainly content-based and the objective is to give students who have not studied history at an advanced level some kind of general background. Because of time constraints, however, little attention is paid to history didactics (including the skills approach).

A fact that has to be borne in mind is that most of the history teaching at senior primary level in Natal is conducted by non specialists who, it would seem, obtain most of their experience in history didactics whilst "on the job". It is important to ask the question: "Is this an acceptable state of affairs?" The teaching of history is after all a skilled and complex task demanding considerable expertise. So how can important concepts and skills crucial to the formation of historical understanding be successfully taught by teachers who may themselves have limited knowledge or perhaps even none at all?

6. Research goals and methodology

Research has indicated that history teaching at senior primary level is effective if teachers succeed in imparting to their pupils an understanding of the concepts of historical time, cause and effect and empathy (HMI 1985). Details of this research are given in Chapters Two, Three and Four. The purpose of the present research study is to determine to what extent these concepts form part of senior primary history teaching and learning in selected schools in the Durban area.

The methodological approach adopted in the present study was the "illuminative" one as situated within the context of the ethnographic tradition. An elaboration of the philosophy underlying this research method is given in Chapter Five. On the practical side, seven schools in the Durban area were chosen in which history lessons were observed and evaluated during the period July to September 1991. Fifteen lessons in all were observed, of which ten were taught by Fourth Year
students from a college of education and five by certified senior primary teachers. The range of teaching experience in this group extended from one year to twenty. Details relating to the selection of schools and the spread and size of the pupil sample are given in Chapter Five.

7. Terminology
In the interests of perspicuity the following clarification of terms used in the course of this study is offered:

**History** is a systematic study of the past: a study based on evidence whereby a selection of facts and events is arranged, interpreted and explained. History is a mode of inquiry, a way of investigating the past, which both requires and fosters the acquisition of certain concepts and the use of specific skills (Carr 1961; Bloch 1967; Elton 1967).

**Senior Primary School**: An educational institution for pre-adolescent children extending from Standard Two to Standard Five. Senior Primary pupils range in age from about nine years to about twelve years.

Other terms relating to history teaching, including concepts such as historical time, cause and effect and empathy will be fully explained in Chapters Two, Three and Four.

8. Direction of this inquiry
Chapter Two, which comes next, focuses on selected research related to children's understanding of time. Some of the problems involved in teaching this concept will be outlined.

Chapter Three examines the nature of causal thought in children. Three models of causal thought are examined. Mention is made of the possible import of these theories for history teaching and for historical understanding. The complex question of historical judgement is considered. Shemilt's (1980) examination of
causal thought in children is discussed. Various teaching strategies to encourage causal thinking are critically surveyed.

Chapter Four deals with the concept of empathy and how this develops in children. Special attention is given to the importance of history teaching in promoting empathetic understanding.

Chapter Five gives an account, and examines the findings, of an empirical investigation into the teaching and learning of historical time, cause and effect and empathy in selected senior primary schools in the Durban area during the period July to September 1991.

Chapter Six offers a number of recommendations and some concluding comments suggested by the empirical study.

9. Summary
The purpose of this research dissertation is to investigate the extent to which certain historical concepts, specifically historical time, cause and effect and empathy, are taught and learnt in selected senior primary schools in the Durban area. Chapters Two, Three and Four, which have a theoretical bias, examine selected research on these concepts. In the foregoing chapter a brief survey was offered of the nature of children’s thinking and how this might relate to their understanding of history. The question of the appropriateness of history as a school subject for children of senior primary age was addressed. Trends in history teaching at senior primary level in Natal before and after the 1970s were identified and discussed. In this context, account was taken of the influence upon local thinking of the British Schools Council History Project 13-16 since accepted locally as a basis for policy with regard to the teaching of history at senior primary level; and stress laid on its principal recommendation; this recommendation was that rote and purely content-based teaching and learning should be replaced by an approach that gives priority to historical understanding and that recognises the importance of introducing pupils as early as possible, although as gradually as may be necessary, to specific historical skills and concepts.
Her Majesty's Inspectorate's Report was published by the Department of Education and Science in May 1985. This report was meant to stimulate discussion on history teaching in the primary and secondary schools. It was not meant to be prescriptive, although it offered teachers certain guidelines for improving their approach to history teaching. Further, it encouraged history teachers to define the nature and particular preoccupations of their discipline and to examine history's contribution to the school curriculum as a whole. The Report forms part of a series of documents published by the Department of Education and Science on curriculum matters, the aim of which is to stimulate debate on the curriculum.

This approach is aimed at making provision for the intellectual changes that are considered necessary for achieving mastery of the concepts involved in a given discipline.

Some senior primary school principals may make room for a limited amount of subject-teaching specialisation within their schools. For example, a student who has studied history at college for four years may be allowed to teach history to all the classes in the school. This teacher would then be regarded as "the history specialist". However, this practice is not very common and most senior primary teachers teach all the subjects in the curriculum, whether they have majors in them or not.
References


Unpublished
Fourth Year Senior Primary Project. 1991. (In order to retain the anonymity of the college involved, the writer has withheld the name from this dissertation.)


Natal Education Department Syllabuses for History Standards 2, 3 and 4.

Interviews
Deputy Superintendent of Education - Natal Education Department (Academic Senior Primary Education), May 1991.

CHAPTER TWO:
The development of temporal concepts and the teaching of history at senior primary school.

"It requires a special effort, special skill and training, or a peculiar frame of mind, to keep in touch with the past" (Meyerhoff 1968:108).

1. Introduction

There is a difference of opinion about when children should be introduced to history. There are those (Elton 1970) who contend that historical reasoning is beyond the ability of children, particularly at senior primary level. Others (Blyth 1989; West 1978) appear more optimistic and suggest that history can be successfully taught to young children provided the material is simplified.

The question of the suitability of history as a subject for senior primary children has been discussed in Chapter One. According to Sudworth, (1982:14) the most critical debate in the late Sixties in Britain to affect development in history teaching, was the issue of chronology. Two questions appeared vital. Was it important to develop history syllabuses in chronological order? If historical time was crucial, then how should it be taught? Writers like Unstead (1959) felt it would be foolish not to present the syllabus in sequence, whilst later writers in the early Seventies such as Watts (1972:89), felt that there were cogent arguments against step-by-step chronology and that children are capable of grasping the notion of change over time, if interesting topics, for example dress, weapons and mode of transport are structured and these topics clearly illustrate change over time.

West (1982:49) endorsed this approach and commented that evidence from the past is generally encountered in a haphazard manner and not in strict chronological order. The teacher's task he feels is to assist pupils in sorting this material into a meaningful chronological sequence, thereby giving them a broad framework into which they can place new material.
From 1960 children's conception of time has been periodically the subject of attention. The Plowden Report (1967)\(^1\) which gave a detailed account of primary education in Britain, had this to say:

> There is it seems, a need for further inquiry into the impact of history on children, in terms of the interests, attitudes, knowledge, and concepts which it develops. In particular more studies are needed of children's understanding of time (par.620).

Her Majesty's Inspectorate Report (1985): History in the Primary and Secondary Years mentions the difficulty of teaching historical time to young children but, like the Plowden Report (1967), offers scant advice on how to help pupils achieve this comprehension.

It is apparent to the writer that the debate about chronology cannot be divorced from the following questions: what are children's conception of time? can children, aged eight to twelve years, understand the sequence of historical time and, what part does temporal understanding play in children's historical reasoning?

These issues will be examined later, as well as the possible implications of research on temporal development and historical reasoning for classroom practice.

2. **Three approaches related to the origins and development of temporal concepts in children**

History is concerned with change and continuity in human affairs over time and, so, historical reasoning requires a temporal framework. Concepts of time are unique to the discipline and the most difficult ones to teach and to understand. For this reason consideration must be given to the origin and development of such concepts.

Research has been done on this topic in both America and Europe. Thornton and Vukelich (1988:70) state that a search of the literature reveals more than 250 articles have been published since the 1920s.
Jahoda (1962), a Scottish social psychologist, provides a cosmopolitan view of the study of development of time concepts in children, identifying three major approaches taken by researchers who have investigated these phenomena. The first approach constitutes what Jahoda calls: the "emergent experience of temporality, of things in flux and change with a gradual reaching out into future and past" (1962:90). The advocates of this mode, says Jahoda, reflect the intellectual tradition of continental Europe and employ methods which are generally philosophic, impressionistic, qualitative and observational. Freud and Malrieu are offered as examples.

Anglo-American psychologists, on the other hand, emerging from an investigative tradition that stresses precise and rigorous empirical standards, have been concerned with the acquisition of "time vocabularies" and with the growth in understanding of the mechanisms of "clock" and "calendar" time. According to Jahoda, the followers of this tradition, tend to rely on more formal and quantitative methods, employing systematic questions and tests of various kinds. Ames and Springer represent this school as does Jahoda himself.

Piaget and his followers employ yet a third approach. They tend to see the emergence of a consciousness of time corresponding to stages of cognitive development. Jahoda states that, in spite of such diversity, there is some consensus concerning the general sequence of the unfolding of temporal and historical consciousness.

Before attempting to synthesize the results that have come out of these approaches, several observations concerning the relativity of temporal and historic concepts may be in order. Jahoda warns that:

conceptions of time and history, far from being natural and self-evident, are largely conditioned by the prevailing social and intellectual climate (1962:95).

He provides illustrations of societies which do not rely on astronomical time for maintaining temporal relationships. Sorokin and Merton who are quoted in Jahoda (1962:91) comment that "social phenomena are frequently adopted as a
frame of reference so that units of time are often fixed by the rhythm of collective life". An example is given of the inhabitants of Madagascar who used to speak of doing something "in the frying of a locust" (i.e. a moment) or "in a rice-cooking" (approximately half an hour). Our conceptual image of time and history, as consisting of even and continuous flows from a remote past to an indefinite future, Jahoda shows to be just one perspective among many. Jahoda says that what Western children are expected to learn in regard to time and history, is the product of a long period of cultural development adapted to the needs of a scientific and technological civilization. He recommends that an awareness of these facts may help prevent history teachers from underestimating the difficulties faced by children when dealing with and acquiring these concepts (1962:95).

3. Definitions of time
Before discussing selected research on children’s temporal understanding, it may be useful to examine the three types of time identified by Friedman (1982:172). "Clock time" involves using numeral notations to estimate or accurately judge units of time on a clock, watch or digital device. "Calendar" time requires the use of "time language" involving days, weeks, months, seasons, holidays and years, as well as numerical digits to judge units of time on standard calendars. "Historical time" requires one to depict a person, place or event in the past using some form of time language. Placement may vary from the simple, "back then", to the more complex, "early Eighteenth Century". Vukelich (1984:44) suggests that these two areas could be seen as interrelated, as an understanding of clock and calendar time serve as a prerequisite for an understanding of historical time.

4. Some experiments involving the time concept
Comprehensive summaries of a few temporal experiments conducted on young children are outlined and discussed. They have been selected because they are generally considered to be "classics" in this field. The researchers are mainly from the Anglo-American and Piagetian tradition. This selection is based on the availability of well documented experiments.
Before reviewing some of the relevant research, it is important to note that there are researchers who feel that it would be inappropriate to generalise from these findings, as the children chosen for investigation were drawn from a very limited segment of mankind: Britain, France, Switzerland and the United States. Within these countries, moreover, only small numbers of children have been observed, most of whom seem to have attended special clinics or schools and have possibly come from somewhat privileged classes. The importance of environmental and cultural influences needs careful consideration by researchers in this field. This point has already been clearly made by Jahoda (1962:91). Despite this criticism about the limited nature of the research undertaken, the observations and comments of these people are of great value to those who seek insight into temporal development and so this research should be examined.

The most stimulating series of studies have been those of Piaget and his collaborators whose subjects have been French-speaking Swiss. They made careful observations of ingenious, original situations and from these observations speculated on the stages through which children go in the development of a temporal sense.

These Swiss children showed that their time sense developed slowly. Their initial behaviour was egocentric and they paid relatively little attention to the reality of the external world, except when momentary events had an effect upon their pressing needs. At a few months, a lost object was looked for briefly, and only later was a prolonged search instituted. It may be inferred that the orientation must have been in the present. The first temporal judgement involved the fact of succession, but this the children could accomplish only when they themselves were part of the series of events, e.g. they did not begin sucking until they moved their hands towards their mouths.

Towards the end of the first year the children continued to relate what they perceived themselves but without personal participation e.g. they looked for an object they had seen another person hide. Months later they had a generalised
conception of time, so that they could indicate where various people had gone, even when they were out of sight. This knowledge developed in interaction with other concepts, especially those of movement, velocity and size.

In one experiment two dolls raced on a table in front of the child. They started and stopped at the same time. One doll moved faster than the other. It was not until seven - nine years of age that children admitted that the dolls started and stopped together, and that the period of movement was the same for each doll. At this stage there was co-ordination in the child's mind between points and period on the time continuum.

Another illustration: when water was drained simultaneously from one vessel into two vessels of identical size and shape the younger children (aged four - five years) could note that the operation for both began and ended at the same time; under the same conditions but, with vessels of different size and shape receiving the liquid, their temporal judgements were uncertain and they could not always say whether the operation had begun and ended at the same time in both vessels.

In another experiment, the larger of two objects tended to be judged the older; thus the taller of two trees was thought to be more ancient, even when the drawings were clearly of different species and hence may have had different rates of growth.

Piaget found children unable to use watches or sand glasses effectively until around nine years of age. Children often believed that the speed or motion of the clock had changed as the motion being timed changed, that is, goes faster or slower. "If I do something fast, the clock goes fast. If I slow down, the clock slows down" (Piaget 1969:176).

These and other experiments led Piaget to suggest that the child's ideas of time are all mixed up with his ideas of space and spatial changes. It is not until time has been intellectualised (i.e. until instants and points in the time continuum are co-
ordinated in the mind), that it becomes an invariant quantity independent of quickness of movement, distance moved through and position. Piaget contended that the time concept depended upon the child being able to build up coherent systems of logical thought; these systems are also required for the conservation of quantities. Piaget suggested that the concept of time emerges at the same time as other concepts of the physical world.

*Lovell and Slater* (1960) Britain duplicated some of the tests devised by Piaget, to assess the child’s understanding of various aspects of the concept of time. Seven tests were administered individually to fifty primary school and fifty educationally subnormal school children. Many of Piaget’s findings were substantiated, but children’s notions of time are not available to them in all situations at once and to the same degree. Lovell and Slater concluded that it seemed likely that the educationally subnormal pupil of sixteen to seventeen years of age had an overall understanding of time about equal to that of the average nine year old.

One of the earliest studies conducted on temporal development was by *Oakden and Sturt* (1922) Britain. They make the point in their introduction that temporal knowledge is a gradual process of learning and is not an innate faculty. The learning proceeds partly by contact with adults and partly through definite teaching in such subjects as history.

Perhaps the most interesting results are those bearing on the universal nature of time. In one part of their study they asked these two questions.

1. What day of the week is it?
2. What day is it at X (a nearby town) now?

The percentage of children giving the correct answer is shown below.

<table>
<thead>
<tr>
<th>Age in years</th>
<th>4</th>
<th>6</th>
<th>8</th>
<th>10</th>
</tr>
</thead>
<tbody>
<tr>
<td>Question 1</td>
<td>27</td>
<td>87</td>
<td>97</td>
<td>100</td>
</tr>
<tr>
<td>Question 2</td>
<td>14</td>
<td>60</td>
<td>64</td>
<td>86</td>
</tr>
</tbody>
</table>
Most children over six years of age realised that it was the same day of the week all over the same town, but 14 percent of this sample could not relate this concept to all English towns.

General conclusions from their experiments were as follows: (It is important to note that the sample tested was too small to make dogmatic conclusions.)

1. Growth of a conventional time concept was a slow process, beginning at approximately four years and arriving nearly at adult level at about thirteen or fourteen years. They felt that the age of eleven was the most important period as a rapid improvement in all types of "time knowledge" was experienced.

2. Children appeared to learn first the meaning of the "time words" in ordinary use.

3. The day of the month always presented difficulties. It was suggested that the reason for this was the highly artificial method of numbering and the lack of distinguishing activities for the different days.

4. Passing beyond the ordinary "time words" to an understanding of chronology and the arrangement of historical epochs was a matter of some difficulty.

5. In dealing with historical epochs those which are most remote from our own time are most readily distinguished. Research undertaken by Musgrave (1963) as quoted in Hallam (1970) confirms these results.

6. They make the interesting observation that up to eleven years in the elementary schools, conventional names of "time periods", especially dates, have little meaning for children unless they are definitely explained and correlated with the child's own activities. This is of significance to teachers teaching history at this level. Work done in Britain by West (1976) reinforces this information. There seems to be general support among psychologists who have worked in this area, that the age of eleven does mark the turning point in the child's understanding of time.

Bradley (1947) Britain, duplicated some of the tests given by Oakden and Sturt. The investigation was limited to school children of five years and upwards and the
experiment was aimed at tracing the growth of ability to understand the ordinary
"time words" used in everyday life and the development of the conception of a
universal continuous time scheme extending into the past and the future.

Bradley's study suggested that the knowledge of time was acquired in the following
general sequence:
1. time related to personal experience; e.g. time in relation to the child's own
   age, morning and afternoon (six years old).
2. conventional time words used in the calendar and the organisation of the week
   (understood by eight year olds). [There is a tendency for growth to occur
   outwards, viz. week, month, year.]
3. time involving extension in space and duration; e.g. time elsewhere, time
   since holidays, how long since the child started school.

He concluded his research by saying that the capacity to understand the
conventional time scheme and to use particular "time words" correctly, was later in
developing than is usually believed. He felt history teachers could benefit from
this knowledge.

He did not confirm Oakden and Sturt's conclusion that there was a sudden access
of "time knowledge" between the ages of ten and eleven years; he saw the process
to be gradual, even and continuous.

Ames (1946) USA, tried to establish the growth sequence of the development of
the sense of time by analysing the spontaneous verbalisations and answers to a
series of questions such as, "What day is it today?", "What time is it now?" Using
small children from two to eight years old, she found that the understanding of
"time words" and their use, came in a fairly uniform sequence. The sequence was
roughly the same for all the children, although the age at which a particular child
could understand or use a specific term varied. Some children had an excellent
temporal orientation and expressed free and elaborate use of "time words" from a
very early age. The underlying pattern process for the use of "time words" was
words indicating that the present came first, then words indicating the future and finally those indicating the past.

Complete mastery of any one time-concept did not appear all at once. There were several different levels of attainment. Children could tell at what time a thing happened before they were able to give an actual clocktime. Individual "time words" were used spontaneously in specific contexts before they were used in a generalised manner. Ames found that words which implied duration did not appear until thirty-six months. As to general divisions of time, the child first differentiated morning or afternoon (four years), then what day it was (five years), then the time (seven years). Somewhat later came the knowledge of the month (seven years), the season (seven years), the year (eight years), and what day of the month (eight years). Days of the week were named correctly by children aged five years; months of the year not until they were eight years old. Most children could tell their age by three years; when their next birthday occurred by four years; the age next birthday by five years.

This systematic, detailed study has been of assistance to child psychologists and teachers and it has made a valuable contribution to the growing knowledge of temporal sense development in young children.

Springer's research has supplemented the findings of Ames (1951 and 1952) U.S.A. This study has been of help because it has suggested the stages into which the instruction may be divided when helping children to tell the time by the clock. Springer studied eighty-nine children aged four to six who were attending a kindergarten, and who had received no school instruction in the tasks which she set them, although they had had incidental experiences and informal instruction in the home.

They were asked, in individual interviews, to tell the time of certain activities in their daily lives. This sample of children revealed a "consistent increase" in the ability to know when various school activities began, to tell time (first by whole
hours, then by halves, then by quarters); to set a clock, to explain why clocks have
two hands, and to draw a clock. That a child can tell the time on the clock does
not necessarily imply that he has a concept of time. However, learning to tell the
time may help him develop some understanding of time.

Springer's groups were drawn from above average socio-economic groups; it has
been suggested that children from poorer backgrounds may be slower in acquiring
these skills.

Rogers (1967) Britain. He maintained that previous research had not made a clear
distinction between historical time and the time concept. He devised tests for
measuring "the integral concept of time". To answer the test of eighteen
miscellaneous questions would require a clear concept of objective time (e.g. "Why
do we have leap years?", "What is speed?"). The test, however, did not have a very
high reliability factor. He found a marked improvement in the overall concept of
time between the ages of thirteen years and six months and fourteen years and six
months, but a much slower improvement in the understanding of historical time.
Boys did better than girls on the integral-concept test because, Rogers surmised,
his test involved abstract thinking for which boys, as shown by achievement in
mathematics, reveal greater ability.

Previous researchers have found no significant difference between the
performances of boys and girls in temporal tests with the exception of Friedman
(1945) who found that boys did better than girls on his historical time line sub test.

5. The developmental sequence of temporal concepts in children
What are children's conceptions of time? As mentioned earlier there is some
consensus concerning the general sequence of the unfolding of temporal and
historical consciousness. Thornton and Vukelich (1988:70-73) suggest that the
acquisition of a time concept is associated with an age span. In the case of
exceptional children i.e. the gifted or the mentally handicapped, the age span of
acquisition may vary considerably. However, it may be assumed that the order in
which the skills are acquired remains the same. What has emerged from research
An examination of selected research on temporal development follows. The writer feels that this information is invaluable to primary teachers, as it may assist them in the planning and preparation of appropriate historical material. The collation of research by Vukelich (1984:45) is particularly useful in this regard. The writer will elaborate on Vukelich's framework which is on page 53. It is not the writer's intention to give details of each experiment here. The objective is simply to identify and highlight selected research which Vukelich relates to specific "age spans".

Friedman's (1978) research shows that between the ages of four and seven, three kinds of time emerge. Firstly, an awareness of "personal" time begins. Time concepts understood by children appear largely specific to themselves and to persons and events in their immediate surroundings. In the beginning, the past and present are differentiated with words like "before", "after", "now" and "then". Harner (1982:145-147) observes that the child's understanding of these words is dependent on the linguistic forms used to express the temporal reference. For example, in order for an English-speaking child to have a clear understanding of "pastness" he needs to understand the varied linguistic structures for the past tense. Harner adds that the child also requires an understanding of the meaning of the adverbs "yesterday", "before", "already", "last week". Research conducted by Harner (1982:163) would suggest that children, by age ten to eleven years, have mastered the varied linguistic structures related to time.

Thornton and Vukelich (1988:71) state that a second "time distinction" is generally made by four to six year-olds and involves recognition of daily occurrences. For example, when asked about daily routine, children can usually include an orderly chronology of what was done, starting with early morning and ending with bedtime activities, thereby indicating the ability to recognise "time distinction".
Bradley (1947:77) identifies a third "time distinction", which involves a rudimentary discrimination of "clock" and "calendar" skills. It usually begins at six or seven years of age. Bradley suggests that "clock" time skills appear to develop from larger to smaller units, that is from hour to minute to second. Whilst "calendar" time seems to work in reverse: first days are identified, then weeks and finally, months. Some concepts are clearly dependent on the growth of number meanings and relationships in the child's thinking. Harrison (1934:511-512) argues that the full meaning of "month" is not understood by the child until there is a correct concept of thirty and thirty-one and their relationship to seven days, that is a week.

Oakden and Sturt (1922:334) suggest that, between the ages of eight and eleven, children's temporal understanding develops markedly. By the ages of eight and nine, children accurately use the terms "past", "present" and "future" and are able to correctly associate people and events with these terms. According to Harner (1982:166) understanding of the "future", probably the most abstract of the three concepts, is the last to develop. Oakden and Sturt's (1922:334) research indicates that at ages eight and nine, children are beginning to master historical dates. They are also able to estimate how long ago events took place, to place events in sequence and to associate dates with particular people and events. Oakden and Sturt say that these kinds of historical skills are usually mastered by age eleven. Finally, from nine to eleven, children begin to label periods of time e.g. the "Colonial Era". Prior to eleven years, conventional names of time-periods, especially dates, have little meaning for children unless they are carefully explained and correlated with the child's own activities (1922:335). Work done in Britain by Blyth (1978) reinforces these findings. A brief elaboration of the work is given later. This would seem to be of significance to teachers teaching history at this level.

Similar findings are obtained by Friedman (1944). Other researchers, such as Flickinger and Rehage (1949), suggest that full understanding of chronology is not reached until sixteen years.
Oakden and Sturt (1922) and Friedman (1978) state that from twelve to sixteen, the young adolescent's temporal understanding begins to approximate adult understanding. Clock and calendar time skills appear to have been mastered. It is during this age span that dates can be matched to persons and events, with a fair degree of accuracy and time periods are recognised accurately. It is believed that time language, encountered in childhood, should be internalised by early adolescence.

Thornton and Vukelich (1988:72) make the interesting observation that new "time words" learnt in early adolescence, are mainly derived from learning the subject of history. This suggests, they say, that the development of concepts such as "generation", "epoch", "century" are dependent on direct instruction. According to Thornton and Vukelich, this includes the vocabulary of centuries: e.g. "Sixteenth" and "Seventeenth". Specialised time language, according to them may not be mastered unless it is specifically taught.

The age spans which have been identified, six to eight, nine to eleven and twelve to fourteen years, have distinctive characteristics in terms of what children can understand in relation to time concepts. The implications of this research for classroom practice will be considered shortly.

6. **Do children have adequate understanding of historical time to benefit from history instruction?**

By its very nature, history is linked to time and chronology. Zaccaria (1978:328) questions whether historical thinking can progress without understanding the time frame within which history operates.

A brief review of selected research in this field will be given. Research on the child's understanding of time has concentrated more on time in general rather than on "historical" time. A review of the literature reveals that few researchers have examined the time/history interdependency. The reasons for this are not made explicit.
The British researcher, Hallam, was one of the first researchers to systematically test the feasibility of applying Piaget's (1958) criteria for logical thinking to the process of historical thought. Hallam (1970) saw the growth of temporal and historical understanding as being closely related to cognitive development. He hypothesised that before the formal operations level, children were incapable of certain kinds of historical reasoning. He found that logical structures similar to those described by Piaget could be detected in historical thinking. Before examining these, the writer feels it is important to provide an outline of Piaget's theory on cognitive development, as frequent reference is made to this work.

The different stages, or cognitive structures postulated by Piaget (1958) are: sensorimotor, pre-operational, concrete and formal operational. The age designations are approximate. A stage does not end suddenly, it trails off. A child may still think pre-operationally in some areas while performing more logically in others. An outline of three stages mentioned in this chapter is provided. (The writer omitted describing the first stage as the focus in this research is on school-going children.)

a) The pre-operational thought stage, dominant at about eight years of age. At this stage the capacity to perform certain logical mental operations - systematic thinking - has not yet emerged. It is a pre-logical stage. The child is unable to make connections between events in a consistent and coherent manner. Thought is egocentric - problems cannot be viewed from any perspective other than the child's own. Perspective, too, is limited, in that he is unable to focus on a problem in its entirety, but usually only in its individual parts. A child of this age is unable to co-ordinate units and link them logically one to another. Solutions to problems, accordingly, are largely intuitive, non-logical and incomplete:

b) This is followed by the concrete-operational thought stage, operative from eight to twelve years. Capacity for systematic or logical thinking emerges at
this stage. The child can work on data - organize, relate and use material selectively to arrive at conclusions and solve problems. Thought, however, is still tied to the concrete, limited to the immediate evidence available and it is centred in the world of sense experience. Reasoning thus is restricted to what is at hand. As long as the situation is not abstract or too complex, the child can perform logical mental operations. He can see how the individual parts relate to the whole, and he can even reverse his thinking and go back to recheck his conclusions.

c) The next stage shows formal-operational thought, and begins from about twelve years. At this stage the child can go beyond thinking in terms of the immediate and concrete. Abstract reasoning such as occurs in mathematics can now take place. The child is able to operate in terms of possibilities, deal with theoretical situations and see relatively complex relationships between different factors as part of an intelligible total view. He can reason with propositions and hypotheses which have no concrete representation and can deduce conclusions. The child can also reflect on and deal critically with his own thinking.

Hallam uses the following Piagetian criteria to classify the level of pupils' answers:

a) Pre-operational thought
At this level the child does not relate the question to the information provided. There are isolated centring on only one feature of the data given. Transductive reasoning is present: i.e. moving from one element to another without considering all the factors involved.

b) Concrete-operational thought
The child is able to give a coherent answer to a question but is limited to what is immediately apparent in the text. He has the ability, however, to forecast a result from the evidence available.

c) Formal-operational thought
At this level the child realizes that there are multiple links in the text. He can envisage many possible explanations and, through logical analysis, determine which answers appear well-founded. He can postulate hypotheses and test their validity. His thinking is flexible enough to allow for oscillations and reversals of direction between reality (the "stated facts") and multiple, unstated possibilities of interpreting them.

(1970:164-165)
Hallam's subjects responded to questions based on narrative historical passages in ways that seemed to him comparable to Piaget's stages of pre-operational, concrete-operational and formal-operational.

He based his findings about temporal development and historical understanding on a series of questions which he asked of pupils of various ages (nine to fourteen). Question Two in the test serves as an example. The passage tested was on Ancient Sparta and Athens.

"Can you tell me some people who lived in Ancient Greece?"
"Why aren't the boys in your class trained like Spartan boys?" (1979:18-19)

From their replies he deduced that children at the preoperational stage exhibited "a lack of reversibility of thought (his emphasis) so that events are judged from the standpoint of the present day" (1979:19). A typical answer by children at the pre-operational stage to the second question is used to illustrate:

"Why aren't boys in your class trained like the Spartan boys?"
"Too young."
"The Spartan boys were young as well."
"We don't battle anybody in fights."
"Would the boys today be trained like the Spartans if we did fight?"
"Now-a-days you have different things to learn, shooting and all sorts of different things." (1979:19)

From this interchange, Hallam postulated that young children were "unable to regard the data from a viewpoint contemporaneous with events" (1979:19). Although Hallam did not present comparable data from children in the concrete operational stage, he maintained however, that older children were able to make judgements that were independent of the present.

Based on his findings, Hallam suggested that temporal understanding is an integral part of the development of logical reasoning. According to Hallam what children can learn about time and history is subject to cognitive developmental constraints.

The American researcher Sleeper, like Hallam, argues that full understanding of historical time is dependent upon children reaching the stage of formal operational
thinking. He adopts Piaget's cognitive-developmental model as a basis for his research. Sleeper believes the acquisition of historical concepts is developmental, i.e. at each level of cognitive development, there will be distinct changes to the meanings pupils attach to various historical concepts. Sleeper quotes from Hallam's research.

Pupils in Hallam's study (1967) were asked to define terms like "wages", "committee", "laws", "king" and "taxes". These concepts embody the idea of social relations. Pupils' responses were graded into four categories:

1) definitions which pointed to nonessentials;
2) definitions focusing on concrete characteristics;
3) recognition of formal characteristics;
4) understanding of reciprocal relationships

(Sleeper 1975:101).

Hallam said there appeared to be a clear relationship between the age of the pupil and the level of definition. It was only at adolescence that pupils' responses showed an "understanding of reciprocal relationships".

A satisfactory basis for history education, in Sleeper's view, is dependent on teachers identifying the "salient conceptual elements" when planning, preparing and teaching history (1975:96). Teachers should also be aware of pupils' limitations and capabilities at each level and plan work accordingly.

Sleeper places temporal understanding at the heart of historical understanding: "The most basic element in an individual's interaction with history is his understanding of time" (1975:96). According to Sleeper, the emergence of historical consciousness in children parallels their temporal development. Sleeper believes that children's experiences with time and history play a major rôle in their development. However, it is in adolescence that history assumes its greatest developmental importance. Sleeper sums this up as follows:

At a young age, children consider history to be a collection of stories, tales, and unrelated events. As they grow older, history is defined in concrete and one-dimensional terms, and thought to be objective. It is not until adolescence that they understand interpretation and hypothesis in history (1975:97).
Sleeper has drawn upon Erikson's (1968) observations on psychosocial development in adolescence, as well as upon Piaget's cognitive theory. According to cognitive-developmental theory, major intellectual changes occur during this period which results in a reorganisation of the individual's conception of reality. Unlike the young child, the adolescent is able to perform abstract intellectual operations such as constructing hypothesis, drawing logical connections, and deducing conclusions which are not directly based on the immediate situation. Sleeper says that adolescence is the time when one begins to ponder serious questions about the meaning of one's existence. "The ability to speculate beyond the limits of immediate reality is directed inward, toward self-definition" (Sleeper 1975:99).

Erikson also conceptualises development as a series of stages. Each of these stages is seen as an encounter between the individual and the significant elements in his external world. These stages are seen as critical points in the life cycle. According to Erikson:

The encounter is considered to be a crisis because its resolution is necessary to establish a central component of the healthy personality - from a sense of trust in infancy, to a sense of identity in adolescence, and finally to a sense of integrity in old age

(quoted in Sleeper 1975:103).

The critical task of the adolescent years, in Erikson's view, is that of "identity formation". Identity includes both a sense of continuity and direction within one's own life and an inner assurance of recognition and significance within one's community. Through the process of identity formation the adolescence acquires what Erikson calls a new historical perspective. In order to analyse the circumstances of his present, an adolescent turns to his past. His exploration is guided by his newly developed capacity for hypothetical thought, and he is concerned not only with what was, but with what might have been and what might still be (1975:103). Sleeper contends that the search for identity can only occur when a youngster can think hypothetically or, in other words be at the formal operations stage.
There are researchers (Spieseke 1963; West 1982) who are reluctant to accept the cognitive developmental approach or psychosocial/development explanation of temporal and historical understanding expressed by Hallam and Sleeper. Among these are Laville and Rosenzweig (1982), who are not alone when they comment that Hallam's perspective represents only one of a number of possible conceptions of history, and its adequacy is debatable.

Spieseke’s thinking owes much to the problem-centred approach advocated by the American philosopher and educationalist Dewey. Dewey saw learning as an experimental process in which the child learns about objects accidentally, whilst using them to solve problems. The ideal learning environment according to Dewey was created when pupils worked purposefully and collectively on issues arising out of their immediate environment. Ideally, these problems which required attention should be "pupil generated" and not imposed on them from outside. The methodology proposed by Dewey therefore emphasised pupil interests, activity, groupwork and co-operation. The objective was to ensure that learning became a "social experience" and in this way, Dewey believed that pupils would be preparing themselves to take their place in a democratic community.

Spieseke argues that time is mastered in the contexts of "social problems that have meaning and purpose for [children]" (1963:174). Spieseke believes that if children are given appropriate tasks about the past that interest them, important time and history learning is possible, even in the lower elementary grades (i.e. at junior primary school). Spieseke's observations have important implications for the planning, preparing and instruction of history in senior primary school.

Research conducted by Levstik and Pappas (1987) give support to Spieseke's work. Their pilot study was formulated to clarify the use of narrative as a means of exploring the development of elementary children's (second, fourth and sixth graders') historical understanding. Each child read a piece of historical fiction, *Thunder at Gettysburg*, by Patricia Lee Gauch (1975). On completion of the story,
pupils were asked to retell it, and then answer a series of questions about their ideas of history and the past. Their research indicates that eight year olds know something about time in relation to history. They are also able to understand certain abstract concepts provided they are "embedded" in appropriate stories (1987:14). Bruner (1986) observes that narrative, like history, deals with intention and action, with the consequences of both, and with the particular, not any person, but this person at this time and place, and given this set of circumstances. The narrative provides, it seems, a temporal scaffolding for historical understanding that is apparently accessible even to quite young children (Downey and Levstik 1988:338).

Research undertaken in Britain by Blyth (1978) and West (1978) reveals that there is more reason for optimism than either Hallam or Sleeper indicate concerning children's early understanding of time. Blyth's and West's research suggests that, if chronological and linguistic skills are encouraged, developed and practised frequently for prolonged periods of time, children from the age of six years are capable of understanding appropriate time and historical concepts. To enhance understanding at the concrete level of thinking, Blyth stresses the importance of relating, where possible, the content of history to the child's own experience (1978:16).

According to West (1982), when teachers complain that young children "have no sense of time", it should be translated as having "no sense of number associated with time" (1982:41). West conducted an investigation into how young children make sense of time in history. The research was carried out on small groups of children aged six to ten plus in six Midlands schools from 1974 to 1977. In one of the sequencing tests, pupils were required to place certain illustrations in correct chronological sequence. According to West, six-year-olds could accurately place in sequence ten prehistoric tools but resorted to guesswork when asked to estimate their ages or "how long ago". He felt that the same faulty mathematics would apply until the age of thirteen, even though subtraction and addition should have been mastered by this age in mathematics lessons. His conclusion was that it takes some years for children to understand the association of numbers with time.
Efforts have also been made to see if it is possible to improve children's concepts relating to historical time. Jahoda (1962:97) quoted the work of Pistor. His research centred on studying the effects of systematic approach to history teaching. (Jahoda does not provide explicit details of Pistor's research methodology.) There were two groups, one control and experimental. The latter group received systematic training in both history and geography in the fourth and fifth grades (corresponding age levels about nine and ten). In the sixth grade (age-equivalent about eleven) they received intensive instruction concerned with historical events. At each stage, both groups were assessed. The children in the control group had lessons mainly in geography, with little emphasis on history. When Pistor tested both the control and experimental group in the seventh grade (age-equivalent about twelve), both groups showed gains in their scores as compared with the sixth grade, but there were no significant group differences. This would suggest the increase in historical understanding is more a function of mental maturation, coupled with the widening of general experience, than of purely formal teaching (1962:97).

Jahoda stated that these results should be treated with some reservation. What was needed was comparable research in this area.

Hallam (1970:167) mentioned Vikainen's research which was conducted in Finland. Like Pistor, Vikainen tried to improve children's concepts related to time. Vikainen taught a class of eleven year olds so as to give a chronologically clear presentation of historical events. Children in this group were encouraged to measure historical time. There were two control groups. After a year the experimental group was superior in their performance on problems involving time memory as well as mathematical time conception. The average performance of the experimental group on the historical material was slightly superior. This research indicates that it may be possible to improve children's understanding of historical concepts if appropriate teaching strategies are used. Unfortunately, Hallam does not give details of possible methods to use.
7. **Implications of specific research for teaching**

It would appear that there is a close connection between an understanding of time and understanding and learning of history. This is generally not in dispute according to the researchers referred to above. Hallam and Sleeper suggest that the understanding of time and history develops as a function of overall cognitive development, which implies that temporal and historical concepts develop together and affect each other either enhancing or delimiting the understanding. Spieseke (1963), similarly, argues that time skills are an integral and inseparable part of the content of history.

Hallam and Sleeper suggest that, prior to adolescence, children are incapable of understanding certain kinds of history and historical time. Both agree that some level of understanding is possible for children but this is linked to the child's level of cognitive development (Hallam 1970:170; Sleeper 1975:97). Their discussion of how children's understanding of time is interrelated with historical reasoning is brief. No details or guidelines are given by them to the reader on the important issues of what children are capable of learning at particular stages of development or how to promote understanding.

Spieseke (1963) does provide suggestions about how historical concepts should be taught. Spieseke suggests that they are best acquired within the context of relevant "social problems". However, beyond these suggestions, the literature in general is largely silent about how children's understanding of time and history interact and how this interaction might influence instruction (Jahoda 1962:103).

Thornton and Vukelich (1988) suggest a possible teaching strategy based on the research which is summarized in the table on page 53.
<table>
<thead>
<tr>
<th>Time Skills or Concepts</th>
<th>Age</th>
<th>Clock and Calendar</th>
<th>Historical</th>
<th>Researcher</th>
</tr>
</thead>
<tbody>
<tr>
<td>4-5 Describes the sequence of a day's activities. Uses terms before and after, now and then. Uses past and future verb tense.</td>
<td></td>
<td></td>
<td></td>
<td>Friedman, W. Harner Harrison, Harner</td>
</tr>
<tr>
<td>6 Labels blocks of time as lunchtime, playtime, naptime. Reads clock hour time correctly. Recognizes time and distance as two different dimensions.</td>
<td></td>
<td></td>
<td></td>
<td>Harrison Elkind Elkind</td>
</tr>
<tr>
<td>7 Recognizes hours as being the same length of time. Recites days of week, months, and seasons in order. Places family members (self, parents, grandparents) in correct age sequence.</td>
<td></td>
<td></td>
<td></td>
<td>Elkind Friedan, W. Jahoda</td>
</tr>
<tr>
<td>8 Names recent holidays. Uses terms like night, tomorrow, morning to describe a point in time. Names months, weeks, days. Uses year dates but cannot accurately match year to person or event. Given the dates 1750, 1850, and 1950, or 1970, 1980, and 1960, correctly orders them. Begins to match dates to significant persons or events.</td>
<td></td>
<td></td>
<td></td>
<td>Oakden &amp; Sturt Friedan, K. Oakden &amp; Sturt</td>
</tr>
<tr>
<td>9 Orders the holidays in a calendar year. Uses general terms such as a long time ago, way back when, once upon a time. Uses a specific number of years, for example, about 100 years ago, as a time referent. Matches significant people with events.</td>
<td></td>
<td></td>
<td></td>
<td>Friedan, W. Bradley Oakden &amp; Sturt</td>
</tr>
<tr>
<td>10 Realizes that seconds, minutes, hours are the same length everywhere. Labels periods of time, for example, Colonial times, the Civil War years.</td>
<td></td>
<td></td>
<td></td>
<td>Oakden &amp; Sturt</td>
</tr>
<tr>
<td>11 Demonstrates mastery of clock and calendar time. Matches dates with appropriate historical event, person, or period.</td>
<td></td>
<td></td>
<td></td>
<td>Bullock &amp; Gelman Friedan, W. Oakden &amp; Sturt</td>
</tr>
<tr>
<td>12 13</td>
<td></td>
<td></td>
<td></td>
<td>Friedan, W. Harner</td>
</tr>
<tr>
<td>14 Uses adult time vocabulary and concepts, for example, century, generation, Pilgrim forefathers.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>15 Distinguishes between parts of centuries.</td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>16 Uses the sixteenth century and the 1500s interchangeably.</td>
<td></td>
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</tr>
</tbody>
</table>
Their approach is a developmental historical time viewpoint, which clearly acknowledges the importance of historical time as a major component of historical reasoning (1988:78). There are four points connected with this perspective. Firstly, they see the learning of specific time concepts as developmental. Certain time concepts are within the grasp of children as young as six years and these should be taught systematically and sequentially in the same manner that one would teach mathematics or reading skills. Secondly, they suggest that time language should be a major consideration when introducing historical topics. "Time language used properly may simplify, or bring persons and events of the past into historical focus" (1988:79). The summarised research clearly shows that there is a time language that accompanies the development of the child. (Most of the lessons observed by the writer in the empirical study would have been more meaningful to the pupils had the teachers introduced and explained the appropriate time concepts as the writer will indicate in more detail in Chapter 5.) Thirdly, Thornton and Vukelich propose that historical time concepts should be taught in conjunction with history. They question whether the two concepts can be separated and give Franklin D. Roosevelt's war message to Congress as an example:

The President referred to December 7, 1941 as a "date which will live in infamy". The date (a time concept) and its significance (its historical meaning) cannot be really separated (1988:79).

Thornton and Vukelich (1988) question the efficacy of "time lines" in assisting pupils in sequencing skills and placing people and events in chronological order. They assert that no confident claims can be made about the use of time lines in teaching history. According to them, there appears to be no empirically based data which confirms the effectiveness of time lines in promoting historical time concepts (1988:79).

Fourthly, Thornton and Vukelich dispute the findings of Hallam (1979) and Sleeper (1975), which highlight pupils' inability to properly understand time and historical concepts until the age of fourteen years or older. They feel that the Piagetian framework, that is used for their analysis of children's historical understanding is inappropriate. They quote Donaldson's (1978) work and that of
Levstik and Pappas (1987), which suggests that younger children can deal with more complex modes of thought than Piaget believed. What appears to be crucial is how the learning task is organised (Donaldson 1978:16-19). Donaldson observes that many of the tasks set for young children in experimental work do not make sense to the young child as the situations are far removed from their experience. She cites Piaget's mountain experiment as an example. Details of this experiment are in Chapter Four, as well as Donaldson's comments.

Thornton and Vukelich's (1988) research appears to offer some practical guidelines (points one to four) to teachers faced with the difficult task of teaching historical time to young children.

8. **Specific techniques for teaching time**

West (1982), makes the valid point that we are mistaken if we believe we can teach a feeling for chronology simply by teaching chronologically. Maintaining that a feeling for chronology is best developed by way of the pupil's own activities, he argues for firing short volleys of assorted historical data at them, the re-arrangement of which they are then required to practise. For example, West feels that the most useful device for this purpose is a "ten picture sequence-card" consisting of five to a dozen assorted pictorial stereotypes, each taken from a different historical age. He offers the following advice:

- The collection of chosen stereotypes should always include at least one very remote item and one very modern article and one illustration from Christ's life, The Nativity, The Crucifixion or The Last Supper to establish the "BC/AD" demarcation (1978:49).

As an adjunct, the teacher can use time cards or time lines displayed in a prominent place. West offers some sound practical advice on time lines, suggesting that it is best to use a uniform length of wall for all purposes, calibrating and re-calibrating it as required. Thus, at one time, a ten metre wall might illustrate the ten year life-span of a child, while at another it might represent a whole century, at yet another, thousands or even millions of years. With each alteration of scale, the preceding lines should be superimposed upon the new one so as to provide visual, concrete exemplification of the comparative character of
duration. Classroom techniques of this kind, argues West, are invaluable for boosting young children's capacity to make headway with such very complex mental tasks as conceptualising duration, thinking of chronology comparatively and visualising time continuums. West stresses that pupils should be encouraged to thin out, pack more densely, take down and remake the classroom time line (i.e. one which is collated and worked on by the class as a whole), and that discussion of the construction and reconstruction of the line should become a regular part of the history lesson (1982:49-50).

If a wall cannot be used, the teacher can string a washing line across the classroom. Information can be drawn, written or pasted onto sheets of paper and pegged out in sequence. Collicott (1990) makes the very important observation that time lines do not have to be linear. Teachers can explore circles, cycles, spirals and zigzags in the representation of the passing of time. What should be stressed in her view, is that "a time line is a cultural convention and can have a variety of forms" (1990:30).

Diem (1982) argues that teachers can help children develop both a feeling for chronology and specific chronological skills by making use of methodological constructs that get them going on highly personalised, very concrete, very rudimentary data grids and then nudge them towards experimenting with increasingly diversified and outward-looking historical structures. Figure 1 below shows a personal time chart constructed by Diem. This very basic chart can be compiled by young children under the teacher's guidance.

These charts were constructed by Richard Diem.

**Figure 1 - Personalized time chart example**

Time period under study: week of March 15-21, 1981.

<table>
<thead>
<tr>
<th>Day</th>
<th>Personal Events</th>
<th>School Events</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sunday</td>
<td>Went to basketball game</td>
<td>No school</td>
</tr>
<tr>
<td>Monday</td>
<td>Practised basketball.</td>
<td>Career Day Assembly</td>
</tr>
<tr>
<td></td>
<td>Applied for job after school.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Test in English.</td>
<td>English test</td>
</tr>
<tr>
<td>Tuesday</td>
<td>Fight with parents because of poor grades</td>
<td>Went to counsellor's office</td>
</tr>
</tbody>
</table>
As pupil's progress they can then attempt to construct more complex charts as indicated in Figure 2.

**Figure 2 - Life-Span Example**

<table>
<thead>
<tr>
<th>Year</th>
<th>Event in my life</th>
<th>Event in my country</th>
<th>Event in World</th>
</tr>
</thead>
<tbody>
<tr>
<td>1967</td>
<td>I was born</td>
<td>U.S. involved in Vietnam</td>
<td>Arab-Israeli War</td>
</tr>
<tr>
<td>1968</td>
<td>Moved to St Louis from Detroit</td>
<td>Nixon elected President</td>
<td>Olympics held in Mexico City</td>
</tr>
<tr>
<td>1974</td>
<td>Entered second grade</td>
<td>President Nixon resigns</td>
<td></td>
</tr>
<tr>
<td>1980</td>
<td>Entered high school</td>
<td>Ronald Reagan elected President</td>
<td>U.S.S.R. invades Afghanistan</td>
</tr>
<tr>
<td>1984</td>
<td>I will graduate from high school</td>
<td>Olympics held in Los Angeles Presidential election</td>
<td>War in Mid-East cause oil shortage, Japan invents car that will get 80 miles per gallon</td>
</tr>
</tbody>
</table>

(Diem 1982:193)

Though the items used by Diem for purposes of exemplification are drawn from American history, it is obvious that the methodological apparatus itself is easily adaptable to the South African - or any other context (1982:191-194). For example the dates in column three "event in my country" would be related to events that happened in South Africa:

1967 South Africa and Malawi established diplomatic relations.
1968 Swaziland becomes independent.
1974 Foreign investment begins to dry up. South Africa's economic growth begins to decline.
1980 The Government appoints the Human Sciences Research Council to conduct an investigation in South Africa and to make recommendations for an education policy.
1984 The election of Coloured and Indian representatives to Parliament.
Historical concepts are not "developed" magically (Egan 1982:441). Explicit schemes of work should be drawn up outlining the central concepts to be taught in each theme or section of work. Appendix 8 and 9 show two lesson blueprints whose objective is to facilitate concept development and to promote skills such as listening, reading, comprehension, and writing. These comprehensive outlines were developed by Fourth Year history specialists at a college of education as a special exercise carried out under the guidance of the writer. An haphazard approach to teaching time concepts as observed by the writer during her study of classroom activity, does not result in effective learning.

It is also important to find out what the learner already knows and to teach him accordingly (Ausubel 1985:82). In order to teach effectively, the teacher would need to know what relevant concepts a child has before a topic is undertaken. A schema, detailing by age the progress of children's acquisition of time-related concepts, can be a useful guide to the teacher in planning her lesson schemes. The lesson plans can be developed in such a way that previously learnt concepts are reinforced, built upon and extended. Simple paper and pencil tests can be given to pupils to assess their understanding of specific time concepts, before commencing whole themes and sections. With younger pupils, oral assessment may be easier, particularly if pupils experience difficulty in expressing themselves in writing. Unless we talk to children we are unlikely to find out [what they know] (Wood 1987:207). There are obvious difficulties involved in questioning young children. Secondly, the teacher needs a grasp of the "right" questions to ask; this implies that she already has an insight into how children think.

9. Concluding comments

The early learning of basic historical concepts is important for later understanding. This is especially true of historical time. Egan makes the point that what is learned early is not simply a prerequisite for later understanding, it is a constituent of it (1982:441). The writer believes that the child who has been introduced to time concepts at an early age is possibly in a better position to "develop" more
sophisticated concepts than the one who has been denied the experience. The onus is on the teacher then, to actively promote the learning of such concepts.

The following chapter examines the important question of children's understanding of causality. Three theories which "explain" causal development are examined. The implications of these findings for history teaching are considered. Because of the lack of empirical research on young children and their understanding of historical causality, the writer has drawn on Shemilt's work (1980) with young adolescents.

10. Summary

The focus in this chapter has been on the development of temporal concepts in children. History is concerned with change and continuity in human affairs over time, and, so, historical reasoning requires a temporal framework. This concept is unique to the discipline. The writer is of the opinion that it is one of the most difficult concepts to teach and to understand.

Conceptions of time and history would appear to be "conditioned by the prevailing social and intellectual climate" (Jahoda 1962:95). Jahoda provides examples of societies which have different "time inferences" from Western culture.

Selected research on young children's temporal development was outlined and discussed. In spite of the cultural specificity and diversity of the research, there appears to be general consensus concerning the sequence of temporal and historical consciousness (Thornton and Vukelich 1988). Understanding of historical time may be a product of mental maturation, but, once a particular stage has been reached, it may be possible to accelerate the development of that understanding (Steele 1976).

Some of the studies on temporal development provide guidelines for those working with young children. The most optimistic researchers have indicated that it is possible to teach history to junior and senior primary pupils.
Certain practical suggestions, based on research, have been included to assist teachers in the planning and preparing of lessons. It is important for teachers to involve children in making the connections between their developing time concepts and historical understanding.

Notes
1. The Plowden Report (1967) was an intensive report on education in the primary school in Britain. The Minister of Education ordered the committee members under the chairmanship of Lady Plowden "to consider primary education in all its aspects and the transition to secondary education" (1967:1). The underlying principle behind this Report was to see what progress had been made in primary education since the Hadow Report (1931), which had advocated a child-centred approach to primary education.

2. A time line is generally a chronological line, drawn and divided into sections indicating periods in time. Time lines at infant school may be very basic and indicate important events in the child's life, e.g.:

<table>
<thead>
<tr>
<th></th>
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<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>I was born.</td>
<td>I was one.</td>
<td>2 years old. We moved to Durban.</td>
<td>3 years old. We bought Filou the poodle.</td>
<td>4 years old. I went to pre-school.</td>
<td>5 years old. John went to the army.</td>
<td>6 yrs old. We have a new house.</td>
</tr>
</tbody>
</table>

As the child progresses through school, time lines may become more complicated and indicate concepts like B.C. and A.D., e.g.:
References


1970. ‘Piaget and thinking in history’. In M. Ballard (ed.) *New movements in the study and teaching of history.* Bloomington, In.: Indiana University Press.


CHAPTER THREE:
The development of causal thinking and the teaching
of history at senior primary school.

"If history is to contribute in any way to an understanding of our own
problems and times, it must be approached primarily as a study of
possibilities. What we seek is not knowledge of the past as such, but
rather the vicarious experience of other 'presents' which will open our
eyes to the potentialities of life" (Westfall 1977:183).

1. Introduction

The Roman poet, Virgil, said, "Happy is he who has been able to perceive the
causes of things..." (Kelley 1973:127) and it is this particular "happiness" that shall
be examined in this Chapter.

A tendency to relate events causally during the process of cognitive development
underlies much of learning, especially as it concerns the physical world (Piaget
1930). We learn how the phenomena around us behave, and we use this
knowledge to predict, influence, and eventually explain the behaviour of these
phenomena.

How does the child conceive of physical causation? Or, more accurately, how does
the child explain those phenomena which adults call "physical", e.g. explaining
things like the seasons, weather, etc. The first thing that needs to be said is that
the child's "explanations" of physical causation are affected by both individual and
objective variables such as the maturity of the child or the complexity of the task or
both together (Bullock et al 1982). This is the conclusion to which one is led after
a review of the research literature, just as one is led to the conclusion that owing to
the inherent lack of agreement of the research findings, no generalisations can be
made about which variable is pre-eminently operative at which stage of the child's
conceptual development (Dahlberg 1987).

One thing, however, is beyond doubt - that causal thought is essential to children's
abilities to interact with the animate and inanimate environments (Dahlberg
In other words, causal thought is necessary to their understanding in the social and natural sciences. Hence, an understanding of children's abilities to engage in causal thought is of major importance to teachers and researchers concerned with education.

2. Some theoretical accounts of causal understanding

Two philosophical approaches that have influenced research on causality are those of David Hume (1748) and Emmanuel Kant (1787). Hume postulated that causal thinking in adults is the result of abstractions generalised from repeated experience with the world. Kant believed that perceptions of causality are shaped by an already existing organisational grid that the mind imposes on new experiences. Kant's approach has generated two models of causal development. In one, the kind of organisation that the mind imposes on experience is seen to change with cognitive development. Thus, it is assumed that children's thinking is characterised by a different set of features from that of adults - different but not defective; that is adequate and appropriate to each stage of development in question. In the second model, the organisation underlying causal thinking in children is perceived as defective and incomplete, because of a dearth of experience to "work on" (a dearth that is inseparable from the condition of childhood itself).

The problem of the development of causal thinking in children has engaged the attention of child psychologists since, at least, the 1920s. Researchers have conducted empirical studies on causal development: one of the earliest published experiments being that of Carla Raspe in 1924 (Huang 1943).

By far the most extensive and important series of laboratory studies were those conducted by Jean Piaget and his collaborators (1930, 1971). Since then hundreds of papers have appeared, testifying to a growing interest in this field. The last decade has seen a major shift of focus from a concentration on the character of causal explanation (e.g. animistic, magical, phenomenistic) to a concern with the reasoning process underlying causal inferences at different ages (Sedlak and Kurtz 1987).
According to these researchers, causal thought is a way of reasoning rather than a body of knowledge. It is different from the thought process involved in listing, describing, or comparing things, actions or feelings (Dahlberg 1987:70). Several theories can be invoked to explain how it evolves; an examination will be made of Piaget's developmental theory of causal understanding as well as the views of two other researchers who offer alternative theories. From the mass of literature in this field, the writer has chosen to consider three theories and their possible relevance to history teaching at senior primary level.

Piaget's developmental theory

Jean Piaget's theoretical and empirical work has evolved over many years, from the earliest writings in which children's spontaneous use of language was observed (1920s) through to the more recent series of studies on causal understanding (1970s). The early investigations of spontaneous language in children aged three to nine years led to a classification of causal relations and to the hypothesis of a sequence in the mastery of causal understanding (Piaget 1971).

The sequence begins with the typical three year old's frequent statements and questions about the motivations of actions - the constant, "why?". It continues with the emergence in children aged five to six years of statements and questions about the physical causation of events involving animate and inanimate objects. According to Piaget, interest in physical causation increases significantly in children aged seven to eight years, when the sequence develops further with the appearance of statements and questions concerning logical causation. The way the child's thinking develops can be illustrated by selecting certain answers given when Piaget asked children, "What makes a shadow?":

**Stage 1**

Piaget         You know what a shadow is?
Stei (aged 5)   Yes, it's the trees that make them, under the tree.
Piaget         Why is there a shadow under the tree?
Stei           Because there are a lot of leaves, the leaves make it.
Piaget         How do they do it?
Stei           Because they are pink.
It makes a shadow.
Why?
Because inside (the leaves) it is night inside.
Why?
Because it’s day on the top. The leaves are big and it is night inside them.

(1930:184)

Stage 2
Where does this shadow come from?
From us.
How is it made?
It is made when he walks.
When it is night, does he make one too?
He makes one, then (but) you don’t see it because it is night.
How do we make one?
You make it when you walk, because every step you make, it follows behind us.
Why does it follow us?
Because it is a person who makes it on the ground.

(1930:186-7)

At the Third Stage Piaget found that Bob (aged eight years eleven months) could sometimes explain the cause of shadows correctly but at other times thought that an object would throw a shadow during the night and on both sides:
It always makes them but on the other side it makes them too.
Why does it make a shadow in the night?
Because it has to.
Would you see it?
Oh no, because it is quite dark you couldn’t see it.

(1930:188-9)

At the Fourth Stage Piaget shows how Veil (aged nine and a half) is still prone to giving equivocal responses but further questioning reveals that the concept has developed:
There is a house. The shadow is here. Where is the sun?
Here (correct prediction).
Piaget
Veil
Why?
The sun comes from here. The house hides. It is dark behind: the sun can't go any further.
Veil
Because the house is large it hides the sun. (When shown an object which has been put in the shade Veil says:)
Veil
It doesn't make a shadow because it is already in the shadow.
Veil
It makes no shadow, or it does make it and we don't see it?
Veil
It doesn't make any.

(1930:190)

Piaget's later work on causal development (1971) argues for a systematic link between developing cognition and causal understanding. He uses the clinical method in eighty studies of causal understanding to bring into focus this systematic relationship. He endeavours to throw light on children's developing understanding of physical causation by posing the same problems to children between four and fifteen years of age. The problems related to objects whose functioning involved laws of physical causation. The children were asked to explain the reasons for the behaviour of the object: e.g. how does a bicycle work?

Piaget's interest was in the kinds of reasons children in different age groups give to explain the observed behaviour of objects, the hypothesis being that the degree of sophistication of the causal explanation would reflect the stage of cognitive development. In terms of the problems posed the children, who showed even a partial understanding of physical causation, would have to have been "conservers" and so must have achieved at least the "concrete operations" stage of mental development.

As a result of the series of later studies, Piaget concludes that the progress of causal understanding is dependent on the progress of cognitive development, that children make causal attributions that are consistent with the level of the mental operations they have attained (Piaget 1971). He distinguishes seventeen different types of causal relations in children's thought which, since they are so crucial to understanding the child's world and his cognitive development, are worth considering in detail.
The first is the "motivational cause". Causality is seen as the result of a divine plan: God causes clouds to move, boats to float, etc. The second is similar to the first but lacks the reference to motive and consciousness, for example, the river is said to flow in order to go into the lake but this idea is taken no further, hence this stage is called "finalism". At Level Three "phenomenalistic causality" appears. Here anything is taken as a cause for anything else provided there is some connection for the child: the moon stays in the sky because it is yellow, or a pebble sinks because it is white. The Fourth form of causation is "participation" and appears before the age of five to six. Here the child thinks that if two things are similar, one can cause the other: for example, shadows in a room are caused by the shadows outside. At the Fifth, a confusion between self and the world leads the child to believe in "magical causality" whereby his wishes and gestures can affect the world. "The sun moves because the child moves down the street" (Ginsberg and Opper 1969:114). The Sixth, "moral causality", may sound like the primitive "motivational cause" but here the motive appears to be a moral one: boats "have to" float or they would be no use and drown their occupants. According to Piaget this marks the end of Stage One, Stage Two begins with type Seven, "artificialist causality" which appears at the same time as "moral" but differs from it since human creativity is given as the explanation for the natural event. A child’s comment to the question "How was the earth formed?" ... "People made it" (Ginsberg and Opper 1969:114). Type Eight, "animistic causality" is the complement of "artificialistic". In this objects are thought to have internal "motors", which enable them to carry out the commands they are given. For this reason the sun is, what it is, since it went on growing after it had been created by men. Once animism is rejected, objects are still thought of as having internal forces that explain their behaviour hence the name "dynamic causality" (Level Nine).

The Third Stage begins with what is regarded as the first truly physical explanation. At Level Ten "reaction of the surrounding medium", the child is now genuinely seeking to answer the question "How?". Clouds still set themselves moving.
However, once started, they are propelled by air. "Mechanical causality" (Level Eleven) appears between the ages of seven and eight years, after the elimination of dynamism. Children will say that the pedals are responsible for the movement of a bicycle. At Level Twelve, "causality by generation", children's responses to questions concerning how things began are different from earlier levels. For example, when asked about the creation of the sun and the clouds, they will say that the sun came out of a fiery cloud and clouds come out of smoke.

Between eight and ten years, the idea that all things have grown is replaced by the notion that they may possibly be the result of a union of discrete elements. At this Level (Thirteen) the sun is described as being formed by a group of clouds. Children develop "schemes of condensation" at Level Fourteen. Their explanations appear to be related to the density of things. For example, stones are hard because the earth is closely packed together, water is light because it is liquid. At Level Fifteen, "atomistic composition", children may say that stones are made of little stones or grains of sand. "Spatial explanation" (Level Sixteen) may appear after the age of nine or ten. Piaget feels that this is a rare form of causal explanation in children.

Piaget's research, outlined in the preceding pages, implies that children are unable to deal with abstract causal relationships until the formal operational level is reached. Hallam, using the Piagetian cognitive model for his research, places formal operational thinking in history at about sixteen years, compared to twelve years in Piaget's research. According to Hallam's study students, dealing with historical data, develop the ability to think at formal abstract levels up to four years later on average than do students with mathematical and scientific data (Hallam 1970:166). The reason for this discrepancy, according to Hallam, is that history is a particularly abstract discipline.

Commenting on these findings, Laville and Rosenzweig (1982:59) make the valid comment that the content of history, on an everyday level, is no more abstract than much of the content in science education. The concepts of "force" and "mass" are
given as examples. Later, when discussing the teaching of history and causal understanding, more attention will be given to their argument.

What will be considered are two alternative models of causal thinking in children. The writer finds these theories of interest because they generally appear to be more optimistic than Piaget's about the age at which children are able to make reasonably accurate causal connections. Clearly some children do have difficulty with temporal and causal concepts. However, it has been suggested that young children can see patterns and sequences in real events, although some of the patterns may be general and imprecise (Downey and Levstik 1988:338).

The American researcher, Harold Kelley, (1973) proposes an interesting model of causal understanding. His theory is not a developmental theory but one about the causal inferences all humans "typically" make about events when causal information is incomplete. Kelley assumes that there exists a good deal of prior development in the complex of causal thought, because the theory predicts typical inference patterns that include consideration of multiple causes for a single effect. Kelley suggests that these inference patterns are so well learned that they have become causal schemata by means of which humans organise perception and analysis of converging environmental factors in an effort to determine the most probable cause. Researchers, who adopt this theory in studying children's causal understanding, attempt to evaluate the cognitive organisation of developing causal schemata in settings that are familiar and important to young children, e.g. play and friendship situations. The researchers assume that children in familiar situations, involving causal understanding, will have developed some standard means of making sense of them.

For example, in Kun's study (1978), children were given sequences such as:
A. Scott pulled the dog's tail.
B. The dog bit Scott.
C. Scott cried.
and asked to judge whether A or C caused B. According to Kun children's replies appeared to be based largely on their "common sense" experience about dogs and when they bite people.
Of what possible significance is this theory to teachers faced with the task of teaching causality to young children? A good deal of historical material presented to children is not related to pupils' everyday experience and in fact may be very far removed. So how can children form "mental frameworks" which will assist them in making sense of causal relations? A pilot study conducted by Levstik and Pappas (1987) would suggest that the narrative may be effectively used as a "framework" for developing young pupils' insight into temporal as well as causal relationships. They conclude their study by saying:

... it seems that the context in which history is presented, examined and discussed may be the crucial factor that will decide whether elementary children come to understand and engage in history (Levstik and Pappas 1987:14).

This issue will be elaborated on later.

A third theoretical model of causal understanding is that developed by Kintsch and Van Dijk (1978), which they have termed information processing. This theory is representative of general information processing theory, in that it hypothesises qualitative change in information as it passes from the initial perceptual stages through the memory and output stages. This theory also allows for a disruption in effective processing at any stage. It is a general theory in that it is applicable to all information processing such as perception and recall, to all text-processing subskills like recognition of letters and syntactical processing, and to comprehension, as well as production of oral and written texts.

Basic to the theory is the concept of the human being as a limited - capacity processor who has much more information available to him in the environment that he can possibly process successfully. The "filtration" and "selection" of material that takes place is dependent to a large extent on one's personal background, preferences and prejudices.

Researchers on reading have adopted at least an implicit information processing approach in studying children's causal understanding. Developmental researchers
have not applied information processing theory to their study of causal understanding, but many of their conclusions, concerning purportedly cognitive constraints upon causal understanding, can be explained in terms of the problems associated with information processing. For example, a young child may possess a cognitive grasp sufficient to comprehend the concept of conservation of properties like liquids, but be unable to hold in his memory, and to compare, numerous items of information at any one time.

Leading on from an information processing approach to understanding causal thinking in children, research on information processing and historical reasoning has been conducted. Kennedy (1983) suggests that historical thinking may not be solely developmental after all, but rather a function of "working memory".

The suggestion is that there is a capacity limit on the amount of information that an individual can attend to at any one time ("working memory") and this limit is possibly a direct function of age. Research conducted by Collins and Biggs (1979) attempts to show the relationship between "working memory" and developmental levels outlined by Piaget. However, there is no attempt on their part to demonstrate such a relationship empirically (Kennedy 1983:6).

Suggested relationship between developmental level and size of working memory.


<table>
<thead>
<tr>
<th>Developmental Level</th>
<th>Size of Working Memory</th>
</tr>
</thead>
<tbody>
<tr>
<td>Formal Operational</td>
<td>Maximal: Contains question + relevant data + inter-relationships + hypotheses.</td>
</tr>
<tr>
<td>Concrete Operational</td>
<td>Medium: Contains question + isolated relevant data and is often centered on one piece of datum only.</td>
</tr>
<tr>
<td>Preoperational</td>
<td>Minimal: Contains question, and response is confused.</td>
</tr>
</tbody>
</table>
This theory may have significant implications for teaching causal as well as other historical concepts. Kennedy (1983) outlines some issues requiring consideration in planning and preparing history lessons from an information processing perspective. They are:

a) the amount of data to be confronted by the pupils at any one time.
b) the manner in which the material is presented.
c) the processing strategies available to and used by pupils (1983:18-19).

Information processing, as a variable influencing pupils' understanding in history, has not been conclusively substantiated by researchers. Empirical research in this area is as yet limited. However, this theory does offer an interesting alternative to developmental theories.

The three theories outlined in the preceding pages presented "basic" explanations on causal understanding in children from different perspectives. One model focused on the possible link between cognitive development and causal understanding, the other stressed the importance of understanding "overall inference, patterns" in making causal connections, whilst the third saw causal understanding directly connected to how information is processed in the brain. Despite these differences in approach, there are at least four ways in which these theoretical accounts are related (Dahlberg 1987). Firstly, these theories are all capable of explaining children's ability to engage in causal thought. Secondly, they all assume that children engage in certain basic psychological processes that are fundamental to causal thought. Thirdly, the theories all specify that children must have permanently stored schemata that enable them to engage in causal thought. Fourthly, they all either allow for, or uphold the position, that children as causal thinkers engage in interim strategies on their way to full causal understanding.

In order to arrive at reliable conclusions about the development of causal understanding in children, researchers need to design comprehensive programmes extending over a fair period of time as has been done in the case of investigations into children's consciousness of temporality. Meticulous research design is needed
in order to determine the upper and lower age limits of children's causal understanding, while improved research design and methodology may throw light on the interim strategies children use to gain at least partial understanding of cause-effect relationships. Until these issues are satisfactorily dealt with, the diverse findings and conclusions currently cluttering the research scene only permit one to speculate on the stages and levels of causal thinking in children.

3.1 Children's understanding of historical causality

On the question of the young child's ability to understand abstract concepts like time, space and causality in history, Crabtree (1989) says that within the first five years children have developed ordered sets of causal, spatial and temporal relationships that render their world not a "buzzing, booming confusion", but a causally ordered, comprehensible and meaningful environment (1989:180). Crabtree believes that the learning of history like mathematics, science or any other field is a developmental process. "Children will not approach all at once the intellectual complexity demanded by historical analysis" (1989:182). This is a gradual process and takes many years to acquire.

The following questions require consideration: are senior primary pupils able to understand fundamental issues involved in making causal judgements in history? what teaching strategies can be used to facilitate causal understanding in history? It is important to note that most of the research, conducted on causal understanding in young children, has been based on assessments of their performance of tasks, which are mainly related to their understanding of physical phenomena. To date, the writer knows of no empirical research that specifically examines young children's understanding of historical causality.

Before discussing these issues, it is essential to examine the nature of causal judgements in history.

3.2 The question of historical causality - a brief consideration

A group of American historians, some time ago agreed that:
"cause" was "an ambiguous term of varied and complex meaning" - "a convenient figure of speech, describing motives, influences, forces, and other antecedent interrelations not fully understood" (Dray 1964:42).

Stampp says that, as one ponders the question of causation in history, it becomes apparent that historians will never know objectively, and with mathematical precision, [the exact cause/s] (quoted in Dray 1964:41).

The whole area of the nature of historical explanation and the concept of cause in history is problematic and the subject of a considerable body of discussion and debate. Some issues will be considered.

Philosophers of various schools have cast doubt on the propriety of the very notion of an "historical cause", or have urged that the term "cause" can be properly used in historical contexts only when understood in a restricted way. Professor Oakeshott argues for the expulsion of the term "cause" from the whole field of historical thought. To search for historical causes, in Oakeshott's view, is either to seek to explain what happens in the historical world by reference to something entirely outside it (e.g. abstractions like geographical or economic conditions) or it is to break up the world, which the historian knows to be an integrated whole, into unreal fragments, events arbitrarily detached from their background and falsely thought of as independent components (Walsh 1967:192). Both these procedures, according to Oakeshott are foreign to historical thought proper, the first view is borrowed from the natural sciences, whilst the second is taken from practical life.

According to Collingwood, the origins of the concept of historical causation comes from the word "causa" which originally meant "guilt", "blame" or "accusation". It was in Fifteenth Century literature that "cause" was first used in its historical sense, e.g. "for the cause of a war or the like" (Dray 1964:43). Collingwood proposes that a special historical meaning should be given to the word "cause", which will clarify that "what is caused in history are not natural events", but the actions of "conscious and responsible" agents (Walsh 1967:191).
Interpretation in history is always bound up with value judgements and causality is linked to the question of interpretation. What pupils should be made aware of is how an historian uses his sources and views the events of the past, can have a considerable effect on the work he produces and the explanations he gives for historical problems. The content of some historian's writing can be governed by his views of the historical process.

Carr (1968) states that for nearly two hundred years both philosophers and historians were influenced by the French philosopher Montesquieu's view that certain laws and principles and not their "fantasies" governed men's actions. During this period, (200 years) historians and philosophers sought "laws" and "causes" that explained human behaviour in terms of different kinds of causes - mechanical, biological, psychological, metaphysical and economic. Historical cause, however, was placed in a category of its own (Carr 1968:88). It was accepted practice, according to Carr "that history consisted in marshalling the events of the past in an orderly sequence of cause and effect" (1968:88).

There has been a movement away from this perspective and historians no longer speak of "historical laws", the word "cause" has appeared to have gone out of fashion. Historians speak instead of "interpretation" and "explanation" rather than "causes" and "historical laws" (Carr 1968:88).

The historian deals with a multiplicity of causes in trying to understand the past. Every historical argument revolves round the question of the priority of causes. The historian is required to simplify, select and marshal the multiplicity of causes and give priority to them. If he does not do this Westfall says "he has left his material as he found it" (1977:184). Clearly the historian's selection is based on his interpretation of events. Generalisation leads the historian to "instructive causes" and forces him to omit other causes which, in his opinion, do not contribute anything to the readers' understanding of the events in question (Westfall 1977:184). Instructive causes are those which the historian has chosen as central to his explanation of events. They are intended to enlighten, as well as convey the
necessary information required to make an informed judgement or judgements about past actions and events. Westfall defines "instructive cause" as a potentially usable cause or group of causes. He says that "instructive cause" never exists in isolation; the context is the crucial determinant and this is not just restricted to the past (Westfall 1977:183). The search for instructive cause, according to Westfall, assumes (his emphasis) the historian's bias which is based on his own times and concerns. This leads the historian to renounce "the philosopher's futile attempt to discover some universal principle" (1977:185) which would assist one in locating causes by means of a fairly predictable "formula".

Historians must, necessarily, be somewhat tentative and diffident in drawing their conclusions because they work with fragmentary evidence. The historian's understanding of human behaviour may well be faulty. This will colour his judgements. It is impossible for historians to isolate variables, as a scientist can, and re-test them for reliability and validity. Historical events are unique and non-repeatable. At best historical explanations can be seen as tentative, fragmentary, provisional - and in some instances highly subjective. There are no clear and agreed answers to historical questions. Westfall makes the insightful observation:

If historians were content to accept the immediate antecedent of an event as their entire causal explanation, their likely unanimity on the question of cause would effectively prevent history from functioning as a study of possibility (1977:184).

If pupils are made aware of some of these issues on historical causation, they may be more discriminating and hopefully better equipped to examine historical material - or for that matter other information they are presented with in the course of their formal and non-formal education.

3.3 Empirical research on children's understanding of historical causality

To date there exists very limited research in this area. Shemilt, in his evaluation of the Schools Council History Project 13-16, discusses adolescents' perceptions of historical causality. He says that they do not necessarily see cause as an abstract statement of relationship between two or more events. Many highly intelligent adolescents treat the word "cause" as though it refers, not to the connection
between events, but to the properties of one of these events. For them a cause is something akin to a "physical agency" with the power to make something happen - or as one pupil put it "sort of push it [the effect] on a bit closer to where it is going..." (Shemilt 1980:30). Shemilt offers the following example:

**Subject:** "[A cause] helps the effect to happen."
**Interviewer:** "How does it help?"
**Subject:** "It helps! ... It moves it on a little bit ... sort of pushes it on a bit closer to where it's going."

(1980:31)

According to Shemilt the image here is of a "physical agency" pushing a railway wagon along fixed rails running to a pre-established terminus. The assumption made by the pupil is that what is to happen (Shemilt's emphasis) is in some way preordained. Other ideas associated with the typical "agency" image is the conception of causal redundancy. "For some children, to have more than one cause is to have causal overkill; a surfeit of causes is like striking matches once the fire is lit" (Shemilt 1980:31).

Many pupils in the study could not see the importance of the order of causal occurrences. Furthermore, certain pupils also believed that causes are substitutable. This, says Shemilt, accords very neatly with their ideas of the inevitability of historical causes. According to this view even without Hitler, the Second World War would have occurred. A subject in the control group said "if it wasn't Hitler someone else would have wanted power, cos there's always someone" (Shemilt 1980:31).

Very few pupils in Shemilt's evaluation could be said to have a complete grasp of the cause's use and meaning in historical narrative and explanation. However, the majority of those sampled had attained a marginal understanding of some very sophisticated ideas. Shemilt says that most pupils appeared to realise that causal factors were related to each other as well as to the outcome in question. The example cited:

**Subject:** "History is like a net, everything leading on but all being joined up as well."
**Interviewer:** "Why 'joined up'?"
Subject: 

"It's not a straight line ... there's sideways links amongst causes and effects of about the same place in time ... not quite like causes going back but very similar." (Shemilt 1980:32)

Shemilt says that the "net analogy is simple, but not inapposite and that if translated into propositional language, it can be assumed that the subject has conceived of causes in history as interacting elements within an antecedent situation (Shemilt's emphasis).

Shemilt suggests that Piagetian psychology cannot explain the development of pupils' ideas about the structural concepts in history. For example, certain ideas about change, development and causation, seem to be acquired sequentially and that these sequences, according to Shemilt yield more readily to common sense than to Piagetian analysis. The evaluation of History 13-16 in Shemilt's view (1980:46-47) suggests that the following ideas about causation are learnt in this sequence:

a) Statements related to historical cause and effect are not seen as identical (Shemilt's emphasis) to statements linked to intention and action. Intentions and plans may serve as causal factors, however, the relation of cause to effect (in historical usage) is not the relation of wish to deed.

b) Mono-causal explanation of events may be offered. (There are exceptions.) Shemilt suggests that although pupils mention "causes" in the plural, many hold the view that there is never more than one "real" or "major" cause.

c) At this stage, causal relation is seen by pupils as temporal order and not temporal contiguity (Shemilt's emphasis). What becomes apparent here, in Shemilt's opinion, is that pupils understand that closeness in time cannot substitute for order in time and cause and effect can be widely separated in time.

d) The idea of "post hoc ergo propter hoc" is seen as fallacious. Two events are not seen as causally related merely because (Shemilt's emphasis) one precedes the other.

e) Causal statements are viewed as relational, i.e. the word "cause" always expresses a relation between two events and never (Shemilt's emphasis) qualifies a single event.
The acquisition of these ideas in Shemilt's opinion (1980:47) is sequential in the sense that a pupil who has grasped concept (c) has more than likely understood (a) and (b). A pupil who has not understood concept (c) is unlikely to understand concepts (d) and (e). The concepts in this hierarchy, according to Shemilt are operational as well as nominal. They are operational in the sense that for example, a pupil who lacks concept (d) will not necessarily commit the fallacy of "post hoc ergo hoc", he will be unable to recognise as illegitimate, arguments inherent in this concept. The fact that the concepts in this hierarchy can be considered nominally, suggests that concepts are acquired when the pupil abandons or repudiates belief in their converse. Shemilt says that the nominal and operational senses of historical concepts are not necessarily mastered in the same order. For example, a minority of pupils in the study see "cause" as referring to the intrinsic properties of especially "potent" occurrences, the majority can be said to have generally understood it. However, it became apparent to Shemilt that the self-same majority still lacked a sufficiently clear concept of historical causation. They expressed "cause" as a relational term but persisted in seeing "cause" as associated with the idea of "big" or "important". Shemilt concludes:

Thus, the nominal sense of the concept - (e), which amounts to jettisoning the positive misconception of "causality" as a property of especially potent events - is one of the first ideas about historical causation the adolescent acquires, but its operational aspect - recognition of the illegitimacy of any statement which treats 'causality' as a property of singular events - is developed very late indeed (1980:47).

A comparable in-depth analysis on how senior primary children make sense of causal relations in history has to the writer's knowledge not been undertaken. Young children's understanding of causal relationships have been examined in science. These findings are of interest to the writer as they suggest that it is only in adolescence that children are able to make "accurate" causal judgements about physical phenomena. Research undertaken by Mossom (1989) on senior primary pupils' conception of science, indicates that pupils' understanding of cause and effect relations in science appears to be developmental in nature, closely following the stages outlined by Piaget (1989:163-164). Mossom says:

One educational implication of Jean Piaget's research on cognitive development is that an instructional sequence should parallel the
sequence of development of the child's ideas. The developmental sequences which Piaget has identified can well serve as the basis for instruction that is consistent with psychological process (1989:164).

An understanding of causal relations in history demands a high level of abstraction, something that many senior primary pupils are not yet fully capable of performing. Acquiring historical understanding is a long process and the contribution at senior primary level towards this should not be denied or neglected.

In the empirical study conducted by the writer, most of the teachers avoided teaching historical time and causality, because they felt less than confident about their ability to successfully explain these concepts. An analysis of the pupils' data (see Appendix 6) indicates that their grasp of cause and effect appeared to be as shaky as their comprehension of historical time. This shortcoming could be related to their level of cognitive development but the writer suspects that it has more to do with inadequately thought-through lesson designs, substandard lesson preparation and pedestrian lesson presentation on the part of the teachers. Evidence of this will be presented in a later Chapter.

The writer believes that in spite of the difficulty in teaching causal relations in history a start can be made at senior primary school.

In bad "traditional" teaching causal explanations were usually presented "cut and dried" and indisputable. This approach generally stresses factual material. There is usually a strong emphasis on "teacher generated" material. Generally, little opportunity is given for pupil participation and discussion. There is usually a strong emphasis on rote learning and memorisation of "important" factual material. If improvement is to be achieved according to Thompson as quoted in Dickson and Lee (1984:183), teachers must be prepared to invest time in the careful study of causal connections. Pupils should be given sufficient opportunity to work out their own ideas and thinking.

Various teaching strategies may be developed to encourage young pupils to examine and discuss similar/conflicting/different historical accounts. In May
1988, a lecture on Developing Skills in History was given by Mrs I Machin, Head of Department of History of Edgewood College of Education. Mrs Machin said that the historian was faced with an extremely difficult task when it came to "reconstructing" the past from available evidence. It was important she said, to make young pupils aware of this issue. To make her point, Mrs Machin presented the audience with an exercise on interpreting different sources. They were presented with two pictorial charts on the Battle of Blood River 1838 and four accounts of the Battle provided by Trekkers. Nine questions were set. (Details are provided in Appendix 12 and 13.) Clearly, the objective of this exercise was to make the audience aware of the different perceptions and interpretations of the same event. Mrs Machin pointed out that the time-lag of the accounts would have also played a crucial role in the accuracy of the interpretations. (Bantjes's account was recent whereas the others' weren't.) These accounts were also given by Trekkers. It would have been interesting to have included accounts given by Zulu warriors. (Evidence is unavailable.)

Similar exercises can be planned and prepared for senior primary pupils. They can compare strengths and weaknesses of pieces of evidence; note similarities, contradictions and gaps. These exercises should give young pupils some insight into the complexities of historical causation so that they might avoid the pitfalls of making gross over-generalisations and offering simplistic mono-causal explanations. Difficult material may have to be simplified by the teacher and geared, where possible to the pupils' reading age and level of comprehension. If the language is necessarily simplified, it does not follow that the intellectual tasks have correspondingly to be made easier. Indeed, making the language more accessible may possibly create opportunities for increasing the level of intellectual demand and challenge. It might also be pragmatic to list and explain new words and concepts at the beginning of an exercise or section of work.

Research conducted by Levstik and Pappas (1987), indicates that young children are capable of making causal and temporal connections more easily if the material is presented in a narrative format. Much more could be made of this medium in
history instruction at senior primary level. Generally, young pupils enjoy a good story that is interestingly narrated.

4. **Concluding comments**

As mentioned earlier acquiring historical understanding is a long process. Young children appear to have an innate curiosity of the past and this interest should be carefully nurtured and developed as early as possible (HMI 1985:2). Clearly educators would not contemplate delaying the teaching of mathematics, science or language studies because of the abstractions and complexity of these subjects, particularly as an early understanding of basic concepts is considered a prerequisite for further learning. The writer feels that the same argument should apply to the teaching of historical concepts at senior primary school, an approach which will be developed in a later Chapter.

The next Chapter explores the concept of empathy. Various theories on the development of empathetic awareness in young children are examined. Suitable strategies to encourage and promote empathy in senior primary history lessons are considered.

5. **Summary**

Causal thought is basic to children's abilities to interact with the animate and inanimate environments. Clearly, causal thought is basic to children becoming literate in the social and natural sciences. Three theoretical accounts have been given of causal understanding. Piaget's model focuses on the possible link between cognitive development and causal understanding; Kelley's model stresses the importance of understanding "overall inference patterns" in making causal connections. Kintsch and Van Dijk's model explains causal understanding in terms of the child's ability to process information.

Brief mention was also made of the possible significance of these theories for history teaching and understanding. There does not appear to be consensus amongst researchers in this area on the exact upper and lower limits of children's
causal understanding. Meticulous research design is needed in order to establish this information.

The complex question of historical judgements was considered. What becomes clear, from an examination of the literature, is that interpretation in history is always bound up with value judgements, and causality is linked to the question of interpretation. Historical explanations should be seen as tentative, fragmentary, provisional - and in some instances highly subjective.

In addition to the above mentioned studies on children's concepts of cause, the writer included the well-known study by Shemilt as it provided an extremely valuable insight into adolescents' understanding of historical causality. Shemilt, in his evaluation of the Schools Council Project 13-16, identifies five levels of causal reasoning. He suggests that causal thinking develops sequentially and is generally based on the pupils' common sense experience. As far as the writer is aware, no comparable analysis has been made of pupils at senior primary school.

Despite the abstract nature of historical causal judgements, the writer is of the opinion that it is essential to develop this understanding as early as possible. Active teaching strategies should be adopted and developed by teachers. Relevant historical material should be simplified for this purpose. What becomes clear from the empirical research conducted by the writer is that an haphazard approach to teaching causal judgement is unsatisfactory and not conducive to historical understanding, a theme which will be developed in a later Chapter.
Notes

1. "Conserver": "one who recognizes that the critical quantitative properties are not altered by arbitrary transformation or other modifications of the situation. The amount of fluid is not changed by pouring it into differently shaped containers, the number of objects is not changed by altering the spatial arrangement, the mass of a quantity of clay is not changed by rolling it into many little balls, etc." (Reber 1985:149).

2. For additional information on Piaget's stages of cognitive development, refer to pages 44-45.

3. Refer to Number 2.

4. Schemata are "cognitive, mental plans that are abstract" (Reber 1985:665).

5. The Schools Council Project History 13-16 was established in 1972 as a result of teachers' dissatisfaction with "traditional History" and their concern at the apparent erosion of its position within the secondary curriculum in British schools. The formal evaluation comprised of three studies:

1) The performance of approximately five hundred Project children on a series of concept tests was compared to that of about five hundred non-Project pupils.

2) Each of the seventy-five Project candidates was matched for I.Q., gender and social background with a pupil following a traditional history course. The performance of Project and non-Project pupils on a variety of formal concepts were then compared.

3) A "matched pairs" comparison, similar to (2) above, was conducted using interview data obtained from seventy-eight Project and seventy-eight control children.

The interviews explored the ways in which pupils were able to make sense of historical narrative, explanation and methods. Formal tests were more tightly focused upon the comprehension of such concepts as "change" and "development", "causation" and "causal explanation" (Shemilt 1980:11).
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CHAPTER FOUR:
The development of empathy and the teaching of history
at senior primary school.

"I don't ask for your pity, but just your understanding - not even that - no.
Just for your recognition of me in you, and the enemy, time, in us all."
(Tennessee Williams, quoted in R.T. Tripp: 1974:665)

1. **Introduction**

It was Margaret Phillips who made the astute observation that "a sentiment for a
person is, potentially, a sentiment for his world" (Dunlop 1984:100). The
education of the emotions is more than a matter of just personal development and
it therefore cannot be left to the individual child alone. It is important to provide
children of schoolgoing age with a suitable environment to assist in the awakening
and unfolding of their cognitive and affective potential. It is vital that "feeling" be
given a proper place in school subjects (Dunlop 1984:112) and an empathetic
approach to the teaching of history at an early stage of a child's schooling can play
a significant role in the realisation of this aim. An example given by Blyth
illustrates the point: a primary school headmaster was asked why he taught his
children about Nineteenth Century factory children from original sources. His
reply was direct and simple. He was trying to achieve a heartfelt response from
them: "I want to make them weep". Children who can weep for other people's
feelings may be expected to grow up into sympathetic adults (Blyth 1989:3).

The historian Galbraith said that historical events will not of themselves teach us
until we can speak the thoughts of the men responsible for them (1974:170).
History teaching in Natal schools at all levels can most certainly do with an
empathetic approach as a means of making the subject more meaningful to pupils.
The empirical study conducted by the writer revealed that 31% of the pupils in the
sample disliked history because they found it boring. A fair number complained
that they were expected to learn too many dates and facts for tests. When asked
how they could improve the situation, some responded quite positively by saying
that they would enjoy working on interesting projects, they would also like the opportunity to experiment with different things – like doing plays.

Encouraging and developing this approach offers a prospect of breathing life into a school subject that has been almost laid to rest by the Gradgrind approach which demands only factual information: "Teach these boys and girls nothing but Facts. Facts alone are wanted in life. Plant nothing else, and root out everything else. You can form the minds of reasoning animals upon Facts; nothing else will ever be of any service to them" (Dickens 1969:47). Charles Dickens uses the Gradgrind family in his novel *Hard Times* to illustrate the dangers of relying totally on facts, of seeking to stifle the creative, imaginative side of man.

In their wickedly amusing send-up of the factual approach to history teaching, Sellar and Yeatman write in the "compulsory preface" to their book *1066 and All That*: "History is not what you thought. It is what you can remember. All other history defeats itself." With tongue-in-cheek humour they proceed to compile "a memorable History of England comprising all the parts you can remember, including 103 Good Kings, 5 Bad Kings, and 2 Genuine Dates" (1971:5).

Before an examination is made of selected readings and research on children's thinking and the development of empathy, the writer feels that it is important to first say something about the origins of the concept. Later in the chapter the link between empathy and historical imagination and understanding will be considered.

2. Origins of the concept of empathy

The concept of empathy has had a long, varied, and at times inconsistent definitional history. The word itself comes from the Greek word *empathiea*, which implies an active appreciation of another person's feeling-experience (Goldstein and Michaels 1985:1). The modern notion of empathy (einfühlung)\(^1\) is rooted in German idealism of the Nineteenth Century, one of whose luminaries, Wilhelm Dilthey, viewed it as an essential element for "understanding" history or any of the human sciences (Portal 1987:89).
The Romantic writers believed that the study of man could not be accomplished by reason unaided by the emotions of the observer. Similarly, existentialist and phenomenological thinkers from Søren Kierkegaard to Martin Buber have argued for a more empathetic approach in both the humanities and the sciences. The gist of the argument is that if genuine understanding of phenomena (including human phenomena) in all their uniqueness is to be arrived at, the seeker after understanding must become involved with the object of her study (Bates 1956:17,18). For although men's actions can be the subject of detailed research, and can be enumerated "what went on in their minds ... can only be known by inference, and to understand it, if it is to be understood at all, intuition and imagination are necessary" (Kitson Clark 1967:170).

Dilthey's explanation of how understanding (Verstehen) of the meaning behind characters' actions was to be arrived at is opaque. According to him, the lower levels of Verstehen, which constitute the daily understanding of the routine world, were to be achieved automatically, but he expected the higher levels, relating to people and experiences remote from the commonplace, to be attained by "reliving": *Mitleben, Gleichsetzen, Sich-Übertragen* or *Einfühlung*, terms which "suggest the adoption of the life position or world view of another..." (Ermarth 1978:250). Dilthey himself maintained "that this understanding is not to be seen as the base construction of thought; ... in every understanding there is something irrational ... a final though wholly subjective certainty which lies in this reliving..." (1959:223). However, as Ermarth says "... in certain passages Dilthey implied that Verstehen is sheer 'empathy' or 'love'" (1978:250). From the beginning indeed empathy was implicated in the hazy notion of Verstehen and the differences between empathy and sympathy were not made clear. At one point *einfühlung* was described as "an impersonal sympathy (or empathy)" (Ermarth 1978:258), while elsewhere Dilthey declined to "go into detail concerning the relations of reliving to sympathy (*einfühlung*) or empathy..." (1959:221).

The confusion is compounded by the fact that in 1897 Theodore Lipps, a German, used the term *einfühlung*, translated in 1910 by Edward B. Titchener of Cornell
University as empathy, in the context of aesthetics, where it signified a state in which the observer projected himself into the object ("feeling together with"), established an identification between it and himself, and then engaged in a process of inner imitation, by this means coming the more fully to understand and appreciate it. In 1926 Lipps extended his definition of empathy to include people and not only objects as the targets of empathetic efforts. Proceeding by means of projection and imitation empathy consisted largely of heightened understanding of the other through over-produced shared feelings (Goldstein and Michaels 1985:4). The same idea is explicitly expressed in definitions formulated later by Buber (1948) and Koestler (1949) as documented in Goldstein and Michaels (1985:1).

To Buber empathy means "to glide with one's own feeling into the dynamic structure of an object... or even of an animal or a man, and as it were to trace it from within, understanding the formation and motoriality of the object with the perceptions of one's own muscles; it means to 'transpose' oneself over there and in there" (Goldstein and Michaels 1985:1). Koestler defines empathy as "a process of 'projection' or 'introjection'; both are metaphors referring to the experience of partial identity between the subject's mental processes and those of another with the resulting insight into the other's mental state and participation in his emotions" (Goldstein and Michaels 1985:1).

The ability to understand the other's perspective without losing one's own is particularly important when one is faced with the task of interpreting historical material. Being able to examine and evaluate historical events as objectively as possible is important. However, whether an historian is able to be completely objective is a moot point. The historian Carr says:

...we can view the past, and achieve our understanding of the past, only through the eyes of the present. The historian is of his own age, and is bound to it by the conditions of human existence. The very words he uses — ... have current connotations from which he cannot divorce them (Carr 1961:24-5).
Macanov (1978), supported by other researchers (Goldstein and Michaels 1985:7), observes that empathy, in contemporary discourse, is optimally defined with reference to the following three complementary elements:

1. Taking the role of the other, viewing the world as he or she sees it, and experiencing his or her feelings.
2. Being adept at sending and picking up nonverbal communication and at interpreting the feelings underlying it.
3. Giving off a feeling of caring and of sincerely trying to understand in a nonjudgmental and helping way (Macanov 1978:88 as quoted in Goldstein and Michaels 1985:7).

3. **The concept of empathy and historical imagination**

The concept of empathy has on the whole been disregarded by the philosophers of history, although the idea that the historian has to try to understand people of the past obviously has not, for it is a, perhaps the, central feature of the discipline (Knight 1989:43).

The historian Elton observed that when writing one "needs to be learned, balanced, imaginative, able to see all points of view and yet to assess them from one of his own" (1967:177). On the place of imagination (he does not use the term empathy) he comments "[i]t will give life to his learning, learning will direct the sweep of his imagination" (1967:177).

There is a misconception that history and imagination are incompatible. This has arisen from a false belief that imaginative activity is solely concerned with the fictitious. Little comments that imagination is a major means of apprehending and communicating reality (1983:27). Little goes on to say:

- The very act of perception by which historians 'see' evidence as intimation of the past is, in itself, a work of imagination (1983:27).

A modern understanding of empathy invites one to grasp imaginatively "the thinking, feelings and actions of another and so structure the world as he does", to which corresponds, in historical-theoretical terms, R.G. Collingwood's belief that
the historian should reconstruct and "re-think" the opinions and purposes of people of past ages (Portal 1987:90). Quoted in full, Collingwood argues that:

Historical knowledge is the knowledge of what mind has done in the past, and at the same time is a reckoning of this, the perpetuation of past acts in the present. Its object is therefore not a mere object, something outside the mind which can be known only in so far as the knowing-mind re-enacts it and knows itself in so doing. To the historian, the activities whose history he is studying are not spectacles to be watched, but experiences to be lived in his own mind (1946:5).

A project of this sort and scope presumes a high level of expertise in a whole range of historical skills; and although empathy may play an important role in any such undertaking, it is erroneous to regard as empathetically based everything concerned with the understanding of historical processes. The historian brings to his work a range of intellectual skills, his experience of life and his general understanding of history. The reconstitution of the past in the historian's mind is dependent on empirical evidence (i.e. primary and secondary sources). Once the historian has gathered his material, he will then analyse, select and edit from it what he then considers to be the "truest" interpretation. In order to arrive at an interpretation, he needs to have an imaginative understanding of the minds he is dealing with (Carr 1961:24). Imagination at its simplest requires the formation of an image in the mind — and this may be pictorial or verbal. However, historical imagination requires not only this but usually something more — the ability to empathise.

Collingwood himself did not use the term empathy (although "rethinking" implies something very similar), and more familiar mental operations such as inference from evidence and from background knowledge will necessarily play a part in every historical reconstruction (Portal 1987:90).

The historian is involved in an imaginative act, if not in an empathetic one, when he perceives in a mass of data dealing with the past, the piece — or arrangement — of evidence that provides the key to its interpretation. In reconstructing and explaining history he is constantly being drawn to visualise men, actions and events in his head. The exercise of imagination operates to organise, fertilise and make
productive the historian's learning and scholarship (Elton 1967:113; Little 1983:30). Professor H R Trevor-Roper has succinctly defined the historical imagination as

the art ... of making it (the past) fully intelligible to us by enabling us to enter, as it were, into the minds and passions of people who, in some ways, seem very different from us. For in some ways the past is enormously different from the present – far more different than we think – in other ways very similar ... the function of historical imagination is to penetrate the minds, the strange and complicated minds, sometimes even the barbarous and repellent minds of remote centuries, in order not merely to retrace the routine of human behaviour, the old ruts and tracks of past events, but to understand the springs and compulsions, the dilemmas and predicaments, the genius and folly of the human decisions that made that behaviour

(Trevor-Roper as quoted in Little 1983:30).

This capacity for entering the minds of the people of the past is often referred to as empathy. Vivienne Little sees the importance of empathy in its power to reveal to the historian the feelings which may often be as important as thoughts in motivating human activity (1983:31). Empathy is seen as an heuristic device which the historian abandons when it has done its work, just as the builder removes his scaffolding once the building is complete. Its work is to aid in the faithful, more inclusive reconstruction of the past (Little 1983:30). As mentioned earlier it is a concept easily misunderstood in large measure because some definitions of it tend to misrepresent the psychological processes involved and so cause confusion, especially, but not only, in relation to ideas about the retrievability of the historical past (Little 1983:30). The psychologist, Carl Rogers, said of empathy or being empathetic, that it involves perceiving with accuracy the internal frame of reference of another person's experience and being sensitive to its emotional register as if one were that person, but without ever losing awareness of the "as if" condition (1975:2-10).

It is simply not possible, in the final reckoning, to think another's thoughts or feel another's feelings. What one does is to imagine or entertain the thoughts and feelings one supposes another to have. The activity involved is therefore cognitive, though the impulse spurring one to it is affective. Kekana adds a third element,
that of psychomotor activity, because, in his view, a person not only thinks and feels but also has to act out a particular event if he wishes to become empathetically receptive to situations external to himself (1989:17).

4. The concept of empathy as applied to school history

It was in the 1970s that the term empathy came to be widely used in the context of the teaching and learning of school history. As might be expected, the ambiguities of the concept were reflected in disagreements about its scope and content among educationalists and authors of school histories: some took empathy to be an attitude (West 1981, quoted in Knight 1989:4), others a skill (Portal 1983; Schools Council 1983; Thompson 1983), others an emotion (Sutherland 1986); yet others viewed it as "a mixture of things" (McMinn quoted in Knight 1989:4). For Boddington (1980) it was a concept with an excess of meanings. Coltham and Fines saw empathy as "the power of entering into another's personality ... imaginatively experiencing his experience" (1971:7,8); for HMI (Her Majesty's Inspectorate) it was "a sense of empathy" which meant being "able to imagine oneself within a certain situation and thus feeling sympathy and understanding for the situation" (DES 1983:74 quoted in Knight 1989:4). Other writers betrayed by their usage of the term some uncertainty as to the distinction between empathy and sympathy. J. and M. West (quoted in Blyth) noted young children's "...empathy towards old people" and Blyth, among others, used the phrase "empathy with" (1984:153), as did Shemilt (1979).

Several writers conceptualised empathy in terms closer to those used by the philosophers who had ventured accounts of what historians needed to know and do if they were to try to understand and explain others' actions (e.g. Shemilt 1984; Ashley and Lee 1987a). Yet, according to Knight, these writers "retained the confusing notion of empathy to describe this attempt at understanding through the reconstruction of others' practical inferences" (Knight 1989:45).

In 1984 thirty British primary school teachers were given a short questionnaire to answer on the concept of empathy. This limited survey revealed that there was a
tendency to conflate empathy and sympathy. In 1986 the same questionnaire was given to eighty-one primary school teachers attending a DES regional course on history-teaching in the primary school. Thirty-three per cent of the one hundred and eighteen definitions ventured referred to feelings, nine per cent mentioned sympathy and eight teachers did not respond to the question at all even though it was near the beginning of the questionnaire. Twenty-four per cent defined empathy as a kind of understanding of others and fifteen per cent said it meant seeing things as if in another's position (Knight 1989:45). If, then, a clear majority of the teachers responding to the questionnaire had so hazy a notion of the concept of empathy, how could they be expected to successfully implement an empathetically based approach to history teaching in practice?

What emerges from the research into empathy as an organising orientation for the teaching of history in the senior primary school is that there exists a real need for a more sharply focused understanding of the concept as a preliminary to its translation into an effective pedagogical tool (Knight 1989:45).

Most of the teachers interviewed by the writer believed that it was important to encourage young children to empathise. Most built it into their lesson plans and into their classroom performance. Nine of the fifteen teachers whose lessons had been observed did include the concept in their lessons. For further information refer to Appendix 4: Lesson planning: 15 teachers. Teachers defined empathy as "the ability to see something from another's perspective". They generally agreed that it was more than "feeling sorry for someone". However, in their lessons the distinction between "sympathy" and "empathy" was not always accurately made.

The writer believes that the concept "empathy" contains a cognitive component as well as an affective one. The former requires the person to "place" his feelings and responses to material/situation(s) within the correct historical context. In other words, it is not enough for pupils to feel sorry for or appalled by the wretched conditions of factory children in England during the Industrial Revolution. What is essential here is that they comprehend the historical setting in which the exploitation of child labour occurred.
An exercise of this nature is clearly a demanding one which may well be beyond the scope and capabilities of some senior primary children. In the empirical study conducted by the writer, the level of empathetic understanding was in most cases fairly rudimentary but it was present nonetheless. Details are provided in Chapter Five.

Perhaps skillful planning, preparation and presentation of historical material by the teachers may further extend the child's nascent concepts.

Before examining some current views on the teaching of history at senior primary level using the empathetic approach, the writer believes it is important to survey selected research relating to the more general question of the development of empathy in children. An understanding of the issues involved here can only be of value to teachers' planning, preparation and organisation of an empathetically based teaching programme. As there exist whole libraries of research in this area it is important to be selective. The writer will briefly examine the Piagetian orientation, survey some alternative approaches and offer some conclusions.

5.1 Theories of the development of empathy in children: the parameters of empathy

According to Cottrell and Dymond (1949), empathy is central to the development of the social self and provides the basis for all social communication (Borke 1978:31). Although a potential for empathy is rudimentarily present in other species, especially the higher apes, it is only in human beings that empathy and abstract thinking reach an advanced level of development and become central mediating forces in adaptation.

Individual capacities for empathy, as for intelligence and language, appear to be influenced by both genetic and environmental factors (Borke 1978:31). The significance of the environment in the development of empathetic awareness is supported by research. In one study conducted by Yarrow, Scott and Waxler (1973), one hundred and four white American preschool children from
predominantly upper-middle class backgrounds were given training in social perspective-taking. Following this training the youngsters demonstrated a significant improvement in their role-taking ability. They were assigned to a control group or to play groups in which an adult caretaker, over a period of several weeks provided either high-nurturant or low-nurturant conditions. Nurturant behaviour involved guiding, helping, sympathising and protecting children. The non-nurturant adult maintained a reserved attitude, responding matter-of-factly to children's approaches. Four socialisation environments, all of which included some modelling of altruism by an adult, were differentially effective in altering children's responsiveness to others in circumstances of distress (1973:253). These researchers concluded that non-nurturance did not result in a significant amount of helping behaviour by the children, whereas nurturant behaviour did. They felt that generalised altruism would appear to be best learned from parents who not only inculcate the principles of altruism, but who also manifest such behaviour in everyday interactions (1973:256). Clearly the strength of a modelling influence by both parents and teachers in fostering and developing empathetic behaviour should not be undervalued.

While empathy itself is ethically neutral, the ability to "get inside" the thoughts and feelings of others facilitates the emergence in human relationships of such positive interpersonal responses as sympathy, altruism and love (Borke 1978:31).

The idea of empathy being ethically neutral is open to doubt. Mention has already been made of the difficulties involved in maintaining an objective stance when engaged in historical judgements.

5.2 Selected research into perspective role-taking

From his observations of the language, social interaction, and perspective role-taking abilities of young children, Piaget concluded that they are primarily egocentric and, therefore, not capable of empathy. The young child, Piaget maintains, reduces all social and physical influences "to his point of view and therefore distorts them without realizing it, simply because he cannot yet
distinguish his point of view from that of others" (1950:160). In Piaget's view, it is only when the child reaches seven or eight years of age that sociocentric thought first appears. The sharing of ideas and feelings with other children results in the child's re-examining his own concepts in relation to those of others. This leads to greater awareness of the self as distinct and separate, and this leads in turn to the growing realisation that each person perceives reality from a different perspective.

Mead pushed back the beginnings of the social self to a much earlier age, than Piaget thought possible, by observing the imaginary play of young children. For Mead, when children of two and three years of age pretend to be mothers feeding and rocking their babies, or fathers going to work, they demonstrate an awareness of the difference between the self and the other by taking the role of the other in its simplest form of "being another to oneself" (1934:151).

Until fairly recently there was relatively little research into the development of perspective role-taking. The best known and most frequently cited study is Piaget and Inhelder's mountain experiment (1956). Subjects aged between four and twelve years were shown a model featuring three mountains and were asked to predict how a doll would view these mountains from various perspectives. The subjects communicated their role-taking ability by selecting from a group of pictures the one they thought showed best what the doll saw, by using cardboard replicas of the mountains to reconstruct the doll's viewpoint, or by selecting a picture and placing the doll in an appropriate position for taking an identical photograph. Piaget and Inhelder reported that all of the four and five year old subjects responded egocentrically by assigning their own perspectives to the doll. Some subjects of between six and a half and seven years of age began indicating an awareness that the doll's viewpoint differed from their own by making some attempt to vary their responses so as to take into account the doll's perspective. Despite these efforts, they were still unsuccessful in reproducing the doll's viewpoint. From seven to twelve years of age, the subjects showed "a progressive discrimination and co-ordination of perspectives" (1956:213). Piaget and Inhelder interpreted their results as showing that young children are basically egocentric
because they "fail to realize that different observers will employ different perspectives and ... regard their own point of view as the only one possible" (1956:213).

A number of investigators interested in studying perspective role-taking ability have used adaptations of Piaget and Inhelder's basic experimental design. Flavell, Botkin and Fry (1968) presented a series of four geometric configurations of increasing difficulty to subjects of between seven and seventeen years of age. The subjects were given an identical set of geometric shapes and were asked to rearrange the configurations according to how they would look when viewed from a variety of vantage points by a hypothetical viewer (in this case the test administrator). The results indicated that the youngest subjects had difficulty with even the easiest display while the majority of seventeen year-olds were unable to correctly assemble the most difficult configurations.

In a series of studies (1971, 1973, 1975) Borke investigated early egocentrism by presenting subjects of between three and six years of age with simple, age-appropriate, role-taking tasks. The first study (1971) used middle class American children as subjects. The second investigation (1973) was a cross-cultural study comparing American and Chinese youngsters from middle and lower-class backgrounds. In both experiments the subjects were told a series of short stories and asked how another child might feel in the various situations sketched. Borke's studies indicated that by three to three and a half years of age, even children from very different cultural and socioeconomic backgrounds could accurately identify happy and unhappy responses in other people. Borke concluded that the presence of empathetic awareness in young children from culturally diverse backgrounds "suggests that empathy may well be a basic human characteristic related to social adaptation" (1973:108).

Investigators are becoming increasingly aware of the need to design their experiments so that they fit in with children's experience and perceptions of the world. Margaret Donaldson has stressed that for effective thinking to take place
the task set must make "human sense", and she has distinguished between "embedded" and "disembedded" thinking (1978:76). Thinking removed from its grounding in the familiar contexts that make sense of what is going on is "disembedded". Many of the tasks set for young children in experimental work, argues Donaldson, make no sense to them, and this invalidates many of the conclusions drawn from such tests. When, for example, a perceptual test of children's ability to see another person's point of view is set up so that it makes sense to them in terms of their own experience of intentions and situations, "four-year-olds would ... succeed at the ninety per cent level" with complex arrays and multiple points of view. (The arrays consisted of walls behind which boy dolls had to be hidden from model policemen.) Donaldson comments that "the motives and intentions of the characters are entirely comprehensible, even to a child. The task requires the child to act in ways which are in line with certain very basic human purposes and interactions (escape and pursuit) — it makes human sense" (1978:24). Commenting on the relative ease with which young children tackled "the boy hiding from the policeman task", Donaldson argues that "we cannot appeal to direct actual experience as few, if any, of these children had ever tried to hide from policemen. But we can appeal to the generalization of experience: they know what it is to try to hide. Also they know what it is to be naughty and to want to avoid the consequence" (1978:24). The defect in the design of the Piagetian mountain experiment, in Donaldson's view, is precisely that it fails to make experiential sense to very young children. Mention is made later of the importance of teaching empathy within the child's own experience.

Observations of social-interaction behaviour in children of one and a half to two years old provide evidence that the ability to take the role of the other can occur in children even younger than three or four years of age. In one incident described by Borke a fifteen-month-old boy inadvertently knocked over a younger playmate. The child first hugged the crying youngster and then tried to pick him up. When neither of these actions succeeded in comforting the playmate, the boy looked around the room, found the younger child's bottle, and handed it to him (1978:38). In another incident reported by Hoffman a twenty-month-old youngster offered a
friend his beloved teddy bear to take home when the friend started crying because her parents were away. The child insisted that his playmate take the teddy bear even after his parents pointed out that he would probably miss it (1975: 616). In both incidents, it is true, the children's actions are imitative of adult behaviour, however, it would be difficult to account for their conduct without hypothesizing some awareness of the other child's feelings and some capacity for role-taking.

5.3 Stages of empathetic development: comments on Piagetian research

It would appear that current research and observations of children's behaviour call in question Piaget's conclusions regarding early childhood egocentrism. According to Piaget, development proceeds in hierarchical stages with each stage firmly rooted in the experiences of the one preceding it. This would lead to the expectation that empathy, like cognition, develops in a gradual and orderly sequence.

Piaget (1967) and Mead (1934) both observed and documented sympathetic reactions in children of between one and a half and two years of age. While Mead recognised that sympathy involves taking into account the feelings of the other, Piaget attributed little significance to such responses (Borke 1978:39). The potential for role-taking during the pre-operational period is, in Piaget's view, influenced by the limitations of the child's cognitive apparatus in this early phase of development. Empathetic awareness during these early years consequently never gets beyond a very rudimentary stage where the child's limited ability to "touch base" with the feelings of another is confined to immediate, simple situations that fall within the realm of his or her own life experiences. Donaldson in fact has made much the same point in her observations and research (1978:24).

During the period of middle childhood (seven to twelve years) there are significant transformations in both the cognitive and social spheres (Piaget 1950:160). The advance in intellectual and social capabilities appears to facilitate equally significant changes in the child's capacity for role-taking and empathetic awareness. A number of researchers have reported that children aged between six
and twelve show significant increases in the accuracy of their perceptions of other people's feelings, thoughts, and motives (Borke 1978:40). And at the same time, recent research and observations (to which attention has already been drawn in an earlier section) have seriously challenged Piaget's insistence on the predominantly egocentric behaviour of children under the age of seven.

Just as early stimulation from the environment is vital for the child's cognitive development, so too his social personality needs to be nurtured and stimulated at an early age if he is effectively to develop his human potential for sympathy, empathy, love and altruism. Parents and teachers have as significant a role to play in providing this stimulation as they do in promoting cognitive and social development.

6. **Empathy and history teaching**

"Many teachers see in 'empathy' the essence of the historian's craft, the divine mind that breathes life into the dry bones of the past, turns dust to flesh, and inspires pupils to commune with their predecessors. More sceptical teachers scorn the current fashionable projective approaches to empathy as unhistorical at best and fraudulent at worst" (Shemilt 1984:39). Most of the teachers interviewed by the writer considered the development of empathetic awareness to be important. They had attempted to build it into their lesson plans. However, the level of empathetic understanding in most pupils was fairly rudimentary and perhaps not as developed as one may have expected, considering the teachers' enthusiasm for such an approach.

It is the writer's opinion that most of the teachers in the study did not extend their pupils beyond the first stages of empathetic awareness i.e. the "imagine", "pretend" or "sympathy" stage. As mentioned earlier there is a cognitive as well as an affective component to emphasising. The cognitive component is essential, for it requires pupils to place the character(s), event(s) or narrative(s) within an historical time frame. What is also vital is that they do so without losing perspective of their own historical context.
Teachers who consider "empathetic awareness" to be important may yet find difficulty in agreeing on a definition of the concept that clarifies it in ways that can be useful for their praxis. Shemilt offers the following ideas essentially as working ways of thinking about empathy:

1) an attitude or disposition comparable to "tolerance" and "sympathy for others";
2) a mental faculty akin to imagination and creativity;
3) an interpersonal skill possessed by social workers as well as by confidence tricksters;
4) a methodological procedure or technique (cf. "scientific method");
5) a set of propositions about people in the past (1984:39).

At another level there exists disagreement about why empathetic awareness should be inculcated in the first place. Some teachers see it as a useful skill or attitude while others believe that the study of history is in itself good for pupils and that its benefits are optimized by empathetic reconstruction (Shemilt 1984:39,40). For the empathetic approach to be successfully implemented the teacher ought to be first persuaded of its philosophical justification as teaching historical empathy is not an easy task.

Cairns argues that empathy, while difficult to teach, is a skill that can be imparted to most pupils. The prerequisites of an empathetic approach to the study of history are, in his view:

1. Some appreciation of what could have been known to — and by — a given historical figure at the specific time when he or she lived;
2. A perception of the modes of thought prevailing in a past age;
3. Some knowledge of the individual historical character's experience and outlook;
4. A genuine willingness to try to enter the past and engage with the issues and problems current at the time (1989:15).
O'Brien perceives two distinct levels at which historical empathy may operate: the first is the merely "everyday" level, that is, the level where one simply surveys the past from the vantage-point of the present; the second is the level of true historical empathy where the conceptions, pre-occupations and prejudices of the present are supplanted by the values and perspectives of the past (1991:17).

In the United Kingdom, an empathetic approach to history was developed by the Schools Council History Project³ in 1974. This approach was seen as occupying a middle ground between a content-based approach and a skills-based one. A content-based approach as the name suggests focuses almost exclusively on the transmission of historical "facts" by the teacher. Pupils are generally expected to memorise and regurgitate "facts" taught. A skills-based approach on the other hand tends to encourage pupils to examine the "process" of history writing. Pupils applying this approach may be expected to set about their work in the way an historian would, that is analyse the evidence, select the data from primary and secondary sources and present the truest interpretation of past events in a coherent manner.

The emphasis of the Schools Council History Project was on people in the past and since, realistically speaking, the surviving record of this past, preserved chiefly in museums, could be expected to reach the vast majority of schoolchildren either not at all or otherwise only superficially, the next best way of giving them a reasonable "fix" on it was, it was felt, through the development and exercise of imaginative sympathy or, to put it another way, of "empathetic awareness". The desirability of in one way or another getting pupils to empathise with people of past ages was seen as central to the Project's programme, which further specified that they become involved in role-playing and simulation and undertake excursions to historical sites and museums. Pupils, in brief, were to become actively engaged in "piecing together the jig-saw puzzle" that makes up an historical situation, period or character.

As an addendum to the foregoing points, it may be added that research conducted in the United Kingdom and the United States of America suggests that a
significant proportion of pupils remain right-brain thinkers throughout their school careers. These are individuals who are adept at expressing emotions, who possess instinctive understanding and are capable of improvisation. They are less adept at the analytical skills, logical reasoning and structured activities upon which Western educational systems have traditionally tended to set so high a value. It follows that for right-brain thinkers the empathetic approach to the study of history at school offers possibilities of doing themselves justice that are largely denied by the more traditional content-based and skills-based approaches (Mathews 1987: 16-17).

7. **How do children make sense of empathy?**

Research in this area was conducted by Shemilt who based his conclusions on interviews with one hundred and fifty-six fifteen-year-olds as part of an evaluation of the Schools Council History Project '13-16'. According to Shemilt empathy is best conceived of as a hierarchy of skills ranging from "everyday empathy", where one's common humanity with people of the past is recognised, through "stereotyped historical empathy" to the highest stage of "differentiated historical empathy" (1984:50). He postulated a developmental model positing five levels or stages of empathetic understanding:

**Stage One:** 'dry bones' and a sense of superiority. At this level pupils see the past as unintelligible. They view the people of the past as mentally defective and stupid. It does not occur to them that people of the past viewed life in a different way to them or that they had different values.

**Stage Two:** assumption of shared humanity and a routine stress on motives (generalized stereotypes). At this level pupils project their own personalities onto the past as a means of explaining it. Such explanations are not supported by the evidence. Differences between the past and the present are taken as proof of how stupid the people of the past were. This visualisation of the past is reflective of 'everyday empathy'.

**Stage Three:** everyday empathy applied to history. Pupils are capable of comprehending the past from the evidence presented, but judge it by their own standards. There is no appreciation of how the people of the past might have viewed a given situation. At this stage pupils respond without appreciating the differences between their own beliefs and values and those of another age or culture.
Stage Four: restricted historical empathy. The actions, institutions and people of the past are viewed in terms of their own situation. Some attempt at historical reconstruction takes place.

Stage Five: contextual historical empathy. Pupils attempt to fit what is to be understood into a wider picture at this level. While they will stand back and criticize an historical epoch in terms of their own standards, they do so in the realisation that these are likely to be different from those of the past.

(Shemilt 1984: 50-55)

Can this model be said to have relevance to the way in which senior primary children function as learners of history? One may note, to begin with, that pupils' capacity to show empathy does not appear to depend in any fixed and rigid way upon the factor of mere chronological age. What has emerged from research in this area is that it is often difficult for a young pupil to sustain a high degree of empathy and that, when this level is reached, there are apt to be advances and regressions in empathetic understanding. These fluctuations are probably caused by a variety of factors: for example, the problem could be related to the topic, the personages or the period studied. Or perhaps the teacher's attempts to stimulate empathy are undermined by shortcomings of approach or by the kind of personality that inhibits pupil response (Cairns 1989:16).

The situation is further complicated by the fact that testing empathetic understanding in history is considerably more problematic than testing empathy in everyday situations, as the empathetic imagination associated with historical understanding is of a specialised kind, involving insight into a different way of life, in some instances far removed from one's own reality (Lee 1984:109).

8. **Developing empathy**

Dankworth talks of "bridging the gap between the present, with its sharp definitions, intimacy and immediacy and the unreality of the past, by directing pupils to the conscious human elements which make past and present and make their participation possible" (1971:165).
Teachers seeking to develop empathetic understanding in younger children are likely to turn to drama, role-play and simulation, formats which enjoy the additional advantage of eliciting genuinely creative responses from them (Culpin 1984:25). In using these techniques, the history teacher is however also pursuing discipline-specific goals: she will wish to draw from the child a specifically historical response as well; that is, a response that bears in some way or other upon issues that are crucial to the development of historical understanding. Consequently, the teacher of history "has not only to 'bridge the gap' between past and present in order to fire the imagination, he [also] has to bridge the gap between factual reporting and creative fantasy" (Culpin 1984:25).

The writer will briefly examine the use of drama, role-play and simulation as facilitators in the development of historical empathy. These techniques involve the physical participation of children in activities in which they may be said to learn through their bodies (Rogers 1977:18). Simulation, role-play and drama are clearly related, but their functions in history teaching may be different. Both simulation and role-play focus on the real world, but the former is characterised by the rules of play, and by the paraphernalia of prepared material which signals a game (e.g. cards, instructions). There is often a strong competitive element involved. Active involvement of pupils in a simulation will frequently result in an improved understanding of the topic being dealt with. But this activity may be less successful in developing the skills associated with empathetic understanding (Culpin 1984:27). In games, the concerns of pupils are usually with tactics and competitiveness and with rules — motives and personalities do not always enter into their considerations. Role-play exercises, for their part, are particularly effective in exploring how people feel about a situation. "What role-play can do is allow children to feel, to some degree and in a situation of trust, the pain, or frustration, or despair, or plain boredom that is inherent in many historical situations" (May and Williams 1987:13). While simulations may be successful in revealing something of the nature of the forces which shape history, role-play can reveal something about the way people may have felt in an earlier epoch.
Drama is a confusing term, for it is the umbrella label which we give to a wide variety of make-believe activities (May and Williams 1987:12). In the classroom, drama can take various forms: the teacher can choose between controlled, directed or spontaneous formats. Where the controlled format is chosen, it is important to give the children practical experience of talking and moving under pre-disciplinary conditions (i.e. use of spontaneous actions and expressions – no set script initially) possibly involving adapted stories or contrived sequences before plunging them into the more demanding drama of possibly complex historical situations (Thompson 1983:24). Thompson quotes the example of a small boy – "a walk on extra" in a religious dramatisation of the Sermon on the Mount. During a "free movement/expression" warm-up, he walked on stage and said, "Hello, Jesus, what are you doing?" Thompson said that this perfectly natural, everyday conversation is exactly what someone would have said. It is far removed from the "cold precision of the authorised version from which the story came" (1983:24). The example quoted gives the freedom of expression that a loose situation required.

Younger children generally respond well to simulation exercises, role-play, drama and the narrative method. The teacher who uses the narrative method to encourage an empathetic awareness in her pupils is generally required to "set the scene". Background information may be read from original sources or secondary ones. Good use could be made of suitable historical novels which have been accurately researched. The re-telling or scene-setting may be followed by a variety of activities: e.g. dramatisation, written exercises and model building. These apart, there exist other techniques that can also be used to encourage empathetic understanding. For example, class or group discussions, problem-solving activities, use of selected primary and secondary sources, excursions to historical sites and museum visits. The teacher will need to select whatever method best suits the circumstances: some pupils, for example, may find it easier to empathize if they role-play a particular historical occurrence while others may find it easier to respond if they are introduced to historical events through the narrative method.
In the view of Her Majesty's Inspectorate historical empathy should be part of the learning experience of all pupils across the whole range of both age and ability (HMI 1985:3). Between the ages of eight and sixteen, children ought to be guided through increasingly sophisticated stages of historical understanding (HMi 1985:9), while between the ages of eight and fourteen they should be explicitly challenged to acquire mastery of both general skills and specifically historical ones (HMI 1985:10).

Unfortunately this report does not offer many practical examples of how this may be achieved. (A brief background to this document was given in Chapter One.)

9. **Concluding comments**

Success in understanding and interpreting historical events, while not exclusively dependent on empathy, is not also a matter of memorising mountains of inert historical information or of mechanically reproducing teachers' interpretations. Imaginative sympathy, empathetic awareness, play a decisive role, when all is said and done, in the formation of genuine historical insight and understanding (Lee 1984:111).

Empathetic awareness is likewise one of the most efficacious weapons available for combating prejudice because in working to prise children from their pre-established viewpoints and inviting them to inhabit other, less familiar ones, it lays the groundwork for understanding and tolerance of other peoples and cultures. It is for these reasons that Kekana argues that if the teaching of school history in this country were methodologically biased in favour of the empathetic approach, the result might well be better race relations and a lessening of social disharmony in our land (1989:114). This point is given further consideration in Chapter Six.

This is, of course, a more local perspective on the teaching of school history (i.e. in South African schools). At the universal level (i.e. history teaching in general) we find programmatic statements with this kind of ring:

The acquisition of knowledge is an important educational goal, but it is an insufficient goal on its own. Like other disciplines, history is not a subject where the student is expected merely to acquire knowledge from
an authority; be it a textbook or teacher. It involves the development of certain intellectual skills and values ... The problem facing the history teacher is how to encourage the development of these skills.... (Pam 1984:29).

That is precisely the problem and in this regard the writer has endeavoured to argue in the preceding pages that empathetic awareness is both an historical skill in its own right and an invaluable instrument for fostering other historical skills as well.

10. Summary

Research has indicated that it is important to provide children of school-going age with a suitable environment to assist in the awakening and unfolding of their cognitive and affective potential (Dunlop 1984:112). It is the writer's opinion that history can be used as an effective vehicle for promoting the development of empathetic awareness.

The origins of the concept were examined. From an examination of the literature it is evident that it has had a long, varied, and at times inconsistent definitional history. What has emerged from the research into empathy as an organising orientation for the teaching of history in the senior primary school is that there exists a real need for a more sharply focused understanding of the concept as a preliminary to its translation into an effective pedagogical tool (Knight 1989:45).

The writer believes that the concept "empathy" contains a cognitive as well as an affective component. The former requires the person to "place" his feelings and responses within the correct historical context. The demands of such an exercise may well be beyond the scope and capabilities of some senior primary children. In the empirical study conducted by the writer, the level of empathetic understanding was in most cases fairly rudimentary but it was nonetheless present.

Selected theories of the development of empathetic awareness were examined. Indications have emerged from most of the studies that early stimulation from the environment is vital for the child's cognitive, as well as his social personality needs.
Parents and teachers have a significant role to play in providing such stimulation as will be indicated in Chapter Six.

Shemilt’s research on empathetic development in adolescents was examined. He postulated a developmental model positing five levels or stages of empathetic understanding. Most of the pupils in the writer’s study appeared to be at level one.

One may note, that pupils' capacity to show empathy does not appear to depend in any fixed and rigid way upon the factor of mere chronological age. What has emerged from research is that it is often difficult for a young pupil to sustain a high degree of empathy, and that when a certain level is reached (as outlined by Shemilt), there are apt to be advances and regressions in empathetic understanding.

Various strategies for promoting such an empathetic understanding were considered. Teachers seeking to develop such an understanding in younger children are likely to turn to drama, role-play and simulation.

Imaginative sympathy, empathetic awareness, play a decisive role in the formation of genuine historical insight and understanding (Lee 1984:11). Kekana also suggests that empathetic awareness might be an effective weapon for combating prejudice as children are obliged to re-examine some of their pre-established perspectives. More details are provided in Chapter Six.

Notes
1. The word means "feeling oneself into" (Goldstein and Michaels 1985:4).

2. Piaget identifies four basic stages in the development of mental structures (in each of these there are substages). Details are provided in Chapter Two.

3. Details of the Schools Council History Project (1974) are in Chapter One.

4. The term "stage" is not used in the Piagetian sense. "The model deals with ideation not ratiocination, that is, with the premises pupils bring to history rather than the logic wherewith they operate upon it" (Shemilt 1984:83).
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CHAPTER 5:
An empirical inquiry into history teaching and learning
in seven senior primary schools in the Durban area.

The purpose of this research was to investigate the extent to which certain historical concepts, specifically historical time, cause and effect and empathy, were taught and learnt in selected senior primary schools in the Durban area.

1. Introduction
This chapter describes an empirical study conducted at seven senior primary schools in the Durban area during the period July to September 1991. The study was undertaken using the illuminative method of research within the context of the ethnographic tradition and entailed observing and describing the teaching of history in selected schools. This is clearly not a definitive piece of research but it can be regarded as a pilot study from which it may be possible to identify certain practices and trends in history teaching and learning in a number of senior primary schools in the Durban area.

2. Review of research in the area to date
In the earlier Chapters dealing with the areas under investigation the writer endeavoured, from the theoretical standpoint, to give a comprehensive review of selected research. As far as the writer is aware, no formal research has been done in these areas in South Africa although they have been frequently and fully studied in the United Kingdom and the United States of America. It is not possible to refer to all the studies done in so short a space and at the same time do them any justice. A selection of studies dealing with the development of historical time, cause and effect and empathy and history teaching were considered in Chapters Two, Three and Four.

The seminal work done by Piaget and Inhelder in the field of children's cognitive development forms the groundwork for most of the investigations carried out in
the areas to which this project addressed itself. Whether cognitive-developmental psychologists agree or disagree with Piaget's conclusions, they generally turn to his research as a point of departure or of reference.

On the subject of children's cognitive development, a recent opinion which, in fact, diverges from the orthodox Piagetian position, is the following:

Within their first five years of life, young children, we now know, develop ordered sets of causal, spatial, and temporal relationships that render their world not a 'buzzing, booming confusion', but a causally ordered, comprehensible, and meaningful environment. This process starts in early infancy. Infant cognitive development is now found to be surprisingly abstract, with infants even in their first year of life using rules for dealing with time, space, and causal relationships (Crabtree as quoted in Gagnon 1989:180).

This picture is decidedly at odds with the image of conceptual impoverishment in young children which some of the developmental theories uphold. And in any case, as Kieran Egan points out, such theories do not readily square with our common observations of children's vivid mental lives (1982:439).

As far as the development of empathy is concerned, research has indicated that children younger than three or four demonstrate an ability to put themselves imaginatively in the place of another (Borke 1978:38). An outline of this study is in Chapter Four.

The main point to have emerged from all the research is that the concepts of time, cause and effect and empathy can be taught successfully at senior primary school level, provided the teacher understands her pupils' capabilities and needs. Details of the research and findings are in Chapters Two, Three and Four. Several projects in Britain, such as the Schools Council Place, Time and Society Project 8-13 and the Schools Council History Project 13-16, based their approach to humanities teaching upon the notion of teaching for conceptual understanding. In developing conceptual understanding the pupil would employ a range of intellectual and physical skills. There was a movement away from a purely content based approach to learning. The work and influence of the Schools Council
History Project 13-16 was discussed in more detail in Chapter One. The writer is of the opinion that an informed approach to concept formation and development provides the basis for successful teaching.

3.1 Research orientation in the empirical study

Since the 1970s an increasing number of educational researchers have shown a preference for more qualitative methods of investigation (McDonald and Perry 1984:165). The illuminative approach to research, which is one such method, suited this project and its purposes far better than the natural-scientific approach which focus is too narrow.

The illuminative approach was developed and promoted by Parlett and Hamilton (1976). They describe its purpose as follows:

The task is to provide a comprehensive understanding of the complex reality (or realities) surrounding the project: in short, to illuminate. In his report, therefore, the evaluator aims to sharpen discussion, disentangle complexities, isolate the significant from the trivial, and raise the level of sophistication of debate (1976:99).

The authors stress that illuminative evaluation is a general research strategy that aims to be adaptable and eclectic. It makes use of qualitative methodology, which Filstead has argued will allow the researcher to get close to the data and avoid rigid quantification procedures (1970:6). The research is thus anchored in the reality of the situation-in-action and not in contrived experiments. The evaluation is holistic, seeking to appraise the subject of the inquiry in its entirety and subject it to intelligent criticism. Illuminative evaluation endeavours finally to present an accurate reflection of the participants’ impressions of, and responses to, the situation and/or procedures under investigation.

Parlett’s stages of illuminative evaluation are summarised as follows:
1) clarify a general strategy;
2) familiarise oneself with the realities of the matter/situation to be investigated;
3) pinpoint areas of particular concern;
4) undertake descriptive exploration and interpretation;
5) present a written report that neither conceals nor evangelises personal views (1974:16-17).
In the design of this inquiry, the writer's position was to be that of non-participant observer in the fifteen classrooms visited. In this way, the writer hoped to witness at firsthand the actual dynamics of history teaching and learning in the classroom situation. Supplementary to this proceeding there were interviews with selected individuals as well as informal discussions about history teaching and learning with teachers and pupils alike. The purpose of these supplementary procedures was to impart to the inquiry a broader "overview" perspective.

3.2 The ethnographic tradition

Illuminative evaluation is a refinement of a methodology stemming from the ethnographic tradition. The word ethnography literally means "writing about people" (Goetz and Le Compte 1984:245). Amplifying this idea, Beals and Hoijer define ethnography as the study of the cultures of living peoples through direct and indirect observation of their behaviour (1972:149).

The purpose of educational ethnography is to provide rich, descriptive data about the responses, activities and beliefs of participants in educational settings. Typically, such data offer a record of educational processes as they occur.

In addition to being a record, ethnography is also an orientation, a particular way of studying phenomena. Ethnographic research design favours investigative strategies that are conducive to cultural re-construction. First, the strategies used elicit phenomenological data which offer insight into the world view of the subjects of the inquiry. Second, ethnographic research strategies strive to be empirical and naturalistic. Participant and non-participant observation is used to acquire firsthand accounts of responses, reactions and perceptions as they occur in real-world settings, and investigators take care to avoid manipulation of variables in the study. Third, ethnographic research is holistic, i.e. ethnographers seek to present a global view of phenomena within given settings. Finally, ethnography is multimodal or eclectic: ethnographic researchers use a variety of research techniques in amassing their data. Although ethnographic strategies are most
commonly used in sociological and anthropological research, they clearly have a rôle to play in all the social science disciplines (Goetz and Le Compte 1984:3).

The test of the ethnographic method is the quality of the data contained in an ethnographic report. Data that one would think of as sufficiently dense and representative of the reality being examined would ordinarily consist of direct quotations from the participants. Similarly, researchers' descriptions of situations and activities should take into account both the views of the participants and also the kind of language used in expressing them. Ethnographic techniques, in a word, lend themselves to use in many contexts; the only punishable crimes are using them inappropriately or executing the research poorly (Goetz and Le Compte 1984:245).

4.1 Research design and procedures
During the empirical study conducted between 26 July and 2 September 1991, the writer observed fifteen history lessons in Standards Two through to Five. Ninety percent of the lessons were an hour in length. There were 350 pupils in the sample, with an average class size of about twenty-four pupils. The study embraced "A" classes as well as those of mixed ability. The socio-economic background of the pupil sample was varied, giving a fair cross-section, as this was felt to be important for the validity of the study is that the pupils' responses should emerge from as broad a socio-economic base as possible. All the schools in the sample had opened up to all population groups, although Black pupils formed a minority in the classes visited.

Of the fifteen lessons observed, ten were taught by Fourth Year students from a college of education and five by senior primary teachers. The range of teaching experience in the latter group varied between one year and twenty years. Students who were conveniently located in or close to the Durban area during teaching practice were chosen as subjects. Of the seven schools chosen for the empirical inquiry, two were in Durban North, one in Umhlanga Rocks, one on the Berea, one in Greyville, one in Upper Umbilo and one in New Germany.2
4.2 Subjects in the study

Fourth Year students were chosen for the study as the writer felt that, by this stage of their training one could expect them to be confident and generally competent practitioners. These students have had approximately fifteen weeks of practical classroom experience in three years. They had studied general teaching methods in their first year. Instruction in specific subject didactics is given in their second, third and fourth years. The depth of study (subject content and methodology) is dependent on whether the student has elected to major in that subject. For example, a non specialist in history takes a semester course in his first year, whilst a history specialist studies the subject over four years. Ten students in all were selected, half of whom were history specialists, the other half non specialists. (It is worth noting that nine of these students - five specialists and four non specialists - obtained higher grade passes at the end of teaching practice. This indicates that they were considered to be good "all-rounders" in the classroom.) The reason for the group's consisting of five specialists and five non specialists was to see whether the specialists, who the writer assumed would be more knowledgeable and proficient in history method, took greater cognizance, than did their non specialist peers, of the concepts of historical time, cause and effect and empathy when planning, preparing and conducting their lessons.

4.3 Investigation procedures

As mentioned above, it was decided to use an illuminative means of evaluation as it offered the scope and flexibility that was needed for recording the observations.

Prior to the classroom visits an observation schedule was drafted (see Appendix 1) which in broad outline differentiated the concepts which were to be observed and recorded. It was hoped by these means to enhance the specificity and precision of the observations.

Although the writer informed the subjects, students and teachers alike, that she was researching history teaching at senior primary level and was interested in the
pupils’ use of language, they were not fully briefed on the exact nature of the project, as it was important to avoid lessons prepared in advance and possibly tailored to incorporate the concepts which were being sought. The writer wanted to see whether, without any prompting, the subjects took cognizance of historical time, cause and effect and empathy in the planning and conduct of their lessons, all of which teachers held to be as part of their planning.

Interviews with teachers were organised by a sequence of specific, carefully thought through questions (see Appendix 2). Pencil-and-paper questions were also administered to pupils at the end of the lessons. Impressing upon them that the writer was interested in their responses, they were also reassured, at the same time, that their work was not to be assessed for marks. The questions pupils were asked, like those devised for the teachers, were carefully thought out beforehand (see Appendix 3). In ninety percent of cases, the teachers were present in the classroom when the questions were administered to the pupils. This may have inhibited some of their responses; pupils were however assured that whatever they wrote would remain confidential and that the writer would be the only reader.

A special effort was also made to chat informally to teachers and pupils about issues and impressions arising from the lessons. This was particularly valuable in cases where pupils felt reluctant, or unable, to express their opinions in writing. Teachers too tended to be more relaxed and open in the informal atmosphere of the staffroom where informal discussions were conducted.

4.4 Analysing teacher input

To assist in the analysis of the lessons observed, the ten students were asked to provide copies of their lesson plans and of the materials and aids used in their lessons. This enabled the writer to scrutinise more closely the lesson content and the students’ aims and objectives. They were also asked to write brief evaluations of their classroom performance. This, it was hoped, would give additional insight by bringing another perspective to bear on the lessons presented.
Comparable depositions could not be required from the five senior primary teachers. The reason being that most experienced teachers are not required to write out their lesson plans. If they do so, it is probably a matter of personal choice on the part of the teacher. It is the writer's opinion that since the introduction of formal assessment of teachers in 1979, many appear to be apprehensive about discussing or displaying their work. During informal conversations, however, additional information was gleaned about the lessons observed and about the work programmes of which they formed part. In discussing their work programmes, some teachers showed the writer their pupils' history notebooks: the notes, drawings and maps they contained had, for the most part, been generated by the teachers, rather than by their pupils.

4.5 Measuring pupil response

Having obtained information relating to the teachers' lesson objectives and lesson plans, the writer wished next to find out something about the other half of the equation, that is, the effectiveness of the lessons. How much learning, if any, had actually taken place? What educational impact, if any, had the lessons had on the pupils with reference, particularly, to the three concepts being investigated? It was decided that the most practical way of gauging lesson effectiveness was by measuring pupil response. And this was sought by means of three separate but complementary, techniques.

Firstly, close attention was paid to the interaction between teachers and pupils during the lessons and what seemed to be salient points were noted. On occasion a tape recorder was used as a backup to record the details of the lessons.

Secondly, short pencil-and-paper tests were administered based on the main concepts taught in the lessons. General as well as specific questions were asked (see Appendix 3). It should be noted that not all the lessons observed readily lent themselves to follow-up questioning in terms of the specific areas that the writer was investigating. As mentioned earlier, teachers and students had not been fully briefed on the exact nature of the project beforehand as it was important to avoid
lessons prepared in advance or tailored to include the concepts which were being sought. The writer wished to see if these concepts were introduced spontaneously into the teachers’ lessons without any prompting.

Thirdly, where possible and when convenient, informal discussions were held with pupils. The writer spoke to a representative number of pupils in the sample.

The pupils’ written responses contained much interesting information which, however, proved extremely difficult to process and evaluate in relation to the three concepts under investigation. The problems which presented themselves in this regard are reported on below in the section dealing with the results of the analysis of the pupils’ responses.

4.6 RESULTS: analysis of the teachers’ performance

What becomes clear from examining the table (Appendix 4) is that the teachers, whose lessons were observed, tended to make reference to the concepts of historical time and cause and effect incidentally and casually rather than centrally and purposively even when the lessons clearly included (and indeed necessarily so) the concepts under investigation. In only a small minority of cases were these two concepts specifically built into lesson plans. Where they had not been, the teacher’s references to one or other of them tended, as one would expect, to be perfunctory, but even where they had been, lesson content tended to predominate over the focus and reinforcement of the concepts being referred to. One teacher made extensive use of a time line to assist her Standard Two pupils. The lesson was on the history of their school. The teacher drew the following time line on the board:

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The terms “past”, “present” and “future” were explained. She discussed significant events in the history of the school and pointed to the dates on the time line. Pupils were given a worksheet with a time line and asked to do the following:

1. Fill in on the time line when you were born.
2. Fill in the one most important date in your life and write one key word to explain what happened.

3. Fill in when the school was started. How old is your school?

4. How many pupils enrolled on the very first day?

5. How many pupils are in your school now?

6. How many more pupils are there now? Why do you think this has happened?

7. Fill in the date when the school changed its name.

8. Fill in the date when the Second World War began.

9. How did your school help during this war?

For the rest, however, when time words or dates cropped up, they were dealt with in a rather perfunctory way.

Some of the tasks and worksheets contained items that clearly had a bearing upon the concepts under investigation - for example:

**On historical time:**
1. What does the term B.C. mean? (Std Three)
2. When did Jan van Riebeeck establish a refreshment station at the Cape of Good Hope?

**On cause and effect:**
1. What causes airships to fly?
2. What effect did the disaster of the Hindenberg have on the future of airships? (Std Four - a class discussion)

**On empathy:**
1. Imagine you are a serf in the Middle Ages. Describe your lifestyle. (Std Three)
2. You are a member of the Council of Seventeen. Consider some of the important factors in establishing a refreshment station at the Cape. (Std Five - a group task)
As mentioned in Chapter Four, most of the teachers interviewed by the writer believed that it was important to encourage young children to empathise. Teachers defined empathy as "the ability to see something from another's perspective". They generally agreed that it was more than "feeling sorry for someone". However, in their lessons the distinction between "sympathy" and "empathy" was not always accurately made.

Most teachers openly admitted that they found historical time a most difficult concept to teach. Some of the empirical research done in this area lends support to their *cri de coeur*; several researchers have been decidedly tentative about the ability of primary school children to understand time. Friedman (1944) studied 697 pupils in Kindergarten and in Grades I-VI in three elementary schools in Minneapolis, Minnesota. In the intermediate grades a written test composed of four parts was used. One part was on objective attempt to find out about the ideas of older pupils concerning the indefinite time concepts discussed for the primary grades, e.g. "A long time ago". Another contained multiple-choice questions to test the understanding of time words and dates drawn from two word tests compiled by Edgar Bruce Wesley. Friedman concluded by saying:

Tests on the meanings of time words on dates, and on ability to place familiar events in chronological sequence indicated continued progress by grade but lack of sufficient comprehension even by Grade VI [the writer's emphasis] (1944:342).

On the child’s ability to understand time Bromberg (1938: 147) said that the development of the time-sense did not occur until after the age of five or six, and developed *slowly until about the age of ten or twelve* [the writer's emphasis]. According to Bromberg, the child’s success in mastering time concepts is dependent on his ability to think abstractly.

The concept of causation in history was felt by most teachers to be just about as difficult to explain as the concept of historical time. In seeking to simplify historical data so as to make them more readily accessible to pupils, teachers run the risk of oversimplifying and trivialising their material. For example, a lesson was observed in which the student, by neatly "packaging" the causes and effects of
the Anglo-Zulu War, palpably oversimplified the case. Teachers need to make pupils aware that events often have multiple related causes (and consequences). Effectively, this means getting pupils to see and make all sorts of important connections as well as to see the importance of making connections (Gagnon 1989:311).

Reed, as quoted in Gagnon, (1989:312) gives an interesting idea of how this can be done. She suggests that teachers use a "word wheel" in order to show children the inter-connectedness of events. The illustration given is based on a lesson on the American Revolution. A "word wheel" is drawn on the chalkboard with "American Revolution" written in a circle in the centre. Lines are then drawn radiating out from the centre like spokes of a wheel. On each of these lines, the teacher may note the variety of reasons pupils give from their reading and other learning about the war. The teacher then draws a large circle around all the spokes, so that children can see that they are all related to the event. Reed advises the following:

Ask pupils if they would have seen the whole picture if they had stopped with just one cause or reason for the war. You may want to deepen the discussion by asking if pupils can see any groups or kinds of causes: Are there economic spokes? Geographic spokes? Are some causes more important than others? (1989:312)

The "word wheel" technique can be usefully employed when studying other events. Hopefully this kind of approach will wean young pupils off monocausal explanations.

Clearly, the concepts of historical time and cause and effect can be explained at a very rudimentary level; it is when teachers try to do so at a more sophisticated level that their doubts and reservations came to the fore. The writer believes, however, that these problematic, difficult concepts can be dealt with in a manner accessible to most pupils without the integrity of the discipline having to be compromised. The most frequently quoted statement of Jerome Bruner supports this view: "Any subject can be taught effectively in some intellectually honest form to any child at any stage of development" (1977:3). Mention has already been made in Chapter One of the importance of identifying concepts which are
fundamental to a discipline as a whole. A concepts-related approach allows the teacher to implement Bruner's "spiral curriculum": at each stage of the pupils' education the teacher returns to the same concepts at an increasingly sophisticated level of understanding. Learning can been seen as a "spiral staircase". During a course pupils would deepen their understanding of key and subsidiary concepts (Nicol 1984:14).

Gunning (1978) provides the following example of such an approach:

A young child might have the following understanding about kings: 'They wear crowns and sit on a throne'. We might get the child to add to this idea the notion that kings give orders. Months later, he might be helped to refine this idea even further to 'Kings give orders, but not crazy orders'. Later still, he can add the idea that the king has people to help him work out what order to give and so on. Eventually we hope for a full-blown understanding of the idea of kingship on the pupil's part, but Bruner's great point is that we do not wait around for that full understanding to emerge at age twelve or fourteen ... but to work at producing the understanding, in planned, conscious ways, by expanding the growing understanding in appropriate ways at age six, nine, ten and so on (1978:12).

Using this approach teachers could perhaps successfully teach the concepts under discussion.

It was pleasing to observe that almost all the teachers made an effort to encourage pupils to empathise. This led, in a number of classes, to pupils being involved in rôle-play, dramatisations and, in some cases, much heated debate. The Fourth Year students were involved in a project relating to teaching-as-process, so they were particularly sensitive to the need to get pupils to participate actively in the teaching-learning situation. Three students planned and prepared detailed self-study packages on topics such as the History of Flight, the Development of Christianity and the Voyages of Discovery which involved pupils, working in groups, in reading, selecting, discussing and note-taking as well as in organising and presenting teach-backs.
Students did not specifically plan and prepare their self-study packages around these three concepts. However, here were instances where pupils were required to have some insight into them. For example, the task on Airships reads:

Find out how the airship travels and how it was used in the First World War. Many of the passenger airships of the 1930s met with disaster. Prepare a news broadcast in which you report the tragedy of the Hindenberg. Your newscast may include an on-the-spot reporter who would describe to his viewers the scene of the accident. Try and find photographs to support your news item. The report must include the reason/cause for the disaster.

In order to successfully complete this exercise an understanding of the time perspective, causes of the disaster and on empathetic awareness of the background details are clearly important.

To sum up: the data relating to the teachers' performance show that they reacted in different ways towards the three concepts under investigation: most of the teachers, evidently feeling less than confident about their ability to explain successfully the concepts of historical time and cause and effect at senior primary level, tended to shy away from them. On the other hand, feeling that empathy was easier to deal with, most of them found a place for it in their lesson plans and during their lessons encouraged the pupils to "pretend", "imagine" or "act out" various scenarios.

The data in the table below was based on the writer's observation of fifteen lessons. Information was also gleaned from interviews as well as from the lesson plans in the students' "crit" books.

**Lesson planning : 15 teachers**

<table>
<thead>
<tr>
<th>Concept</th>
<th>specifically built into the lesson plan</th>
<th>absent from lesson plan but referred to in lesson</th>
</tr>
</thead>
<tbody>
<tr>
<td>Time</td>
<td>5 teachers</td>
<td>10 teachers</td>
</tr>
<tr>
<td>Cause and effect</td>
<td>6 teachers</td>
<td>9 teachers</td>
</tr>
<tr>
<td>Empathy</td>
<td>9 teachers</td>
<td>6 teachers</td>
</tr>
</tbody>
</table>
A final point that should be made: the five certificated and experienced teachers in the study showed no greater willingness than the students to take up the challenge of teaching historical time and cause and effect, and no greater proficiency than their juniors at actually doing so (when they did do so).

This conclusion is based on information gathered from interviews, observations and the analysis of pupils' answers. Of the five teachers only one had specifically built time and causation into the lesson. Four had given some consideration to the concept empathy.

The writer decided against organising the data on a class by class or standard by standard basis as the focus was on the senior primary level as a whole rather than on each of the subdivisions. So when analysing the results no distinction was made between teachers' and students' classes. The comment made about the teachers' proficiency or lack of it is based on the writer's observations and information gathered from interviews. A glance at the answers from the teachers' classes would suggest that their pupils were no better informed about the three concepts than pupils who were taught by students. For example a random selection of pupils' replies to questions on time serve to illustrate:

Teacher (A) : What is a century?
Pupil : Fifty years.

Teacher (B) : Explain Fourteenth Century A.D.
Pupil : Between Thirteen Hundred and Fourteen Hundred.

Teacher (C) : What is the meaning of A.D.?
Pupil : After death.

And if, on the basis of their respective showings, there was little to choose between the certificated teachers and their non-certificated juniors, there was as little to choose, on the basis of their respective showings, between the specialist students
and their non specialist peers. The possible reasons for this are mentioned in Chapter Six. These are findings which must surely give rise to much disquiet.

4.7 RESULTS: analysis of pupils’ responses
Before the results are presented and interpreted, it must be stressed that the writer is only too aware of the difficulties involved in trying to gauge senior primary pupils’ actual level of understanding from their written responses to questions, (a point which raises issues that sometimes are not at all straightforward). Many pupils at senior primary level, in particular the younger and “slower” ones, experience considerable difficulty in expressing themselves coherently in writing or, for that matter, even orally at times. Margaret Donaldson makes the point that teachers tend to underestimate children’s competence as thinkers and overestimate their ability to understand (and use) language (1985:61). These sobering words kept coming back to the writer whenever she found herself analysing the results and trying to figure out what a given response signified.

To make the analysis of the data easier to process each pupil’s response was transferred into a booklet. One such booklet was kept for each class. Sufficient space was left in the margin to comment on the responses and to note whether they pointed in the direction of historical time, cause and effect or empathy. Then, for each class, all the responses were transferred on to a grid which distributed them on the basis of the questions to which they referred. Thus an overview of all the responses relative to a given question was obtained and this enabled the writer to gain an idea of the extent to which a body of responses appeared to bear upon (and hence to suggest recognition and/or comprehension of) one or other of the concepts under investigation. It is perhaps also appropriate to add that in the handling of the data, the responses grouped under each question were viewed as a totality, bearing in a generalised way upon the teaching and learning of history at senior primary level. In other words, as pointed out earlier, the writer decided against organising the data on a class by class or standard by standard basis - and this, because the inquiry, for all its limitations of scope had as its focus the senior primary school in general rather than any of its subdivisions.
In scrutinising the responses to Questions One, Two, Three, Four and Seven (see Appendix 3), the writer was looking for references, however oblique, to historical time, cause and effect and empathy.

With reference to Question Two there arose the difficulty, (caused in part by the necessary decision to refrain from, in any way, influencing the teachers’ lesson designs) that each teacher emphasised a different set of leading concepts in her lesson. However, the writer selected from the lessons words and keywords frequently used in the course of each of the lessons observed. On average there were five words or key words implicit in which, albeit sometimes feebly, were indications of historical time, cause and effect and empathy (see Appendix 5). The pupils were then asked to explain in their own words the meanings of the terms selected. As one might have expected in the circumstances, a goodly number of the responses received contained no traceable pointers to the concepts under investigation (a problem compounded by the difficulty some of the respondents had in expressing themselves in writing).

Questions Three and Four: From responses to these questions the writer hoped to ascertain whether an encounter with the concepts of historical time, cause and effect and empathy had played a part in the children’s enjoyment, of history.

Questions Five and Six were not scored, but they were included in the pencil-and-paper quiz as the writer wanted to see which sections or topics interested or bored pupils. It was thought the results obtained might prove useful as comment at a later date on the Senior Primary History Syllabus. Younger children appeared to be particularly fascinated by myths and legends and the history of the Ancient World. This appears to confirm the findings of Egan (1982:441) who said that children’s experience of reality would seem to begin at its limits and then work inwards to their everyday experience. The current History Syllabus for senior primary school has a considerable cross-section of topics ranging from Ancient History to local, depending upon the standard being taught. The syllabus is to be
used as a guideline. What is to be taught is an internal matter for the individual schools. The current senior primary subject advisors do not insist on all schools following a rigid plan. Teachers are given the following advice in the History Syllabus:

1. It should be understood clearly that teachers need not attempt to cover all the details mentioned under suggestions and should feel free to use their own initiative depending on the reference material available and the interests and ability of the pupils.

As mentioned in Chapter One, teachers are encouraged to focus on skills and concepts rather than teaching and testing content. With this in mind, the emphasis is on continuous assessment. The introductory instruction to the History Syllabus reads:

4. In evaluating the pupil's work cognisance should be taken of all the work done, e.g. tests, completion of worksheets, involvement in group projects, participation in discussion, evidence of resource centre research, general application and enthusiasm.

Question Seven was open-ended. In their responses (many of which were interesting) pupils expressed their views on teachers, teaching methods, assignment topics, and the history syllabus. This question proved to be very valuable and was an eye-opener for the writer. A few of the pupils' comments have been included in this Chapter and the next. The responses were categorised under the headings "positive", "negative" and "no response".

An examination of the table (Appendix 6) shows that most pupils did not have an adequate understanding of historical time. With respect to Question One, the data suggested that 18% of the respondents identified and/or understood the concept; with respect to Question Two, only 3.8%; Question Three 10%; and Question Four 33%. Research indicates that by senior primary level, pupils should have acquired an understanding of the terms such as "long ago", "a hundred years ago", and the like, as well as a grasp of periods in history, e.g. "colonial times" (see Appendix 7). The results do not permit the writer to maintain with any confidence that this is the case with regard to the majority of the pupils in this study.
In this connection it should be reported that the writer was struck by the number of pupils who did not understand the meaning of the term "A.D.". Most took it to mean "after death". There were also several who were unsure of the meanings of "century", "Fifteenth Century" etc., and time periods such as "Middle Ages", "the Age of Exploration".

The pupils' grasp of cause and effect appeared to be as shaky as their grasp of historical time. Thus, concerning Question One, the data suggested that 26% of the respondents managed to identify and/or show some understanding of the concept; on Question Two, 3.6%; on Question Three 6% and on Question Four only 3%.

It is interesting to note that while pupils "naturally" associated history with "pastness", they appeared not to appreciate the centrality of cause and effect in history. This was brought home to the writer when she asked pupils what they considered history to be about. Most made mention of the time perspective, i.e. history deals with events that happened in the past. Few references were made to causal explanations of events. This shortcoming could be related to their level of cognitive development but the writer suspects that it has more to do with inadequately thought-through lesson designs, substandard lesson preparation and pedestrian lesson presentation on the part of the teachers. This will be given further consideration in Chapter Six.

The importance of generating an awareness of cause and effect in history teaching is undeniable. An HMI report on school history declared that pupils should come "to understand that events have usually a multiplicity of causes and that historical explanation is provisional, always debatable and sometimes controversial" (1985:3). Teachers should be aware of this.

Most teachers considered the development of empathetic awareness to be important. Most built it into their lesson plans and into their classroom performance. This attention to empathy was clearly mirrored in the pupils' responses, particularly in Questions One (77%), Three (54%) and Four (49%).
The level of empathetic understanding was in most cases fairly rudimentary but it was nonetheless present. Research has shown that it is often difficult for young pupils to sustain a high level of empathy and that once a level is reached, there are apt to be advances and regressions (Shemilt 1984:83). This point was borne out when pupils were engaged in conversation about the period or persons they were studying. These advances and regressions may be directly related to pupils' interest or lack of interest in historical personages or events. Certain pupils, who were fascinated by the explorers made a special effort to familiarise themselves with the intimate details of sea travel during the Renaissance. These pupils sustained a high level of interest and appeared to be more empathetically disposed to this topic than they had been towards the previous one (the origin and spread of Christianity) they had completed with their class teacher.

As regards the development of empathetic awareness, the situation, for most of the pupils in the sample, seemed by and large to be satisfactory. But it was quite a different story with regard to the other two concepts under investigation: for most of the pupils the encounter with the notions of historical time and cause and effect turned out to be a perfunctory and patchy affair which left them little the wiser. The blame for this has to be laid, in the writer's view, at the teachers' door, for they tended to avoid in many cases, teaching admittedly, difficult topics (perhaps because of a deep-seated sense of being unequal to the task). Certain teachers in an "off-the-record chat" shared their feelings of inadequacy with the writer. One confessed that she was keen to teach history but was afraid to do so because of her poor general knowledge! Most teachers also conceptualised the concepts thinly and superficially or took them too much for granted to bother about spelling them out systematically. Many of the teachers in this sample, not unexpectedly, dealt with them in an incidental, "hit-or-miss" fashion when presenting their lessons. The following examples serve to illustrate.

A student taught an hour session on the establishment of a refreshment station at the Cape. No explanation was given of the term Seventeenth Century A.D.
although the concept was mentioned frequently. Only three out of twenty-three pupils were able to give the correct answer when questioned by the writer. When asked the reason for not teaching this concept, the student said that she hadn't taken it into account (this is she did not feel it was important).

After an hour's introductory lesson on the causes that led up to the Anglo-Zulu War, the writer closely questioned the pupils' perceptions of the situation. Many of them held rather simplistic causal explanations because this was how the material had been presented. One pupil said "I learnt that war is mainly caused for land, religion, money or race". The student had instructed pupils to read a chapter on the Anglo-Zulu War from a Standard Four textbook. On completion of this exercise pupils were questioned on the text. The names of the main protagonists were listed and the causes which were stated in the book were written on the chalkboard. The complexity of the issues leading up to this war had not been clearly outlined and discussed. Pupils were unable to distinguish between the principal causes and secondary issues. It was also apparent that the student was blissfully unaware of the contentious nature of this topic, she had only consulted one source - the textbook! Much more attention should have been given to the planning and preparation of this lesson.

Is it any wonder, then, that the pupils' grasp of the concepts of historical time and cause and effect turned out to be as shaky as these data suggest? The writer strongly suspects, moreover, that the shortcomings which this small-scale inquiry has brought into focus are widespread in history teaching and learning at the senior primary level, not only in Natal but throughout South Africa. It can be stated with confidence that Natal primary teachers are as well prepared as elsewhere in South Africa.

Concerning Question Seven the writer hoped to gather a few spontaneous responses, which would give an insight into pupils' thinking and feelings about history learning (and teaching). The data broke down into 46% positive responses, 31% negative and 23% no response. The high percentage of non-response can be attributed to one or more of a variety of factors:
1) Pupils did not have enough time to complete the exercise.
2) Pupils did not wish to comment. (This may be due to indifference or fear.)
3) The younger ones might have had difficulty in expressing themselves in writing.
4) Pupils did not have anything to say.

A variety of reasons was given for not enjoying history. The ones that predominated were: boring teachers, too much "teacher-talk", uninteresting subject matter, having to learn too many dates and facts and being given too little opportunity to research topics on their own. It would appear that limited attention is given to the teaching of concepts and skills and that many teachers end up stressing content knowledge which pupils are then expected to regurgitate at test or examination times.

A Standard Four pupil made this telling comment: "I don't really think history should be about dates but rather [about] interesting facts and happenings. History should be fun and enjoyable". This is a theme that ran through most of the responses received.

Pupils who enjoyed history appeared to have enthusiastic, interesting teachers who planned and presented their material in a varied manner. Pupils reported enjoying class discussions, independent study, group-study assignments in the media centre and visits to museums and historical sites. None of which ensures that the concepts under investigation were taught and learnt!

As mentioned earlier the teacher should be as concerned with the process of enquiry as with the imparting of received knowledge. A concept/skills based approach generally leads to an active, child-centred form of learning in which the teacher plays a vital role. Lessons should be planned, prepared and organised with specific concepts and skills in mind. In developing conceptual understanding pupils employ a range of intellectual, social and physical skills. These include the ability to find information from a variety of sources; the ability to exercise empathy; the ability to manipulate equipment to find and communicate
information (Nicol 1984:12). For the pupils to be involved in the learning process, they should handle historical resources. A crucial factor here is to match the material to the pupils' reading age. For many senior primary children the content has to be at the concrete operational stage (Piaget). Selection of material should also involve the omission of confusing or irrelevant information, that is material which would hinder the pupils' understanding of the historical situation which the source material aims to bring to life (Nicol 1984:16). Historical study involves a process of enquiry and not merely the mastering of a received body of knowledge. Working with "evidence" enables pupils to achieve understanding and relative mastery of the historian's craft by the end of their education (Nicol 1984:15). Teachers should take cognizance of these important issues if history teaching is to be meaningful to their pupils.

5. Concluding Comments

In the pages which follow an attempt is made to approach integratively the issues dealt with, and the data marshalled, in this dissertation. It is hoped, on the basis of this approach, to offer a coherent overview that integrates the principal conclusions of the theoretical chapters (Chapters One to Four) with the principal findings of the empirical study (documented in Chapter Five). In so doing, these concluding comments must, inevitably, pre-empt in some areas or overlap with, the conclusions presented in the following and final Chapter.

The aims of history teaching as outlined in the Natal Education Department Syllabuses for Standards Two, Three and Four make it clear that senior primary teachers are expected to take into account the concepts of historical time, causality and empathy when teaching history.

On historical time and causation the following is stated:

6. To teach the pupil the interrelationship between past, present and future, and between cause and effect (1978:2)

An oblique reference to empathy is contained in the following clause:

2. To cause the pupil to view History as a record of the activities of people, of people in other times, and of people in specific situations, and to help prepare him to take his place in society (1978:2).
The document goes on to say that pupils should be taught to work independently and to acquire the skills associated with historical method (1978:2).

Most of the teachers who were the subjects of the empirical study tended to pay "lip service" only to the concepts under discussion, their lessons consisting almost entirely of mere content teaching. This is clearly an unsatisfactory situation because, as indicated earlier, an appreciation, even at a rudimentary level, of the concepts of historical time, causation and empathy are indispensable to any kind of historical understanding worthy of the name (HMI 1985). Exposure to these concepts actively promotes thinking and problem-solving just as it fosters a resistance to viewing complex historical issues in "cut-and-dried" simplistic terms. Moreover, laying the stress on concepts and understanding, instead of on purely content-based learning, ought to help pupils gain some insight into the "process" of history. Again, the development of empathetic awareness is of consequence for the emotional, social and moral development of children. Most importantly encouraging empathetic understanding is one way of combating xenophobia. Moreover, a concept-based approach to history teaching may be expected to kindle pupil interest and stimulate enjoyment of the subject in a way that no content-based approach is likely to equal.

Researchers such as Egan (1982) and Levstik and Pappas (1987) take the view that young children should be introduced to historical concepts as early as possible. And to introduce such concepts at senior primary level is also of course to raise up a foundation for secondary teachers may develop and build.

This research project focused on the three pivotal concepts of historical time, cause and effect and empathy. Of interest to the writer was how these concepts were taught and learnt. Fifteen history lessons were observed, from which it became apparent that the concepts under investigation were generally dealt with in an incidental manner by most of the teachers concerned. This, in the writer's opinion, is the main reason why most of the pupils in the sample had only a
superficial understanding of them or, in some instances, none at all. The results of this research suggest that there is a need to heighten teachers' awareness of the centrality of these three concepts if the teaching and learning of history at senior primary level is to become meaningful, effective and, not least, enjoyable.

The three concepts, i.e. historical time, causation and empathy will now be considered under separate headings. References to the research literature will be brief as detailed analyses have already been presented in Chapters Two, Three and Four.

i) **Time**

History is concerned with change and continuity in human affairs over time and so the development of a feel for the transitory, as well as the unchanging, in the human narrative is of capital importance for the development of historical understanding. J.H. Plumb has remarked that the "aim of history ... is to understand men both as individuals and in their social relationships in time" (HMI 1985:4).

This is no easy task as any number of teachers will confirm. Those interviewed by the writer agreed, in fact, that of all historical concepts that of historical time was the most difficult to teach and to understand (children's problems in this regard are fully documented in Chapter Two). Still, historical time is at the very heart of the discipline, just as it is unique to it, and so to avoid teaching this concept on account of its difficulty, as was done by the great majority of the teachers in the empirical sample, is to defeat the very point and purpose of history teaching.

The remarks which follow concern factors to which senior primary history teachers should give careful consideration when teaching the concept of historical time.

To begin with there is a need to recognise (as Jahoda, cited in Chapter Two above, points out) that concepts of time are culturally and socially conditioned. Our "educated", Western, middle class image of historical time as an even and
continuous flow from a remote past to an indefinite future is, accordingly, just one perspective among many. In contrast to so abstract a view, rural folk, for example, may still measure time with reference to the events of a country day: milking time, foaling time, harvesting time etc. Clearly, an awareness of socio-cultural determinants should help to alert teachers to the difficulties likely to be experienced by children trying to cope with the concept of historical time. This is likely, before long, to become critically important for history teaching in South Africa, given the strong probability of a changeover to a unitary school system in the not too distant future. Already, most of the classes visited by the writer contained some Black children and their experience and sense of time might well have differed from those of their White classmates. If, as is likely, White children are in the minority in a class, will it still be appropriate to put over a White middle class view of historical time (not to speak of a White, middle class view of history in general)?

The importance of economic and environmental influences on children's ability to master concepts should, likewise, not be underestimated. Because of their privileged circumstances some children do have a head start at school. It is their good fortune to have parents who provide not only material comforts but also the kind of home environment in which reading is encouraged, knowledge respected and intelligent discussion cultivated. Children with these kinds of advantages often enjoy another - enrolment in a pre-school. And so, not surprisingly, by the time they arrive at "proper school", they are, characteristically, literate, numerate, confident, socially adept and able to communicate effectively. Some of these youngsters may indeed already own a watch and be able to tell the time. By contrast, children from poorer backgrounds may be slower at clock skills (Springer 1952). Reasons for this conclusion are not elaborated by Springer, but one may assume that limited opportunities for time-telling at home have more than a little to do with the problem.

It seems in general, to be the case that children from less advantaged backgrounds start off at school with "gaps" in their social, emotional and cognitive competence
and are therefore at a disadvantage in a school system where middle class norms, values and language predominate. In some instances these pupils receive instruction in a language which is not their mother tongue, and this may well cause problems, in the area of concept acquisition.

It is important that teachers be aware of problems and issues such as those outlined above and that, on the basis of this awareness, they plan their lessons with an eye both to the identified difficulties and to the "remedial" or "compensatory" steps necessary for addressing them. In some instances teachers may find themselves nurturing skills which, in earlier times, were expected to be taught in the home.

That teachers find it so difficult to teach the concept of historical time is due in no small measure, in the writer's view, to their ignorance of the manner in which children come to acquire an understanding of this concept. Consequently, the results of research in this area can be of very considerable help to teachers planning lessons on historical time. The work of Oakden and Sturt (1922), Bradley (1947), Springer (1952), Blyth (1978) and Thornton and Vukelich (1988) strongly suggests that pupils acquire an understanding of time in a sequence that remains invariable. The development of an understanding of historical time appears to depend prerequisite upon some degree of mastery of clock and calendar time as well as upon a clear understanding of time language and how it is used. Harner's (1982) research suggests that children by the age of ten to eleven years have mastered the principal linguistic structures pertaining to time. Blyth (1978) and West (1978) stress that it is important to relate the content of history to pupils' own experience of time. But in the lessons observed by the writer this was only infrequently done, with the result that many pupils found the material boring and but little relevant to themselves or their situation. Time-historical and time-verbal skills have to be taught and reinforced on a regular basis, and specialised temporal nomenclature is not likely to be mastered, according to Thornton and Vukelich (1988), unless it is specifically taught. The correctness of this perception was brought home to the writer on several occasions during her observation of lessons
when pupils, asked to explain such terms as "the Eighteenth Century", "the Space Age", "the Era of Sailing Ships", betrayed by their responses, that they had little or no understanding of the temporal concepts involved. It seems also clear, in this connection, that children from disadvantaged backgrounds will require special nurturing and assistance.

It is important for teachers to ascertain their pupils' level of temporal development as introducing the concept of historical time before some degree of mastery of clock and calendar time has been achieved is really just an exercise in futility. Teachers should be aware that research into the development of children's temporal sense indicates that prior to the age of eleven years the conventional nomenclature for time periods, such as "century" and "age", as well as historical dates, mean little or nothing unless they are carefully explained and correlated with the children's own activities (Oakden and Sturt 1922; Blyth 1978). In fact, Sleeper (1975) argues that a full understanding of historical time is dependent upon children's reaching the formal operational stage of thinking at about age twelve.

Time lines were developed in order to give children, who had not yet arrived at this stage, an opportunity to visualise historical time in concrete, graphic terms, thus meeting some of the difficulties raised by the high degree of abstraction ordinarily characterising the concept of historical time. But time lines, for all their usefulness, are not without their own kinds of difficulties. One such difficulty was encountered by the writer when teaching history to Std. Two's and Three's: pupils, who were weak at mathematics, were in general unable to make the necessary calculations on time lines. A similar problem cropped up in a lesson given by one of the teachers in the empirical sample. Of the entire group of teachers, she was the only one to make use of a time line and while her lesson (to a Std. Two class) was interestingly presented, the writer wonders how many of the pupils had a clear idea of the dates on the line - why they were where they were and how they related to one another.
A further problem with time lines is that their very linearity, prolonged infinitely into the future, reflects but one culturally conditioned perspective on historical evolution, the Western perspective. In other cultures historical evolution may be conceptualised in quite other ways, for example, cyclically or spirally (Jahoda 1962). For us, in South Africa, such possibilities are not simply the stuff of interesting theoretical speculation. They are of immediate importance, given that a unitary, multicultural school system may well be introduced in the near future.

Aware of the known difficulties raised by time lines, not to speak of the anticipated ones, teachers would do well to experiment with some variations - such as circles, spirals, zigzags and very basic graphs (Collicott 1990). The teacher's success with any of these aids will depend of course on the care taken to prepare pupils for exercises and tasks involving measuring, counting, estimating etc. In a word, pupils cannot simply be introduced "cold" to time lines; there has to be careful advance preparation.

Moreover, the insights, skills and knowledge gained from lessons in which time lines have been used should be consolidated and extended in succeeding lessons. There was no evidence of any such follow-up in the classes visited by the writer.

ii) Cause and effect

As indicated earlier, the concept of historical causation was felt by most teachers to be just about as difficult to explain as the concept of historical time and for this reason they tended also to avoid teaching it.

The three models of causal understanding found in young children, which were outlined and discussed in detail in Chapter Three, should provide teachers with some insight into how children make causal connections. These were:

a) Piaget's (1930) model suggests that children are unable to deal with abstract levels of thinking until about the age of twelve. The concept of historical causality involves an appreciable degree of abstract thinking. Hallam (1970) argues that in history learning a level of abstract conceptualisation, sufficient to cope with historical causality, is not achieved until about sixteen years of age. Now, while a grasp of complex causal inter-relationships may well be beyond the capabilities of senior primary children, a start has to be made
somewhere and so what is required is that teachers simplify the material as best they can, even while seeking to become better informed about the various theories pertaining to the development of causal thinking in children. And in this connection, Piaget’s *The child’s conception of physical causality* (1930) is the classic description of the developmental view. Research conducted by Mossom (1989) strongly suggests that senior primary children’s understanding of causality in science does indeed closely follow Piaget’s developmental stages. Unfortunately, comparable studies have not been conducted at the pre-adolescent level with respect to history learning. Shemilt’s (1980) work on adolescents’ handling of historical causality is of limited use to senior primary teachers. After having taught at senior primary school for twelve years, the writer is inclined to support a developmental view of causal understanding in children.

The following two models of causal thinking in children offer teachers an interesting alternative to Piaget’s theory. Both models involve the hypothesis that children are capable of fairly complex mental operations at a young age.

b) Kelley’s (1973) model postulates that children make causal connections as part of inferential patterns they continuously generate in order to make sense of their environment. Unfortunately, a good deal of the historical material presented to children is far removed from either accustomed experience or the accustomed environment. Nevertheless, research conducted by Levstik and Pappas (1987) suggests that provided historical material is "embedded" in an accessible narrative, children will be able to make appropriate causal connections. As mentioned earlier, stories are an excellent vehicle for teaching young children just about anything and perhaps history in particular. The writer has, in her own experience, found, for example, that Juliet Marais Louw’s book on Van Riebeeck’s settlement, *Musket and Garden Hoe* (1970), was useful in preventing many a topic from becoming "dull" and "boring". History presented as story not only brought enjoyment to the writer’s Std. Three pupils but also opened up possibilities (which no other method could have done as effectively) for productive class discussion of some difficult historical concepts, including that of causality.

c) The Kintsch and Van Dijk (1978) model is an information processing one which seeks to explain causal understanding in terms of how information is selected and interpreted from the environment. Only limited research has been done on information processing in relation to historical understanding. Kennedy’s (1983) work, which is outlined on pages 74 and 75, provides teachers with some guidance on how to plan lessons from an information processing point of view. Teachers who are interested in this approach should take the trouble to do further reading on their own about information processing in relation to teaching techniques.
There is little recognised research on the effects of culture on causal thinking in young children. However, it is worth recounting that in teaching in North American Indian reserve schools, it has been found that frequently supernatural explanations are offered by pupils for occurrences which would seem to follow the ordinary rules of causality. Folkways and folklore may have a stronger influence on the thought patterns of young children than we realise. There is a necessity perhaps for teachers to be sensitive to children's cultural backgrounds.

An understanding of causal relations in history necessitates abstract thinking at a level of sophistication which few senior primary pupils can be expected to attain. Even so, it is still worthwhile trying to put over the idea, even in the early years of schooling, that events may have many causes, which may be difficult to identify and more difficult still to verify. The simple exercises described in some detail in Chapter Three may well be one way of encouraging children to be on their guard against monocausal explanations of events. The "word wheel", which is described on page 133, is an excellent means of getting children to make appropriate causal connections. The problem for the teacher is often one of finding materials which are at once both interesting and readily understood by young pupils of varying abilities. Graduated tasks may be one way of addressing the range of cognitive abilities in a class, that is starting with fairly concrete exercises and then moving on to those requiring more abstract thinking.

As historical events may have many causes, so they have many interpretations. In historical studies there are no clear-cut answers, no self-evidently "right" interpretations. A simple exercise which can drive home this point to even young pupils is to have several of them recount a playground incident, for example, a fistfight. Within thirty seconds, several competing interpretations and descriptions of the same event will have been generated. The application to history learning is clear: there are many sides to a story and so one needs to approach the data with an open mind and to adopt tentative positions. If senior primary history teachers can foster these attitudes in their pupils; if they can bring them to see how historical data can be misused through distortion, selective omission and other forms of manipulation; if they can put them on their guard against all of these, they will have achieved much.
iii) **Empathy**

Most of the teachers interviewed by the writer believed that it was important to encourage young children to empathise and they tried to make room in their lesson plans for some form of empathetic expression which, however, was not ordinarily conceived of as going much beyond the rather rudimentary first stage of empathetic "outreach", the stage of "imagining", "pretending" or "sympathising". Still, it has to be borne in mind how difficult it is for young children to empathise with people and historical situations that are far removed from their world and experiences. Research conducted by Donaldson (1978) and Hoffman (1975) shows that very young children demonstrate a capacity for empathetic understanding only in situations that make sense to them. Hence, to ask a young child to imaginatively project himself or herself into the psyche of, say, a Sixteenth Century explorer is to ask for a virtually impossible feat. Even an adult finds the task impossible.

It is even more problematic when considering empathetic projection in the culturally deprived, psychically impoverished child, the kind of child, whom Charlotte K. Brooks has described as

isolated from those rich experiences that should be his ... by poverty, by meagerness of intellectual resources in his home and surroundings, by the incapacity, illiteracy or indifference of his elders or of the entire community. He may have come to school without ever having had his mother sing him the traditional lullabies, and with no knowledge of nursery rhymes, fairy stories or the folklore of his country. He may have taken few trips - perhaps the only one the cramped, uncomfortable trip from the lonely shack on the tenant farm to the teeming, filthy slum dwelling - and he probably knows nothing of poetry, music, painting, or even indoor plumbing.

(in Haralambos 1985:202)

Brooks in this passage is referring to culturally deprived children in Britain and America, but, in fact, her comment applies everywhere including South Africa where the number of culturally disadvantaged children runs into the hundreds of thousands, if not millions. How may we then ask any one of these children, from any one of hundreds of overcrowded, ramshackle, fetid classrooms, to "imagine" himself in the rôle of a Sixteenth Century explorer? As far as the development of children's empathetic awareness is concerned, not merely in relation to history learning but even at the general human level, the problems are formidable problems, it should be noted, both for policy-making at the national level as well as in history teaching.
In the new educational dispensation for this country many viewpoints and many claims will be competing for attention and for priority. It would be a pity if the less obviously "pragmatic" claims of empathetic understanding were to be ignored. At the general human level, the empathetic summons to "put yourself in another's place" is an indispensable method for implanting "in the childish breast" a basic sense of fairness and consideration for others. To that extent it should be viewed as one of the essential building-blocks of the child's moral and social development. However, at the broader educational level, empathetic awareness ranks as one of the most efficacious weapons available for combating prejudice and long established viewpoints. It, in inviting pupils to inhabit other, less familiar ones, lays the groundwork for understanding and tolerance of other peoples and cultures. For this reason Kekana (1989) argues the cultivation of empathetic awareness in South African schoolchildren is an essential task. It would, of course, be naive to imagine that any such venture, if and when undertaken, should be looked to as a panacea for all the social ills of this country, but it could, certainly, count as a step in the right direction. Finally, at the didactic level of history teaching and learning, the use of empathetic techniques offers an important alternative (despite the difficulties noted above) to content-based methods of instruction. Provided the groundwork has been carefully prepared, enjoyment and educational dividends may be expected from children's participation in rôle-playing impersonations, dramatisations of historical events, "living history" debates and research projects, all based on imaginative identification with a given viewpoint (Culpin 1984). There should be more awareness in classrooms of the imagine you were one of the native inhabitants witnessing Van Riebeeck's arrival at the Cape, imagine you are a citizen of London at the time of the Great Plague kind.

The teaching and learning of historical time, causation and empathy deepen children's understanding and appreciation of history. But at a more fundamental, more generalised level, the concept approach to history teaching is justified on the grounds that it extends children cognitively, experientially, socially and morally. No longer are they "vessels to be filled", but rather "candles to be lit".
6. Summary

The purpose of this research was to investigate the extent to which certain historical concepts, specifically historical time, cause and effect and empathy, were taught and learnt in selected senior primary schools in the Durban area. An empirical study was conducted at seven senior primary schools in the Durban area during the period July to September 1991. The study was undertaken using the illuminative method of research within the context of the ethnographic tradition and entailed observing and describing the teaching of history in selected schools.

The writer observed fifteen history lessons in Standards Two to Five. There were 354 pupils in the sample. Of the fifteen lessons that were observed, ten were taught by Fourth Year students from a college of education and five by senior primary teachers. The range of teaching experience in the latter group varied between one year and twenty years. The writer was a non-participant observer in the fifteen history lessons. In gathering data use was made of observation schedules, tape recordings, interviews and informal conversations. Short paper-and-pencil tests were written by the pupils. What becomes clear from examining the table (Appendix 4) is that the teachers, whose lessons were observed, tended to make reference to the concepts of historical time and cause and effect incidentally and adventitiously rather than centrally and purposively. In only a small minority of cases had these two concepts been specifically built into the lesson plans. It was, by contrast, pleasing to observe that almost all the teachers made an effort to encourage pupils to empathise.

An analysis of the pupils' data (Appendix 6) indicates that there generally was an empathetic awareness but the pupils' encounter with the notions of historical time and cause and effect turned out to be a perfunctory and patchy affair which left them little the wiser. The blame for this has to be laid, in the writer's view, at the teachers' door as most of them conceptualised the concepts thinly and superficially. Most of the teachers in this sample dealt with the concepts in an incidental "hit-or-miss" fashion when presenting their lessons. It is no wonder, in the light of this information, that the pupils' grasp of historical time and cause and effect has turned out to be as shaky as the research suggests.
Notes

1. The Schools Council Place, Time and Society 8-13 Project (1972), which was aimed at the senior primary level in Britain, was not accepted by the Natal History Subject Committee as the approach advocated was one of "merging" the study of History, Geography and Social Science into a form of Social Studies. Commenting on the 8-13 Project, James as quoted in Steele, says.

   The extent to which the project encourages the separate development of the social studies subjects is obviously a question of great concern to the history specialist. The project views each subject as a resource, as being valuable for its distinctive skills, content and approach, but suggests that it should be complemented by others during the middle years of schooling (1976).

   The Project was however an interesting experiment which concentrated on the development of attitudes, skills and values. Thus, according to Nicol, "By exercising their intellectual, social and physical skills, related [to] their personal qualities, pupils would steadily increase their conceptual grasp" (1984:12). The content of the various subject strands comprising the Project was not specified, but it proposed a list of key concepts derived from Social Studies whose purpose was to organise the pupils' understanding. According to Nicol (1984) concepts such as communication, power, values and beliefs, conflict/consensus, similarity/difference, continuity/change, causes and consequences were identified. Related to these key concepts were subsidiary ones intended to enable the pupil to make sense of his environment.

2. The schools at which college students taught are located in Durban North, Umhlanga Rocks, Berea and New Germany. The schools at which the writer observed lessons by senior primary teachers are located in Durban North, Greyville and Upper Umbilo.
References


Natal Education Department Syllabuses for History Standards 2, 3 and 4. (Unpublished.)


CHAPTER SIX:
Concluding comments and recommendations

After having observed fifteen history lessons, it became apparent that the three concepts under investigation were only generally dealt with incidentally by most of the teachers concerned. It is the writer's opinion that this was one of the main reasons why most pupils in this sample conceptualised these concepts thinly and superficially. An examination of the data in Appendix 6 (the analysis of pupils' written material, particularly their answers to Questions One and Two), clearly showed that without systematic emphasis, the pupils' grasp of the concepts of historical time and cause and effect was generally weak. Informal discussions with pupils confirmed this.

It became clear from the teachers' responses to the questions (refer to Appendix 2), as well as from observations of their lessons, that, while they themselves had a solid enough appreciation of the principal concepts underpinning historical understanding, they failed, for the most part, to build these specifically into their lesson plans or systematically to explain them in their classroom presentations. The reasons for this failure, as perceived by the writer, were outlined in the previous Chapter. Perhaps history teachers, both prospective and certificated, should be made aware of the deficiencies in both their planning and practice and that they should, in the interest of good history teaching, plan lessons, which spotlight in an explicit and systematic way, such pivotal concepts as historical time, cause and effect and empathetic awareness. If this can be accomplished (and in large measure it is a matter of training teachers to be self-conscious, almost as a matter of routine, about their lesson planning) then almost certainly the effectiveness of history teaching at senior primary level will be greatly enhanced.
What also became clear from observation of lessons, from informal conversations with pupils and from their written replies to questions was the close connection between their enjoyment of a lesson and their positive reaction to its content. A teacher's enthusiasm, her sensitivity to her pupils' cognitive level and her care to build variety into the lesson are also factors to be considered in successful history teaching. This twelve-year old commented: "Yes, history is fun sometimes with some topics but it all depends on the teacher's enthusiasm." Enthusiasm, sensitivity, lessons with variety - these may be the best means of preventing this kind of negative reaction from an eleven-year old boy: "I'd rather be doing P.E. History stinks. It's boring. It's stupid. Who wants to know about all those dummies wandering around in funny clothes."

The importance of concepts in the process of intellectual growth was outlined in Chapter One. Research, conducted by cognitive-developmental psychologists, particularly the work of Bruner (1977), indicates that children's success in school subjects depends substantially on their conceptual development, which should not be left to chance. Bruner argued that instruction should be focused on central concepts and that in each discipline there were key concepts that should be mastered. Teaching these concepts should begin as early as possible, and at each stage of the child's education, teachers should return to the same concepts at an increasingly sophisticated level.

Acquiring historical understanding is a long process and the contribution of senior primary teaching towards this should neither be neglected or denied. An haphazard approach to teaching historical time, cause and effect and empathy was not conducive to historical understanding as the empirical study revealed.

Most of the teachers in the study stressed content above teaching skills and concepts. Many pupils expressed their dissatisfaction at having to learn "mountains of facts and dates". Some were so disenchanted with history at senior primary school that they proposed to "drop it" from their studies as soon as they could.
A carefully structured skills/concepts-based approach to history teaching and learning provides an interesting and potentially exciting alternative to a purely content based approach. To achieve this teachers should be as concerned with the process of enquiry as with the imparting of received knowledge.

The central concepts of history, including time, causation and empathy, can be translated into activities within the capabilities of the pupils. The systematic re-introduction of these concepts at an ever more complicated level should be built onto the child's existing "mental framework". Conceptual development is best achieved by the active involvement of children in discovering and developing their skills and ideas (Van Biljon 1986:29).

Kekana (1989:114) suggested that teaching for empathetic awareness may be an effective weapon for combating prejudice as children are obliged to re-examine some of their pre-established perspectives. The value of teaching history from an empathetic perspective in South Africa should not be underestimated. Such a start should be made as early as possible. In developing conceptual understanding pupils are able to use a range of intellectual and physical skills and thus they may have no longer any reason to protest:

I cannot give the reasons,
I only sing tunes.

(Peake quoted in Nicol 1984:24)

Recommendations

If teachers are to teach history as a discipline, and not just a story about the past, then important concepts and skills have to be consciously planned and actively promoted. To this end there has been included two lesson-blueprints whose objective is to facilitate concept development and to promote skills. Both plans are self-explanatory.
### SUBJECT: HISTORY

#### THEME: VOYAGES OF DISCOVERY

<table>
<thead>
<tr>
<th>Lesson No.</th>
<th>Time</th>
<th>Title</th>
<th>Aims</th>
<th>Concepts</th>
<th>Skills</th>
<th>Aids</th>
<th>Introduction</th>
<th>Development</th>
<th>Conclusion</th>
<th>Activity</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>1 hour</td>
<td>Introduction (motive for wanting spices)</td>
<td>For pupils to understand the importance of spices in the Voyages of Discovery</td>
<td>Empathy</td>
<td>Reorganising, Causation, Inference</td>
<td>2 batches of shortbread; 1 with and 1 without sugar</td>
<td>Give pupils a ‘special treat’ - shortbread without sugar (horrible) Let them go out onto the field to find previously hidden nice shortbread, warning them first about the rabid dog seen roaming the school and the snakes that had escaped from the laboratory.</td>
<td>Hand out notes. In groups, pupils read through and discuss questions set. Go over notes and answers as a class exercise.</td>
<td>Pupils an selected sections in the books.</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>1 hour</td>
<td>Marco Polo’s role (obtaining spices by over-land travel)</td>
<td>For pupils to understand the length of time and peril of land journeys and Marco Polo’s role in the search for spices and other Trade goods.</td>
<td>Deletion exercise</td>
<td>Time</td>
<td>How did they obtain these spices? Merchants. What else they found in the East - Silks, gems, metals, etc. Note profit made through trade.</td>
<td>Acknowledge improvement in shortbread with sugar and comment on their bravery in looking for it despite the warning of dogs and snakes. Enforce analogy of Westerners wanting spices from the East to flavour and preserve their food despite terrible dangers. Refer to timeline. Outline the course of the Voyages of Discovery theme.</td>
<td>Hand out and go over notes.</td>
<td>Pupils do deletion exercise - Marco Polo onto timeline</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>1 hour</td>
<td>The Crusades (the end of the land route)</td>
<td>For pupils to understand the religious conflict of the Crusade period, finally resulting in the closure of the land route and consequent urgency to find an alternative route.</td>
<td>Time</td>
<td>Listening</td>
<td>video (National Geographic’s Age of Exploration)</td>
<td>Recap previous section (according to the syllabus): Christianity and the Crusades. Spontaneous class discussion guided towards 1453 - the closure of land routes by the Turks.</td>
<td>Watch video, including all previous work and ending with the closure of the land route and posing of the question - What alternative routes were there? Introduce idea of sea travel.</td>
<td>Discuss video, highlighting important information. Hand out and discuss.</td>
<td>Pupils ans questions related to the Crusades and the overdue 1453 c timeline.</td>
</tr>
<tr>
<td>4</td>
<td>1 hour</td>
<td>Inventions and Developments in Shipping (background to sea travel)</td>
<td>To show pupils how the developments in shipping and navigation made viable the possibility of a sea route to the East.</td>
<td>Analysis of source material</td>
<td>Source material notes</td>
<td>Recap and summarise previous lessons to show a progression of events and bring meaning to the section.</td>
<td>Look at ‘world maps’ from 15th C. Compare with modern day maps and assess how much they knew, especially in relation to a route to the East by sea. Look at technological improvements and developments and how these could</td>
<td>Compare and contrast with modern knowledge, inventions and developments. Look at and discuss notes.</td>
<td>Pupils ans questions b on source material in notes.</td>
<td></td>
</tr>
<tr>
<td>Lesson No.</td>
<td>Time</td>
<td>Title</td>
<td>Aims</td>
<td>Concepts</td>
<td>Skills</td>
<td>Aids</td>
<td>Introduction</td>
<td>Development</td>
<td>Conclusion</td>
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<tr>
<td>5</td>
<td>1 hour</td>
<td>Dangers and Difficulties (Background to sea travel)</td>
<td>To show pupils the negative facets of sailing and long-distance voyages.</td>
<td>Empathy</td>
<td>Creative Writing</td>
<td>Source material Notes</td>
<td>Spontaneous class discussion about superstitions</td>
<td>Move on to serious difficulties. Pupils suggest some. Guided discussion. Look at notes.</td>
<td>Read through source material on scurvy.</td>
<td>Pupil letter from telling kondboard. Work begin study</td>
</tr>
<tr>
<td>6</td>
<td>1 hour</td>
<td>Consolidation; Preparation for self-study task.</td>
<td>To ensure the reasons and groundwork for the Voyages of Discovery have been understood.</td>
<td>Time Empathy Causation</td>
<td>Deletion exercise</td>
<td>Worksheet Self-study packages</td>
<td>Referring to the time-line, recap the past 5 lessons showing a logical development in the build up to the Voyages of Discovery.</td>
<td>Pupils fill in cloze procedure worksheet on work covered to this point. Time allowing, divide class into groups, assign each a navigator/explorer. Establish what is required of them and hand out source material on their explorer.</td>
<td>Pupils read through source material and 'divide their explorer' into sections so each person in the group works on 1 aspect.</td>
<td></td>
</tr>
<tr>
<td>7 + 8</td>
<td>1 hour</td>
<td>Research Time</td>
<td>For pupils to research and put together their teachbacks on their navigator or explorer.</td>
<td>Time Empathy</td>
<td>Sequencing Locating information Skimming and scanning Summarising Note making Reorganising</td>
<td>Self-study packages Library aids</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>9 - 12</td>
<td>1 hour each</td>
<td>Teachbacks</td>
<td>For pupils to present their teachbacks.</td>
<td>Time Causation</td>
<td>Pupils choose and make their own aids</td>
<td>Video</td>
<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<td>13</td>
<td>1 hour</td>
<td>Consolidation</td>
<td>To recap the achievement of each explorer and consolidate the whole theme.</td>
<td></td>
<td>Ensure pupils see the relation between cause and effect in this section.</td>
<td>Video</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>14</td>
<td>1 hour</td>
<td>Test</td>
<td>To measure pupils' understanding of the section, including relation between cause and effect Evaluating.</td>
<td></td>
<td>Reorganising and inferring Classifying information Synthesis Making judgements Cloze procedure Comparisons and contrasts Sequencing</td>
<td>Test Paper</td>
<td></td>
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<td></td>
</tr>
<tr>
<td>Lesson</td>
<td>Concepts</td>
<td>Introduction</td>
<td>COMMUNICATION Development</td>
<td>Conclusion</td>
<td>Concepts developed</td>
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</tr>
<tr>
<td>1</td>
<td>Communication hands objects pictures symbols letters</td>
<td>1) Four activities (see notes) children are working in pairs. 2) Discussion (using illustrations)</td>
<td>1) Work task on worksheet (self-activity) 2) Discussion</td>
<td>Self-study task: Children have to conduct an interview at home.</td>
<td>Time: Activities in the introduction Children realise that in early history there was no writing. Caustion: Questioning: What were the problems with using pictures? So what did they do? Empathy: Introductory activities</td>
<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<td>2</td>
<td>Revise above Writing Stages idea- ideograms pictograms alphabet</td>
<td>1) Discuss homework (interviews) 2) Oral: revise stages learnt last week.</td>
<td>1) Following each stage (oral), analysing advantages, disadvantages. Lead to the next stage. 2) Discuss and draw 'Quipu'.</td>
<td>Complete worksheets. Discussion on how pupil's writing developed ie: Class i - Std 5.</td>
<td>Time: Pose problems Empathy: eg: How do you think a shepherd would have conveyed the number of sheep owned etc? Caustion: Summary of stages (not taught)</td>
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<tr>
<td>4</td>
<td>Rosetta Stone Greek Demotic Champollion Ptolemy</td>
<td>1) Pose problem - give children a code to work out (e.g. one use in Introduction). What did they use? Known to work out unknown.</td>
<td>Discuss hieroglyphics, concluding that it was so difficult to read and why? Read and discuss story of Rosetta Stone and its significance.</td>
<td>Activity: decoding - work out the English message from a hieroglyphic script (competition).</td>
<td>Time: Time line to mark off 1799. Pupils work out how old Boucicaut (± 25 years old) would be today? If pupils were born in 1799, how old they would be today, etc. Empathy: introductory activity Caustion: effect of R.S. discovery.</td>
<td></td>
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</tr>
</tbody>
</table>

**ART LESSON:** Discussed & made illuminated manuscripts (Monks) to be used for future lesson. Displayed.
These comprehensive outlines were developed by Fourth Year history specialists at a college of education under the supervision of the writer and are offered as useful examples of what teachers can do to improve history teaching.

Most of the teachers interviewed found the teaching of historical time a real difficulty. It is to be feared that like Charles Lamb who said "nothing puzzles me more than time ... and yet nothing troubles me less, as I never think about [it]" (Lello 1980:49) they too would avoid dealing with it.

To overcome this some practical suggestions were made in Chapter Two to assist teachers in the difficult task of teaching historical time. A schema, detailing by age the progress of children’s acquisition of time-related concepts, is also a most useful guide for the teacher when planning lessons (see Appendix 7).

Teachers should no more dodge the difficulties presented by the teaching of cause and effect, than they should those presented by the teaching of historical time. Summoning to their assistance charts, diagrams, illustrative anecdotes and whatever else useful they should deliberately and systematically, spotlight the central importance of cause and effect in both their lesson plans and their classroom presentations. Details were provided in Chapter Three.

The last two in service courses the writer attended, organised by the Natal Education Department on philosophy of senior primary education were directed towards principals and management. There is, however, a very real need to focus attention on the teacher in the classroom. In the empirical study two of the teachers interviewed felt strongly that teachers of history should receive rigorous and systematic in service training.

Do they not, however, require rather more than that? With radical changes about to take place in South Africa (changes which will certainly impinge upon the
teaching of history) there is a pressing and present need to challenge fixed ideas, in-
appropriate assumptions and outmoded methods and mindsets. The best place to
begin is surely in the colleges of education where many of our history-teachers-in-
the-making, their outlook shaped by twelve years of schooling in a conservative
education system and by potent, but not necessarily positive, rôle-models, are not
only vessels of many of the customary prejudices and stereotypes of white society
but also have minds shadowed by settled notions of what history teaching is "all
about" and what history teachers are, or ought to be, like. A clear need exists to
challenge the assumptions and mindsets of these young adults who are, after all, set
to begin their careers as history teachers in the new South Africa. It is claimed, with
respect to the United States of America, that no profession faces quite the challenge
of re-education and re-socialisation than the teaching profession does (Gagnon
1989:279). If this is true of the United States, how much more must it be so of South
Africa.

One of the least satisfactory features, so far as the training of history teachers is
concerned is the fact that history non specialists generally receive no more than one
or two semester courses in history at a college of education. This is insufficient
particularly as non specialists make up the majority of history teaching personnel at
senior primary level in Natal. History non specialists clearly require more intensive
training in order to give them the confidence and know how to teach the subject as it
ought, and deserves, to be taught.

Concerning the history specialists, more substance to enrich both content and
methodology should be included in the college history programme. In the preceding
Chapter reference was made that in the concepts under scrutiny in this study, there
was little to choose, in terms of lesson planning and classroom performance,
between non specialist students and their specialist peers. This finding suggests that
an urgent need also exists to make history specialists more aware of the importance,
firstly, of specifically building into their lesson plans the concepts, especially, of historical time and cause and effect and, secondly, of expressly spotlighting these concepts during their classroom presentations.

In need of urgent reconsideration are also certain aspects of the senior primary history syllabus. Is, for example, a topic like the establishment of the Zuid-Afrikaansche Republiek (The South African Republic) with its multitude of political ramifications appropriate at senior primary level? Certain aspects of political and constitutional history are perhaps, better left to the high school syllabus.

At senior primary level it is important to ensure the pupils' enjoyment of the subject. Children are naturally curious about events in the past and teachers should exploit and stimulate this curiosity. We should perhaps recall the observation of that Std 4 pupil who said "I don’t really think history should be about dates but rather [about] interesting facts and happenings. History should be fun and enjoyable." As pupils of senior primary age appear to derive a great deal of enjoyment from working on topics themselves, it seems appropriate that teachers and media centre personnel should co-operate in compiling and collating topic packages.

Young children can learn history - with both pleasure and profit, and it is educationally important that they should. It was Bertrand Russell who observed that the first task of education is to destroy the tyranny of the local over children's imaginations (Egan 1982:441). This is precisely what the teaching and learning of history should aim to do. The concept approach to history teaching extends children cognitively, experientially, socially and morally. Good teaching therefore focuses on concept development.
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<table>
<thead>
<tr>
<th>Author(s)</th>
<th>Year</th>
<th>Title</th>
<th>Journal/Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bromberg, W.</td>
<td>1938</td>
<td>'The meaning of time for children.'</td>
<td>American Journal of Orthopsychiatry, 8: 142-147.</td>
</tr>
<tr>
<td>Dankworth, G.</td>
<td>1971</td>
<td>'Developing empathy.'</td>
<td>Teaching History, 164-166.</td>
</tr>
</tbody>
</table>


Lello, J. 1980. 'The concept of time, the teaching of history and school organization.' The History Teacher, 13(3): 341-350.


Mathews, J. 1987. 'Empathy in history teaching.' Insight, 16-22.


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**Other Sources**


Deputy Superintendent of Education - Natal Education Department (Academic Senior Primary Education), May 1991. (Interview)

Fourth Year Senior Primary Project. 1991. (In order to retain the anonymity of the college, the writer has withheld the name from this dissertation.)

Head of the Department of History, an unspecified college of education in Natal, June 1991. (Interview)


Natal Education Department Syllabuses for History Standards 2, 3 and 4.


APPENDICES
# Observation Schedule

**Teacher:**

<table>
<thead>
<tr>
<th>CONCEPTS</th>
<th>TEACHER BEHAVIOUR</th>
<th>COMMENT</th>
<th>PUPIL BEHAVIOUR</th>
<th>COMMENT</th>
</tr>
</thead>
<tbody>
<tr>
<td>TIME</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CAUSE &amp; EFFECT</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>EMPATHY</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>OTHER</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>GENERAL COMMENTS</td>
<td></td>
<td></td>
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</tr>
</tbody>
</table>
APPENDIX 2

Questions to teachers

1. What was the objective of the lesson?

2. Was it achieved?

3. Did the pupils respond as expected?

4. Were there unexpected responses?

5. Were there problems experienced in the planning, preparation and presentation of the lesson?

6. Was cognizance taken of the concepts of historical time, cause and effect and empathy?

7. If not, reasons to be given.

8. Level of training in history.

9. Attitude to history as a school subject at senior primary level.

10. Open-ended. (Teachers were given the opportunity here to air their views *ad libitum.*)
APPENDIX 3

Questions to pupils (written answers given)

1. What did you learn today? (i.e. during this history lesson.)

2. A few keywords/key concepts were selected from the lesson taught and the pupils were asked to explain the meanings of the terms chosen. (Key concepts differed from lesson to lesson and from class to class.)

3. Did you enjoy this lesson? Give reasons for your answer.

4. Do you enjoy history? Reasons to be given.

5. What is your favourite section or topic in history?

6. What is your least favourite section or topic in history?

7. Open-ended. (Pupils were given the opportunity to express their views on matters related to history as a subject and to history learning and/or teaching.)
### APPENDIX 4: LESSON PLANNING: 15 TEACHERS

<table>
<thead>
<tr>
<th>CONCEPT</th>
<th>SPECIFICALLY BUILT INTO THE LESSON PLAN</th>
<th>ABSENT FROM LESSON PLAN BUT REFERRED TO IN LESSON</th>
</tr>
</thead>
<tbody>
<tr>
<td>TIME</td>
<td>5 teachers</td>
<td>10 teachers</td>
</tr>
<tr>
<td>CAUSE and EFFECT</td>
<td>6 teachers</td>
<td>9 teachers</td>
</tr>
<tr>
<td>EMPATHY</td>
<td>9 teachers</td>
<td>6 teachers</td>
</tr>
</tbody>
</table>
APPENDIX 5: Frequently used words bearing upon the concepts under investigation

The words/phrases listed below, as they were used by the teachers whose lessons were observed, gestured towards one or other (or sometimes simultaneously towards more than one) of the concepts under investigation in this Study. In order to qualify for a place on the list, however, a given concept-related word/phrase had to be used relatively frequently by the teacher during her lesson. While it is clear that many, if not most, of the terms making up the list do not bear explicitly upon the concepts being inquired into, nonetheless, implicit in the way the teachers used them, having regard in each case to the particular context of reference, were associations with and/or pointers to one or other of those concepts. Accordingly, when analysing the pupils' responses to whichever concept-related terms they were asked to explain the meanings of, the writer was constantly looking beyond conventional dictionary-type explanations for evidence of recognition and/or understanding of the concepts being inquired into.

<table>
<thead>
<tr>
<th>Empathy-related terms</th>
<th>exploration</th>
<th>The Crusaders</th>
<th>barter (also cause and effect)</th>
</tr>
</thead>
<tbody>
<tr>
<td>agriculture</td>
<td>exploration</td>
<td>The Crusaders</td>
<td>barter (also cause and effect)</td>
</tr>
<tr>
<td>colonist (also time)</td>
<td>history (also time)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>domestic chores</td>
<td>navigator</td>
<td></td>
<td></td>
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<tr>
<td>invention</td>
<td>explore</td>
<td></td>
<td></td>
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<tr>
<td>inventor</td>
<td>accommodation</td>
<td></td>
<td></td>
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<tr>
<td>missionaries (also cause and effect)</td>
<td>iceberg</td>
<td></td>
<td></td>
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<tr>
<td>transport</td>
<td>Christianity</td>
<td></td>
<td></td>
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<tr>
<td>tyrant</td>
<td>monks</td>
<td></td>
<td></td>
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<tr>
<td>war (also cause and effect)</td>
<td>serf</td>
<td></td>
<td></td>
</tr>
<tr>
<td>disaster (also cause and effect)</td>
<td>monastic order</td>
<td></td>
<td>revelation</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Time-related terms</th>
<th></th>
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</thead>
<tbody>
<tr>
<td>seventeenth century A.D.</td>
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<tr>
<td>century</td>
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<tr>
<td>six thousand years B.C.</td>
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<tr>
<td>prehistoric</td>
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<tr>
<td>ancient</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>modern times</td>
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<td></td>
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<tr>
<td>nineteenth century A.D.</td>
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<td></td>
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<tr>
<td>Middle Ages</td>
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<tr>
<td>feudal (also empathy)</td>
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<td></td>
<td></td>
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<tr>
<td>maiden voyage</td>
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<tr>
<td>past</td>
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<td></td>
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<tr>
<td>present</td>
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<td></td>
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<tr>
<td>future</td>
<td></td>
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<td></td>
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<tr>
<td>fifteenth century A.D.</td>
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<td></td>
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<tr>
<td>fourteenth century A.D.</td>
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<table>
<thead>
<tr>
<th>Cause and effect-related terms</th>
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</thead>
<tbody>
<tr>
<td>aerodynamics</td>
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<tr>
<td>design</td>
<td></td>
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<td></td>
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<tr>
<td>vehicle</td>
<td></td>
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<td>confederation</td>
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<td>flight</td>
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<tr>
<td>refreshment station (also empathy)</td>
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</tbody>
</table>
### APPENDIX 6

**Table showing pupils' responses to questions**  
(Number of pupils in sample: 354)

<table>
<thead>
<tr>
<th>Pupils who responded to the question</th>
<th>Pupil responses as a percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Question 1**  
What did you learn today?  
(i.e. during this history lesson) Responses that had a connection with:

<table>
<thead>
<tr>
<th>Concept</th>
<th>Number</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Time</td>
<td>63</td>
<td>18%</td>
</tr>
<tr>
<td>Cause and effect</td>
<td>91</td>
<td>26%</td>
</tr>
<tr>
<td>Empathy</td>
<td>273</td>
<td>77%</td>
</tr>
</tbody>
</table>

In some cases one and the same response gestured towards more than one concept.

**Question 2**  
Explain the meanings of these words which you learnt in this lesson. Implicit in the teachers' use of the words the pupils were called upon to explain were indications of:

<table>
<thead>
<tr>
<th>Distribution pattern</th>
<th>Time</th>
<th>Cause and effect</th>
<th>Empathy</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>17 words</td>
<td>10 words</td>
<td>32 words</td>
</tr>
<tr>
<td>See</td>
<td>230</td>
<td>128</td>
<td>440</td>
</tr>
<tr>
<td>note</td>
<td>3,8%</td>
<td>3,6%</td>
<td>3,9%</td>
</tr>
<tr>
<td>(*)</td>
<td>(See Appendix 5 for the list of words.)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Question 3**  
Did you enjoy this lesson? Give reasons for your answer.  
Responses that were related to:

<table>
<thead>
<tr>
<th>Concept</th>
<th>Number</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Time</td>
<td>36</td>
<td>10%</td>
</tr>
<tr>
<td>Cause and effect</td>
<td>23</td>
<td>6%</td>
</tr>
<tr>
<td>Empathy</td>
<td>190</td>
<td>54%</td>
</tr>
</tbody>
</table>

**Question 4**  
Do you enjoy history? Responses that had a connection with:

<table>
<thead>
<tr>
<th>Concept</th>
<th>Number</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Time</td>
<td>117</td>
<td>33%</td>
</tr>
<tr>
<td>Cause and effect</td>
<td>12</td>
<td>3%</td>
</tr>
<tr>
<td>Empathy</td>
<td>173</td>
<td>49%</td>
</tr>
</tbody>
</table>

**Question 7**  
Attitude towards history:

<table>
<thead>
<tr>
<th>Attitude</th>
<th>Number</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Positive</td>
<td>164</td>
<td>46%</td>
</tr>
<tr>
<td>Negative</td>
<td>108</td>
<td>31%</td>
</tr>
<tr>
<td>No response</td>
<td>82</td>
<td>23%</td>
</tr>
</tbody>
</table>

* Each of these figures represents the total number of pupil responses deemed to have some connection with the relevant concept (time, cause and effect or empathy). Each of the respondents was asked to explain the meanings of, on average, five terms implicit in which were pointers to one or other of the three concepts under investigation in this Study.
# APPENDIX 7 (Vukelich, R. 1984:45)

## ACQUISITION OF TIME RELATED CONCEPTS

<table>
<thead>
<tr>
<th>Age (Clock and Calendar)</th>
<th>Time Skills or Concepts</th>
<th>Historical</th>
<th>Researcher</th>
</tr>
</thead>
<tbody>
<tr>
<td>4-5</td>
<td>Describes the sequence of a day's activities. Uses terms before and after, now and then. Uses past and future verb tense.</td>
<td>Friedman, W. Harner Harrison, Harner</td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>Labels blocks of time as lunchtime, playtime, naptime. Reads clock hour time correctly. Recognizes time and distance as two different dimensions.</td>
<td>Harrison Elkind Elkind Elkind</td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>Recognizes hours as being the same length of time. Recites days of week, months, and seasons in order.</td>
<td>Friedman, W.</td>
<td>Jahoda</td>
</tr>
<tr>
<td>8</td>
<td>Names recent holidays. Uses terms like night, tomorrow, morning to describe a point in time. Names months, weeks, days.</td>
<td>Uses year dates but cannot accurately match year to person or event. Given the dates 1750, 1850, and 1950, or 1970, 1980, and 1960, correctly orders them. Begins to match dates to significant persons or events.</td>
<td>Oakden &amp; Sturt Friedman, K. Oakden &amp; Sturt</td>
</tr>
<tr>
<td>9</td>
<td>Orders the holidays in a calendar year.</td>
<td>Uses general terms such as a long time ago, way back when, once upon a time. Uses a specific number of years, for example, about 100 years ago, as a time referent. Matches significant people with events.</td>
<td>Friedman, W. Bradley Oakden &amp; Sturt</td>
</tr>
<tr>
<td>10</td>
<td>Realizes that seconds, minutes, hours are the same length everywhere.</td>
<td>Labels periods of time, for example, Colonial times, the Civil War years.</td>
<td>Oakden &amp; Sturt</td>
</tr>
<tr>
<td>11</td>
<td>Demonstrates mastery of clock and calendar time.</td>
<td>Matches dates with appropriate historical event, person, or period.</td>
<td>Bullock &amp; Gelman Friedman, W. Oakden &amp; Sturt</td>
</tr>
<tr>
<td>12</td>
<td></td>
<td>Uses adult time vocabulary and concepts, for example, century, generation, Pilgrim forefathers.</td>
<td>Friedman, W., Harner</td>
</tr>
<tr>
<td>13</td>
<td></td>
<td>Distinguishes between parts of centuries.</td>
<td></td>
</tr>
<tr>
<td>14</td>
<td></td>
<td>Uses the sixteenth century and the 1500s interchangeably.</td>
<td></td>
</tr>
<tr>
<td>Lesson No.</td>
<td>Time</td>
<td>Title</td>
<td>Aims</td>
</tr>
<tr>
<td>-----------</td>
<td>-------</td>
<td>----------------------------------------------------------------------</td>
<td>----------------------------------------------------------------------</td>
</tr>
<tr>
<td>1</td>
<td>1 hour</td>
<td>Introduction (motive for wanting spices)</td>
<td>For pupils to understand the importance of spices in the Voyages of Discovery</td>
</tr>
<tr>
<td>2</td>
<td>1 hour</td>
<td>Marco Polo’s rôle (obtaining spices by overland travel)</td>
<td>For pupils to understand the length of time and peril of land journeys and Marco Polo’s rôle in the search for spices and other Trade goods.</td>
</tr>
<tr>
<td>3</td>
<td>1 hour</td>
<td>The Crusades (the end of the land route)</td>
<td>For pupils to understand the religious conflict of the Crusade period, finally resulting in the closure of the land route and consequent urgency to find an alternative route.</td>
</tr>
<tr>
<td>4</td>
<td>1 hour</td>
<td>Inventions and Developments in Shipping (background to sea travel)</td>
<td>To show pupils how the developments in shipping and navigation made viable the possibility of a sea route.</td>
</tr>
<tr>
<td>Lesson No.</td>
<td>Time</td>
<td>Title</td>
<td>Aims</td>
</tr>
<tr>
<td>-----------</td>
<td>--------</td>
<td>----------------------------------------------------------------------</td>
<td>----------------------------------------------------------------------</td>
</tr>
<tr>
<td>5</td>
<td>1 hour</td>
<td>Dangers and Difficulties (Background to sea travel)</td>
<td>To show pupils the negative facets of sailing and long-distance voyages.</td>
</tr>
<tr>
<td>6</td>
<td>1 hour</td>
<td>Consolidation; Preparation for self-study task.</td>
<td>To ensure the reasons and groundwork for the Voyages of Discovery have been understood.</td>
</tr>
<tr>
<td>7 + 8</td>
<td>1 hour</td>
<td>Research Time</td>
<td>For pupils to research and put together their teach-backs on their navigator or explorer.</td>
</tr>
<tr>
<td>9-12</td>
<td>1 hour</td>
<td>Teach-backs</td>
<td>For pupils to present their teach-backs.</td>
</tr>
<tr>
<td>13</td>
<td>1 hour</td>
<td>Consolidation</td>
<td>To recap the achievement of each explorer and consolidate the whole theme.</td>
</tr>
<tr>
<td>14</td>
<td>1 hour</td>
<td>Test</td>
<td>To measure pupils' understanding of the section, including relation between cause and effect Evaluating.</td>
</tr>
<tr>
<td>Lesson</td>
<td>Concepts</td>
<td>Introduction</td>
<td>COMMUNICATION Development</td>
</tr>
<tr>
<td>--------</td>
<td>----------</td>
<td>--------------</td>
<td>---------------------------</td>
</tr>
<tr>
<td>1</td>
<td>Communication</td>
<td>1) Four activities (see notes) children are working in pairs. 2) Discussion (using illustrations)</td>
<td>1) Work task on worksheet (self-activity) 2) Discussion</td>
</tr>
<tr>
<td></td>
<td>hands objects pictures symbols letters</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Revise above Writing Stages idea- ideograms pictograms alphabet</td>
<td>1) Discuss homework (interviews) 2) Oral: revise stages learnt last week.</td>
<td>1) Following each stage (oral), analyse: advantages, disadvantages. Lead to the next stage. 2) Discuss and draw ‘Quipu’.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>Rosetta Stone Greek Demotic Champollion Ptolemy</td>
<td>1) Pose problem - give children a code to work out (e.g. one use in Introduction). What did they use? Known to work out unknown.</td>
<td>Discuss hieroglyphics, concluding that it was so difficult to read and why? Read and discuss story of Rosetta Stone and its significance.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
APPENDIX 10

These charts were constructed by Richard Diem.

Figure 1 - Personalized time chart example
Time period under study: week of March 15-21, 1981.

<table>
<thead>
<tr>
<th>Day</th>
<th>Personal Events</th>
<th>School Events</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sunday</td>
<td>Went to basketball game</td>
<td>No school</td>
</tr>
<tr>
<td>Monday</td>
<td>Practised basketball.</td>
<td>Career Day</td>
</tr>
<tr>
<td></td>
<td>Applied for job after school.</td>
<td>Assembly</td>
</tr>
<tr>
<td></td>
<td>Test in English.</td>
<td>English test</td>
</tr>
<tr>
<td>Tuesday</td>
<td>Fight with parents because of poor grades</td>
<td>Went to counsellor’s office</td>
</tr>
</tbody>
</table>

(Diem 1982:193)

Figure 2 - Life-Span Example

<table>
<thead>
<tr>
<th>Year</th>
<th>Event in my life</th>
<th>Event in my country</th>
<th>Event in World</th>
</tr>
</thead>
<tbody>
<tr>
<td>1967</td>
<td>I was born</td>
<td>U.S. involved in Vietnam</td>
<td>Arab-Israeli War</td>
</tr>
<tr>
<td>1968</td>
<td>Moved to St Louis from Detroit</td>
<td>Nixon elected President</td>
<td>Olympics held in Mexico City</td>
</tr>
<tr>
<td>1974</td>
<td>Entered second grade</td>
<td>President Nixon resigns</td>
<td></td>
</tr>
<tr>
<td>1980</td>
<td>Entered high school</td>
<td>Ronald Reagan elected President</td>
<td>U.S.S.R. invades Afghanistan</td>
</tr>
<tr>
<td>1984</td>
<td>I will graduate from high school</td>
<td>Olympics held in Los Angeles Presidential election</td>
<td>War in Mid-East cause oil shortage. Japan invents car that will get 80 miles per gallon</td>
</tr>
</tbody>
</table>

(Diem 1982:193)
APPENDIX 11

Suggested relationship between developmental level and size of working memory.


<table>
<thead>
<tr>
<th>Developmental Level</th>
<th>Size of Working Memory</th>
</tr>
</thead>
<tbody>
<tr>
<td>Formal Operational</td>
<td>Maximal: Contains question + relevant data + inter-relationships + hypotheses.</td>
</tr>
<tr>
<td>Concrete Operational</td>
<td>Medium: Contains question + isolated relevant data and is often centered on one piece of datum only.</td>
</tr>
<tr>
<td>Preoperational</td>
<td>Minimal: Contains question, and response is confused.</td>
</tr>
</tbody>
</table>
W. J. Pretorius's evidence
(This evidence was collected many years after the battle)

As soon as the volunteers arrived, a force of 600 mounted men was despatched to punish Dingaan. I was one of the “commandos.” We crossed the Buffalo by the ford on the road, still in use, from Helpmakaar. Dingaan came with his army to meet us. A battle was fought at Blood River on Sunday, 16th December, 1838. We were attacked in our encampment at 5 a.m., and fought from within till 10.30. Then the battle was fought, and we pursued them till sunset. Commandant Pretorius was wounded in the hand. The number of killed was counted; 3,600 had fallen. None of the Boks were killed, and not more than two were wounded.

Daniel Bequidenhout's evidence
(This evidence was collected 41 years after the battle)

Then Pretorius went as general, with four hundred men. I was one of them. Then we had the battle, on a Sunday, at Blood River, where we killed 3,600. We had formed an encampment with our wagons. Between the wagons we had fastened long ladders, and skins of oxen were stretched over the wheels. At the back of each wagon there were little boxes of gunpowder and bullets; and when the battle was fought, and the thousands were so much smoke that rose straight upwards from the ground.
The chief commandant, having arrived at that place, thought it advisable (as it was about evening, and several men were on patrol in different directions, so that he had too few with him to make an attack on so inaccessible a place; the more so as the Sabbath was at hand) to postpone the attack till the next Monday, even if they were to approach nearer, in order not to profane the Sabbath. The chief commandant ordered the barriers and gates to be properly secured, and that all men should be up about two hours before daylight. Everything was complied with. At the appointed time all men were roused, and we held ourselves in readiness.

On Sunday, the 16th, was a day as if ordained for us. The sky was open. The weather clear and bright. Scarcely was the dawn of day perceptible, when the guards, who were still on their posts and could scarcely see, perceived that the Zulus were approaching. Now the patrols were altogether in the camp, having been called in the day previous by alarm signals of the cannon. The enemy then approached at full speed, and in a moment they had surrounded the camp on all sides. In the meantime the day began to dawn, so that they might be seen approaching, while their advanced lines had already been repulsed by the firing from the camp. Their approach, although frightful on account of the great number, yet presented a beautiful appearance. They approached in regiments, each captain with his men following him, in the same way the patrols had seen them coming up the day previous, until they had all surrounded us. I could not count them, but it is said that the Zulu prisoner had given the number of thirty-six regiments, which regiments may be calculated at from nine to ten thousand men. The battle now commenced, and the cannon were discharged from every gate of the camp. The battle then became violent, even the firing from the muskets from our side as well as from theirs. After this had been kept up for full two hours by the watch, the chief commandant, as the enemy was continually-besieging the camp, and he was afraid that we should get short of ammunition, ordered that all the gates of the camp should be opened, and the fighting with the Zulus take place on horseback. This was done, and to our regret they took to flight so hastily that we were obliged to hunt after them. Few remained in the camp, and the chief commandant in person, after having given the necessary directions, also followed them. His lowering horses had been taken by others, and he himself was obliged to mount a wild horse. He pursued a large party, and riding in full speed he got up to them. One of the Zulus raised upon him. He, however, discharged one of the barrels of his gun to kill the (Zulu) but the horse whereon he was mounted got so frightened that he missed, and wishing to discharge the other shot, did not know that the stopper of the lock had been closed, so that he could not cock his gun. Now no time was to be lost. He jumped from his horse. The Zulu once raises upon, stabs him with his assegai, which he carried off with his gun; but the third time, unable to do otherwise, he parried it off with his left hand, in which the(Zulu) then stuck his assegai. He now falls upon the(Zulu) lays hold of him, and throws him on the ground, and holds him fast, though he struggled terribly, until P. Roode fed came to his assistance. He then forces the assegai out of his hand and stabs the(Zulu) so that he dies. He then returned to the camp to have the wound dressed, which was done. He, however, said that he hoped no one would be terrified, that this wound could do him no harm, and that he was glad of having been the only man in such a serious conflict who had been slightly wounded. The wound, however, was bad. We also ascertained with regret that Gerrit Rasch had met with a similar accident. In the same manner as the chief commandant, but he was dangerously wounded in his side; as also Philip Fourie, who had been dangerously wounded with an assegai during the battle at the camp. G. Rasch remained in the field, and was fetched away and brought to the camp on a stretcher. Thus the Zulu commando was pursued for more than three hours, when we returned, as we were all short of ammunition. The chief commandant ordered the cleaning of the guns, and that every man should provide himself with ammunition. This was complied with, and balls were also cast. Prayers and thanksgivings were offered to God, and after divine service had been performed, the chief commandant again sent a strong party to pursue the Zulus as far as they could; but they returned in the evening, not having been able to come up with them. The next day we counted the number of the slain; those who had been killed about or near the camp, of which some have not been counted, with those who had been taken and killed, we found amounted to (the lowest certain number) more than 3,000, besides the wounded.
Blood River from another angle, by an unknown artist. Coetzer's depiction is regarded as being the most accurate.

This graphic painting by W.H. Coetzer hangs in the Voortrekker Museum, Pietermaritzburg. In the background to the left is Vechtkop and on the right Zongonka. On the extreme left is the donga whilst in the foreground flows the Blood River.

A. This photograph was taken from J. Muller 1978. A pictorial history of the Great Trek. Victoria: Tafelberg.

B. This photograph was taken from J. Smail 1979. From the tomb of the Zulu kings. Durban: A. J. Pope.