UNIVERSITY OF JOHANNESBURG

THE PEDAGOGY OF INITIAL READING AT SIZWILE SCHOOL FOR THE DEAF

by

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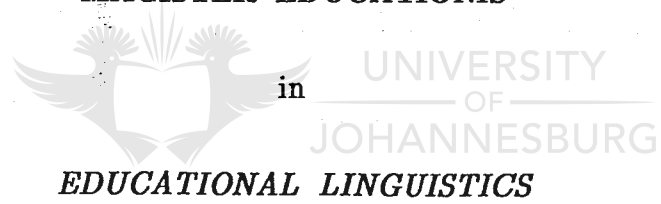
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SYNOPSIS

The construct of this study consists of the perceptions and experiences of the teachers and students of initial reading at Sizwile School for the Deaf in urban South Africa. This investigation focuses on a Sub B class, in which Sign Language is the means of communication. The research design is exploratory and descriptive as it aims to explore, describe and clarify the children's apprehension of reading. This could yield new knowledge which is rooted in a specific and complex context. The process is conducted by means of a case study (monographic study) design which includes mostly qualitative methods for data collection.

The rationale for this study is that respondents' personal (emic) views, obtained from a "bottom—up" research mode could bring more light to the body of knowledge of deaf education in South Africa. Insufficient rigorous research, the lack of educational policy, lack of more input in South African curriculum for the deaf and limited cohesive instructional theory in South African deaf education motivated the researcher to initiate this investigation. The rationale of this study thus circulated from the theoretical and physical context of deaf education in South Africa, as well as the researcher's personal experiential knowledge as a teacher in the only school for the deaf around Soweto (a Black Township).

The research question in this inquiry has been conceptualised in a maze of conflicting opinions and practices regarding the education of the deaf and the teaching of initial reading. The experiences, activities and perceptions of a single class within a school for the deaf was explored and described argumentatively in the light of contemporary theories on language, learning, reading and deaf education.

Perspectives on learning to read are discussed in order to contextualise the individual's learning to read. Also included are theories of language and of learning, presented to provide a backdrop against which the practices in deaf education will be discussed. Language is subsequently discussed as medium of communication in the education process, with a closer focus on instruction in the first language (Sign Language) of the deaf child. The other part of the conceptual framework covers reading across the curriculum. The theoretical framework is presented as support structure for the research construct and also to problematise the research question (problem) from complementary angles.

The research question centred mostly on reading strategies of beginners in a deaf school, including the pedagogy of reading of English. It therefore centres on the learning and teaching of English printed text through the mediation of signing.

In the following section of the report the design of the case study is discussed, in which strategies for the collection of data in the participants' real—life situation are set out, allowing for an in—depth and thus thick description of the class in—action. Transcriptions of raw data were analysed by means of clustering, conceptualising and dendogramming. Subsequently the conclusions were drawn and implications of the study presented: the main conclusion drawn from this case study is that deaf education policy should accommodate initial reading, encouraging role play and dramatisation, and a bilingual model is presented in which Sign Language is complemented by English literacy. An implication derived from this study is that in—depth and rigorous research is imperative to the future of deaf education in South Africa in order to initiate formal curricula and policy for deaf education as well as specific training courses for teachers of the deaf.

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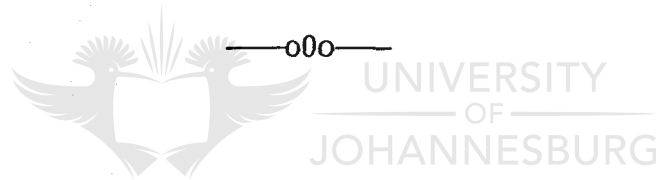
LIST OF ABBREVIATIONS

A.S.L.	American Sign Language
B.S.L.	British Sign Language
C.A.L.P.	Cognitive Academic Language Proficiency
C.L.T.	Communicative Language Teaching
E.S.L.	English Second Language
E.L.L.	English Language Learning
L.1	First Language
L.2	Second Language
L.A.D.	Language Acquisition Devices
S.L.	Sign Language
S.E.	Signed Language
S.E.E. (I)	Seeing Essential English
S.E.E. (II)	Signing Exact English
S.S.S.	Sign Supported Speech
T.C.	Total Communication
U.G.	Universal Grammar

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CHAPTER ONE

ORIENTATION AND RESEARCH DESIGN

1.1   INTRODUCTION

In this first chapter the study is contextualised. The physical context will be described, after which the theoretical background will be sketched to explicate the motive for conducting the research. Subsequently the aim and rationale of the investigation will be stated, followed by the formulation of the research questions. The methodological orientation will follow, stating design, methods and techniques used, after which a conceptual analysis of framework concepts will be given. The researcher will give a brief description of the metatheoretical basis of the inquiry in which assumptions and presuppositions will be clarified.

1.2   CONTEXT OF RESEARCH

Both the physical and theoretical contexts will be described in order to give a comprehensive background to the investigation.

1.2.1   Physical Context

The research takes place in an urban school for the deaf. The school is situated on the periphery of the South Western Township, commonly known as Soweto. Soweto caters for the African needs of African children only as it is a product of the historical policy of Separate Development which ended in 1994.

The school was founded by a former teacher, Mrs. S. Kabane of Kutlwanong school for the deaf in 1986. She was later assisted by the Brothers of Charity as the sponsoring body. The school is undemocratically managed because the ratio of the board members who are guided by the Christian National Education ideology is not proportionally representative of the school population.

The school consists of a pre–primary section of children from three years old; a primary school, from Grade 1 to Standard 5; and a high school from Standard 6

to 10. Of the 137 pupils in the school, approximately 30 are weekly boarders, supervised by 4 hostel staff.

Sizwile is effectively managed by the principal and assisted by four heads of departments and 14 teachers. The school still lacks sufficient paramedical backup, because it only has one speech therapist and a school nurse. The school policy has never been executed without controversy, because when followed to the letter it reflects flaws which violate basic human rights. For example, the issue of a time book still leaves much to be desired. The issue of a school uniform also has not been clearly defined.

Teachers are expected to undergo in—service—training for two years and thereby acquire a diploma in Special Education. The course content does not fully equip teachers to handle problems in class and leaves much to be desired with regard to the finer pedagogical nuances of education for the deaf.

The content of instruction is mainly based on the curriculum for the hearing and the work—load is decreased due to the slower progress of deaf pupils. Methods and modes of instruction differ from teacher to teacher.

Nevertheless, there appears to be two basic schools of thought among the teachers, namely the Oralist school and the Manualist school of thought. From these broad schools of thought, the teachers derive their own personal communicative paradigms, which include, among others, the signing teachers, the oral teachers, the teachers who primarily speak, erratically supported by signing, and the teachers who apply total communication. This vague policy, states that the development of language according to individual needs is important and that a choice of modes of communication exists from which the teachers can select their method.

The school serves the greater Soweto and neighbouring townships, such as Kagiso and Vereeniging.

Teacher expectations early in the formative school years can play a vital role in determining the extent of future academic success and therefore the ability to function reasonably in society. The question that might be raised in relation to Talcott Parson's suggestion that "the school class can be used as an agent for socialisation, is whether this socialisation will be most appropriate in preparing

our children for life in the bigger world where deaf people are a very small minority or within the deaf community where they are in full control of their own socio–economic and political status" (Jackson, 1990).

1.2.2   Theoretical Context

It has been mentioned previously that there are two basic stances in deaf education, namely Oralism and Manualism, both of which are reflected in the researched school. The two main approaches of instruction in schools still raises controversy in opposing camps. Conrad (1980) supports the acknowledgement of the diversity of methods, when stating that the two approaches are fundamentally different and continues that "they may both be wrong but they cannot be both right" (Conrad, 1980:63).

A brief history of the struggle between the two schools of thought will be sketched, in order to explicate the theoretical background for this investigation. Prior to 1750 prelingually deaf people were deprived of literacy and any form of education — "the congenitally deaf or 'deaf and dumb', were considered 'dumb' (stupid fools) for thousands of years and were regarded by an unenlightened law as 'incompetent' — to inherit property, to marry, to receive education, to have adequately challenging work and were denied fundamental human rights" (Sackss, 1989:9).

Abbe de L'Epeé, commonly called "the father of the deaf" (Lane, 1984), changed the fate of the deaf. As a man of God he shared the word of God with deaf people. "The Abbe de L'Epeé began teaching the deaf, seeking, to reach heaven by trying at least to lead others there" (Lane, 1984:57). He acquired their language and taught them to read, thus opening to them a life of education and culture. His school was founded in 1755 and he trained many teachers of the deaf. In 1789 he died, by which time 21 schools for the deaf had been established in France and Europe already.

De L'Epeé saw Sign Language as a universal language and said that Sign Language has no grammar (Sacks, 1989:20). Miles (1988) does not agree, stating that each nation has its own spoken language, so each national deaf community has its own sign language developed over centuries (Miles, 1988:47), with its own grammar (Kyle and Woll, 1985). Even de L'Epeé was unaware, or could not believe, that Sign Language was a complete language, capable of expressing not

only every emotion but every proposition and enabling its users to discuss any topic, concrete or abstract, as economically and effectively and grammatically as speech (Sacks, 1989:19).

Epeé and Sicard (his pupil) had the wisdom to see that the deaf as a class could never be educated orally (Lane, 1984:15) which led to the period of change from oralism to manualism, a sort of golden period in deaf history (Sacks, 1989:15).

According to Storbeck (1994), throughout the civilised world, deaf people were emerging from their previous state of illiteracy and 'sub—humanity'. Deaf teachers were teaching in schools for the deaf and deaf intellectuals were appearing in all areas such as teaching, engineering and law. However, this view would be challenged by another.

The oral movement led by Alexander Graham Bell became the most powerful oppressive mechanism ever generated against deaf people in the world. America also caught the fire in this revolution. Laurent Clerc, a pupil of the National Institution for the Deaf (NTID), created by Epeé and Sicard together with Thomas Gallaudet, set up the American Asylum for the Deaf in Hartford in 1817. Many schools were opened then. Bell aimed to overthrow Sign Language and introduce oralist schools. Bell himself had a deaf mother and wife, threw all his weight into the cause of oralism, and in 1884 Bell said of the deaf: "We should try ourselves to forget that they are deaf" (Lane, 1984:340). This attitude helped to overthrow the Sign Language school. Oralism won the day in 1880 at the International Congress of Educators of the deaf held in Milan. Deaf teachers were excluded from the vote and Sign Language was officially prohibited. "The suppression of sign, the firing of deaf faculty, the retrenchment of educational goals, and the medical model of the deaf as defective, all conduced to Milan's last catastrophic effect: the infantilising of deaf young men and women" (Lane, 1984:401).

Hearing teachers had to teach the deaf through the mode of English. Sacks (1989) cites a study carried out by Gallaudet College in 1972 in which the average reading level of 18—year old deaf high school graduates in the USA was at fourth grade level. A similar situation existed in England where graduate deaf students leave school with a reading age of 9 years old. The 'Voices Off' issue published in the Washington City Paper on May 29, 1992 in which the headline echoed with victory "Turn off your voice!" The deaf principal of Kendall in

Gallaudet said in an interview that "Deaf people were thrilled" (Mundi, 1992:22). In 1981, this statement was made by Joubert, a South African Oralist:

> "Many people suggest that Sign Language is the native tongue of the deaf child, but if they could live in their own little world, they would ideally use only signs. Sign Language comes naturally to deaf people, not because of an inborn ability, but because of environmental pressure. It is the responsibility of the teacher to bring the deaf child back to the hearing way of expression and thinking" (Joubert, 1981:331).

Sicard and De L'Epeé had the wisdom to see earlier that the deaf as a class could never be educated orally (Lane, 1984:15). Contemporary theory asserts that Sign Language is the first language of the deaf and that it should be the language of instruction along with English (written text) as the second language. This approach is being referred to as bilingual education for the deaf (Baker and Brearly, 1989; Hansen, 1987; Johnson, 1989; Johnson, Liddell & Erting, 1989; Strong, 1988; Svartholm & Anderson, 1993).

Oralism was "stuffed down the throats" of deaf people. The mind is a powerful organ. If controlled by elements that are negative it can be destructive (Dunn, 1987:92).

In the South African context education for the deaf is still lagging behind that of Europe and the USA, allowing for misleading perceptions of deaf children in education. As a result "the education of deaf people in South Africa has failed to provide speech pathologists, audiologists, teachers, and parents of the deaf, with a clear and cohesive direction for practice" (Penn & Reagan, 1991:19).

In South Africa the Black deaf person has been removed from the greater whole (Black community) because of communication barriers and placement at a lesser level within the community hierarchy (community is at a loss to what to do with a deaf member). "At the same time the Black deaf person is often denied membership in the deaf community because of the hybrid nature of his culture (Deaf and Black cultures). He is often on the fringes of both cultures" (Dunn, 1987:92).

It is therefore imperative for South Africa to strive to develop a policy for deaf education and a curriculum as well. This can be improved by employing qualified and relevant personnel, recognising and acknowledging and treating deaf education as an important aspect to contribute to this less than ideal educational situation.

1.3 THE RESEARCH QUESTION

The research question, emanating from the contextual (both physical and theoretical) orientation as well as the researcher's personal experiential knowledge in a school for the deaf, led to the formulation of what was identified as a pertinent research focus. The research question centered on reading strategies of beginners in a deaf school, followed by the pedagogy of reading of English. It therefore centres on the learning and teaching of English through the mediation of signs — the focus being printed text.

1.4 THE AIM AND RATIONALE OF THE STUDY

The aim of the study is to rigorously and methodically investigate different strategies for the pedagogy of initial reading of ESL in a Sub B class, studying four pupils' perceptions and experiences in a class in which Sign Language and English are used. The researcher will conduct an in−depth study in order to get the emic views of children in their class and to obtain a clear picture of what the teacher does. The following extract illustrates the views.

> Students' attitudes and apprehensions ... are of great importance
> within any educational context. One cannot expect successful
> learning in a setting where the students are uncomfortable with the
> means of communication. Since it is the deaf themselves who are
> the proper experts in knowing what it is like to be deaf and what it
> is like to communicate without access to spoken language, their
> opinion should be the guiding principle for any proposals about
> their education (Storbeck, 1994).

The complexity of learning to read in English is already strong motivation for investigation. It seems to the researcher that the breakthrough to making this connection between text and meaning is in and of itself empowering

Insufficient rigorous research, lack of educational policy and limited cohesive instructional theory in the teaching of the deaf in South Africa motivated the researcher to explore the 'gaps' identified in the teaching of initial reading. The objective of the research is to address the problems of the children in this specific school in an action research manner and to disseminate the findings to wider relevant audiences in research, governance and policy.

1.5   THE METHODOLOGICAL ORIENTATION

This investigation takes the form of a case study, and is viewed as a 'holistic' study taking place in 'real life events' (Yin, 1989) within natural settings. According to Merriam (1988) the term case study has become a 'catch all category' for studies that are not clearly experimental, survey or historical by nature. Case study contributes mainly to theorists' knowledge of individuals, organisations, societies and political issues (Yin, 1984:14).

The type of research site is a school which the researcher will visit once in a week. The case study is of a Sub B class in this school for the deaf, in which Sign Language, and English are used during the course of teaching initial reading. The researcher is a participant—as—an—observer (Le Compte & Preissle, 1993). This allows rich narrative descriptions and explorations, much of which is through the eyes and experiences of the subjects being observed. A participant—as—observer is known to be a researcher, who can address issues more directly and can request access to the whole group, to negotiate data—collecting and recording and to seek feedback on what is seen and how it is interpreted (Le Compte & Preissle, 1993:66). Within the case study various methods of data collection were used to ensure trustworthiness.

The individual and focus group interviews were conducted with emphasis on prior chosen questions pertaining to learning to read and to reading pedagogy. The interviews were conducted in Sign Language and video recorded in order to have a record of the situation. The interviews were all transcribed into English, after which they were processed by means of clustering and dendogramming.

Participant observation was an essential part of data collection, weekly field notes were kept of the observations, all of which were processed by means of narrative continuums. The final method of data collection was collection of documents and pedagogical artifacts including developmental reports. Data were interwoven to find patterns and overall categories of significance pertaining to learning to read and the pedagogy thereof.

1.6 THE PLAN OF STUDY

The orientation to the research is stated in chapter one, followed by a section on contemporary trends in deaf education in chapter two. This will form a theoretical baseline of the study as these trends will be referred to again in chapter seven when the data are interpreted. Chapter three will give an overview of language acquisition of deaf and hearing children. This will be followed by a discussion of the teaching of initial reading to the deaf and hearing learners in chapter four. The research methodology, including the design, type of inquiry and data collection and analysis methods, will follow in chapter five. Chapter six, the field of investigation, will give an in—depth account of the investigation including data collection and processing. Findings, interpretations and implications of the research will feature in chapter seven.

1.7 CONCEPTUAL ANALYSES OF MAIN TERMS

In this section a number of the salient concepts used in this investigation are analysed.

* **Bilingualism in deaf education**
  This includes two languages, that is Sign Language and English as a second language (written code) with spoken English as an additional skill which is not compulsory.

* **Code**
  "A system of signals (written, spoken, gestural, electronic) which are arbitrarily used to represent the words, phrases, or sentences of a language" (Baker & Cokely, 1980:458).

* **Culture**

"The beliefs, values, patterns of behaviour, language, expectations, relationship within the family, patterns of informal learning and instruction, achievements of a group of people which are passed on from generation to generation" (Le Compte & Preissle, 1993:10).

* **Deaf Community**

The deaf community comprises those deaf and hard of hearing individuals who share a common language (Sign Language), common experiences and values and common ways of interacting with each other and with hearing people (Kyle & Woll, 1985). The deaf community consists of people who have a profound (but often varying) hearing loss, who share a linguistic and cultural togetherness (Baker & Cokely, 1980:458) and who share an ability to sign sufficiently fluently (Sacks, 1989:128) to share meaning.

* **Deaf Culture**

Deaf *culture* is distinct from *community* in that it includes the knowledge, beliefs, art, morals and *law* as well as the practices of members of the community. Deaf culture like all cultures is carried through the language it exists in because of a natural need for identity (Kyle & Woll, 1985:8). Discourse and culture are therefore interwoven.

"Deaf people share a culture rather than merely a medical condition" (Dolnick, 1993:38) and membership of the deaf community (and therefore the deaf culture) is determined by various criteria (Baker & Cokely, 1980). The criteria are as follows: having a hearing loss (audiological), the fluent use and understanding of Sign Language (linguistic), social active participation in deaf social life (social) and having influence in or being accepted by the deaf community (political). The way of life of deaf communities can therefore be viewed as their culture.

* **Fingerspelling**

Fingerspelling is a system where each finger of the hand or the fingers together, or the form of the hand, represent one of the letters of the alphabet. It can be linked to Sign Language. In South Africa use is made of both the one-handed and two-handed alphabets.

* **Initial Reading**

Initial reading is first processes of recognising text and making meaning from it.

It is the converting or the ability to convert written discourse into the intended meaning, as well as interpreting meaning pragmatically..

Goodman views reading as a selective and information processing skill. It is an interaction between the reader's background knowledge and the text (Kilfoil & Van der Walt, 1993).

Initial reading therefore is the generating of ideas and questions about print within meaningful contexts which support their interpretation rather than as a linear decoding exercise (Webster & Wood, 1989:205).

* **Lip—reading**

Lip—reading is an 'oral' means of comprehension of spoken language by getting all the spoken cues from the lips. This act is however, also referred to as speech—reading, "implying a role to parts of the body other than the mouth and jaw" (Conrad, 1979:177), such as facial gestures and body movement.

It is the ability to follow somebody else's speech by watching the movements of her lips and facial expressions while she speaks. The process is partly mechanical and partly, though to a greater extent, intellectual.

* **Manualism**

Signs are definite positions and/or movements of the hands, by which certain words are expressed. A sign may express a word, a phrase or even a complete sentence, depending upon the system used. Manualism upholds Sign Language as the medium of instructions in formal education of the deaf.

* **Oralism**

As a method of communicating with and educating the deaf, oralism advocates speech and lip—reading and disallows signing of any sort.

* **Sign**

When discussing a specific lexical item we refer to a sign, which is the equivalent of a word (Kyle & Woll, 1985:4) and in some cases a lexical phrase.

* **Seeing Essential English (SEE I)**

It is a one to one correlation between English words, syllables and affixes and an individual sign for each of them.

* **Signed English (SE)**

Signed English is a manual approach, using a "one sign for one word" communication method (Baker & Cokely, 1980:461). It is mainly used by hearing persons when communicating with deaf people. Only key words are used with signs, while superfluous words which are unnecessary for the run of the conversation are left out.

* **Signing Exact English (SEE II)**

This manual code attempts a one—to—one sign correlation for each word and/or syllable.

* **Signing**

'Equivalent to speaking' (Kyle & Woll, 1985:4) thus the action of communicating is Sign Language.

* **Sign Language**

Sign Language is the natural language of the deaf community. It is the language of the hands and the eyes and is a language of movement and space (Penn, 1992:615); it is language in its own right with a syntax, grammar and semantics of its own (Sacks, 1989:29). Sign Language has no connection with the spoken language of that particular country. In South Africa, at present, there is not a single South African Sign Language, due to racial and linguistic diversity of the deaf, as well as geographical social and economic factors (Penn, 1992:3).

* **Sign Supported Speech (SSS)**

This manual system of communication uses signs to support only some of the spoken English: it does not, however, hope for correlation, as the signs are only used to aid the spoken word (Johnson, 1989). SSS implies that only some of the spoken English features are illustrated with signs, in order to give additional clues to aid understanding (Webster & Wood, 1989).

* **Total Communication (T.C.)**

Total communication implies that the language environment includes normal speech, optimal use of the child's residual hearing and hearing aids, lip—reading, a manual Sign Language and fingerspelling (Webster & Wood, 1989). It is a philosophy calling for every possible means of communication to be used with deaf children ... in practice. T.C. is simultaneous communication

(Woodward, 1982) where both signed and spoken languages are used, and is referred to as Signed English (Miles, 1988:111) or Signed Supported English (Johnson, Liddell & Erting, 1989; Sacks, 1989). By total communication we mean the right of the deaf child to learn to use all forms of communication available to develop language competence, which presupposes both having and using language.

1.8   PROFILE OF THE RESEARCHER

The researcher will present her own emic view on contemporary deaf education in South Africa. The researcher's interest in the field and the educational paradigm and views will be presented by means of a personal narrative in the first person. The formal scientific discourse will be replaced by a more subjective discourse.

"Four years ago I was offered a teaching position at Sizwile School for the Deaf. I grabbed the opportunity and have never looked back. In the beginning I myself, being a hearing person who did not know signs, learned from immediate personal experience how a deaf person feels in a conversation with hearing people – throughout his life. The deaf pupils signed and spoke very slowly, but still I could hardly understand them at first. In a natural sign conversation I immediately lost touch. I did the same thing that we know well enough from deaf people. Once or maybe twice I asked to make sure I understand but then I gave up and behaved as if I understood everything. Actually I just hoped that the next utterance would give me a clue towards understanding the previous one. And once again I had lost touch. This was a real pain which gradually made me very strong. I started communicating with deaf pupils in Signed English, which is a one–word–one–sign mode of communication. Learning through Sign Language became a challenge which I seized and enjoyed. I realised that children learn far quicker in Sign Language than in signed language, varying from teacher to teacher.

It appeared to me that deaf pupils were not gaining sufficiently from the present education system. I still believe that Black deaf pupils throughout the world continue to be systematically removed from opportunities that would allow them to obtain advanced academic knowledge. This motivated me to do research in this field of educational linguistics, paying specific attention to their reading ability and initial reading. Sign Language is assumed to be imperative, for a

rounded education (Storbeck, 1994), but English needs to be taught as a second language, and where possible speech and speech reading should be included too. Clearly advanced reading skills are of great assistance to deaf students, as a large quantity of their learning takes place via text.

Great metaphorical language in English is another problem for hearing people using Signed English. The question is asked whether one has to sign it literally? If one does, would deaf pupils then acquire this kind of metaphorical language in the same way as hearing pupils, and would there be any chance that they will continue to refer to the literal meaning? If not, do we have to avoid metaphorical language totally and in doing this withhold from the pupils a very important part of language in general? In South Africa little or no research has been done on this aspect of using a language with supporting signs. I regard this as an important issue for those who try to use Signed English most especially in reading, as both narrative and expository text rely heavily on metaphor.

As educators who have the love of deaf pupils at heart, we should be brave and not shun the truth and admit our past mistakes, we need to be open to change our educational paradigms for the benefit of the deaf pupils we are educating. Let us enhance education to help create a brighter future for those who live in a language without sounds."

1.9 SUMMARY

This chapter served as introduction and contextualisation for the study, emphasising the research question, which is the nature of initial reading and its pedagogy in a second grade class in a school for the deaf. The focus also fell on the context and on salient concepts. The research methodology was highlighted together with the researcher's profile.

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CHAPTER TWO

CURRENT TRENDS IN DEAF EDUCATION

2.1 OVERVIEW

This chapter will briefly consider the predominant contemporary trends prevailing in the education for the deaf. The discussion will commence with manualism as method of instruction, followed by Sign Language and fingerspelling. Many educationists are still unsure about the value of these approaches individually and combined. Total communication, which has come to stand as the opposition — in—practice to Oralism along with slight deviations within this method, will be discussed together with its advantages and disadvantages. This will subsequently include a section on lip—reading. Each of these modes will be dialectically considered, after which will follow a discussion of bilingual deaf education and second language learning, including the debate between Oralism and Manualism as instructional approach.

2.2 MANUALISM

Manualism upholds Sign Language as the medium of instruction. Manualism comprises formal linguistic organisation — the same as those levels found in spoken languages, such as phonological, morphological, syntactic and discourse organisation (Pettito, 1987:7). This advocates that the natural Sign Language acquired by a deaf child provides the best access to educational content, and that the learning of English for a deaf child is the process of learning a second language (Johnson, 1989).

By accepting their language, the deaf learn to accept their deafness, and learn not to aim to be as 'normal' (hearing) as possible. This is in contrast with Abraham Bell's comments that "We should try ourselves to forget that they are deaf. We should teach them to forget that they are deaf" (Lane, 1984:340). Rather than trying to 'fix' deaf children, we should aim to make them as successful as possible as deaf children (Johnson, 1989).

The child comes into contact with native/fluent signers as soon as possible, for example a teacher, and Sign Language will then be naturally acquired like any other language, with stages and sequences development equal to those of spoken languages (Johnson, 1989; Kyle & Woll, 1985; Sacks, 1989). It is very interesting to note that deaf children of deaf parents (DCDP) are also significantly superior in terms of English language development and educational achievement such as reading vocabulary than deaf children of hearing parents (DCHP) (Johnson, 1989 and Strong, 1988).

Thomas (Harding, 1993) believes that manualism is more pictorial and less linguistic. This, however, confuses Sign Language with pantomime because signers use pantomime. But the two are different: there are no ungrammatical pantomimes, only unsuccessful ones". "A hearing person's sentences in sign, on the other hand, can be quite wrong if he is not fluent even while they are quite clear. Indeed if Sign Language was clear and pictorial it would be immediately understood and easy to learn" (Lane, 1984). Manualism, with its linguistic structures encourages that the acquisition of the natural Sign Language occurs as early as possible. "Manual" children, research has shown, also score higher than "oral" children on receptive language and mother-child communication (Musselman et al., 1988). It is evident that the first language of the deaf child is a natural resource which needs to be utilised as early as possible.

2.2.1   Sign Language

We may assume that from the earliest times the deaf have communicated with one another and with other people by signs, and that in the course of time, as the signs became more refined and systematic, Sign Language developed. This becomes evident when one analyses the structure and function of signs. Signs are definite positions and/or movements of the hands, by which certain words are expressed. A sign may express a word, a phrase or even a complete sentence, depending upon the system used. A facial expression, such as amazement, or a shrug of the shoulders as a question, also plays an important part in the silent communication of thought (D.S.E. guide, 1992). The combination of expression and formalised signs form the basis of Sign Language. The founders of Sign Language did not foresee this.

Abbe de L'Epeé was unaware or could not believe, that Sign Language was a complete language, capable of expressing not only every emotion but every

proposition and enabling its users to discuss any topic, concrete or abstract, as economically and effectively and grammatically as speech. He did wonders for the deaf community, but he had two misconceptions: he saw Sign Language as a universal language and said that Sign Language has no grammar (Sacks, 1989: 20). Now the complexity of Sign Language is extended by some authors who even maintain that the language exceeds the scope of spoken language.

Sign Language is viewed to be better than spoken ones — it "reflects the movement of the soul" (Lane, 1984:213). Whatever one's views on the scope of Sign Language, it is generally accepted as a liable first language.

Sign Language can provide a natural mother—tongue which serves not only a communicative function but, much more importantly it preserves and develops the crucial neutral organisation for language upon which second language learning must be based (Conrad, 1979:284). Therefore, accessing spoken language or language in written textual format is dependent on successful learning of Sign Language — the first language.

In contemporary South Africa we use a systematised sign system which is called "Signed Language" as distinct from Sign Language, to which I shall briefly refer.

The three sign systems
Today we find three signing systems which are used by the deaf as communication media. They are the following:

a)   **The sign system exclusive to the deaf community**
     Most of the Western countries have developed their own distinctive independent Sign Language which has no connection with the spoken language of that particular country. It is difficult to say whether such a language also exists in South Africa. Very few hearing persons can use this Sign Language, because it differs completely from the spoken language of the particular country. It is a language without speech and with no speech equivalent. Possibly only the (DCDP) can understand it.

b)   **Signed language as a support to the spoken language**
     This system is mainly used by hearing persons when communicating with deaf people. Only keywords are used with signs, while superfluous words

which are unnecessary for the run of the conversation, are left out.

c) **The signed system based on the spoken language**

This system has as its basis the spoken language of the hearing community. It is the language which is used today by interpreters in courts, in workshops, in churches, on television and in all places where deaf people find themselves. It is based entirely on the language of the hearing community and therefore it is called Signed Language (this is in contrast to Sign Language which I have mentioned before) (D.S.E. Guide, 1992).

The need for clarity in educational context is serious. Many aspects of different systems combine — often in a haphazard way. It is believed that Sign Language is introduced from the earliest possible age to assist in acquisition of internal language competence, after which fingerspelling is introduced to assist in the transfer to manual English, the aim being the eventual 'forget' language of English to be transmitted in as many of the media of speech, lip—reading, fingerspelling, signing, reading and writing as are within the personal aptitudes and abilities of individual deaf children (Savage, Evans and Savage, 1981:248). All of the above play some role.

2.2.2   **Fingerspelling**

Fingerspelling alphabets, or manual alphabets, as these systems are also known, have existed for many centuries, and are widely found throughout the world, although not in all countries. Fingerspelling is often confused by the public with Sign Language, possibly because of the prevalence in the past of begging cards with the manual alphabet printed on them and because children often learn them, but they differ in significant ways from Sign Language (Caselli, 1987 in Kyle). Fingerspelling is a system where each finger of the hand or the fingers together, or the form of the hand represent one of the letters of the alphabet. It can be linked to the Sign Language. Knowledge of fingerspelling is beneficial for the effective use of signs.

Words can be 'spelt' on the hands in full, thus showing a resemblance to the written word. It was a general means of communication in monasteries, where at certain time the monks were forbidden to speak to one another. It is the transmission of written language on the hands (Evans 1982 and D.S.E. Guide, 1991).

There are two main types of fingerspelling:

a) A single handed alphabet, in which the fingers of one hand only are used. This is the form in general use in Holland, U.S.A., Denmark, Russia and in certain schools in South Africa. (See Figure 2.1).
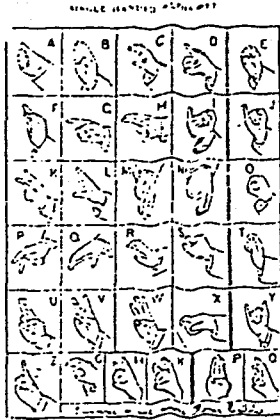
Figure 2.1: Single Handed Alphabet (Kyle & Woll, 1985)

b) A double handed alphabet, in which the fingers of both hands are used, is found in England, Australia and in certain schools in South Africa.
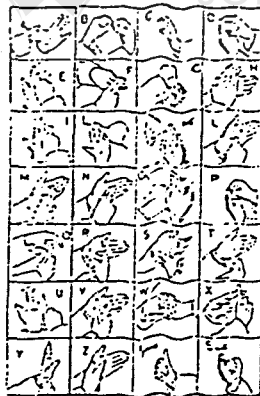
Figure 2.2: Double Handed Alphabet (Kyle & Woll, 1985)

Although fingerspelling is a manual representation of the phonemes of written language, it is used as a substitute for speech as a live, or face–to–face, medium of communication. In purpose, then, it is a manual means for doing the work of spoken language. It can transmit the correct syntax of English or other written language, provided the recipient is close to the person fingerspelling. Eye–contact plays a major role in fingerspelling. The limitations are obvious,

the most prominent being the time needed to "spell".

2.3 CRITICISM OF MANUALISM

Critics of manualism do not accept Sign Language as a language in its own right, dismissing Sign Language as "too simple" to be a language and not adhering to the criteria for a language. Bell, among others, dismissed sign as concrete, idiographic and imprecise and urged for the abolition of sign (Lane, 1984; Van Uden, 1986).

Deschamp (Lane, 1984) believes, on the other hand, that gesture "speaks a thousand times more and better than the most forceful language". He asserts that signs are "appropriate, useful, even essential, but one must not conclude from that, that signs are the only means of instructing the deaf—mute. That would be the case if there were only deaf people in the world" (Lane, 1984:95).

It is often argued that the use of Sign Language with deaf children has a detrimental effect on the acquisition of "speech". Parents are often advised not to use sign as the child will then never learn to use his voice, or that the use of sign will interfere with his speech (Fletcher, 1987; Harding, 1993; Lane, 1984; Van Uden, 1986). Lane, however, argues in contrast: "English is not the natural language of the deaf and we find it irksome. It is purely mechanical feat, and teaching it, conveys not one new idea. It confuses the mind of the pupils by directing their attention to many things at once, something like the effort we should have to make to learn two languages at the same time. It involves immense labor and fatigue for instructor and pupils" (Lane, 1984).

Another critique of Sign Language is that it isolates the deaf community. Sign Language has also been charged as cutting the deaf from their hearing world, a kind of 'apartheid' with all its resentments and other repercussions" (Van Uden, 1986). The use of Sign Language is purported to lead to social isolation (Johnson et al., 1989). This argument is not discarded as invalid; lip—reading and with some speech clearly widens the horizon of the signer. The case of fingerspelling is, however, different.

Fingerspelling cannot contribute much additional flexibility since it is dependent upon the level of language the child develops, which is less related to sign

language (which is an independent language) than to the oral language (which will be discussed later) that so few deaf children ever master. Frequently deaf individuals use fingerspelling to abbreviate names or other proper nouns, or to incorporate into manual language some concept that Sign Language does not express. However, this is purely a function of the signer's mastery of oral language and is usually not too significant. The focal point of manual communication is, however, not the hands, but the face.

As deaf communicate, their attention, is also focused on the face. They do not look at the hand, as the beginning student usually does. The face is the focal point. Therefore it carries most of the burden of enriching the meaning of signs and fingerspelling (Rohl, 1980). The supposed advantages of manualism that includes Sign Language, use of residual hearing, lipreading and fingerspelling were eventually combined in what was then called Total Communication to hold water.

If one can compare the expression of ideas in a manual/visual channel with their expression in a vocal auditory channel, it is obvious that there will be advantages and drawbacks to each channel, which can influence the efficiency of different means of expressing the same concept.

2.4   TOTAL COMMUNICATION

Out of the growing concern for extremism there developed a more liberal outlook which advocated the use of oral and manual media in combination.

Denton (D.S.E. Guide, 1992) describes Total Communication "as the full spectrum of language modes, child devised gesture, the language of signs, speech reading, fingerspelling, reading and writing ... the development of residual hearing for the enhancement of speech and speech reading skills". Total Communication involves the use of any and all modes of communication. This includes the use of a Sign Language system, fingerspelling, speech, speech reading, amplification, gestures, pantomime, drawing and writing ... expressive modes can be used simultaneously such as speech, one of the forms of manual communication and amplification (Evans, 1982).

Total communication, which is seen as a philosophy rather than an approach or method, was established in the early 1970's, and its introduction started the slow reversal of the then exclusive oral method. This method was meant to include all communication channels, whether used singly or in combination, to achieve communication between the deaf and their teachers and parents (Johnson, 1989; Kyle & Woll, 1985). Total communication come to mean simultaneous communication (Woodward, 1982) where both signed and spoken languages are used.

The aim of total communication in the education of the deaf child is:

"1. To give the child the right to express himself in a spontaneous way, according to his level of language development.

2. To give any deaf child the right to a free choice of her favourite means of communication in any situation.

3. To create an understanding for the hearing person's right to speak and listen.

4. To create a common language in the classroom based upon both Sign Language and spoken language.

5. To give the deaf child selfrespect and identity through successful communication" (D.S.E. Guide, 1992).

This means that the person need not use speech, signs or fingerspelling all at the same time, but only one component such as either signs or fingerspelling at any one time. One would then be inclined to call it selective communication. The given situation determines which part of the combined system the communicator wishes to use. Total Communication calls for teachers to sign, it therefore stands as a symbol of opposition to oralism and has therefore enjoyed much support from the deaf population. The required mode of communication in most Total Communication programmes is spoken English (or the relevant language) supported by simultaneous signs. This is referred to as Sign Supported Speech (SSS). When the hearing people talk and sign at the same time, the spoken message is primary — thus the signs are essentially used as an aid in understanding the spoken signal (Johnson, 1989).

It is believed that although Total Communication is unbalanced, as the spoken language still drives the interaction between deaf and hearing, "It is a beginning" (Kyle & Woll, 1985). Total Communication has evolved as a liberal attitude toward the use of appropriate media to meet individual needs or different situations, rather than a precise way of teaching. It has been emphasised that Total Communication is a philosophy, not a method. Philosophy alone does not guarantee more successful or satisfying results, attainments in education are influenced more directly by teaching method. Philosophy advocates what media should be available, how they should be used is a matter of methodology.

2.4.1   Disadvantage of Total Communication

It is generally recognised that not all modes of communication are effective for all individuals in all situations. It is a commitment to selecting those modes, or combination of modes, which will be most effective with individual children. At the same time it is also believed that the use of Sign Language harms or slows down the development of speech. A similar assertion was already included in one of the resolutions taken at the Congress of Milan in 1880. It reads as follows: "This Congress is convinced that the joint use of articulation and signs are harmful for speech, lip–reading and for clarity of ideas" (D.S.E. Guide, 1992; Sacks, 1985). Opposing views complicate the role or value of total communication.

Another objection against Total Communication is that it is not conducive for integration into the community. It is contended that integration can only be brought about by the "full" use of "speech". Since with Total Communication it often happens that Sign Language is dominant, integration will be hampered. This contradicts what Dr. McKay Vernon (editor, American Annals of the Deaf and professor of Psychology, Western Maryland College) wrote: He says "Total Communication improves language skills rather than impairs them ... Total Communication improves academic performance to the point of doubling gains in reading achievement". This draws us back to introduce Oralism which has been a total opposition to both manualism and Total Communication; but has been put on trial. The main disadvantage of Total Communication is not that it emphasises the manual component, but that it is a type of creed.

2.5   ORALISM

Oralism, which is an approach to communicating with and educating the deaf, advocates speech and lip—reading and disallows signing of any sort. In 1880 at the International Congress of Educators of the Deaf in Milan, deaf education was transformed from accepting signing to a total rejection of signing in favour of the Oralist approach. The Congress voted for the exclusive use of the oral method and disbarred all use of Sign Language throughout the world, thus publicly announcing the superiority of speech over sign (Lane, 1984; Sacks, 1989).

One of the chief aims of the oral method is to teach the deaf to speak. This is achieved through the teaching of articulation, that is the deaf—mutes are taught to use their voices correctly and to place their organs of speech in the right position for the production of speech sounds. This is a largely artificial process in which the child is taught through touch, sight and muscular movements to imitate the sounds he cannot hear.

In the oral method, speech—reading takes the place of the missing sense of hearing. Alexander Graham Bell, was the great advocate of the Oral method, and was once quoted as saying "Sign Language should be banished and deaf teachers shunned" (Lane, 1984). Alexander Bell saw the purpose of education of the deaf as their integration with the hearing majority, and favoured monolingualism, that is spoken English for all Americans. Although Bell was so opposed to Sign Language, he had a mother who was hard of hearing and a wife who became deaf in her youth, and as his mother could not lip—read he would sign conversations to her. However, he saw her deafness as an "affliction" and her inability to lip—read as "imprisoning". As an ardent oralist, paradoxically he once claimed that no language would reach the mind of the deaf child like the language of sign, but as it was the minority language in a hearing world, he discarded it. Bell believed that deafness was a physical handicap that could not be cured, but that it could be alleviated by covering its stigma. Hearing people, he believed, had to help the deaf by denying their language and culture and allowing them to become a part of the hearing world, and therefore he fought the battle for Oralism, against Manualism, with great vigour (Kyle & Woll, 1985; Lane, 1984; Sacks, 1989).

Abbe de L'Epeé found himself in implicit if not explicit opposition to Pereire, the greatest 'Oralist' or 'demutizer' of his time who dedicated his life time to teaching deaf people how to speak. This was a task which needed dedication (Sacks, 1989:25). De L'Epeé began teaching the deaf, seeking as he puts it, "to reach heaven by trying to at least lead others there". He discovered how to educate through Sign Language.

Moritz Hill also advocated that deaf children should not learn speech as hearing children do, that is through constant daily use — as if they were not deaf. According to him pupils should acquire instruction the way a child acquires knowledge from his mother, simply through normal, natural everyday contact (Lane, 1984:300).

"The value of speech is in its intelligibility, not in its perfection. The deaf should be taught to read and write following the "mother method", that is as hearing children learn speech. Lane maintains that he has never understood why the learning of a first language should be taken as a model for the learning of a second. Only in the former does the child begin knowing no language and invariably achieve fluency in a few years whatever the adult intervention" (Lane, 1984).

Oral programs as such use spoken English (SE) only and place great emphasis on speech training, lip–reading and maximal use of hearing aids and residual hearing (Strong, 1988:114).

This approach is supported by various schools within South Africa and abroad where the teaching of speech, speech reading and the use of residual hearing to the people who are hearing impaired is encouraged.

Contradictory to these positive views on Oralism, there are those who resist and totally reject Oralism, this also includes lip–reading.

2.5.1   Lip–reading

"We have not fully come to grips with the realisation that the primary avenue for reaching the intellect of the deaf individual is the eye. An understanding of the critical relationship between seeing and thinking has recently begun to be developed" (Kyle, 1987).

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Lip—reading is the receptive medium in oral communication, is a means by which deaf people may receive and understand the normal speech of hearing people by watching the movement of the lips. It is the other means of 'live' visual communication of language available to deaf people, it involves systems which require special skills on the part of both sender and receiver (Evans, 1978). Lane rejects the claim that the deaf lip—read only familiar people well. The advantages of articulation training are that it restores the deaf to society, allows moral and intellectual development and proves useful in employment (Lane, 1986).

As mentioned before in every good thing there is always the bad side of it, even in bad things there is always the good side of it. Some people cherish Oralism and others are totally against it.

This learning mechanism is a filter which is the result of various developmental and experimental factors in the learners background. The filter predisposes the learner to apply the basic acquisition strategies in idiosyncratic world. This is still a problem since not all deaf people can lip—read. It depends on the child's creation of the mind and intellect, but man has inherent urge to communicate with others.

2.6   DISADVANTAGES OF ORALISM

Oralism appears to have as its goal to make deaf children more like hearing children. Bell emphasised that deaf children should be taught to forget that they are deaf (Lane, 1984). "The more a deaf child speaks like a hearing child, the greater the success". But the question arises whether this is fair towards the deaf child as "deaf children are not defective models of hearing" (Johnson, 1989:10).

Lane believes that "Pure (there is no such thing) oralism has not a leg to stand upon. It is a menace to the deaf, mentally and morally, and robs them of the happiness and peace of mind God meant for them ... If I can do anything to combat this foolishness and the CRIME, ..." (Lane, 1984). The aim should not be to 'fix' them (make them more like hearing children) but to teach them (making them more successful deaf children). Deaf children should not grow up feeling ashamed of being deaf, as there is nothing wrong with being deaf (Johnson, 1989; Lane, 1984). Deaf people do not believe in isolation and as a

result this method did not make an impact as such.

Deaf people regard Oralism as a loathed method, unnatural in its application, hypocritical in its claims, anyone who upholds the oral method as an exclusive method, is their worst enemy (Lane, 1984). They are always involved in conversation and in dialogue with their world. Therefore they cannot be excluded from the society.

The realisation that Deaf Children of Deaf Parents (DCDP) were better at reading and writing than those of hearing parents (DCHP), together with the general upsurge in the visibility of Sign Language caused researchers and educators to take a new look at the role of Sign Language in deaf education, and hailed the start of bilingualism.

Given our pluralistic society there is a need to inform new teachers and language professionals of current findings in bilingual education. They need to know most effective means for achieving success with minority language students. New courses should be developed in concert with faculties of education so that these pertinent issues relevant to cognitive and language development may be addressed.

2.7   BILINGUALISM AND SECOND LANGUAGE LEARNING

In Layman's terms, bilingualism refers to the simultaneous use of both Sign Language as well as written language in the education process. The International Conference in Sweden resolved it to be self–evident that Sign Language was the first language of Deaf people and that it should be the language of instruction in Deaf schools. Sweden, the first country in the world to recognise Sign Language as the first language of the deaf, took this resolution one step further by assuming that deaf children should first acquire competency in Sign Language prior to learning any other language, whether written or spoken.

It is essential to remember that Sign Language is the first language of the deaf (see 2.2.1). Sign Language and spoken language are definitely not the same and must be kept separate in use and in the curriculum" (Johnson, 1989:10) which would be in accord with bilingual education, which includes both the majority language (English) and a minority language as separate entities in its process

(Johnson, 1992). One can say deaf and hearing children have the same innate ability to acquire language (Pettito, 1993). Research has shown that a well-established first language is advantageous, and could precede the learning of a second language (Johnson, 1992) as it is believed that second language learners use their first language as a point of reference in the acquisition of a second language, and that "a good command of the first language [is] crucial to success with the second language" (Davies, 1991).

The basic trends of bilingual education and ESL as presented in a Position Paper published by TESOL (Teaching English to Speakers of Other Languages) reads thus: "A fundamental tenet of bilingual education is that a person living in a society whose language and culture differ from his own must be equipped to participate meaningfully in the mainstream of that society. It should not be necessary for him to sacrifice his own rich language, i.e. Sign Language and culture to achieve participation. Rather, we should utilise available language skills and thought processes to foster intellectual development while developing English Language proficiency" (Walworth, 1988).

Bilingual programs recognise the need to teach:
—   the pupil's dominant language as a first language;
—   the content matter through the dominant language;
—   the history and cultural heritage of both language groups;
—   English as a second language.

The English as a second language component of the bilingual education program recognises that the student or pupil may have developed proficiency in one or all of the areas of language learning in his mother tongue, hence it accelerates the process of acquiring the second language English.

Bilingualism is the method presently being proposed as possible methods in deaf education for the learning of English, with Sign Language as the main medium of instruction (Strong, 1988). Therefore one could say bilingualism thus encompasses the use of two languages which in deaf education, would involve Sign Language and English (Johnson, 1992).

2.8   **A MODEL PROGRAMME FOR THE EDUCATION OF DEAF CHILDREN**

A model programme was later introduced for deaf children. I believe that this principle can be applied in South Africa to make a better education, especially in initial reading.

Twelve principles were formulated as guidelines in the document "Unlocking the curriculum", as the authors felt that "The education of deaf students in the United States is not as it should be" (Johnson et al., 1989). I agree with Storbeck (1994) that this is also to be true in South Africa, and therefore include these Guiding Principles as a concrete model for deaf education, namely Bilingual Education for the Deaf in South Africa.

*   Deaf children will learn if given access to the things we want them to learn. All communication between the children and the adult should be conducted in a language to which they have access (i.e. Sign Language).

*   The first language of the deaf children should be a natural Sign Language. All children are predisposed to learn language naturally at birth, and Sign Languages are those languages which are acquired naturally by deaf children.

*   The acquisition of natural Sign Language should begin as early as possible in order to take advantage of critical period effects. As soon as the child is identified as deaf, he should come into contact with native users of Sign Language.

*   The best models for natural Sign Language acquisition, the development of a social identity, and the enhancement of self—esteem for deaf children are deaf signers who use the language proficiently.

*   The natural Sign Language acquired by a deaf child provides the best access to educational content.

*   Sign Language and spoken language are not the same and must be kept separate, both in use and in the curriculum.

*   The learning of a spoken language (English) for a deaf person is a process of learning a second language through literacy (reading and writing).

*   Speech should not be employed as the primary vehicle for the learning of a spoken language for deaf children.

*   The development of speech related skills must be accomplished through a program that has available a variety of approaches, each designed for a specific combination of etiology and severity of hearing loss.

*   Deaf children are not seen as "defective models" of normally hearing children.

*   We concur with one of the observations of the report of the commission on education of the deaf, that "there is nothing wrong with being deaf".

*   The "least restrictive environment" for deaf children is one in which they may acquire a natural Sign Language and through that Sign Language achieve access to spoken language and the content of the school curriculum (Johnson et al., 1989:15–18).

The goals of these bilingual approaches (along with the principles of Johnson et al., 1989) appear to be giving the child the opportunity to become bilingually competent in Sign Language and at least the written forms of English.

I believe that we need to let the child tell us what he or she needs. We also need to remember that we are all in it together and that together, a great deal more can be accomplished than if we work at cross purposes. All these gives one a guide on how to implement bilingualism to cut a long road short.

2.9   SUMMARY

This chapter provided a brief dialectic view of aspects of education for the deaf relating to the medium of instruction and to concomitant linguistic development. It is evident that the various methods, approaches and philosophies have a socio–historical context from which they have been formulated. From the arguments and views represented from the literature review, it is evident that

Sign Language has gained moral educational ground in recent times. Bilingualism, in which Sign Language is combined in a connective effect at mastering literacy in an "oral" language and some lip—reading and speech is essential for educational purposes, as much of contemporary learning is mediated by written text.

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CHAPTER THREE

LANGUAGE AND LANGUAGE ACQUISITION OF DEAF

AND HEARING CHILDREN

3.1   OVERVIEW

In this section the study of language as medium of communication and co–creator of concepts will be discussed briefly, after which Sign Language will be presented as a language in its own right. Subsequently the two central views on language acquisition will be argued with the intention of presenting their differences and similarities and finding acquiescence between the two. The acquisition of language by both the hearing and the deaf will be considered.

In addition language learning will be discussed, aspects of second language learning linked to the theory of multicultural education will be highlighted and a short conclusion will be drawn in which the ethics of multicultural education will be linked to education for the deaf as a component of a multicultural society.

3.2   SECOND LANGUAGE – A CONCEPTUAL ANALYSIS

Cullingford (1989:60) defines language as a specialised form of a symbolic system which converts prelinguistic concept and image schema into a code for interpersonal communication and for personal reflection and knowledge construction. Both imaging and the use of language depend upon the ability not merely to reproduce, but to anticipate conceptual meaning and to create it with or without conscious use of language. Images are both immediate and deferred, reacting to what is observed and creating the idea of what is observed. Second language learning, a vital component of bilingual education for deaf learners, has been studied as pedagogy from various viewpoints.

Of the many theorists who have devoted time and research energy to the study of second language acquisition, the work of Krashen (1981, 1985) is often cited in South African writings. The main debate is the extent to which second language

can be instructed formally and to what extent natural acquisition takes place. The present consensus is that a second language can develop naturally (acquired) if the user is exposed to sufficient contact outside the formal learning situation, but that some rules need to be taught explicitly (Kilfoil & Van der Walt, 1993).

Much of children's knowledge of language is tacit rather than explicit; it is a form of subconscious or "non mindful" knowledge. Their acquisition of language is a sophisticated operation, governed by individual insights and dependent on the discovery of rules. Children learn to construct meaning by guessing the significant sound patterns and through their understanding of the context in which meaning occurs (Chomsky, 1972; Gardner, 1991 and Pettito, 1993).

Hence a distinction between language acquisition and language learning is often argued to be important. According to Ager (1985:14) "we acquire" language we do not exercise the intellect; only when we learn is the intellect engaged".

Second language learning depends on both instruction and its concomitant conscious learning, and natural exposure which facilitates naturalistic acquisition. If deaf learners are exposed to a second language *and* its orthography during the process of initial reading, it has to be kept in mind that they may "learn" more initially because they can't hear, and that they will "acquire" less, for the same reason. Later, when they are more efficient readers, they will clearly be able to immerse themselves in written text with more ease and will acquire more language "naturally".

3.2.1   Language learning

Language, which is a creation of the mind, will be studied. Learning a language is one of the most natural processes on earth and human life would not be the same without language communication which is very much important for children or learners. Language learning is a formal instruction; one learns the knowledge of the structures and rules governing the usage of that language. It is therefore essential for learners of initial reading to know the rules and structures governing their language.

A very important point that needs to be stated is that learning does not "turn into" acquisition. The idea that we first learn a new rule, and eventually through practice, acquire it, is widespread and may seem to some people to be intuitively

obvious ... We draw upon our knowledge of rules to make sense. We do not simply measure discourse up against our knowledge of pre—existing rules, we create discourse and commonly bring new rules into existence by so doing. All competence is transitional in this sense (Ellis, 1984:176).

The process of language learning is therefore the same as the process of language use. The learner develops procedures for using whatever knowledge he possesses to "make sense". In so doing, he develops the new rules to add to this existing knowledge. This process enables the learner to take part in verbal interaction. Each process involves certain mental operations (Kyle, 1982).

Noam Chomsky, the linguist who changed the course of linguistics in the second half of the twentieth century, contributed to the theory of knowledge by insisting that knowledge of language is a kind of knowledge that cannot be accounted for within contemporary philosophical theories. His approach, according to Henning (1991), is that language is generative. She maintains that Chomsky's approach has given new life to the dispute between rationalism and empiricism by providing evidence that much knowledge of language must be innate although the environment serves as a catalyst for development.

Newport and Goldowsky (in Carey and Gellman, 1991:126) maintain that the environment interacts with the growing child. In their Less is More Hypothesis it is stated that: "the possibility exists that the cognitive limitations of the young child during the time of language learning may likewise provide a computational advantage for the acquisition of language. It follows then that the older learner will suffer a disadvantage of computation". The young child extracts only limited quantities of language material for internal non—conscious processing at one stage, beginning with morphemes and even phonemes, while the more mature learners' intake and production is mostly on the syntactic level (Krashen, 1985; Newport, 1991). This has implications for language learning for deaf children. From this point of view, as well as that of Vygotsky (1986), language is culturally environmentally catalysed. If a deaf child does not encounter early exposure to the code of the deaf, the Newport and Goldowski (1991) hypothesis implies that first language learning will become increasingly difficult. Often this is compensated for in schools by reverting to behaviouristic tactics. First language learning for deaf children is best accomplished by means of exposure to users of the language.

Learning to read means accusing a second language and its text. It can best be achieved if some first language has been established.

3.2.2   Language in the multicultural classroom

classroom for deaf children can be viewed as multicultural classrooms for two reasons: Firstly, schools for the deaf inevitably accommodate many home cultures, due to the fact that minorculturality would not be feasible.   Secondly, the ethos of multicultural education includes equity and equality of opportunity — both of which pertain to the rights of deaf children (Penn & Reagan, 1995).

In the classroom situation, a distinction is made between language for social communication and language for learning for cognitive and academic purposes. When we use language to find out what we think and feel, we are learning.   In this way language has a cognitive and a metacognitive function.   When we use language to tell others what we think and feel, we are communicating and language then has a communicative function.   Clearly if the topic involves cognitive academic issues learning comes into play.   It is difficult to communicate until we have learnt what it is we have to communicate.   Pennington (1986) argues that because of limitations of language or because of cultural inhibitions, some students may be unable or unwilling to communicate as freely as native speakers would in written or oral forms.   According to Cashdon (1979:113) it is true that there is an inevitable interaction between the two;   that is the act of communication often generates new learning.   This aspect features strongly in social—constructivism.   The tolerance for expressive talk needs to be extended to written language.   Writing in the hands of an inventive and thoughtful teacher who is conscious of language processes, can be a very powerful way of exploring ideas (Edwards, 1979).   Deaf learners need to access language for both purposes of learning and communication *and* for the interaction between the two.   They also need to be able to understand one another in the multicultural classroom, by sharing a first language and by accessing the text of another language via reading and writing and lip—reading (Reagan, 1991).

In a multicultural classroom language acquisition is essential to explore the concept of language itself. The Oxford Dictionary (1982 edition) defines language (or more specifically the role of language) as a method of expression, "which appears to be the fundamental purpose of language, be it intrapersonal or extra expression.   Intrapersonal   expression   occurs   in   thinking/self—talk   and

interpersonal expression has as its goal communication. The generation of thought (internal language) or the what to express", precedes expression, therefore reception needs to precede expression (Myklebust, 1964). The nature of language has been defined by Baker & Cokely (1980) as a system of relatively arbitrary symbols and grammatical signals that change across the time and that members of a community share and use for several purposes, to interact with each other, to communicate their ideas, emotions, and intentions and to transmit their culture from generation to generation" (Baker & Cokely, 1980:31).

3.2.3 Language as a system of relatively arbitrary symbols and grammatical signals

A spoken language system is composed of a limited number of sound units, connected to each other to form morphemes and words (lexemes). These words are linked in a specific way (following the grammatical rules) to form sentences, these sentences are then joined to communicate conversations and to create discourse in a specific context (Baker & Cokely, 1980; Kyle & Woll, 1985). Words within a language each represent a concept or item, and these words are therefore referred to as symbols, representing concepts which can be concrete or abstract. Language is viewed by some theorists as being the co—creator of concepts (Vygotsky, 1978) thereby affording language more than symbolising or communicating status. Each language has a set of grammatical rules which determines the order in which the words are placed. These rules differ from language to language, and are phyllogenetically viewed as having a strong socio—cultural base.

The socio—cultural base, includes the immediate surroundings of the individual, which is the source of language acquisition. This is evident as symbols for concepts are dependent on modes of cultural transition. Therefore, although phyllogenetically the process may have been arbitrary, ontogenetically there are definite paths (Vygotsky, 1978). According to Pettito (1993) deaf learners follow the same paths as others.

3.2.4 Language as shared by members of a community

Members of a community usually share a language, and it is usually acquired through interaction between the child and mother (or substitute). Language acquisition is thus a social process, for by the very nature of its acquisition, language usually plays an important part in identification with the specific

community. Membership of the deaf community, for example, is based on hearing loss and by the ability to use Sign Language fluently, and the acceptance of Sign Language as a first language (Reagan, 1985; Stokoe, 1972; Woodward, 1982). Unlike many of the other language modalities, Sign Language can be acquired normally and without delay by a child exposed to it early enough; there is no sensory barrier in the way. Sign Language is a language distinct from English, neither "better" nor worse, neither simpler nor more complex, but different. It is one of the markers of the deaf subculture. SASL is a language; signing is a modality. Thus, it is possible to sign "in English", often as a bridge between the hearing and deaf worlds.

The learning of Sign Language by hearing people in the community serves to reinforce the bridge. Signing is definitely not a panacea for the experimental deficits suffered by people who cannot hear; however there is evidence that it can facilitate the acquisition of the standard language of the community in many modalities (Fischer, 1989; Penn & Reagan, 1995).

3.2.5 Language changes over time

Language is alive, and as the people who use it change and develop, so language changes to adapt to this dynamic process (Baker & Cokely, 1980). Clearly Sign Language also changes and adapts (Penn, 1991). As communities advance in technology, for example, so too must the languages grow in order to keep up with the changes. Language changes to meet the needs of the people who use it, and as the people grow (as knowledge expands), so too the language expands. New words are frequently created and often words are borrowed from other languages, rather than inventing their own (Baker & Cokely, 1980). The deaf community, who exist within the dynamic hearing community, is thus also subject to change especially with regard to the written text it encounters in other languages. Sign Language which is shared by the community, is therefore required to subsequently develop and grow with the changing society in which it exists. Growing is changing, and changing is also growing. The characteristics of sharing in a community and changing overtime are two of the many characteristics which Sign Languages and spoken languages share.

Questions like: Does the limited exposure of Sign Language in the classroom of communicative language teaching accommodate an epistemology of innateness? Does the teacher rely on social language learning outside the classroom when

teaching reading lessons? How much reading do pupils need, especially in a Sign Language class and how long is their span of attention? The changing character of language and the interrelatedness of community and language impact on the very nature thereof.

3.3 A CONCEPTUAL ANALYSIS OF THE CONCEPT "SIGN LANGUAGE"

Sign Language is the language of the deaf community. It is the natural language of the deaf, because it develops naturally over time among a community of users. It is acquired through an ordinary course of language acquisition by children who are exposed to it through deaf adults and peers (Johnson, 1989; Liddel & Erting, 1989). However, unlike spoken language, it is usually learned from the child's peers, as the majority of deaf children are born into hearing families (Israelite et al; 1989). In general deaf people who use Sign Language are members of the deaf community, who share in the same culture. As it is their (the deaf community's) preferred language, it can be referred to as their "mother tongue" (Garretson, 1991).

Sign Language introduced from the earliest possible age assists in acquisition of language competence. The introductional lip–reading and fingerspelling assists in the transfer to "manual English", aiming at the eventual "target" language of English to be fingerspelling, signing, reading and writing as are within the personal aptitudes and abilities of individual deaf children" (Savage, Evans and Savage, 1981:248). Sign Language is a visual–gestural system: it is visual because it is perceived visually and gestural as it is produced by means of bodily gesture (Baker & Cokely, 1989; Kyle & Woll, 1985; Pettito & Bellugi, 1988; World Federation of the Deaf, 1993) and facial expressions (Reilly, McIntire & Bellugi, 1994). It is also referred to as visual–spatial language as it makes use of the visual modality and the use of space in which the signs are produced (Pettito & Bellugi, 1988). It is a language of the hands and eyes and is a language of movement and space. Sign Language is a system of symbols with its own grammatical rules and structures to obey (Baker & Cokely, 1980; Brennan, 1992; Kyle & Woll, 1985) exhibiting the fundamental properties linguists have posited for all languages (Daniels, 1994:155) including phonological, morphological, syntactic [and] discourse (Pettito, 1994:153) and semantic rules (Marshark, 1993).

This is not to say that deaf and hearing children necessarily will differ in their abilities to make relevant physical, conceptual or linguistic discriminations given equivalent experience, but most often they do not have equivalent experience.

3.3.1   The building blocks of Sign Language

If we compare the expression of ideas in a manual/visual channel with their expression in a vocal/auditory channel, drawbacks are prone to occur and advantages can also occur. This can influence the efficiency of different means of expressing the same concept.

The deaf child's knowledge of the linguistic use of space in SASL must include information on the differentiation of signing space, explicit establishment of nominals at discrete spatial loci, consistent spatial identity of loci and contrastive use of established loci in sentences and across sentences in discourse, in long—distance dependencies (Bellugi, 1988).

In contrast to spoken languages, which use words as symbols representing specific items, Sign Language have signs which are symbols for specific items, and use space and movement as key channel of conveying information (Kyle & Woll, 1985; Pettito, 1994a, 1987) by means of signs. Signs are "signed" in a specific space. This area or location is sometimes referred to as the signing space. This space includes the area just above the head down to the waist (or the hips), and the space from elbow to elbow of loosely bent arms (Kyle & Woll, 1985). In ASL, for example, the space in front of the signer's body functions as a central component of the grammar of the language" (Pettito & Bellugi, 1988:301). Figure 3.1 illustrates the signing space.
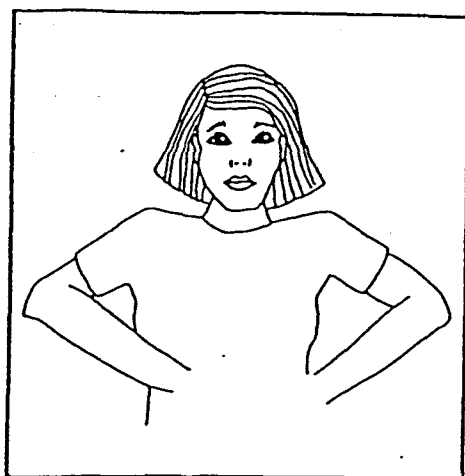
Figure 3.1: The signing space (adapted from Kyle & Woll, 1985:86)

Sign Language is restricted to the space indicated in Figure *3.1* that is a region bounded by the top of the head, the back, the space extending to elbow width on the sides, and to the hips.

The movement unit within this signing space has three axes (Brennan, 1992): the vertical, involving up and down; the bilateral axis, involving right and left, or side to side and finally the horizontal depth axis, involving movements towards and away from the signer.
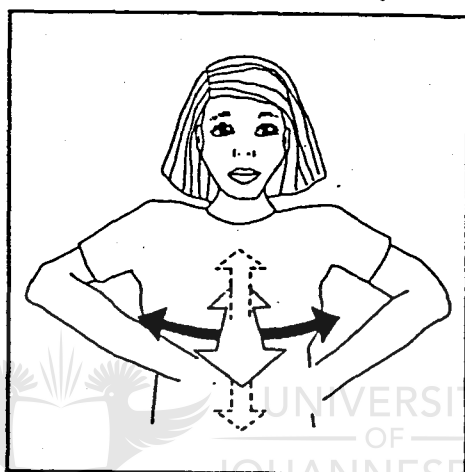
Figure 3.2: The three axes of movement

An example of the use of the horizontal axis of signing space is illustrated in Figure 3.3 where the verb "hit" is depicted as moving across the body (from the point indicated by the left hand while the right hand is signing man) to the point indicated by the left hand (while the right hand is signing woman).

MAN
(4th person location)

WOMAN
(3rd person location)

HIT
(3rd person to 4th person)

WOMAN-HIT-MAN
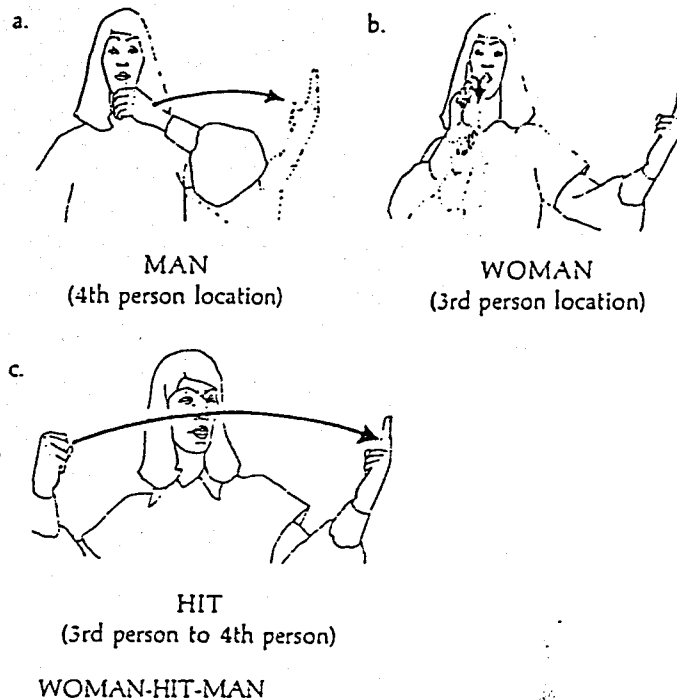
Figure 3.3:   *The use of space and the horizontal axis adapted from*
(Kyle & Woll 1985:141)

This is another way in which role is encoded in BSL which relies on the availability of two articulators as well as on the use of location. In spoken languages of course, such a construction is not possible. In this type of construction (a variant of the one illustrated above) a role is encoded on to each hand and then the hands act on each other. A sentence such as WOMAN–HIT–MAN may be signed in following way (Figure 3.3a–c). First man signed with the left hand. Then the index finger of the left hand is held upright (person classifier) in fourth person location (Figure 3.3a). As the left hand is held stationary, the right hand signs WOMAN (Figure 3.3b). Then the right hand, in a fist, is brought towards the left hand (Figure 3.3c).

This can be further discussed in chapter four where we learn more on handshapes especially when teaching initial reading to children in lower classes (Sub B).

As already discussed, Sign Language is a visual–gestural system which extracts from the visual–gestural medium. Stokoe (1960) isolated its main characteristics as handshape position and movement.

Sign Language as a system is composed of smaller units (a building blocks) of sign, namely handshapes (Kyle & Woll, 1985). The BSL Dictionary distinguishes fifty—seven separate contrastive handshapes, which can be described as handshape phonemes (Brennan, 1992). As sounds are the building blocks of spoken words, so are handshapes the building blocks of signs. Signs can be analysed in terms of various components: the specific handshape is referred to as the "designation" abbreviated as "dez", the location/position as tabulation ("tab") and the movement as signation ("sig") (Brennan, 1992; Kyle & Woll, 1985). Kyle & Woll added a fourth component, the orientation of the hand relative to the body ("ori"). This orientation to the body includes the point of contact of the sign to the body. The following elements can also be regarded as the building blocks of signs: facial expression, lip patterns, eye—gaze, body posture and movement and posture of the shoulders and the head (Brennan, 1992; Kyle & Woll, 1985).

I agree with (Storbeck, 1994) that Sign Language is not just gesture and mime, but a language in its own right with the characteristics of language in general. The deaf thus have a language which can also be defined as a system of relatively arbitrary symbols and grammatical rules that change over time, which members of a community share and use for several purposes, and which is acquired in a natural developmental sequence (Israelite et al. 1989).

The researcher has shown that, despite obvious differences in surface structure and modality, the time course of the acquisition of a ASL is remarkably similar to that for spoken languages. We now turn to the acquisition of language in which the nature of the apparatus used in ASL may have its most striking effect.

3.3.2   South African Sign Language

Tervoort (1983a,b) believes that a universal Sign Language for all the deaf in the world is not possible, that it is as much a Utopia as a universal natural spoken language. The latter is true, as every natural spoken language (in contrast to an artificial language) has its own, historically grown cultural, arbitrary, linguistic syntax and morphology. Tervoort's belief also underpins this study.

In major industrialised countries in the world, there is a Sign Language which is significantly different from the spoken language. In some of these countries, especially those which have incorporated the sign modality into the educational

system, there is a signed version of the spoken language coexisting with the Sign Language. In those countries where signing has been forbidden in the classroom as a matter of national policy, there appears to be more variation than one would find in South African Sign Language.

Like most countries SASL also encounters an experiential and anecdotal reason to believe that considerable diversity exists amongst deaf groups in South Africa and that includes the educational, geographic ethnic and racial differences. There are over 2 million deaf people in South Africa and it is really impossible to include each and everyone's Sign Language (Dunn, 1994; Penn & Reagen 1990; WDA pamphlets 1995).

SASL includes eye—body language. Meaning is conveyed through shapes and movements of the hands, arms, eyes, face, head and body which are formed and combined in such a way as to be easily received and understood through the eyes. Therefore it is visual.

People see signs like BOOK, BABY and TREE and assume that all signs are pictorial. But we know that many signs such as EXACTLY and AUNT are wholly arbitrary and that other signs loose their pictorial quality in actual usage.

Movements of the body that are made for direct or indirect communication are called gestures. So signs are said to be gestural. Not all gestures can be called signs, however gestures are often vague but the shapes and movements of signs are definite — and so are their meanings. Unlike body movements, signs can be linked together, in different ways can handle abstract ideas and can provide precise information syntactically. Often hearing people fail to see the difference between random gestures and the properly structured Sign Language. This is probably one reason why oralists attempted to ban signing.

Sign Language goes hand in glove with English. Young hearing people may learn to fingerspell, but if they try to communicate with an adult deaf person by fingerspelling they do not always get through, because mostly they are using English. There are many signs that cannot be easily translated into English, or need several words to provide the full meanings. So one can say Sign Language is not dependent on English. Nowadays, the newspapers criticise schools for not teaching grammar, but children are still learning English without being taught grammar. We know that a language *can* be learned without knowing what

VERBS, ADJECTIVES, NOUNS are. English is now in the same position as Sign Language, in that people learn it without being able to explain (or even be aware of) its grammar. Grammar in Sign Language is related not merely to sign order but to such things as iconicity that is signs which are pictorial and usually easily understood by hearing people.

Classifiers or Metaphorical signs still contain pictorial elements but they are much more abstract than iconic signs. Often the pictorial element is contained in facial expressions for example SILENCE! STOP!

Abstract signs, were at first felt, were the smallest group of signs. Research has recently shown that most signs are in fact abstract especially in South Africa, for example, WHICH, FUNNY, MEAN, TRY.

Some basic facts about how Sign Language is learned and used in South Africa, and indeed in many countries, reveal a number of singularities, which in turn can affect both the grammar, ultimately, of SASL and the people who use Sign Language. I think our South African (Black) deaf people still need a rat race to reach the climate in Sign Language which still fails to give them access to a full range of postsecondary occupational and adult education available to the general population and be prepared to benefit thereby (Welsh & MacLeod – Gallinger, 1992).

3.4   LANGUAGE ACQUISITION

It is important to keep in mind that issues concerning the social and experimental achievements of deaf children have a bearing on language acquisition as well as on cognitive and subsequent social development (Liben, 1978; Nelsonihoncks & Camarata, this volume).

Language acquisition involves much more than the elaboration of prelinguistic knowledge. Language is a distinct formal system whose components and grammatical structure must be discovered in their own right (Pettito, 1988).

Learning a language implies knowledge of the structures and rules governing the usage of that language. This does not necessarily mean that the speaker will be able to apply those rules consistently like another tongue speaker in an everyday

communication situation, but that the rules function — mindfully or non—mindfully.

Acquiring language implies that a speaker can use the rules of a language effectively and consistently in a communication situation, even though he may not know these rules explicitly. Activities which foster the learning of a language concentrate on manipulation of the language, for example in the *form of* transformations and substitutions of the structures of that language. Activities that foster the acquisition of a language create genuine communication activities where learners exercise and refine their knowledge of the language (Kilfoil & Van der Walt, 1990).

In the Language Acquisition debate there are two central and opposing schools of thought, the empiricist view, which attributes language acquisition to environmental stimulation, and the rationalist view which maintains that language is acquired through an innate ability (Bruner, 1985; Chomsky, 1972). These two theories are described as follows by Bruner (1985): "One of them, empiricist associationism, was impossible; the other nativism, was miraculous" (Bruner 1985:34). It is evident that these two theories represent the two extremes of the continuum and that the resolution perhaps lies in a fresh salutary theory which could draw on the best of both theories in order to include the innate language ability of humankind, but also maintain the environmental influence on language acquisition (Bruner, (1985).

The way in which language is acquired by the deaf has far—reaching educational implications for children when they learn to read.

If their linguistic development was impeded due to lack of contact with Sign Language, clearly their introduction to text and simultaneously a second language, will be difficult. No matter on what part of the empiricist—nativist continuum one places it and the first language acquisition is imperative for deaf children in order to learn to read in a second language.

3.4.1   Language acquisition theories

As was mentioned in 3.4 there are two main groups of theorists on language acquisition and learning which were described as the rationalist (innatists) and the empiricists. More emphasis is still put that the rationalist hold the view that

language is a mental "organ" which develops in a specific linguistic and cultural milieu while the empiricists hold the more behaviouristic view of language developing by means of response to environmental exposure. These two opposing views have some mutually exclusive components, such as Chomsky's rationalist (LAD) and the existence of a universal grammar (UG) which does not allow for impirically generated language. The empiricist view rejects the innate theory on language acquisition, as it is unobservable, in contrast to the physically observable influence from the environment.

This school of thought proposes that learning occurs within an environment and that the environment stimulates the respondent, with learning as a response (Gardner, 1993). Skinner (1971) views of neurological pathways, which are formed due to practice and repetition, as well as some contemporary connectionist views (Seidenberg & McLelland, 1989), which claim the formation of rules structured due to repetition, are clearly not in agreement with rationalist views. In the same way, Vygotsky's view on the acquisition is greatly dependent on social input. Language commences as a means of communication between the child and the parent and the child and the environment (Vygotsky, 1978) and "from the moment of birth ... the child enters into a world that is rich in interpretations and meanings, all introduced courtesy of the assumptions of the culture in which he happens to be born" (Gardner, 1991; Strong, 1988). If born into a deaf culture, a child will acquire the language within the secure boundaries of that culture.

The Wild boy of Aveyron is used as an example by the empiricists to confirm their theory on language acquisition. This is the sad story of a boy who was first seen in the woods of Aveyron in France in 1799. This boy was living an animal's life, walking on all fours, eating acorns. In 1800 he was taken to Paris where the physian Jean—Marc Itard tried to teach him language and educate him, but the boy never acquired language (Sacks, 1989). The empiricists argue that this boy did not acquire language as he was not exposed to it by the environment, defending the importance of the input of the social environment on language acquisition.

On the other hand the rationalist Chomsky maintains that, "the human mind can itself be the exhaustive and generative source of its linguistic competence, for which external stimuli serve only as occasions for activating what is already dispositionally in the mind's own structure" (Chomsky, 1975:98). Noam

Chomsky maintains that because the child's input is performance—based, that is, full of false starts and incomplete sentences, it would be impossible to explain the young child's competence on the basis of any current learning theories. He is of the opinion that the child's linguistic competence necessarily stems from innate, specifically linguistic structures. However his assumptions about the child's early input are not based on empirical evidence. It has been demonstrated that the child's linguistic input is far from being composed of the non—sentences and false starts often characteristic of adult dialogue. Chomsky assumes that one can examine the nature of language more closely by considering the classes of morphemes it contains, the minimum units that carry meaning, and the privileges of occurrence in sentences that they have (Chomsky, 1975). Language learning is thus a process of "qiederzeugung", a drawing out what is innate in the mind" (Allen van Buren, 1971) and that all a child needs to "acquire" language is to be exposed to language; and the innate ability will be triggered.

The debate continues between the rationalist and empiricist. However, latter—day rationalists and empiricists are not as extremely opposed as initially. Today empiricists "must acknowledge innate processing capacities that enable the organism to learn from the linguistic input, and even an extreme rationalist has to concede that language is not present at birth but requires a modicum of environmental support to develop" (Schlesinger, 1982:19).

After considering the two opposing theories, a new amalgamated theory of language acquisition can be suggested. That a child is innately predisposed towards the acquisition of language is acceptable. Children learn language with only small amounts of knowledge of the language and they internalise and learn it with such ease (Chomsky, 1972; Lerner, 1993). In contrast, however it seems evident that environmental input is essential in the "normal" acquisition of a language and that the environment is necessary to trigger this innate ability. Albertini & Bochner (1988) refer to this process as a dynamic interaction between the organism and the environment. Pettito (1993) makes mention of the organism's innate predisposition as the infant's nascent "sensitivity" to aspects of language structure.

For the deaf child this means that the mode in which the "signified" is sent should be Sign Language, in order for the addressee to understand and thus take possession of the message to which he will then respond. It seems apparent that in order for the deaf child to engage in dialogical communication, Sign Language

should be employed as initial language. As Sign Language is the key to this communication model, the implication for educators, parents and peers play a major role. The teacher for the deaf therefore, has the responsibility to teach reading, offering language which is understood and which a deaf child can respond to. Deaf children have the ability to acquire language like any "normal" child, depending mostly on the environment in which they find themselves. Thus exposure plays a major role.

3.5   SIGN LANGUAGE ACQUISITION

Although signed and spoken languages share fundamental properties, they also differ in important respects. Firstly, space and movement (including facial expressions) are the means for conveying morphological and syntactic information in signed languages far more than in spoken languages. The continuous analogue, properties of space and movement are used in ASL in systematic, rule governed ways. These abstract spatial and movement units are analogous in function to discrete morphemes found in spoken language. The greater potential for nonarbitrary form—meaning correspondences afforded by the visual—gestural modality is exploited in Sign Languages. In particular, indexical signs point to their referents whereas the forms of iconic signs physically resemble aspects of their referents (Strong, 1988).

These modality differences allow us to address important issues in language acquisition. In particular, studies of ASL (American Sign Language) provide a way to resolve a major theoretical controversy concerning the role of prelinguistic gestures in the acquisition of linguistic symbols. Both deaf and hearing children rely on gestural communication prior to language. For the hearing child the transition from prelinguistic communication to spoken language involves a change in modality, whereas for the deaf the transition to signed language does not; that is, for the deaf child gestures and symbols reside in the same modality. In evaluating the importance of prelinguistic gestures in early language acquisition, Sign Language provides a unique methodological advantage, because, given a single modality and external articulators, certain developmental processes in language can be directly observed over time. In spoken language of course, this is not the case as there appears to be an abrupt transition from the use of prelinguistic manual gestures to linguistic (spoken) communication. However, this could be an artifactual consequence of the shift in modality, rather than

reflecting a deeper discontinuity between prelinguistic and linguistic knowledge (Bellugi, 1986; Pettito, 1988).

The coalescent theory states that each child has an innate ability to acquire language, which Pettito (1993) refers to as a modal, but that this ability needs environmental input and stimulation, transactions with others, in order for it to develop.

3.6   CONCLUSION

Sign Language, as has already been stated, is the first language of the deaf, and it is vital to distinguish between Sign Language and other languages. Sign Language and spoken language are not the same, and must be kept separate in use and in the curriculum (Johnson, 1989:10). Acknowledging this fact necessitates the exposure of the deaf learner to Sign Language from the earliest possible age. Realising that the deaf child is not a defective model of a hearing child, and accepting his deafness, will allow him to acquire a natural first language, develop a social identity and obtain self—esteem as a deaf child (Johnson, 1989).

Natural language acquisition, signifying the spontaneous language acquisition from birth, is essential but is also the right of the child, as it is the means of living normally within society. I agree with Storbeck (1994) that Sign Language, which is the first language of the deaf, has for so long been disregarded as their first language. Many parents cannot sign, and they are not aware of their children's need to acquire a natural first language in order to have equal cognitive, social and academic development in the hearing world. For this reason, deaf people in South Africa have not been acquiring Sign Language as their first language or receiving equal education in their first language sufficiently. This has led a vast problem, if not confusion — especially in reading pedagogy, as very few deaf people can make meaning out of what they read. The orthography, the semantics and the linguistic structures of, for example, Setswana text are too alien to grasp.

In the report of the World Federation of the Deaf on the Status of Sign Language (World Federation of the Deaf, 1993) the following recommendations were made, and should be heeded by educators of the deaf in South Africa.

We recommend that the WFD call for the right of the deaf children to have full early exposure to Sign Language, and to be educated as bilinguals or multilinguals with regard to reading and writing.
Sign Language should be recognised and treated as the first language of a deaf child.

1) The Sign Language in question must be the national Sign Language, that is the natural Sign Language of the adult deaf community in that region.

2) In order for deaf children to acquire their first language early and with full fluency, they must be guaranteed the right to be exposed to Sign Language early in life, in an environment which includes highly skilled signers" (World Federation of the Deaf, 1993:11).

Until "we", as deaf educators give the deaf the "right key" of Sign Language, they will not attain equality in a hearing world, in which most doors are opened with language proficiency. It is therefore essential for us to lead the deaf children to the right pedagogic channel to ensure a better future for them.

The ability to use Sign Language is the unique quality of humanness. Sign Language is the tool, which enables the child to know what he is, who he is, who others are, and how and why their lives affect his. Through the process of communication he comes to regard himself as a worthy member of his family and community or as an inadequate, unwanted individual, and by the same process, the world becomes a friendly, accepting environment or a forbidding, hostile prison!

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CHAPTER FOUR

A COMPARISON OF INITIAL READING OF

DEAF AND HEARING CHILDREN

4.1   INTRODUCTION

Reading as a way of life in a literate society is essential for survival in an era where understanding and construction of information as text is of utmost importance. This chapter will therefore commence with a brief overview of some of the pertinent contemporary views of reading, after which the emphasis changes to the teaching of initial reading. A few major definitions of reading will be discussed after which main approaches to the teaching of reading will be reviewed. Since this research is mainly based on reading in education for the deaf, a brief discussion on initial reading for deaf children will be highlighted and compared with the hearing children. The discussion will include a concise review of several approaches to teaching initial reading as well as a brief examination of strengths and weaknesses of these approaches. The chapter concludes with the curriculum as language resource for teaching reading to the deaf.

4.2   DEFINITIONS OF READING

It used to be believed that reading is a purely mechanical process but it is now recognised that it "depends on a delicate complex of physiological skills and psychological faculties which, despite much investigation, are as yet understood, if at all, only imperfectly" (Pitman, 1969:73). The Oxford Dictionary (Sykes, 1987) defines the act of reading as "the reproduction (mentally or orally), of written or printed words of a book, author, etc. by following the symbols with the eyes". This is, however, a very limited definition on it's own.

According to the dictionary, reading is also the converting or the ability to convert discourse into the intended meaning, as well as interpreting the text.

The dictionary therefore implies 'bottom—up' skills—based decoding as well as 'top—down' construction of meaning. When one looks closely at the various 'bottom—up' and 'top—down' theories of reading, it turn out that they differ significantly not in terms of what they take reading to be, but in terms of how they formulate reading as being done.

The difference which has been touted in slogans is that one group of theorists takes reading to be decoding (of graphemes into phonemes) while the other, now dominant group, claims reading to be meaning apprehension. Yet 'bottom—up' theorists never claim that reading is unconcerned with the meaning of the text. And in 'top—down' models of reading, there is decoding, of what Goodman (1967) articulates as recoding, decoding and encoding of information (Baker & Luke, 1991).

As early as 1937 theorists believed that "reading includes those processes that are involved in approaching, perfecting and maintaining meaning through the use of the printed page. Since there are many such processes, and since each one varies in degree, the brain must be elastic enough to apply to all varieties and graduations of reading involved in the use of books (Horn, 1937 in Zintz, 1980:10). In this early reference, the author implies elements of contemporary scheme theory. In another reference, Gates (1949 in Zintz, 1980:11) also points towards meaning making as reading: "Reading is not a simple mechanical skill nor is it a narrow scholastic tool. However, to say that reading is a thought getting process, is to give it a too restricted description". These authors, like many contemporary theorists, focus on reading as cognition. Most teachers of reading would agree with this view. However, text has to be decoded prior to meaning making. This task, which is based on procedural knowledge, can only be fulfilled successfully if the reader makes successful links between sounds and letters (phonemes and graphemes).

Apart from decoding and meaning making, reading is also a response. The theory of reader response supports the notion that the whole person, (the life history, emotion, attitude and motivation of the reader included), is involved in the reading act. In this chapter aspects of these three main components of teaching theory will feature implicitly and explicitly. Reference will briefly be made to a number of theorists of reading.

Zintz (1980:5) believes that reading is the decoding of written words so that the words could be reproduced orally. He believes that reading is understanding the language of an author as well as the ability to anticipate meaning from lines of print or text, by grasping ideas from groups of words. It is agreed that reading encompasses all of these factors. One must, however, beware of assuming that the decoding of written words takes place only for oral reproduction. One does not always have to vocalise what is read in order to understand the meaning of the text. According to Zintz (1980:7) reading is also a process of thinking, evaluating, judging, imagining, reasoning and problem–solving by means of word perception, comprehension, reaction and integration of the text that has been read.

For Thorndike (1973), who is better known for his behaviourist theory of learning, reading is a procedure that involves consideration of all the elements in a sentence. Their mutual organisation and interdependent co–operation determine the final responses. In fact, he believes that the act of answering simple questions about simple paragraphs includes all the features characteristic of typical reasoning. In this statement Thorndike reveals elements of a cognitivist viewpoint.

Walker (1975:16) comments on reading as follows: "What is emerging from observation and research, drawing upon a number of disciplines which include sociology, psychology, linguistics and psycholinguistics, is a view of reading which holds it to be less of the simple perceptual skill it has been thought to be and much more of the intricate workings of the mind which identify it more closely with thinking than with any other human ability. But this is merely to consider reading as a process — the 'how' of reading. The 'what' of reading is a system of communication, analogous to speaking, dependent on it, and yet certainly different from it.
The act of early reading (one of the main issues in this study) involves the marrying of both process and system to the child".

To read well, the pupil must modify his procedure to fit the kind of material he is exposed to, as well as his purpose for reading. This involves selecting and applying the appropriate kind of comprehension skill, and adjusting his rate of reading to understand most effectively what is required. Some reading should be rapid, some slow, and in some instances rereading, even several times, is necessary (Tinker, 1975).

It is noteworthy that most of the aforementioned definitions refer to reading as some type of mental process. A description of the reading act can be derived from this: Reading is the act of creating meaning in the reader's own mind, by linking the new information or knowledge to the information or knowledge that already exists in established cognitive structures or schema. The existence of prior knowledge is due to the fact that the reader links text—based information with encountered knowledge. If no prior knowledge with regard to the textual information exists the reader will make the new information or newly acquired knowledge part of his existing conceptual situation by "forceful accommodation" (in the Piagetian sense). It is important to mention that it is neither the author nor the text which conveys meaning, but the process of linking new knowledge to existing or prior knowledge.

4.3   PRE—READING INSTRUCTION

The term "pre—reading" is in a way a misnoma, because it implies, like "reading readiness", that there is a single moment in time when a child suddenly starts reading and then all he needs is a bit of practice. Learning to read is not like learning to ride a bicycle. It is a gradual process which develops throughout the initial and the subsequent learning periods and it starts well before a child looks at a book. Nevertheless "pre—reading" has come to be used to mean that period before a child can recognise a few words from a book or on a test card, a time when he is building up his equipment for tackling the code he has to break.

This is the first important domain within the area of teaching reading whereby pupils get a chance to prepare themselves for more formal instruction. To some people this phase is less important but, most theorists believe that the quality of the time spent in this manner will eventually determine whether a child will become a good reader or not. If a young child is not adequately prepared to advance to more formal reading instruction, the gap in her cognitional framework will widen as time passes so that even remedial instruction might not cure her reading problems when she grows older. It is vital that pre—readers should take part in activities which will prepare not only their physical self (eye—text focus) but especially their experience with regard to the language content of the intended reading material.

4.4   APPROACHES TO TEACHING INITIAL READING

There are quite a number of approaches to teaching initial reading, but three will be discussed, because they are suited to the research in pedagogy of initial reading:

— the language experience approach (LEA);
— the Basal reader approach; and
— the individualised reading approach (IRA).

These approaches will be discussed only in overview fashion.

4.4.1   The Language Experience Approach

The language experience approach is based on the notion that a child's own speech gets written down by a teacher or an assistant. The writing accompanies a picture the child has drawn. In doing so, the teacher assists in the child's realisation that his speech can be reproduced in print. This makes it easier for the child to see the correlation between language and print. Children are known to remember their 'own' sentences far better than those provided by a teacher or those printed as text in reading series.

The language experience approach comprises of elements such as sharing and discussing experiences with other children, listening to stories being told, telling their stories by themselves and the creating and reading of their own storybooks. All of these activities assist children in converting their experiences into words. By using this method, children also develop word–recognition skills. They establish a basis for sight vocabulary and expand their conceptual frameworks meaningfully. The language experience approach helps the child to recognise words and to see the relation between words and experiences. This approach is integrated in character and is often used by protagonists of *reciprocal teaching* (Palinscar, 1993; Pontecorvo, 1993) and *whole language education.*

4.4.1.1   Strengths of the Language Experience Approach

The language experience approach contributes towards reading as a personal and meaningful activity (Zintz, 1980). It gives the teacher the opportunity to

emphasise, for example, the convention that reading takes place from left to right on the page. By using this method, children learn to share their own experiences and it also encourages them to be more creative. Pitch, intonation and stress can be taught more effectively when the child's own speech is used as an example (Karlin, 1980). Young readers also feel at home with their own language.

4.4.1.2 Weaknesses of the Language Experience Approach

In this approach the vocabulary that the children are exposed to, might be too controlled. This can result in the teaching effort being successful only to a limited degree, because the children will not be able to use all the language they use in everyday life. The learning and practising of problem–solving skills can also be restricted (Zintz, 1980; Karlin, 1980).

4.4.2 The Basal Reader Approach

The basal reader approach is generally based on a series of commercially manufactured reading books and auxiliary materials. This is still the most widely practised approach. The materials are designed to stimulate a systematic development of reading abilities. There is usually a sound blend between whole language and phonics principles, with the emphasis on phonic skills of decoding. A carefully sequenced presentation of reading skills is provided in the approach which promotes a continuation of development of skills through all age groups. Integration of skills and materials occur throughout the implementation of a basal reader course (Zintz, 1980; Karlin, 1980).

The basal reader approach can help the inexperienced novice teacher to prepare a well structured, balanced reading programme. The gradual introduction of new reading skills, the ready–made homework, worksheets and tests provided by such a course simplify matters, especially for the teacher who is still trying to find her way in her new profession (Zintz, 1980).

There is however, legitimate critique against the basal reader approach. It is believed that basal reader courses are shallow, repetitive and they do not represent life realistically. Basal reader courses are believed not to motivate culturally different children because of the biased nature of themes presented

(Karlin, 1980; Rubin, 1983).

4.4.2.1   Strengths of the Basal Reader Approach

The approach is eclectic in nature with themes and topics from the whole spectrum of everyday life integrated into the system. The organisation and coordination of the materials is horizontal. Social organisation, vocabulary and word analysis are organised vertically. This improves the balance between the various factors involved in initial reading programmes (Zintz, 1980).

4.4.2.2   Weaknesses of the Basal Reader Approach

The vocabulary is controlled and tends to become boring. The stories that are told are often not related to the world of the child. Race and ethnic groups are often stereotyped and stylised. Sentence patterns appear haphazardly without mastery or repetition. The curiosity of the children is not stimulated enough (Zintz, 1980) and the content can be culturally strange for some readers.

4.4.3   The Individualised Reading Approach

Teachers who implement this approach allow the children to choose their own reading material (Karlin, 1980:55–57). It provides the children with a greater opportunity to share their ideas gained from independent reading. It allows children to set their own pace while reading and it avoids the notion of children being placed in a group where progress is slow. This notion often leaves children feeling inferior to their peers even though it should provide them with a sense of self–worth because they have responsibility for their own progress as far as reading is concerned. It promotes the principle of self–selection, self–seeking and self–pacing (Pappas, 1962; Zintz, 1980).

A problem experienced while implementing this reading approach is the fact that schools sometimes have inadequate library facilities and therefore the choice of books is very limited. Books from outside the school are usually not suitable for children (Zintz, 1980). This approach is clearly only supplementary to a more structured initial reading programme.

4.4.3.1   **Strengths of the Individualised Reading Programme**

The method puts a heavy administrative responsibility on the teacher. Young children need far more guidance than an individualised reading programme would provide. The teacher needs to have read many books in children's literature and must be able to judge the difficulty of books selected. The programme might encourage carelessness and lack of thoroughness when the child is reading because the teacher cannot always keep an eye on him. However as a contemporary strategy this approach has merit since it is based on individual interest (Karlin, 1987).

4.4.3.2   **Weaknesses of the Individualised Reading Programme**

Self—selected reading material usually satisfies the child's reading interests. Individual teacher—pupil discussions help the teacher to keep track of the progress each child makes. The system is very flexible and there is no ceiling as far as learning opportunities are concerned. This method can also be combined effectively with other reading instruction methods (Pappas, 1962; Karlin, 1980).

4.4.4   **The 'Whole Language' Approach**

In the whole language approach reading is regarded as a holistic process. Altwerger, Edelsky and Flores (1987) maintain that whole language shares some ties with other theories and with various methods, but it cannot be regarded as similar to those approaches — it isn't the whole word approach, nor merely teaching skills in a certain context, nor is it a method for packaged products, nor the language experience approach, nor just a new term for the open classroom. It is an overriding theory and point of view about language, literacy and content learning. Whole language is not practice. It is a set of beliefs and perspectives and it is based on the following ideas:

—   Language is for making meaning and for accomplishing purposes;

—   Written language is language — thus the same aspects which apply to language in general also apply to written language;

— Phonology, orthography, morphology, syntax, semantics and pragmatic's
    are all present at the same time within a language encounter;

— Language always occur in a situation (context);

— Situations are needed in order for meaning to be established.

It is thus clear that the whole language approach can be used in collaboration
with all other existing models of reading instruction. Communication can be
regarded as one of the major factors included in the whole language approach.
Therefore Communicative Language Teaching (CLT) is aimed at
communicative competence, a term coined by the sociolinguist Hymes
(Savignon, 1987).

Communication cannot exist without meaning. Meaning is the most
important ingredient in building comprehensible communication. Meaning as
focus is therefore an important aspect of this approach. Language experiences
in their natural context are preferable in teaching young children to read
because language abilities are developed within natural, authentic
circumstances.

The whole language approach is the most accommodating approach for the
"top—down" component of reading but only if "bottom—up" decoding has been
firmly established. What has not been noticed is that theories of reading
formulate moral models of how reading should be done. Each type of reading
theory, whether "bottom—up", "top—down", or interactive, formulates a
version of the value, the good (see Plato, 1953; Blum & McHugh, 1984) which
reading serves.

4.5   THE MODELS OF READING

Only six of the existing models of reading will now be mentioned, namely the
lexical model, the syntactical mode, the transactional model, the interactional
model, the schema model (all of which have strong constructivistic
undertones) and the connectionist model which is based on a different model of
cognition. All of these models have construction of meaning from a text, be it

literature, a recipe, a news report or graffiti on a wall in Garden Court Johannesburg as a common factor.

The first five models will be discussed briefly. The connectionist model will be described in more detail because it is assumed to be less known.

4.5.1   The Interaction Model of Reading

The main contributions towards the interaction model of reading are Rayner and Pollatsek (1989) and Perfetti (1991). The interaction model is mainly concerned with creating meaning from a text by means of interaction. This interaction occurs between the reader and what he is reading. By 'conversing' with each other, meaning is constructed through which both reader and text contribute towards understanding. The assumption underlying this notion is that the reader and the text are compatible.

4.5.2   The Transactional Model of Reading

Rumelhart (1977) and McClelland and Rumelhart (1981) were the main developers of this model. The transactional model can be described as a transaction between reader and text. The text can imply meaning for the reader who "negotiates" the final meaning. Meaning is conveyed through the reader towards the text. In other words, the reader can attach his own meaning to the text, in accordance with existing knowledge. The marriage between the implication for the reader and the implication of the text contribute towards the meaning that is eventually understood. The whole spectrum of reader responses are involved in this transaction.

4.5.3   The Lexical Model of Reading

The lexical model of reading is mainly concerned with the meaning of individual words to construct meaning from the text as a whole. Decoding of separate words (as lexical items) is assumed to contribute to the actual understanding of the text.

The lexical model can be seen as a 'bottom—up' approach to understanding and describing the act of teaching. The central articulator of this kind of model is, according to Foorman (1993), Gough's (1992) model where the

letter—sound correspondence plays a definite role in developing the alphabetical code. Gough believes that "words are scanned, letter by letter, in a serial fashion, then mapped onto a string of systematic phonemes according to grapheme—phoneme correspondence rules" (Foorman, 1993:7).

4.5.4   The Syntactical Model of Reading

The syntactical model is very similar to the lexical model. This model is concerned with the way in which words are arranged within a sentence. Sentence structure is believed to be the key to understanding the meaning of a given text. The relation of words to one another, within a coherent system, plays an important role in this model.

The syntactical model of reading can be seen as a 'top—down' approach. The central articulators of this approach are, according to Foorman (1993), Goodman (1970) and Smith (1971). Their model is considered to be 'top—down' because they believe that a reader can make predictions about the meaning of unknown words by comparing them to known words within a sentence structure. They believe that "contextual knowledge can compensate for poor decoding skills because the knowledge about the context of what is read, enables the reader to make educated guesses about the meaning of unknown words" (Foorman, 1992:6). These guesses can, however, be misguided and incorrect. Further reading can sometimes alter these preconceptions dramatically. Proponents of whole language reading support this model strongly.

The four above—mentioned models of reading can be considered to be rather traditional. According to Foorman (1993) they assume that lexical access takes place either directly, through the orthographic code derived from the written or printed letters, or indirectly, through a phonological code, derived from rules and analogies.

4.5.5   The Schema Model

The schema model's main concern is with the different types of knowledge that exist within the mind. There is what is known as situational knowledge, declarative knowledge, procedural knowledge and strategic knowledge (De Jong and Ferguson—Hessler, 1986; Ferguson—Hessler and De Jong, 1987, 1990

as referred to in De Jong and Fergusson—Hessler, 1993). In order to understand the implication of the schema model, it is essential to distinguish between these different types of knowledge.

Situational knowledge is, as the term implies, knowledge of situations as they regularly occur in everyday life. Braune and Foshay (Foorman, 1993) believe that knowledge of problem situations enables the (problem) solver to sift relevant features out of the problem statement (selective perception) and if necessary, to supplement information in the statement. Situational knowledge can assist in forming a representation of a problem so that it can be used to derive either declarative or procedural knowledge or both from it. Therefore, situational knowledge is also known as conditional knowledge. It creates condition from which a possible solution can be derived.

Declarative knowledge is also known as conceptual knowledge (Greeno, 1978 in Foorman, 1993). It declares a definite knowledge about facts and principles applicable within a certain subject area or situation. This kind of knowledge uses laws and principles which are relevant to a problem situation, in order to arrive at a solution.

Procedural knowledge is mainly concerned with skills and strategies used in order to solve a problem. It is concerned with the procedure followed to arrive at a certain solution. This kind of knowledge contains actions or manipulations that are applicable to solve a specific problem. De Jong and Ferguson—Hessler (1993) suggest that procedural knowledge assists the problem—solver to make transitions from one problem state to another. Procedural knowledge is automised and the user is usually described as 'skillful' in a domain when this has taken place.

Strategic knowledge assists in the structuring of the problem—solving process. It organises the different stages of problem—solving required to solve a specific problem. This kind of knowledge uses specific plans to reach a solution. The main function of strategic knowledge is to sustain and assist the other types of knowledge.

The Schema model of reading assumes that the process of creating meaning from a text takes place by means of applying the different types of knowledge in order to decode the text, which, seen in the light of the above, can be

regarded as a legitimate process of problem–solving. The schema–theorists therefore seems to be profoundly constructivistic in perspective. 'New' knowledge from text is skillfully and strategically linked with existing schema.

Together with the different kinds of knowledge involved in the schema model, the response of the reader towards the text will also influence the understanding of that text. According to this model the reader as a whole is very important for the process of reading as decoding and a comprehension (construction of meaning).

4.5.6   The Connectionist Model

The main developers of the connectionist model of reading are Seidenberg and McClelland (1989). According to Foorman (1993) "Connectionism is a new, biologically orientated perspective in cognitive science". This perspective challenges the previous dominant perspective of the computer model of the mind (Schema theory) with its commitment to a central role for symbol manipulation and linear, serial processing. Connectionists replace such notions as symbols, rules and concepts with such notions as weights, parameters and constraints. As Rumelhart (1989:35) puts it "all the knowledge is in the connections". The connectionist model of reading is mainly concerned with the disorganised organised connections of concepts, knowledge and meaning within the structure of the brain. It emphasises the systematic introduction of words and sentences and also focuses on corrective feedback and practice for recognition and decoding. It is profoundly 'bottom–up' in nature, although it affords space for existing weights and parameters.

In the second part of this chapter, the epistemology of reading across the curriculum will be discussed and then the study will broadly discuss initial reading for the deaf including different approaches. The discussion is included because the focus of this study is on deaf children and pedagogy of initial reading for such children. Leaving this main discussion will be like throwing the child out with the bath–water.

4.6   THE EPISTEMOLOGY OF READING ACROSS THE CURRICULUM

Reading is a means of knowledge construction in literate societies. Most of formal learning is directly linked to advanced literacy, which affords reading as knowledge—making epistemological and conceptual bases, both of which play a vital role in early school learning.

4.6.1   Types of Knowledge Implemented in Comprehension Activities

In this section the main types of knowledge, as described by Ferguson—Hessler and De Jong (1993) and also by Dufresne, Leonard and Gerace (1993) which are integrated in successful learning and reading, are discussed with a view to linking reading to learning on various levels. The type of psychomotor and cognitive activities which take place during meaningful reading are asserted to be those types of activities which are conducive to good learning in general. The mere integratedness of the reading act is already a highly complex mental activity. The young reader is therefore argued to be, in parallel, also a young learner. This perspective has serious ramifications for the teaching of early literacy — especially since it does not only focus on procedural knowledge but also on a reader's existing concepts. During the act of reading a child needs to integrate conceptual, procedural as well as conditional knowledge. In this integrated process both 'bottom—up' (text recognition and decoding) and 'top—down' (knowledge construction from the link between text and existing knowledge structures) processes take place interactively (McClelland and Rumelhart, 1981 as cited by Foorman, 1993:7).

Conceptual knowledge, inclusive of facts and principles, is knowledge about concepts. It declares a definite knowledge about facts and principles applicable within a certain subject area. A child needs to be able to link new information and knowledge to his existing conceptual framework, before the newly decoded knowledge will be valuable to him. The structures or schemata can be constructed with or without reading. However, decoding develops only as a reading skill.

Procedural knowledge, as discussed before, is mainly concerned with skills and strategies used in order to solve a problem. While reading in the classroom, the child needs to be able to apply reading skills and strategies in order to create meaning from a given text. Reading skills include the following:

skimming, skipping, scanning, search reading and intensive reading (Karlin, 1980; Zintz, 1980).

Conditional knowledge, as it is applied in the reading activity, also concerns the solving of problems. The primary problem encountered by a child while reading, is to decode the print of a text and to make it meaningful to herself. Comprehension can thus be regarded as the most pivotal act in the reading process. However, the recognition of graphemes, words and phrases are also vital as this is part of the foundation of reading.

Although different types of knowledge can be distinguished, they cannot be separated from one another. They function as an interrelated whole. All types of knowledge must be present to ensure successful integration of new information with the existing framework in the child's mind and thus assisting her in the comprehension of new knowledge. In reading this knowledge is constructed via the knowledge represented in the text.

Once able to read well, children will, except for being able to create meaning from their textbooks in later school years, also be able to complete numerous reading tasks with success. They will also be able to apply various skills and strategies in other areas of daily life.

A brief description of the dominant perspectives on learning will be presented in the next section, relating learning to reading as knowledge construction.

4.6.2   Reading in the Context of Cognitive Theory

Snow and Ninio (1986) in Gibson (1989:21) believe that "full literacy skill involves the ability to create and comprehend realities that depend for their existence entirely on language". In other words, being able to read well means to be able to decode print and to understand the meaning of the decoded words in the text by linking their meaning inferentially to existing knowledge structures. Maria (1990:5) maintains that 'bottom—up' as well as 'top—down' factors are involved in the interactive process of reading for meaning. If a person is able to read, she should be able to internalise or accommodate the knowledge derived from the text. This process is called comprehension (or accommodation, in Piagetian terms) and it depends on the reader's existing knowledge for inferencing. Current theories of cognition are discussed as bases

for theories of reading.

Among cognitive theorists it is generally believed that contemporary learning theory no longer challenges the existence of complex cognitive structures in the mind of a person, but rather acknowledges this fact. In the early years of research on learning in the post—cognitive revolution era, theorists believed that the human brain operated like a computer. It was believed that, there were certain constructs within the brain, representing various concepts which formed part of a person's cognitive framework. These constructs were believed to be a neatly organised "library" of knowledge wherein a person could have been able to use the "user's catalogue" in order to find the information required. This theory is commonly known as the constructivistic theory which evolved from the work of Piaget (Foorman, 1993).

Constructivistic models of reading (schema theory) are pertinent in the interactional model, the transactional model, the lexical model and the syntactical model of reading. These models are closely related to one another because they are based on the notion that information is systematically organised according to the meaning of individual words, the relation between words in sentences and also according to 'input' and 'output' as far as the meaning of the text is concerned.

However, since those earlier years, the notion about learning processes has changed considerably. According to Foorman (1992:3) the emphasis is no longer on "the elegant production systems of the human problem solver" but rather on the resonating neural networks in the computational mind". She refers to the contemporary theory of PDP (Parallel Distribution of Processes) or connectionism.

To understand the principles of the connectionist theory of learning, Bereiter's (1991:10) analogy of how the connectionist networks in the brain function is introduced. He explains the functioning of the mind by means of a biological metaphor of neural networks which he compares to yet another analogy of frisbees and elastic bands (Foorman, 1993). It is a different case in deaf children although there are some minor similarities here and there. Hearing children stand a better chance of fully and quickly making meaning out of what they have read, because they have been exposed to a broader set of linguistic structures and therefore knowledge structures.

4.7   INITIAL READING FOR THE HEARING IMPAIRED (DEAF) CHILDREN

In the normal process of reading, as discussed before, hearing children associate the shapes of printed words with the sounds of the spoken words represented — the printed words are 'translated' into spoken words which have the meaning already acquired in the experience of spoken language. For deaf children, who lack the capacity for consistent aural decoding, it is necessary to use an appropriate substitute. This requires a method involving visual decoding of written words into an internal representation of the meaning coming from experience of signed (and fingerspelled) language.

There is a large gap between the syntax under the child's control and the grammatical complexity of text. One of these is to highlight different parts of speech through some kind of coding system.

In 1981 an approach was introduced into the school designed to 'bridge the gap' between manual signing and reading of English print, by representing signing in graphic form on paper. This method is essential for teaching deaf children how to read at lower level. This method is called "the Newcastle Signed Reading Scheme" (Boyle & Peregoy, 1990).

The scheme achieves the transfer from manual signing to reading of English through a sequence of eight progressive steps, as follows:

Figure 4.1 : Manual signs used to represent objects and actions (Strong, 1988)

1. Manual signs are used to represent objects and actions. These signs have direct meaning, and are used to do the work done by spoken words in the early language development of hearing children. At this stage some fingerspelling — particularly contractions and initialisation of words emerges. Children are exposed to "spoken language" from the outset. Special materials are introduced, in the form of conversational pictures for class use, to stimulate children to express their ideas in signing, in readiness for the following steps on paper (see figure 4.1).

Figure 4.2 : Objects and actions represented on paper in pictures

2. Objects and actions are represented on paper in pictures. The children discuss these through signing (and speaking). See figure 4.2.
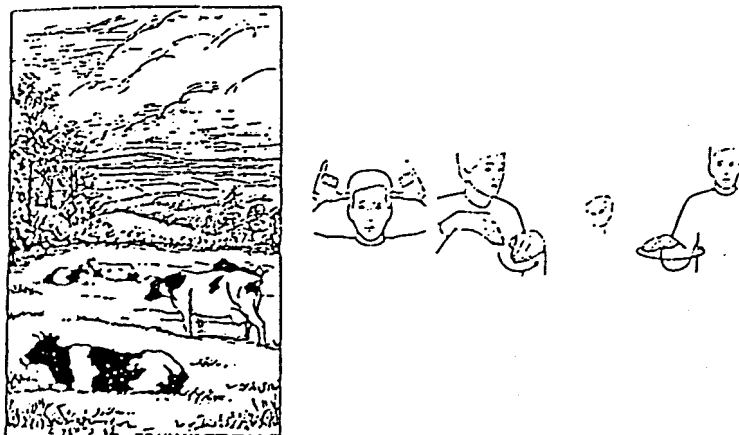
Figure 4.3 : Objects and Actions Represented on Paper in Pictures and in the corresponding signs

3. Objects and actions are represented on paper in pictures, and in the corresponding signs (with some fingerspelling) in graphic form. The children associate the graphic signs with the pictures (see figure 4.3).
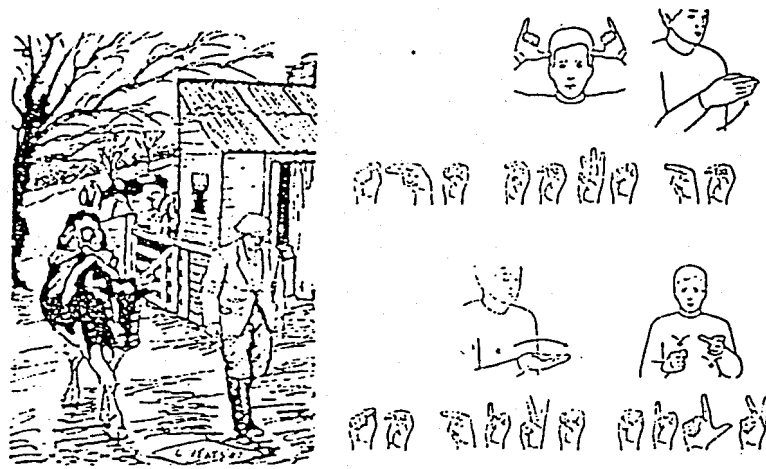
Figure 4.4 : Objects and actions represented on paper in pictures and also the full fingerspelling in graphic form

4. Objects and actions are represented on paper in pictures, graphic signs, and also the full fingerspelling in graphic form. The children associate the graphic fingerspelling with the pictures and graphic signs (see figure 4.4).

Cows   in   a

milking   shed.
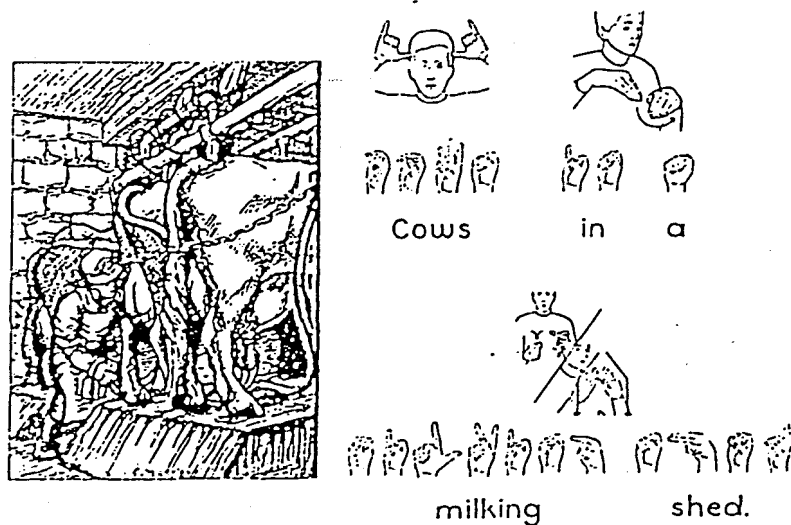
Figure 4.5 : Objects and actions represented on paper in pictures graphic signs, graphic fingerspelling and the written form of English words

5. Objects and actions are represented on paper in pictures, graphic signs, graphic fingerspelling, and the written form of English words. The children associate the written English words with the pictures, graphic signs and graphic fingerspelling (see figure 4.5).

The   cows   give   milk

in   a   milking   shed.

Figure 4.6 : Pictures are omitted. Association of written English words with graphic signs and graphic fingerspelling

6. Pictures are omitted. The children associate the written English words with the graphic signs and graphic fingerspelling. The language is represented increasingly in the word order to English (see figure 4.6).

Dairy   cows   are   milked

twice   a   day   in   a

milking   shed.

Figure 4.7 : Graphic signs. Association of written English words with graphic fingerspelling

7. Graphic signs can be omitted. The children associate the written English words with graphic fingerspelling (see figure 4.7).

5.   Objects and actions are represented on paper in pictures, graphic signs, graphic fingerspelling, and the written form of English words. The children associate the written English words with the pictures, graphic signs and graphic fingerspelling (see figure 4.5).

The   cows   give   milk

in   a   milking   shed.

Figure 4.6 : Pictures are omitted. Association of written English words
with graphic signs and graphic fingerspelling

6.   Pictures are omitted. The children associate the written English words with the graphic signs and graphic fingerspelling. The language is represented increasingly in the word order to English (see figure 4.6).

Dairy   cows   are   milked

twice   a   day   in   a

milking   shed.

Figure 4.7 : Graphic signs. Association of written English words with
graphic fingerspelling

7.   Graphic signs can be omitted. The children associate the written English words with graphic fingerspelling (see figure 4.7).

Dairy farmers keep herds of cows. They are

kept for milk. The cows are milked twice a

day using a milking machine.

Figure 4.8 : Written English words represented on paper

8. Only the written English words are represented on paper. The children read the English words (by signing or speaking), associating these directly to their meaning (see figure 4.8). (Strong, 1988).

In practice children will be working at any time on the particular steps appropriate to their level of progress through the scheme. There is a scope for variation and flexibility both for the learner and the teacher.

It is therefore important to note that at the early age/stage children *understand* objects and actions more from the pictures or graphic signs and they discover that meaning can be gained from symbols on the paper, and learn such skills as moving from left to right, and down the page (Strong, 1988).

4.7.1   Approaches to Reading for the Hearing Impaired (Deaf)

One can always ask oneself what reading as a process entails and the characteristic skills and strategies which hearing impaired children bring to the reading task. We still lack much information on this issue especially here in South Africa.

One of the basic principles outlined is that hearing children do not acquire spoken language for its own sake, but that meaning, function, purpose and relevance to everyday life are critical factors. In spoken language contexts, children construct meaning from situational clues and adult intentions, together with what words themselves signify. Therefore the print of our society always has a context which supports its interpretation — unless that is,

reading is introduced to children in a way which strips it of context and renders it remote (Webster & Wood, 1989). Reading should not be treated as an assembly line of bits and pieces, where sounds, letters and words are fitted together. The simplification and repetition of reading schemes is deprecated in favour of the shared reading and writing of genuine messages, which serve a real social function. Children are therefore introduced to the 'how' of reading from the outset, by sharing books with good readers, digging out meaning from text and reading to learn rather than learning to read (Webster & Wood, 1989).

Skills of reading can be broken up into component parts. Examples of such 'flat–earth' or 'bottom–up' approaches to the subskills of reading have been given in Webster (1986a, 1988b). 'Bottom–up' approaches begin at the level where the reader perceives visual features, such as letter–shapes and builds up these into larger units such as words and phrases. Poor readers sometimes show letter reversals and visual confusions in spelling and reading, or may have poor phonic awareness. Experience of reading provides the child with insight about the visual and phonic features of print and not the other way round (Webster & Wood, 1989).

In contrast, the 'round earth' or 'top–down' view of reading argues that what children learn in their active discovery of spoken language, in purposeful and meaningful social contexts, is then applied to making sense of print. Where the 'bottom–up' approach tends to draw its evidence from experimental studies involving letter discrimination or word recognition skills, 'top–down' theorists reject these as unauthentic reading situation. The main difference between the two is that one holds reading to be a static decoding progression through a series of stages, the other holds reading to be a continuous sampling and testing cycle, whereby questions are asked of print, which are checked out and give rise to new questions.

Figure 4.9 shows the 'flat–earth' or 'bottom–up' model or reading while figure 4.10 shows the 'round–earth' or top–down' model of reading.

Meaning of text

Phrases, clauses and sentences

Words

Letter-sound correspondences

Visual features, such as letter shapes
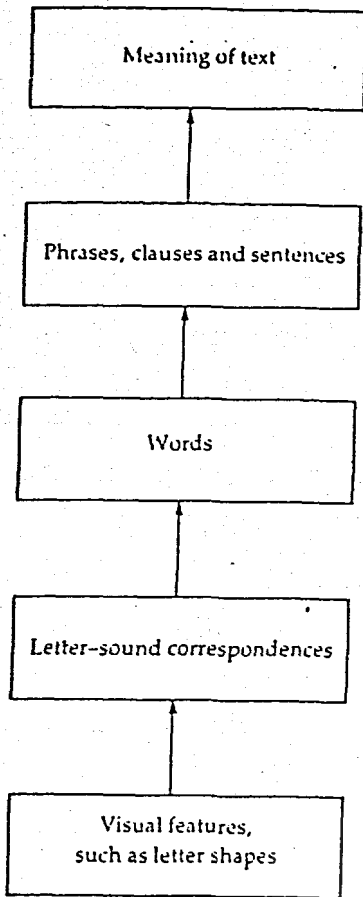
Figure 4.9 :
Flat Earth or
'Bottom—up' Model of reading
(Kyle & Woll, 1985)

Reader's cognitive strategies, experience of language, books, and knowledge of the world

Hypotheses about the meaning of text

Textual clues

Visual and sound features of letters in words, sight words, headings and layout of text

Semantic clues

Story and picture context

Linguistic clues

Phrase and sentence structures in text
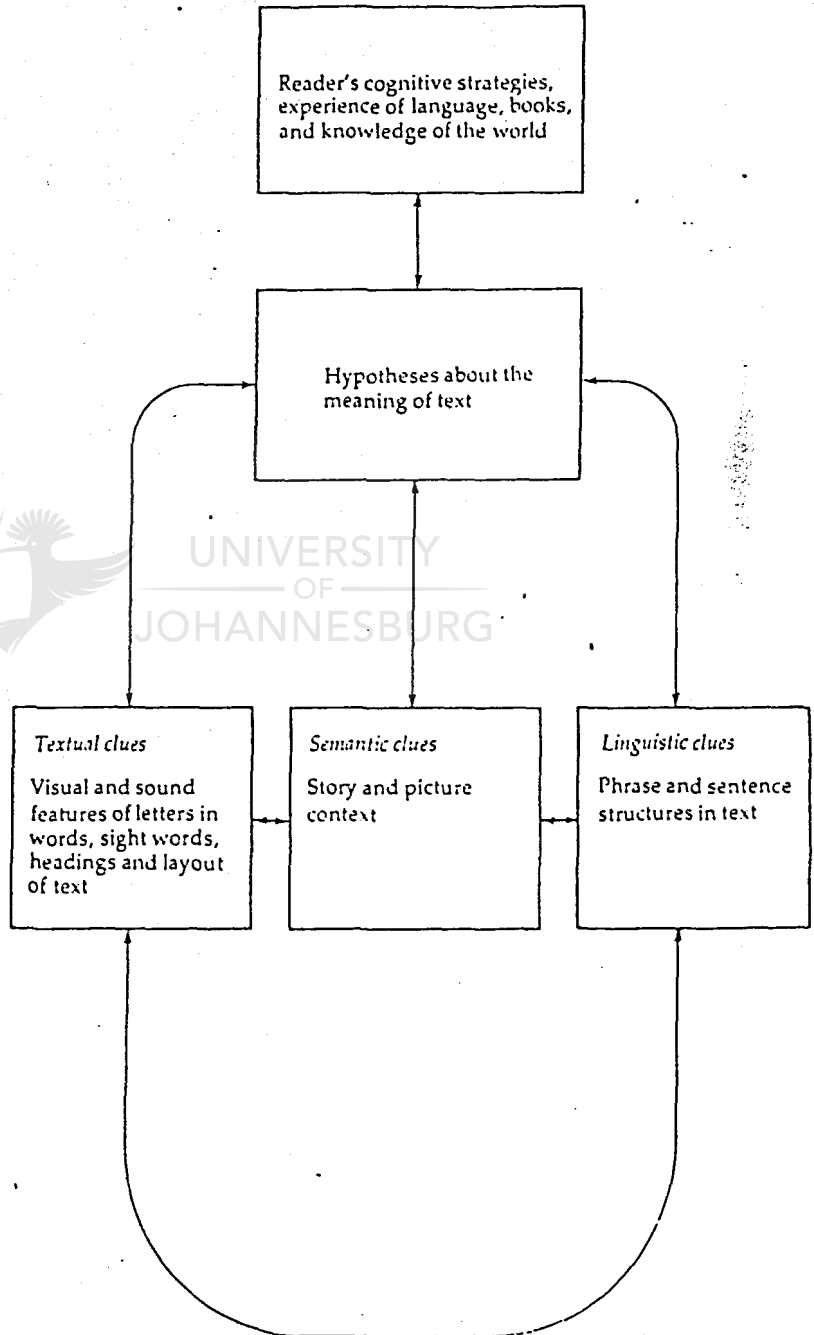
Figure 4.10 : Round Earth or 'Top—Down' Model of reading
(Kyle & Woll, 1985)

In pre—school children start to recognise print in familiar contexts, in just the same way as first spoken words relate to everyday object, objects and people. For many children, reading is synonymous with writing: the conveying of messages in meaningful social context (Webster & Wood, 1989).

For deaf children this cultural process is hampered. Compensation has to be designed in early reading.

4.8 THE CURRICULUM AS LANGUAGE RESOURCE FOR TEACHING READING TO THE DEAF

For children with hearing—impairments it is impossible to divide the opportunities presented in school, across the subject boundaries, where children are involved in talking, questioning, listening, reading and writing. Most teachers believe that language is best learnt through using it, as well as being a means to learn other things. It can be said that language is a system and resource. In practice therefore the most effective learning experiences are those which impel the child to use language in situations which are meaningful to themselves and their lives.

Children are therefore helped to discover meanings of new words by decoding print into recognisable speech sounds. Spelling—to—sound mappings gives the child independence to tackle the many unknown words encountered earlier before. It is believed that phonological awareness in young children is a good predictor of later reading success, whilst poor readers are usually much less effective in applying phonic rules than more able peers.

Deaf children need well—designed "learning—to—read" opportunities across the curriculum throughout their school lives.

4.9 CONCLUSION

In this chapter various definitions of reading were presented in a discussion which also included different approaches to the teaching of initial reading. The essence of the chapter is that initial reading probably is taught best when an integrative approach is followed in which models of reading are blended

and wherein approaches to the teaching or reading are viewed holistically. However, the view is different when one looks deeply into the teaching of reading in a hearing impaired class where the child's background knowledge and the text are both limited and often incompatible. Hence background knowledge of either the content or the rhetorical organisation will impair comprehension. The process of processing information in a hearing impaired child is very slow. It can be improved if the teacher can use authentic material to allow children to use their eyes more than their ears. The teacher should interest the pupils in the material and motivate them to explore pictures and visual signs as signifying means.

The earliest possible exposure to signing is very important to assist in the acquisition of linguistic competence and to promote cognitive development. The phase of natural gesture should be reinforced with a basic sign lexicon which emphasises enactive type gestures and iconic signs. There should be exposure to speech by support of residual hearing and through visual reception.

Teachers and researchers are still left with the problem of lexical diversity and as a result this causes confusion when teaching reading in a school for the deaf because one is not sure whether the sign used is the most internationally used in South Africa or not. This, as a result, can convey a different meaning to a child who is learning Sign Language, and reading at the same time.

Considerable controversy still exists both in South Africa and abroad regarding the preferred medium of instruction for the deaf child. Some theorists believe in Oral instruction, while others think that Sign Language still holds the flag, which is regarded as the natural language of the deaf (Johnson, Liddell & Erting, 1989; Reagen, 1985, 1991 in Penn & Reagen, 1995).

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CHAPTER FIVE

RESEARCH DESIGN

5.1   INTRODUCTION

The methodological orientation to the field study of this research is included in the first interpretation (theoretical framework) as inherent component because this theory informs the design. In the metaphor used by Watson—Gegeo (1991), the methodology is not the foundation of the research in the way that a foundation supports a building. It is, as the case in skyscrapers illustrates, part of the whole construction. High buildings are supported by scaffolding which is also the building. The research methodology of this study is also to a certain extent the study. The study is not only aimed at describing (and understanding) the pedagogy of initial reading, but also at experiencing contextual inquiry learning as qualitative research. Research on this aspect is still lagging internationally. This study therefore needs a theoretical framework of the methodology itself. The implication is that this study will then also produce research findings of methodological nature.

This chapter examines the research procedures and investigative processes of this study. The discussion will commence with the research design adopted, and the paradigm through which the investigation operated will be clearly expounded. The format of the enquiry and methods of data collection will be comprehensively examined, the process and techniques of observation and interviewing are also discussed, after which procedures of data analysis and interpretation will be presented. This will be followed by a discussion of data consolidation and interpretations with the implications thereof. Subsequently, the controversy of the validity of qualitative research will be contested and in conclusion the question of the researcher as critical thinker will be deliberated.

5.2   RESEARCH DESIGN

According to Le Compte & Preissle (1994) "Research design is the collection of empirical data which generate complete descriptions of events, interactions and activities which lead logically and immediately into the development or application of categories and relationships that allow interpretation of that data".

A research design is similar to an archetypal blueprint. It is a plan for assembling, organising, and integrating information (data), and it results in a specific end product (research findings) (Merriam, 1988:6).

This blueprint consists of a proposal for the course of action that is envisaged for the study, inducing greater awareness of possible problems that could arise, leading to planned avoidance of 'errors and inaccuracies' within the research (Mouton & Marais, 1990:33). Mouton and Marais formulate the aim of research design as follows: "The aim of a research design is to plan and structure a given research project in such a manner that the eventual validity of the research finding is maximised (1990:33). This planning involves the decision that the researcher needs to make regarding the research topic, which is clearly linked to the formulation of the problem, and regarding the measuring instrument (or other procedures) which depend(s) on the conceptualisation of the problem (Mouton & Marais, 1990:33–34). These decisions, along with the data collection, form part of what are referred to as 'assembling' and 'organising' of information. Analysis of the data collected entails the integration of the information collected, and finally the interpretation of the data leads to specific research findings (Merriam, 1988; Mouton & Marais, 1990).

The following processes of selecting a research topic are relevant to the investigation: 'self initiated' research due to 'wonder' reflects a motive of inquiry into interesting phenomena, and 'theory testing' as a selection process includes the assessment of existing theories and models, or the lack of theories and models (Mouton & Marais, 1990:34–35). Inquiring into the research field inevitably leads to a specific research problem, after which the researcher needs to consider the best research strategy in order to find answers to this research question, formulated around the problem.

A researcher does, however, specialise. Brown (1991) illustrates her own switch in methodology aptly in a paper as part of a symposium titled: "On Paradigms and Methods. What to do when the ones you know don't do what you want them to". As a trained experimental psychologist she switched from "rats and monkeys to children" and lately moves between the laboratory and the classroom with great comfort. Bailey (1987:33) explains this position of the methodological philosopher:

> "By 'methodology' we mean the philosophy of the research process.
> This includes the assumptions and values that serve as a rationale
> for research and the standards or criteria the researcher uses for
> interpreting data and reaching conclusions" (Henning, 1991).

Ideally a researcher works like Brown, from a base which is linked to the methodology which suits the research issue. "Unfortunately Henning (1991) maintains that many researchers do stilted research because they are constrained by a methodological paradigm, believing that 'other' methodologies do not adhere to the criteria of 'their' methodology. It is therefore assumed that a researcher who plans to do classroom research has a paradigmatic as well as a pragmatic reason for each method or tool she uses. In other words, apart from the immediate pragmatic use of a method or tool, there is also a philosophical explanation for a certain researcher, pursuing an overall methodology. This study has a profound qualitative underpinning because the researcher states explicitly that she wishes to try and understand, describe and perhaps even explain before she ventures into predicting that which she has not tried to understand emically, and to a limited degree also ethically. This research, therefore, falls most decidedly within the methodological paradigm of qualitative research, but it can employ tools from the quantitative methodological paradigm quite comfortably. The two main strains of methodology are regarded as two sides of the same coin. Although the coin can be flipped (pragmatically) it lands, due to 'physical' laws, on one side only (paradigmatically)".

Methodology, according to Henning (1991), is the route taken to reach research findings, which is not constructed by using a single tool, instrument or method (Maulenberg, 1991). Guba and Lincoln (in Fetterman, 1988:91) cite the analogy of the use of a hammer (method) used in the service of carpentry (methodology). The methodology can also incorporate the use of a variety of

methods, tools and instruments. In the analogy of carpentry, wrenches, saws and levels can be used in many different blends. However, carpentry cannot be mixed with plumbing with the same ease. In the methodology of qualitative research, methods which originated and which were perfected in the positivist paradigm are comfortably accommodated as methods (tools) only.

As the research problem of this inquiry embraced an in—depth study of initial reading in a school for the deaf where the pupils' experiences and perceptions within a specific environment, are observed, a qualitative methodology was selected with the goal of exploring and rigorously and systematically describing the chosen phenomena by means of the case study.

5.3   THE TYPE OF INQUIRY: QUALITATIVE RESEARCH

In qualitative methodology, the methods originating in interpretation and verstehen are essential in formulating research areas (questions) and in drawing conclusions. In the analogy of Guba and Lincoln it is, however concluded that carpentry and plumbing use tools and methods differently, aiming at different procedures, materials and constructions" (Henning, 1991).

Qualitative research has been defined by Kirk and Miller (1986, quoted in Krefting, 1991:214) as "a particular tradition in social science that fundamentally depends on watching people in their own territory and interacting with them in their own language, on their own terms", and has as its aim "to give an honest account with little or no interpretation of .... those spoken words of the observations made by the researcher" (Strauss & Corbin, 1990:21).

Qualitative research is carried out in natural settings, as it is a study of behaviour in the subjects' "own territory" (Strauss & Corbin, 1990), without any unnatural external interference, which allows for the observation of spontaneous, thus natural behaviour. This natural environment in which the research takes place is essential as it is not possible to understand the observed behaviour without taking the setting into account.

The qualitative researcher gathers the data directly.
Qualitative investigators are observers within this natural setting and usually

spend a considerable amount of time in this setting, allowing the subjects to trust them and thus 'getting close' to them and subsequently "seeing the world from their perspective" (Bryman, 1994:78).

Qualitative research provides rich narrative description.
The inquiry is rigorously described by the researcher, who assumes that "nothing is trivial or unimportant" (McMillian, 1992:214) and describes in detail the situation being investigated. Peshkin (1993) refers to the following "subcategories" as objects of the rigorous description: processes, relationships, settings and situations, systems and people. This description (via the data collection methods selected) should be a "thick description" (Henning, 1993:114; Le Compete & Preissle, 1994; Merriam, 1988:11)

Data are analysed inductively.
The qualitative researcher mostly does not formulate hypotheses, but rather allows theories to be generated from the ground (grounded theory) inductively (Strauss & Corbin, 1990:24). This approach is broadly followed by most interpretive—qualitative methodologists (McMillian, 1992; Merriam, 1988:13).

Perspectives of the participants are important.
Reality as the subject sees it is essential in qualitative research, as the researcher wants to see things "through the(ir) eyes" (Bryman, 1994:78). By allowing the participants' views to be prominent, the possibility of the researcher imposing his predetermined ideas and values on the observation is diminished. Selection of participants for qualitative research is usually of a small sample and non—random participants for the investigation (Merriam, 1988:12) and is part of defining the "case", which is "a phenomenon of some sort occurring in a bounded context" (Miles & Huberman, 1994:25). Along with description, exploration plays an essential role in qualitative research and "usually lead(s) to insight and comprehension" (Mouton & Marais, 1990:43). The interpretive paradigm is adopted by the researcher throughout the study (Smith, 1987), in order not only to expose interesting categories, but to further elucidate the findings in order for true "verstehen" (Bryman, 1994:78).

The main aim of the research is to "see through the eyes" of the subject, through "close involvement", and to be engaged in a more 'fluid and flexible' research (Bryman, 1994:78), where the researcher is an observer open to unexpected findings and serendipitous occurrences.

5.4   **FORMAT OF INQUIRY**

The choice of research format is crucial, as the aim and format of the enquiry need to be compatible, and it is therefore necessary that the format is selected only once a field of study has been identified and a preliminary reading of experience in the field has been undertaken.

5.4.1   **The Case Study**

The research reported has taken the form of a case study, which is known as a format that "concentrate(s) attention on the way particular groups of people confront specific problems, taking a holistic view of the situation. They are problem centred, small scale, entrepreneurial endeavours" (Shaw, 1978, quoted in Merriam, 1988:11), which allow the researcher "a look at real life situations" (Yin, 1989).

Case study research is a design format which studies a single bounded phenomenon systematically, through description and explanation rather than experimental cause and effect (Creswell, 1993; Merriam, 1988). This phenomenon is usually observed in natural settings and under natural circumstances, which allows the researcher to understand it in its real–life context (Stake, 1988; Yin, 1989). This is essential, as human behaviour cannot and should not be studied isolated from its social and cultural context (Salomon, 1992:167–182). A case is an intricate and dynamic system and it is essential that the 'case' being studied is a bounded system, a specific case or phenomenon (Miles & Huberman, 1994:25), such as a class within a school, and not a whole population of cases (Merriam, 1988; Stake, 1988). The case study is also bounded by time and activity (Creswell, 1993; Miles & Huberman, 1994).

Le Play, who is considered the founder of sociological field–work and of the case study in France, implemented this in his study, where the in–depth study of the family case (the specific case) provided an understanding of the society in which it existed (Hamel & Dufour, 1991). Thus, by definition, a case study is the in–depth study of a specific case, a holistic description (Elliot, 1990; Hamel & Dufour, 1991), which is also therefore a "thick description".

In essence case studies can be described as having "certain basic generic qualities" (Elliot, 1990). They are particularistic and portray specific events in their real life context, yet they are holistic in that they are thick, in—depth descriptions of a bounded system. Case studies usually have a dynamic quality and take place over a period of time and are subsequently longitudinal: they include describing, understanding and explaining, which have been identified as three key words in qualitative research (Elliot, 1990; Hamel & Dufour, 1991). Finally case studies search for consistencies and regularities which are "patterns of meaning" (Stake, 1988:259) in the specific case studied. The purpose of the case study is to arrive at a comprehensive understanding of the groups under study", and as the aim in this investigation was to understand and describe initial reading in a class of deaf children in their real—life setting, a case study was selected as the format of the enquiry.

5.4.2 Prejudices Against the Case Study

One of the greatest concerns regarding case studies has been the lack of rigor in the research process and that the study could be limited by the sensitivity and integrity of the researcher as well as the individual biases and subjectivity of individual investigators (Hamel & Dufour, 1991; Merriam, 1988; Yin, 1989). A second concern seems to be how a specific case can possibly provide the basis for generalisations, as it lacks representativeness (Hamel & Dufour, 1991; Merriam, 1988; Yin, 1989), which could lead to oversimplification of data, and thus to erroneous conclusions (Merriam, 1988). Furthermore, as case studies are undertaken over a period of time (longitudinal), they could be hindered by expenses as well as an unwieldy product, due to the time duration of the investigation (Merriam, 1988; Yin, 1989).

In contrast however, case studies have a number of strengths that outweigh the limitations.

5.4.3 Strengths of the Case Study

Case studies investigate real life situations and are thus authentic, a factor which assists in advancing a field's knowledge base in the natural environment. This format of research provides a means of investigating, within the environment, complex social units that are too complex for experimental designs to investigate (Merriam, 1988). The case study is a specific and

in—depth study of a specific situation, offering insights and elucidating meanings that expand the reader's experiences. These insights can then be construed as tentative hypotheses, that would assist in constructing future research. However the scope of the study is only relevant to the specific case. It can be referred to as microscopic, but only for want of a greater number of case studies (Hamel & Dufour, 1991; Merriam, 1988; Yin, 1989).

5.5 METHODS OF DATA COLLECTION

Yin (1989:85) refers to six sources of evidence or data collection methods relevant to the case study: documentation, interviews, archival records, direct and participant observations and physical artifacts. The unique strength of the case study is the very fact that it has the ability to deal with a full variety of evidence—documents, artifacts, interviews and observations" (Yin, 1984 quoted in Merriam, 1988:8). To maximise the advantages of these methods, however, three principles of data collection are proposed which "can overcome the problems of establishing the construct validity and reliability of a case study" (Yin, 1989:95). These three principles will be briefly discussed in order to provide a background against which the relevant data collection methods will be discussed.

The first principle suggests the use of multiple sources of evidence as this acts as a process of triangulation and findings and conclusions/results of a case study are far more authentic if they are grounded on various sources of information (Yin, 1989:97).

I agree with Henning (1991) that "one of the most widely used techniques used in validity checking of ethnographic research is triangulation". Hammersley and Alkinson (1983:198) describe triangulation as "checking inferences drawn from one set of data sources by collecting data from others". They combine by pointing out that it is not only from different sources that triangulation is executed, but also from different respondents in the same source. Cross—checking with various respondents, although extremely time consuming, "gives added depth to the description of the social meanings involved in a setting" (Henning, 1991).

Creating a case study data base is seen as the second essential principle leading to construct validity and reliability which will be fully discussed later. Every case study, Yin (1989) suggests, should build up a retrievable data base in order for other researchers to scrutinise the evidence directly. The reliability is increased by the occurrence of a data base (Yin, 1989), which should include documents, notes, video recordings and transcripts.

The last principle Yin (1989:102) recommends is that of maintaining a chain of evidence, allowing an observer to follow the evidence gathered from beginning to end. He further asserts that, if these principles are adhered to, the data collected will "reflect a concern for construct validity and reliability, thereby becoming worthy of further analysis" (Yin, 1989).

Each of the available data collection methods used in this investigation (the focus group, interview observation, the individual interview and documentation) will now be considered, with reference to the collection and analysis of data, as well as assessment of the presence or absence of the principles referred to by Yin (1989).

5.5.1   The Interview

Interviews depend on face—to—face questioning of participants and eliciting data from them (Brenner, Brown & Canter, 1985; Douglas, 1985; Siedman, 1991 in Le Compte, 1994).

"Through elicitation and personal interaction, the researcher is better able to obtain data addressing the questions asked in the study".

The interview has been described as a conversation, "a person to person encounter" (Merriam, 1988), with the purpose of gather(ing) descriptions of the life—world of the life—world of the interviewee with respect to interpretation of the meaning of the described phenomena" (Kvale, 1983). Through the qualitative interview the unobservable (feelings, thoughts and intentions) are explored, and this gives access to the perspective of the person being interviewed, through social interaction (Merriam, 1988; Silverman, 1993).

Kvale (1983) in his rendition of the interview situation, discussed it in terms of the following twelve aspects. The interview situation is:

a) centred on the interviewee's life—world;

b) seeks to understand the meaning of the phenomena in his life world; it is

c) qualitative;

d) descriptive; and

e) specific; it is

f) presuppositionless; it is

g) focused on certain themes; it is open for

h) ambiguities; and

i) changes; it depends on the

j) sensitivity of the interviewer; and it takes place in

k) an interpersonal interaction; and it may be a

l) positive experience.

(Kvale, 1983:184).

The qualitative interview, according to Storbeck (1994) is theme centred and not person centred, and thus focuses on the life world of the interviewee as he experiences it. Qualitative research interviews seek then to give meaning to the central themes through describing and understanding what has been said by the interviewee. The goal of the interview is to acquire uninterpreted descriptions of what the interviewee experiences, thinks and feels about a specific situation. The qualitative research interview is focused on certain themes of the life world of the interview, but is presuppositionless so as not to lead the research in any way, but to remain unbiased and critical of any partialities he may have as interviewer. Statements made by the interviewee during the interview may be ambiguous, and it is the task of the interviewer to elucidate any contradictory or ambiguous statements. This could be arduous as interviewees could come to change their minds and views on the themes in question: here the interviewer needs to be sensitive to the individuals being interviewed, as well as to the topic of the interview. Sensitivity in relation to the interaction between interviewer is essential as interpersonal dynamics could influence the results, and it is hoped that the interviewee experiences the interview favourably, though this is not always the case (Kvale, 1993). Qualitative interviews, as in this investigation, are open—ended in nature, they are neither free conversations (which are unstructured) nor are they highly structured (Kvale, 1983; Merriam, 1988; Yin, 1989).

The data of this investigation were collected via what Denzin (1978, cited in Le Compte & Preissle, 1993) refers to as a "nonscheduled standardized interview', which consists of the same questions and probes to all the respondents. The following types of questions, distinguished by Patton (1990b, in Le Compte & Preissle, 1993) were used in the interviews in this study:

— knowledge questions, that elicit what the respondents understand about what they have read (encoding which is more receptive);

— experience and behaviour questions, which elicit whether the respondents can make meaning out of what they have read (decoding which is more productive);

— sensors questions that elicit respondents' descriptions of what and how they see, hear, touch, taste, and smell in the world around them;

— background and demographic questions that elicit respondents' descriptions of themselves and compare that with their reading (story read).

In view of the fact that the interviews were administered in Sign Language, which is a visual–gestural language, it was imperative that video recordings were made. Not only did this method allow the researcher to capture the responses/language, but video technology allows researchers to capture the nature of the physical setting, the identity of participants in interactions, and many aspects of non–verbal communication such as gestures, bows, and eye–contact" (Johnson, 1992 quoted in Esterhuizen, 1994).

Pupils have to activate their existing limited knowledge schemata in order to make meaning.

5.5.2   Criticism of the Interview as a Data Collection Method

Common criticisms of qualitative research interviews are that they are not objective, are biased and rest upon leading questions. It is argued that interviews are not inter–subjective and do not yield generalisable results. Furthermore they are said to be only explorative, too person–developed and not really valid (Kvale, in press).

5.5.3 Strengths of the Interview

Yin (1989) described the interview as one of the most important sources of information in a case study. As the interview takes on the format of a conversation, in which most individuals feel quite comfortable, and which creates a relaxed, non—threatening atmosphere, participants are usually open to the questions being asked, giving the interviewer access to their perspective on a phenomenon. This openness allows the researcher to explore the unseen (feelings and experiences), giving him a view through the participants eyes. Furthermore the qualitative interview is presuppositionless (Kvale, 1993), and there are usually no preconceived ideas putting pressure on the situation. Hence this method allows for ambiguities and surprises, so that theory is developed from the ground and can therefore be described as authentic. The researcher chose this method since she felt more comfortable and friendly with the participants. More so that the researcher is/was a teacher at the school. The participants in question were known to have reading levels below those of their chronological ages, and the interview was therefore selected in preference to a written questionnaire which may not have been read effectively.

5.5.4 Focus Group Interviews

A focus group interview is a qualitative research technique which can be defined as a discussion about a topic of specific importance to the enquiry, between a group of participants, and always under the guidance of a moderator (Frey & Fontana, 1993).

The focus group usually consists of between six to twelve respondents who are brought to a central location to take part in an open discussion (Frey & Fontana, 1993). This conversation allows participants to respond, ask questions and comment on other participants' statements and questions as well as those of the moderator, with the aim of leading to a richer understanding of whatever is being studied (McMillian, 1992). The atmosphere should be "unstructured (although subtly directed), informal and have a permissive atmosphere in which a dynamic group interaction develops" (Folch—Lyons & Trost, 1981). The moderator, who introduces, directs and focuses the discussion, can also encourage participation in the discussion, but needs always to remain unbiased in his actions (McMillian, 1992).

The focus group interviews of this investigation were administered in Sign Language and video recordings were made. The video—recordings were transcribed 'verbatim' (that is to say, exactly what they signed rather than paraphrasing) from Sign Language to Signed English and were later analysed.

5.5.5 Strengths and Weaknesses of Focus Group Interviews

The most significant advantage of the focus group is the group dynamics, or interaction of participants with each other. This group situation encourages participants to share attitudes and experiences regarding the topic discussed. The discussion between respondents triggers memories of similar or opposing experiences, thus enhancing the discussion, leading to in—depth data (Folch—Lyon & Trost, 1981). The researcher is able to look at the relationship within the group, thus gaining greater insight into the field through observing social interaction and relations (Frey & Fontana, 1993).

On the other hand, focus groups have been criticised as taking place in unnatural settings, and for the relative lack of control that the researcher has over the situation (Morgan & Spanish, 1984).

Storbeck (1994) maintains that "focus groups are events that have a life of their own; indeed they occur in settings where processes of interpersonal communication and social influence are omni—present and this interaction among the interviewees stimulates new ideas and thoughts" (Johnson, 1992). This method of data collection was found to be very valuable as it allowed the researcher a look at the views of the group and views of the individuals within the group.

5.5.6 Observation by a Participant Researcher

Observation as a qualitative data collection method is a research tool when it

a) serves a formulated research purpose;
b) is planned deliberately;
c) is recorded systematically; and
d) is subjected to checks and controls on validity and reliability"
    (Kidder, 1981 in Merriam, 1988).

This process of observation is carried out by a participant researcher whose exact role depends on his level of involvement in the research setting. Participant observation is a special approach "in which the investigator is not merely a passive observer" (Yin, 1989), but an active participant.

The researcher in this study took the role "participant as observer", or "full participant observer" (Wagner, 1993), which has been defined as "those individuals who conduct research activities from within non—researcher roles that they occupy as fully as other non—researchers in the particular group, setting, or organisation they are investigating" (Wagner, 1993).

The process of what to observe, although observation is usually qualitative, can be decided on before, giving a slight structure, or it can allow the focus to emerge over the course of the investigation (Merriam, 1988). As observing can be overwhelming, due to the vastness of possible things to observe, various writers (Merriam, 1988) have given the following as guidelines on what could be observed: the setting, the participants, the activities and the interactions, as well as certain subtle factors (Merriam, 1988).

Participant observation is the primary data collection technique used by ethnographers and case study enquirers. The researcher in this inquiry was a participant observer and was thus in the field of study (natural setting) observing the participants with minimum distrust or feeling of discomfort usually experienced in research with a strange observer. General field notes were taken systematically twice a week specifically on how deaf children learn to read. The researcher visited the school for nine months. Field noting as a method of recording data should be carried out with great care and done in great detail in order to fully explicate the procedures being observed. Wolcott (1988) suggests that field workers write up their data while the field work is in progress, so that "gaps" and omissions due to the passing of time can all be avoided. Video recordings provide the most inclusive method of recording data and avoids the problem of the investigator being too subjective.

The data of this investigation were analysed by only taking out that which was relevant to the categories identified as pertaining to learning to read and the accompanying pedagogy.

5.5.7 Strengths of Participant Observation

Participant observers live as much as possible with the individuals they are investigating, trying to blend in and taking part in their daily activities. They (participant observers) watch what pupils do, listen to what deaf pupils say, and interact with participants in the natural setting.

The advantage of this method of observation is that the researcher has first hand knowledge through experience, making it possible to record behaviour as it is happening and allowing him or her a glimpse of phenomena that a subject might not have revealed in an interview (Merriam, 1988; Yin, 1989). The investigator is usually involved in 'heuristic relationships' with the subjects, and is able to take what he has found through observing the situation, and put it back in the same area of participation, in order to improve or change what was discovered in the results (Wagner, 1993).

5.5.8 Research Challenges of the Participant Researcher Method

Le Compte & Preissle (1994) says "one problem researchers encounter is that participant reports of activities and beliefs may not match their (pupils) observed behaviour. Participant observation is a check, enabling the researcher to verify that individuals are doing what they (and the researcher) believe they are doing". I agree with this statement because the greatest challenge facing a participant seems to be insufficient time to be a researcher, as so much time is spent participating.

Another difficulty is defining and separating the roles as "at any moment, it might be unclear to me, or to others, whether one was 'doing a research' or 'furthering his job' (Wagner, 1993). One of the greatest criticisms of participant researcher investigation from researchers in other paradigms is that the method is too subjective and therefore has little credibility among other researchers; Wagner (1993) speaks of "the special stigma associated with going native in a research setting".

5.5.9 Documentation

Data obtained from neither interviews nor observations are usually obtained from documents, which in case study research refers to any written materials

(Merriam, 1988). This written material can take the form of letters, memoranda, agendas, proposals, reports, etc. (Yin, 1989) and provides easily accessible ready—made data. Documents are a source of data that are under used in qualitative research (Merriam, 1988).

Merriam (1988) identifies different types of documents that are used in case study research. Firstly, public or archival records are the "ongoing, continuing records of a society" (Webb, 1981 in Merriam, 1988). They are often called secondary materials. Public records include records of birth and death, agency records, individual programme records and popular forms of media and photographic material. A second source of documentation is personal documents, which are individuals' written reflections and accounts of their lives of a particular topic or event. Merriam mentions diaries, letters, scrapbooks, etc. Personal documentation is therefore regarded as subjective.

Physical trace material is the third type of document referred to, and this includes any change in physical surroundings due to human action. Then last comes the document prepared by the researcher herself, the field notes, to provide a closer investigation of the situation. This will be considered under the data collection method of observation, as it is through the researchers observations that she is able to make these field notes (Merriam, 1988).

The first type of documents collected in this research were 'personal documents' in the form of written reflections. The pupils' story books were collected to find out if what teacher interaction makes meaning to them. One should bare in mind that majority of these pupils in the 'case' were not able to write as effectively as they could sign, as English was their second language, and a delayed second language at that. Hence the data were very limited.

The public record is the second method of documentation employed. This includes more specifically the individuals' school records, namely the previous year's school report and records of assessments including case histories and speech and language reports. Since our school is still not yet well equipped with paramedics, occupational therapy reports and psychological reports were not taken. All these available documents were perused as the chronologically last method of data collection and only the relevant data were selected. That includes both data which supports or contradicts what has been found up to that chronological stage of collection.

5.5.10   Limitations and Strengths of Documentation

Documentary data such as school records are not compiled for research, but for other specific purposes, and therefore has various limitations which stem from this. The documents can be incomplete for the research proposed and as a result data obtained may be unrepresentative though accurate. Since documents are usually produced for other purposes (Yin, 1989), the researcher may sometimes not understand the format of the data, which could lead to misinterpretations. Determining the authenticity and accuracy of the documents is very important for all documentation materials, as most if not all documents contain in—built biases that researchers are unaware of (Merriam, 1988).

Documents on the other hand appear to be good sources of data. They are easily accessible and mostly free. The information gathered in documents might have taken the researcher a long period to compile but instead somebody has done it for her even before one thought of writing a research on deaf children. Hence less effort is taken. Such information is stable, unlike when observing or interviewing. Although it does fluctuate but is consistent. The little information I got from the school records was very helpful and not everything biased, hence I was allowed to make an 'objective' look at 'objective' data.

Documentary data are said to be good sources for qualitative investigations. Since they are able to ground and enquiry in the writer's milieu (Merriam, 1988). Documents of all types can "help the researcher uncover meaning, develop understanding, and discover insights relevant to the research problem" (Merriam, 1988).

5.6   PROCEDURES OF DATA ANALYSIS AND PROCESSING

Although the analysis phase in ethnographic research is an isolated distinct phase towards the end of the research, it is not intended to disregard the analysis which started at the beginning of the research. But qualitative researchers analyse data throughout the study rather than relegating analysis to a period following data collection. This depends mostly on feedback from the field which will be treated in chapter six.

The analysis phase of research is the period of enquiry and investigation into all the data collected during the process as "consisting of three concurrent flows of activity: data reduction, data display and the drawing and verification of conclusions. Qualitative data is often "voluminous, unstructured and unwieldy" hence this process has always been regarded as a problem (Bryman & Burgess, 1994).

The researcher, initially when the case study commences, she has already identified the case to be studied as well as the problem which is the motivating factor for choosing case study. Normally the researcher does not know what the outcome of the final analysis will be, and the results are, therefore dependent on the data collected and analysed (Merriam, 1988). It has been therefore suggested that collected and analysis be simultaneous, which will lead to data that is both "parsimonious and illuminating" (Merriam, 1988) whereas other researchers will start analysing only once a substantial amount of data has been collected (Bryman & Burgess, 1994).

The three phases of data processing identified by Miles & Huberman (1994) will now be discussed: data reduction, data display and conclusion verification.

5.6.1   Data Reduction

This process refers to focusing, simplifying, abstracting and transforming the data that appear in written–up field notes or transcriptions" (Miles & Huberman, 1994). These data are thus the "raw data" that have to be analysed (McMillian, 1992).

In this study the "data condensation" process (Miles & Huberman, 1994) was achieved by clustering and conceptualisation (Miles & Huberman, 1994).

Clustering: This method the researcher tries "to understand a phenomenon better by grouping and then conceptualising objects having similar patterns or characteristics" (Miles & Huberman, 1994). This reduction method of 'clumping' is done with the aim of seeing which things are like one another, and which to group together or which to leave separate (Le Compte & Preissle, 1994).

Clustering is typically based on accumulation and approximation and is closely linked to what Miles & Huberman refer to as coding and patterning. The data in this investigation (from videod interviews) were clustered and conceptualised in their natural context.

Conceptualisation: The clustered codes or units are then extended into concepts, which form the building blocks of theory (Bryman & Burgess, 1994). This involves looking for recurring or correlating units. Formulating categories requires both convergent and divergent thinking. Convergence refers to the gathering of information and identifying units (Lincoln & Guba, 1985 in Merriam, 1988) which will form the basis of categories. Categories are then fleshed out by means of divergence. Categorisation is a form of content analysis of the data and it is therefore essential to categorise correctly and effectively. It is important that categories reflect the purpose of the research and be exhaustive, to allow all data to be categorised. Identified units should not be put into more than one category, categories should be mutually exclusive, and independent (Merriam, 1988), although they should form a coherent whole when grouped together.

5.6.2   Data Display

Displays are designed and used in research to "assemble organised information into an immediately accessible, contact form so that the analyst can see what is happening" (Miles & Huberman, 1994), and to allow a quick assimilation of large amounts of information (Cleveland, 1985, in Miles & Huberman, 1994). This phase of analysis is essential as "you know what you display" (Miles & Huberman, 1994) compelling the qualitative analyst to "handcraft appropriate data displays" (Miles & Huberman, 1994).

The following categories of data displays were identified by Miles & Huberman (1994): time ordered, role ordered and conceptually ordered displays.

Time ordered displays are descriptive and display their data in time sequence, whereas role ordered displays order data on the basis of participants' roles in the investigation. *Conceptually ordered displays* focus on themes and concepts, rather that roles or time, and include among other types, cognitive maps and thematic conceptual matrices (Miles & Huberman). The chosen display needs to interact with the analytic text in order to fully explicate the information

being carried over (Miles & Huberman).

5.6.3 Data Consolidation and Interpretation

Analysis in ethnographic research is mostly descriptive. The researcher is therefore regarded as the learner who enters the research field with existing conceptual schema about the field, observes and analyses, links what she sees to existing schema or theory and later presents a changed schema.

The analysis of data leads to the amalgamation of a new found knowledge. An integrated report which reads like a narrative becomes explained and illustrated like a new textbook "which substantiates from two pools of knowledge continuously". The categories identified need to be cross–categorised and condensed, to make them easily manageable for the investigator. Consolidation in qualitative research invariably leads to interpretation. Deductions are made regarding the research findings and finally a theoretical framework is constructed to explain these findings (Merriam, 1988) if the initial theory baseline is insufficient to do so.

Theorising is defined by Le Compte & Preissle as the cognitive process of discovering or manipulating abstract categories and the relationships among these categories. This theory leads to analysing the implications of the findings and the significance for future research in the field. In this investigation the process of data consolidation and thereafter interpretation are discussed in chapter seven. Therefore the process of analysis and the interpretation and the verification of conclusions follows as a last phase. The report is, in the end, the personal cultural artifact of the researcher.

5.7 THE CREDIBILITY OF QUALITATIVE RESEARCH

Credibility if defined as the extent to which the data, data analysis and conclusions are believable and trustworthy" (McMillian, 1992). With regard to credibility in research, reference is usually made to validity and reliability (McMillian, 1992: Yin, 1989). Miles and Huberman (1994) set certain criteria as standards for establishing the quality of conclusions, "for how will you or anyone else know whether the finally emerging findings are good?"

"Words like validity and reliability for the word truth excuses researchers from attending to their basic assumption but the question remains what should be accorded validity or truth in human science research" (Le Compte & Preissle, 1994).

5.7.1   **Validity and Reliability**

Internal validity refers to how the research findings coincide with reality (Merriam, 1988): "do the meanings, categories and interpretations of the researcher reflect reality (McMillian, 1992).

Internal validity raises the problem of whether conceptual categories understood to have mutual meanings between the participants and the observer are shared. The treats to conventional internal validity that Campbell & Stanley (1963) and Cook & Campbell (1979) in Le Compte & Preissle (1994) describe as posing difficulties for experimental research are also applicable to ethnographic and case study research, although they present different problems and are resolved differently.

Internal validity is strengthened if enough time is allocated for obtaining a valid judgement, and it is further enhanced by the liberal use of detail, it is enhanced by lack of refuting knowledge (McMillian, 1992) and further complemented by triangulation which includes the use of different methods of data gathering.

External validity refers to the generalisability of the research findings, that is, to what extent the findings of one study can be applied to another situation. It is essential that the study be established as internally valid before questioning the external validity (McMillian, 1992; Merriam, 1988: Yin, 1989).

"External validity deals with the question of how far we can generalise the results of a particular experiment beyond the original experiment setting. External validity deals with the question of whether the same result would occur with other persons, in other settings, and at other times" (Vockell, 1983). In qualitative research, and more specifically the case study, generalisation can be problematic. A case study is originally chosen for an in—depth study, not to represent a larger population, which make it difficult to generalise the findings.

If the study were repeated and yielded the same results, it would be regarded as reliable. The objective of reliable research is thus that if a researcher followed exactly the same study all over again, he should get to the same findings and conclusions (Merriam, 1988; Yin, 1989). Reliability is therefore essential when using measuring instruments in a research. I agree with Henning (1991) that "It is not possible for a researcher to replicate another's observation procedures precisely, much as it is not possible for one teacher to proceed methodologically along another teacher's model". No two people are the same.

Since reliability and external validity are somewhat unlikely in qualitative research, different criteria have been suggested for rigorous quantitative research.

Triangulation, which comes about by the use of multiple methods of data collection and analysis an 'audit trail' of one's research, including detailed descriptions of processes of research, and stating the investigator's position, which means explaining the assumptions and theory behind the study (Merriam, 1988), enhance validity.

5.7.2   Guba's Model of Trustworthiness of Qualitative Research

Guba (1981, in Krefting, 1991) suggests an alternative model to ensure rigor more appropriate to qualitative research. Guba identifies four aspects of trustworthiness, namely truth value, applicability, consistency and neutrality. Firstly it is very important that the researcher establishes the truth of his findings. This can be compared to internal validity, and is essentially the most important part of validating the trustworthiness of the research. Applicability refers to the degree to which these findings can be applied to other groups in other settings. Consistency refers to whether the findings would be consistent if the inquiry were repeated. Neutrality indicates freedom from bias in the research procedure.

It is therefore important to consider this model as one cannot do without credibility, trustworthiness and rigour when doing a research.

5.8   VERIFYING THE RESEARCH FINDINGS

Verification refers to the position of evidence within a research study as well as to the extent to which results from the study may be generalised to other groups (Denzin, 1978 in Le Compte & Preissle, 1994). It verifies propositions developed elsewhere and attempts to provide evidence that a given hypothesis usefully applies to several data sets. The goal is to establish not only the extent to which a proposition obtains, but also the universe of populations to which it is applicable (Zetterberg, 1966 in Le Compte & Preissle, 1994). The verification of the research findings in this study are achieved through "tactics for testing and confirming findings", designed to heightening confidence in the research finding (Miles & Huberman, 1994). The following tactics will be discussed in chapter seven (checking for representativeness, checking for researcher effects, triangulation, weighting the evidence, checking the meaning of outliers, using extreme cases, following up surprises, looking for negative evidence, making if—then reading tests, replicating a finding, checking out rival explanations, getting positive or negative feedback from my informants.

5.9   THE RESEARCHER AS CONSTRUCTOR OF KNOWLEDGE WITHIN A STRICT ETHICAL FRAMEWORK

"Any researcher who is not asleep ponders moral and ethical questions" (Miles & Huberman, 1994). Classroom studies are moral and ethical, as self—questioning regarding the quality of knowledge and the correctness of actions towards the people involved in the study, keeps the researcher critically self—reflective. Miles and Huberman (1994) state how important it is to attend to the ethics of the study and quote Mirvis and Seashore (1992) as saying "naivete (about ethics) itself is unethical "Mirvis & Seashore in Miles & Huberman, 1994), cognisance should be taken of ethical theories and ethical choices. The principle of beneficence maintains that good outcomes for the research participants are to be maximised, while avoiding any risk or harm to them. The participant's autonomy needs to be fully respected and potential participants are not to be forced or threatened to take part in the research.

One should bear in mind that "those who study humans are themselves humans and bring to their investigation all the complexity of meaning and symbolism that complicates too precise an application of natural science procedures to

examining human (Le Compte & Preissle, 1994). There is a "need attention before, during, and after a qualitative studies" (Miles & Huberman, 1994). The worthiness of the project and its contribution play a major role.

Competence boundaries, questioning if the researcher has the expertise to do the study or if she is willing to be supervised and consulted with, appear to be an essential ethical issue for strong qualitative studies. Intensive reading and investigation, advice from experts both nationally and internationally when lacking sufficient expertise allowed the researcher to gain adequate adroitness in the field of research.

Research integrity and quality, questioning if the investigation is being done "carefully, thoughtfully, and correctly" (Miles & Huberman, 1994) according to set standards, is an essential ethical issue to adhere to in research.

5.10   CONCLUSION

An ideal toward which many researchers strive is to present their methods so clearly so that other researchers can use the original report as an operating manual by which to replicate the study. According to Storbeck (1995) "Rigorous methodological orientation and practice is critical, as research can not exist without it. The research paradigm of the investigator influences the research procedures holistically and it is therefore essential for the researcher to have a sound methodological base". A sufficient knowledge of research methodology and understanding where to focus when investigating, knowing your research design plays a major role in reaching one's goal. This research is therefore presented and subject to criticism and questions.

This chapter explicated the methodology, or philosophy of methods, which underlies this investigation. It was included with the aim of clarifying and substantiating the processes of the enquiry and to complement the theoretical baseline contained in the previous three chapters.

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CHAPTER SIX

REPORT OF FIELD INVESTIGATION

6.1 INTRODUCTION

This chapter consists of a description of the route which the raw data followed from collection via consolidation and analysis to a statement of the findings. The chapter presents the data of the study in three phases, commencing with examples of raw data, and continuing with illustrations of how the data were processed and consolidated. The discussion will begin with the data collected by means of the method of the focus group interviews, subsequent to which the data collected by means of other methods will be presented. The final phase will conclude with the overall clustering in which the consolidated data (per method of collection) will be networked and clustered into the final categories and patterns of information.

Data obtained from a variety of sources by means of various methods and techniques, will all play a substantial role in establishing the credibility and trustworthiness of this inquiry.

Prior to the presentation of the various sets of data, a short profile of each of the selected children is provided. Although all the children took part in the investigation, the following children were selected as the participants whose data were represented in the research most often: Lucky, Sithembiso, Kholisiwe and Jabulile.

LUCKY

He does not make speech sounds. He usually cannot understand amplified speech. Lucky has a profound sensory–neural hearing loss in both ears. He mixes and plays with other children very well. He has an inquiring young mind and is very hungry for knowledge with a good self–concept. He is still battling with learning signs but very eager to learn them all at once. His performance in language practice is not up to standard but is promising.

SITHEMBISO

He is a gentle and loving boy with a high moral upbringing. He is a very active, loving and caring boy. He is capable of taking instructions very well. His hearing loss is not profound but moderately severe. He has frequent difficulty with loud speech. The language does not appear to be very different from that of his hearing peers. He relies mainly on Sign Language as mode of communication and can cope with lip—reading supported by sign. He signs very well and satisfactorily.

KHOLISIWE

She communicates effectively using verbal language. She has a mild hearing loss. She encounters difficulty only with faint speech. Language delay is evident and consistent with general delay as a result of a congenital syndrome. She makes unintelligible speech as a result of a cleft. Her physical health is good, but she has an eyesight problem, hence she makes a lot of mistakes when copying from the board. She writes with difficulty and fingerspelling is not up to scratch.

She seldom plays, she forgets easily. She takes time to follow instructions and battles to take responsibility like doing her own class work — promptly. She is not so good in signs. Her hearing strides are invisible.

JABULILE

She has both auditory, verbal agnosia and apraxia which began at an early age. She does not make any speech sounds. She vocalises inconsistently — only on demand. She takes time to understand and seldom produce spoken language. She is a charming little girl who is very hyperactive. She mixes well with other pupils. She has a good self—concept and a strong sense of where she is going. She believes in 'backward never and forward forever'. Her signs are good and she can easily detect if the other pupils are signing wrong and often reprimands them. She lets her fingers to do the talking. Her language performance is fair.

6.2 THE DATA COLLECTED BY MEANS OF THE FOCUS GROUP INTERVIEW

As mentioned before the researcher's focus group consisted of twelve deaf children, the teacher and the class aid teacher as the mediators, and the researcher as the moderator.

Each session discussed a specific topic validated before by the theoretical overview and the *a priori* investigation. Three focus groups sessions were held on three different days.

SESSION 1

Wednesday, 14 June 1995

10:15 am

Question: Do you like reading at home or at school?

SESSION 2

Monday, 26 June 1995

8:00 am

Question: When you think of your classroom, which subjects do you prefer most and why?

SESSION 3

Tuesday, 4 July 1995

9:00 am

Question: If you could choose any teacher here at school, do you want a teacher that can sign or an oral teacher?

All these focus group sessions were video recorded, as discussions took place in Sign Language. The recordings were later transcribed from Sign Language to English by the researcher.

6.2.1   **Examples of Transcribed Data**

Extracts from each of the three focus group sessions follow as examples of the raw data collected and transcribed.

SESSION 1

Question: **Do you like reading at home or at school?**

Jabulani: At home and sometimes at school.

Sithembiso: School.   Teacher Themba allows us to read one—one (individually). My mother does not know English and my sister is always cooking. When I need some help she says 'she is tired'. I don't know some other things when I read alone at home.

Lucky:	At home, because when I feel tired I watch TV and go to sleep. Here at school teacher does not want us to sleep in class and there is no TV or TV game.
Siboniso:	My mother always gives me nice magazines and books to read but I just watch pictures and don't understand what is written and I sleep whenever I want to. I like magazines more than school books.
Researcher:	Why?
Siboniso:	Because magazines have more colourful pictures, beautiful people and many games than school books.
Fulufhelo:	(he nods excitedly) Yes! Yes! Yes!
Researcher:	Do you agree with him Fulu?
Fulufhelo:	Yes teacher, our school books are very short (small), colour outside bad (dull cover) and it is written in black and white. I don't understand when I read alone ...
Simon:	(interjects immediately) Yes and the drawings we cannot see (not clear and visible).
Kholisiwe:	I like reading at school because my father, mother, sister and brother do not understand me when I read but here the teacher understands me. My mother says I will know reading well when I have grown up.
Tshidiso:	Me too, my brother wants us to watch TV and go to sleep. He says he is not deaf and only the teacher for the deaf will understand my karate (signing). My brother says we do not have deaf books and pictures at home, so I must learn very hard at school, so I enjoy reading mostly at school. My friends Lucky, Siboniso and Jabulani are always here by my side.
Patricia:	I like school. At home there are no balls, no blocks, no pencils and drawing pens. When I ask my sister to buy me one, she does not want to listen to me. My sister does not know how to sign. She signs totally different from my teacher. I hate my sister and I love school.
Jabulile:	I love my mother and father and brother. They know how to talk (communicate) with me and they teach me many things like drawing a cat, and ask me many many questions. We always work together. I understand them when they talk to me and I understand when they sign to me but my brother likes talking and I always watch him carefully because sometimes he

is lazy to sign to me.

Kholisiwe: Here at school we read together as a group and its nice. We sign the same and I love reading. I enjoy reading because teacher Themba want us to read and read and read.

(Both Lucky, Siboniso and Fulufhelo nods their heads 'Yes').

(Patricia is not sure whether she agrees with Kholi or not she frowns).

Sithembiso: I enjoy my reading at school. We all take part and we are all deaf and we all understand the teacher when he signs.

Simon: (Out of his mind, looking outside the class). I am not sure.

SESSION 2

Question: **When you think of your classroom, which subject do you prefer most and why?**

Patricia: I think this classroom is the best classroom. I like my classroom.

Researcher: No Pat, we are through with your classroom. I mean the subject. Like environment, calender work, Maths, Religious Instruction, Writing, English, etc. (The teacher researcher had to explain each subject and all that it entails, e.g. Religious Instruction tells us about Jesus Christ, the Bible, prayer, God, etc.).

Patricia: I like calender work because it tells about weather, the day and the sun.

Jabulani: I like maths, we play a lot in class using counters and each and every child is given a chance to write on the board.

Siboniso: I like writing. My mother told me that if I write very well, I will be a future doctor and people will come to my office (surgery). I also like reading because doctors enjoy reading newspapers.

Sithembiso: Religious Education is my favourite subject. We always go to church on Sunday and the man (priest) tells us more about God, doing bad things (sin), Jesus, and that one day we are going to die. Sometimes I hate my priest because he does not sign, he just talk and talk and people laugh and I don't understand the joke.

Fulufhelo: Sithembiso is right.

Tshidiso:	Before, long long ago I loved playing in class (dramatisation) but today I like English because my teacher loves it and he tells us many stories in good Sign Language. Before I came to Sizwile my teacher used English (Signed English) and I did not understand her and she punished us if we did not listen and watch her carefully as she signed but teacher Themba plays with us when we read.
Researcher:	(looks at Jabu) Jabulile tell us more.
Jabulile:	I also like stories in Sign Language not in my teachers English (S.E.). Sometimes I get confused because the teacher writes difficult words on the board and I do not follow the story very well (meaning) but I like stories. I also like maths because we play on the floor using blocks, pieces of papers and crayons.
Kholisiwe:	I prefer calender work and stories (English). My teacher explains them so very well but sometimes we don't understand him well. We all play together in class (participate).

SESSION 3

Question:	If you could choose any teacher, do you want a teacher that can sign or an oral teacher?
Siboniso:	I like signing with all my heart, oral, NO!
Jabulile:	My favourite is signing, but half lip—reading is boring sometimes.
Kholisiwe:	I prefer signing, I hate Oralism because sometimes I miss certain words and when I ask the teacher to repeat he gets very angry. Signing is more beautiful (accurate). We all love signing.
Sithembiso:	I can understand lip—reading but I cannot understand some of the hearing people when they talk to me. Signing is good. I understand my teacher, my mother and my sister. Sometimes when people talk very fast I cannot follow and understand their talking (conversation) unless they repeat very slowly. I also like English and reading because we learn new signs everyday.

6.2.2   **Examples of the Processing of Data**

Once all the data had been collected, they were clustered in chronological order by means of dendograms. *Figure 6.1* is an example from the transcribed data presented above. The contextual—chronological clustering reduces the possibility

for isolated items to be enumerated out of context. It is a process of systematic summarising in which each step displays an aspect of validating verbal data as findings.

See *Figure 6.1* on page 106.

6.2.3   Consolidation of Data

The focus group interviews were transcribed and dendogrammed in their entirety, and the final categories of information were subsequently consolidated. The following categories evolved from the body of dendogrammed data:

1.   **Reading** is considered enjoyable especially when it is supplemented by magazines and pictorial books.

2.   **Teacher** is identified as their favourite, he loves his children. Pupils understand more from their teachers than their next of kin. Their teacher explains better than their parents, as a result they seldom give up. Children says their teacher communicates and uses facial expressions effectively and efficiently.

3.   **Meaning**, pupils take time to dig meaning out of context. Their notion of meaning is both semantic and pragmatic. They prefer that some words must be constructed in a specific manner in order to make meaningful sentences. They also emphasise lack of understanding in stories.

4.   **Sign Language** is identified as easy to understand, and is associated with having fun, although few pupils if not one liked lip–reading.

5.   **Participation** is considered enjoyable. Pupils encourage group work, they enjoy more when they are together doing the same things and talking the same language. They are all active and prepared to engage themselves in a tangible way.

6.   **Lip–reading** is described as difficult to understand, only a few preferred it as a means of communication.

SITHEMBISO: Teacher allows us to read one one

JABULANI: Sometimes I get confused because the teacher writes difficult words on the board and I dont follow very well

TSHIDISO: My brother says we dont have deaf books and pictures at home

KHOLI: I prefer stories. My teacher explains them so very well but sometimes we dont understand

SIBONISO: I like magazines more than school books

FULOFHELO: Our books dont have pictures inside, they are dull

SITHEMBISO: I enjoy my reading at school
We all take part. We understand the teacher when he signs

KHOLISIWE: My teacher understands my reading more than my family

KHOLISIWE: Here at my school we read together as a group and its nice

KHOLISIWE: I prefer signing. I hate oralism

SIMON: Drawings in our books are not visible

JABULILE: We always work together as a team at school

JABULILE: I like my family they know how to communicate with me
I like drawing a lot

SIBONISO: I like pictures and magazines but I dont understand what is written in them

PATRICIA: I like school, at home there are no balls, blocks etc. .
When I ask my sister to buy me one she does not have money

SIBONISO: I also like reading because doctors like reading newspapers

SITHEMBISO: My priest does not sign he just talk people laugh and I dont understand the joke

SITHEMBISO: I can understand lipreading but I cant understand hearing people. I understand my family. I like reading. We learn signs everyday

SITHEMBISO: The priest talk and talk

KHOLISIWE: Teacher Themba wants us to read and read and read.
(Lucky, Siboniso & Fulufhelo agreed)

TSHIDISO: My brother says he is not deaf only the teacher for the deaf can understand my signing

TSHIDISO: I enjoy reading mostly at school

KHOLISIWE: We sign the same and I love reading

SIBANISO: Magazines have more colourful pictures, beautiful people

TSHIDISO: My friends are always by my side

LUCKY: I like reading at home

JABULILE: I like stories in sign language

KHOLISIWE: My brother says I will know reading when i grow up

JABULILE: We work together as a team at home. My brother likes talking and I always watch him very carefully

SIBONISO: I like signing with all my heart

JABULILE: I like signing but half lip reading is boring sometimes

PATRICIA: My sister does not know how to sign she signs different from my teacher

FULOFHELO: Sthembiso is right

KHOLI: We all play together in class

JABULILE: We play a lot in class using counters, each and every child is given a chance to write on the board

TSHIDISO: I loved playing in class but today I like English. I did not understand my teacher

READING:
- read too much
- important
- read every day
everyday

TEACHER
- understrands us well
- explains so good
- I love him

MEANING
- understand the teacher
- when he signs
- sometimes know
- sometimes hard
- sometimes easy

SIGN LANGUAGE
- like stories
- made me happy
- prefer sign language
- we learn to sign everyday

PARTICIPATION
- we play together in class
- we all play together
- we play a lot in class

LIP-READING
- concentrate a lot
- cannot see clearly
- watch carefully
- I hate it

ACTIVITIES
- I watch my brother
- I like drawing
- I watch TV
- I bring pictures

FOUNDATION
- teachers sign different
- brother do not know how to sign

ORALISM
- do not understand
- concentrate too much
- I hate oralism

REPETITION
- Sometimes the teacher talk and talk
- read and read

Figure 6.1: Example of the processing of data from focus group interviews in a three phase dendogram

7. **Activities** are those activities that take place within the classroom environment in order to enhance learning opportunities. This includes games, sketches and songs which pupils seem to enjoy most.

8. **Foundation** of pupil's family background varies. Some families are more interested in teaching their pupils how to learn while others are more ignorant. One child mentioned that his brother says he is doing karate at school (i.e. signing with hands); that is sheer negligence and detrimental to the child who is learning to become somebody one day, but on the other hand he is not given chance to be involved and participate in the hearing world.

9. **Oralism** was depicted as the hated method of communication and the majority of the pupils said they did not understand it. They totally abhor it.

10. **Repetition.** Pupils enjoy repetition of words and sentences, this helps them to understand the story up to a higher level. More emphasis is made and this shows the importance of the words or sentences. Repetition is vital in enliteration via second language learning. Corrective feedback is essential in initial reading.

6.3 DATA COLLECTED BY MEANS OF INDIVIDUAL INTERVIEWS

Interviews were conducted with each of the twelve individual children but the researcher decided to focus more on the four pupils, namely Jabulani, Sithembiso, Kholisiwe and Lucky. Each child had the full opportunity to discuss his/her feelings and perceptions regarding learning to read in class without contribution from the other class pupils. This method allowed the individual the freedom to say what she/he wanted that day without pressure from her/his peers.

Extracts of transcripts from two interviews are presented as representative samples of raw data.

6.3.1 **Examples of Transcribed Data**

Introduction to Interviews
Today we are going to talk about our reading lesson, that is stories we normally read from 'our story book'.

Jabulani's Interview
13 July 1995
8:00 am

Teacher Themba always help us with good stories. When we do not understand, teacher Themba explain and explain until we understand. I like stories and I like reading because it makes us clever.

I understand my teacher when he signs very slow. I like his signing, it is so clear. Teacher Themba always stops when he sees that we do not understand. Sometimes the teacher writes the story on the board, sometimes we play the story on the floor. We play, tease each other and laugh when the teacher is telling the story.

I like teacher Themba more than my mother and father.

Kholi's Interview
13 July 1995
9:00 am

I do not like English. I enjoy calender work. It tells us more about the sun, the day, the weather and we sometimes go outside and watch the sky above.

During English class we either look at the teacher writing and teaching on the board or sitting on the carpet playing (dramatising). I get bored sometimes because I love nature.

Sometimes I do not understand my teacher and I am afraid to ask him many questions because he will say I am a stupid idiot. Sometimes when I reach home I forget everything my teacher taught me about, but during calender work I do not forget easily. My father does not want to teach me how to practise reading. I hate him. I love my classroom and my class—mates, they are all beautiful. Our teacher gives us difficult stories sometimes, but we watch and observe him attentively. I love the way he signs.

Lucky's Interview
13 July 1995
10:15 am

I enjoy my reading because we read almost everyday. I always stay alert in class because the teacher does not want us to sleep or play while he is teaching. Sometimes he points at you to go and write something on the board but if you do not understand, the teacher will repeat the question.

Our teacher signs and talk most of the time. I like signing because I understand it better.

Yes, I sometimes forget what the teacher taught us but when the teacher repeats it again and again, I learn to understand it better. We use balls, chains, milk, cats, cards, money in our classroom. The teacher asks us to bring beautiful pictures from home. I like playing games on the floor more than on the board because we are all given a chance.

No, you cannot sleep when playing on the floor. I like beautiful stories, they make us clever everyday. My mother, father, brother and sister do not know Sign Language. They just point at things and I go fetch them.

6.3.2 Examples of the Processing of Data

The data were processed when all the interviews had been transcribed. All the data were clustered in chronological order by means of dendograms (see *figure 6.2*, p. 110) which concluded with the categories presented in the final column on the right side of the page (phase III of the dendogram). Three of the twelve pupils have been selected in order to present examples of data from the specific individuals.

6.3.3 Consolidation of the Data

These categories are samples of the body of categories constructed from the individual interview transcriptions. The final categories reflect the entire body of data originating from the individual interviews conducted.

Final categories are presented with a summary of the content of each category.

1. **Sign Language** made them very happy as it was interesting and they could easily understand it. They really love Sign Language, they say Sign Language is as clear as a crystal.

2. **Meaning** — where they do not understand, the teacher explains back and forth until they get the idea.

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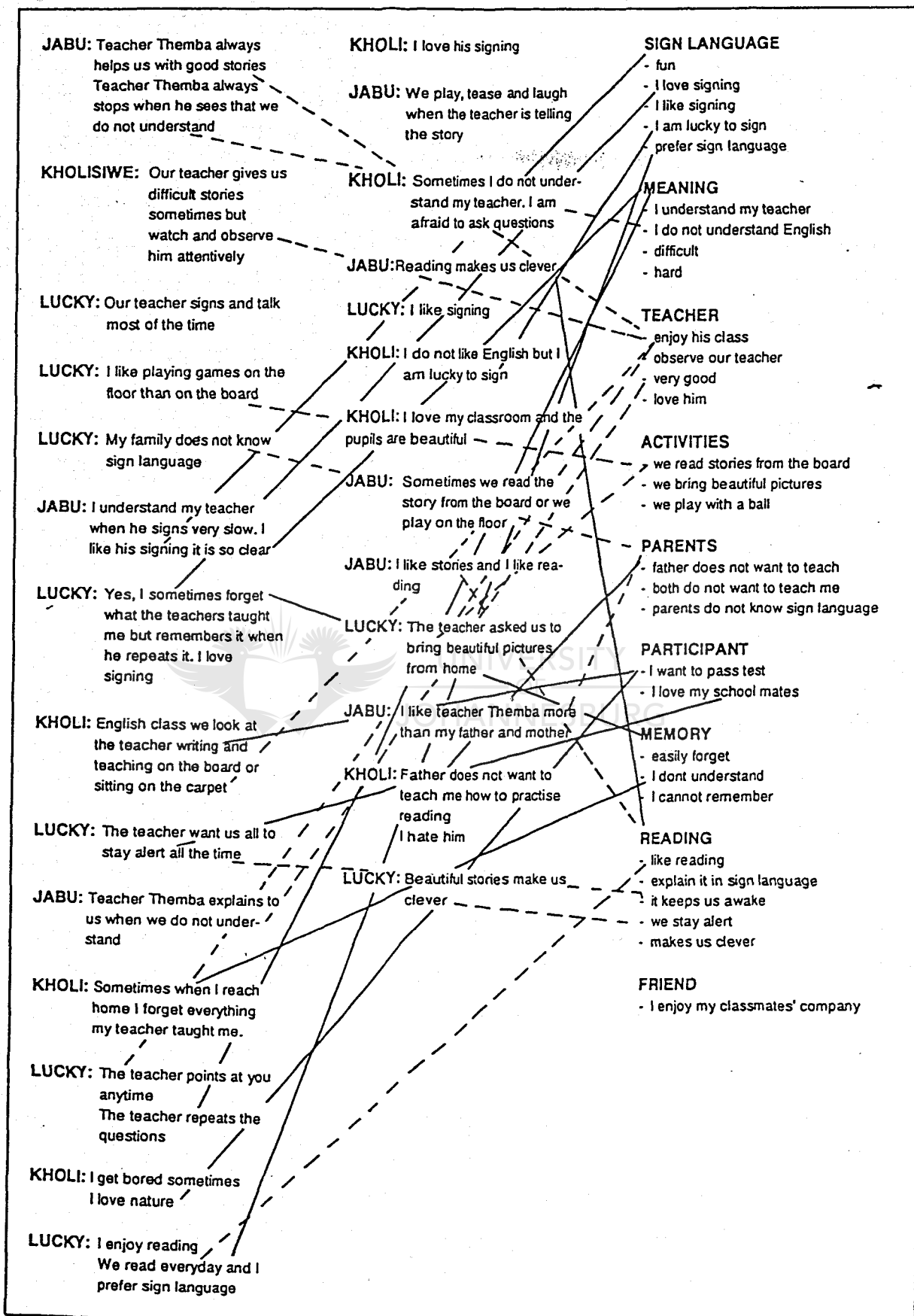
Figure 6.2: Example of the processing of data from individual interviews in a three phase dendogram

3. **Reading** makes them clever but one child does not like reading since it does not ring a bell to her.

4. **Teacher** is a very kind and frank teacher who helps pupils when they do not understand. They enjoy reading with the teacher everyday. They play, laugh, tease with their teacher who signs so well and clear.

5. **Activities** — the teacher always improvises when demonstrating his lesson. Pupils are requested to bring pictures, games to broaden and fatten the lesson to make it more understandable. They also like playing on the carpet which makes them more free and have more fun.

6. **Parents** still play a dormant part even if some are trying but they are not up to standard in encouraging pupils to be what they want and have confidence in their language. Parents do not know Sign Language, hence a means of communication is totally impeded.

7. **Participation** – they all take part willingly. The teacher wants them to stay alert all the time. Which is fascinating.

8. **Memory** — they easily forget but the teacher keeps on reminding them. More practise than theory can keep the wheel turning.

9. **Sleeping** — no chances of sleeping in class. Should always stay awake and observe the teacher attentively.

10. **Friends** — All the children in the class were friends and they said they liked to communicate in Sign Language to each other. They enjoy more during school days than during school holidays. They enjoy writing pieces of letters during spare time.

11. **Reading** — Pupils said they liked reading and they enjoy reading in class and giving each other marks for perfect readers. They said that after reading they had to explain it in Sign Language which made them think and be more constructive. The best signer received a gold star.

6.4 THE DATA COLLECTED BY MEANS OF DOCUMENTATION: PERSONAL SKETCHES

In the third method of data collection, various documents were used to accumulate data, namely: Teachers questionnaire, school reports and individual reports (including speech and language therapy reports) are also included in this chapter.

Each pupil received a small piece of paper in which one question was written and pupils responded to the question privately without help or contribution from any one. They were only given 30 minutes to think and write.

Question: What do you think and feel about your class–room teacher?

6.4.1 Examples of Raw Data Collected

Kholisiwe's Written Response
I love my teacher, he makes me work very hard everyday. My teacher is short and black (dark). He likes to do jokes and we lugh (laugh). My teacher is everyday (always) clen (clean).
My teacher tak (talk) to us everyday. I understand teachen (teacher) when tell us stry (stories).
Teacher sign good and good read.

Jabulani's Written Response
me like teach. Play talk, write give swet (sweets) smtim (sometimes). go home blak (black) ugy (ugly).

Lucky's Written Response
Tetcha (Teacher) good. Sign good read good. work work work evedy (everyday). Long ago tetcha (teacher) sign bad now sign good. new tetcha from Natal like writing and plying (playing) on the floor.

6.4.2 Examples of the Processing of Data

Data was analysed with the help of dendograms (*figure 6.3*, p. 114). Data were always processed in chronological order and within the context in which they appeared. Three pupils were selected to analyse the process. The dendograms

below include data selected from these three pupils. Data although reflecting the level of written discourse of each pupil were clustered for content only and not for linguistic proficiency or formal cohesion and coherence.

6.4.3 Consolidation of the Data from Personal Sketches

Although the sample dendograms only include three pupils data, the following categories were formulated from the entire body of data from the personal sketches.

1. **Teacher** – they mentioned that he is jolly, dark, and ugly, but he is a good teacher who loves his children. Teacher makes them work very hard.

2. **Participation** is taken into consideration, pupils talk, write, teach and read good for them and they always observe and watch what the teacher is doing.

3. **Meaning** – pupils understand their teacher who is very good. Class–room beautiful, interesting and good. They read and find reading interesting and mind boggling.

4. **Reading** – they also enjoy reading because it improves their work and makes them clever, bright girls and boys. It is thought provoking.

5. **Learning** – everyday they learn new things in class. One pupil said that is why she does not absent herself even if she feels that she is not well.

6. **Feelings** were expressed with joy and appreciation.

7. **Sign Language** – They love their teacher's signing, which is very clear and slow. They understand his hands more than any outsider, they do not imagine loosing such a brilliant teacher who is dedicated to his children.

JABULANI: Me like my teacher
He loves us

JABU: Teacher black and ugly

LUCKY: Teacher good
happy and laugh always

KHOLI: My teacher likes cracking
jokes and we laugh

LUCKY: We work everyday
Sometimes I do not
understand

KHOLI: I love my teacher.
He makes us work very
hard. My teacher is short
and dark

LUCKY: New teacher from Natal
like signing and playing on
the floor

KHOLI: My teacher teaches us
everyday

KHOLI: Teacher sign, read good
always loves sign

JABULANI: We play, talk, write
give sweets

LUCKY: Teacher read good
Like reading

KHOLI: I understand my teacher
because some children do
not understand he makes
us think

LUCKY: Teacher sign good
sign different, now change
same school

TEACHER
- signing teacher is best
- loving
- good
- laugh
- enjoy his class

PARTICIPATION
- want to pass
- I like working together

MEANING
- angry about it
- do not understand
- easily forget

SIGN LANGUAGE
- understand it
- happy when teacher can sign
- speak without sign

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Figure 6.3: Example of the processing of data from personal sketches in a three
phase dendogram

6.5   THE DATA COLLECTED BY MEANS OF DOCUMENTATION: TEACHER'S QUESTIONNAIRE, SCHOOL REPORTS AND INDIVIDUAL REPORTS

School reports of selected pupils were collected. Educational speech, language and hearing reports were collected. These documents are referred to as archival records as they are usually prepared by someone else out of the formal research context.

This section will not discuss the two types of reports independently, but rather combine them in separate discussions of each of the three individuals selected.

6.5.1   Data Collected from Kholisekile's Reports

a)   School Report
December 1994:
Her conduct is fair and diligence is good.
She is always eager to participate in class discussions and has strong opinion on a wide range of subjects. She has self—confidence and communicates well in the class. Kholi signs very well and makes herself understood.
She has a problem of dyslexia and apraxia.
Her writing is not legible.
She is shortsighted.
She is anxious to learn more everyday.

September 1995:

Name: *Nhlabathi Kholisekile*   Std.: *SSB*

1.   **Social adjustment:**   *She is very reserved and is seldom found in the company of other pupils.*

2.   **Physical Health:**   *Her physical health is good, but she may be having an eyesight problem, since she makes a lot of mistakes when copying from the board.*

3. **Motor Development**

3.1 **Fine:** *She writes with difficulty and her fingerspelling is not good.*

3.2 **Gross:** *She is not very active although she has no difficulty in walking. She seldom plays.*

4. **Memory:** *Her memory is very poor. She does not recall what has been taught in the class.*

5. **Communication**

5.1 **Language Development:** *She cannot follow instructions well in the sense that she doesn't seem even to understand what is being said to her.*

5.2 **Signs:** *She is not so good in signs. She has to be corrected everyday.*

6. **Auditory Training:** *She has hearing and is good in hearing the sounds.*

7. **English:** *She is not capable of grasping anything taught.*

8. **Maths:** *She follows a bit in addition but in subtraction and multiplication she has a problem.*

9. **Handwriting:** *Her handwriting is poor both in the writing of numbers and alphabetical letters.*

10. **Art and Crafts:** *She is struggling in this subject.*

11. **General Remarks:** *She hates participating in class—work. She only enjoys sitting and watching other pupils doing things in the class. She is also very stubborn in the sense that when given instructions she may or may not take them. Overall her performance in the class is poor if not very poor. She is the slowest writer too.*

b) **Individual Reports**

Education Report

Communication is mainly oral. She has a lot of perseverance.

She loves her work.

Her reading skills appear to be three years below average, compared to hearing children of the same age.

c) **Speech, Language and Hearing Report**

She communicates effectively using verbal language.

Language delay evident consistent with general delay as a result of a congenital syndrome.

Kholi makes unintelligible speech as a result of a cleft (congenital and unrepaired).

There is no adequate seal between oral and nasal cavity, therefore speech has nasal quality.

Also prone to middle ear problems as a result of all the above—mentioned factors.

Proneness to middle ear problems result in an inconsistent ability to hear and in language delay.

Her receptive and expressive English skills is gradually improving.

Total communication approach can serve best to Kholi.

6.5.2   Analysis of Data from Kholisekile's Reports

Kholi still lacks self—confidence, she prefers not to do the things, for fear of making mistakes, but she participates in class.

She has an expressive and receptive language delay. She easily gives up. She has good Sign Language ability in which she communicates with self—confidence but has poor English. She likes playing.

She takes time to follow instructions well in the class, as a result it takes her time to understand and she easily forgets.

She relies solely on sign and her reading ability was seen to be three years below her grade level.

6.5.3   **Data Collected from Jabulani's Reports**

a)   **School Report**

December 1994:

He still lacks confidence, but is far much better than last year 1993.   He refuses to crave for more knowledge.

He is too relaxed and as a result this inhibits his progress.

He cannot concentrate for a long period.   He needs strong incentives to complete his reading and signing.

His signing needs urgent attention.   He easily gives up.

He is lazy to strife for the best.

He does not challenge his new work in class.

He sometimes contributes to class discussions.

His Sign Language is very poor.

He does not perform well in class.   He battles a lot when reading.

<div align="center">September 1995:</div>

Name: *Tshabalala Jabulani*   **Std:**   *SSB*

1.   **Social Adjustment:**   *He is sociable both inside and outside the class.   He mixes well with other children.*

2.   **Physical Health:**   *He has a problem of stinking ears and has been referred to the doctor several times, without any effect though because his parents have since failed to arrange an appointment with the doctor.*

3.   **Motor Development**

3.1   **Fine:**   *His hands are good and he can use his fingers well.   He writes well.   In terms of fingerspelling he is good.*

3.2   **Gross:**   *He is active and likes playing and running around.*

4.   **Memory:**   *His memory is just fair because he can only recall about 30% of what has been taught.*

5. **Communication**

5.1 **Language Development:** *He is good in following instructions.*

5.2 **Signs:** *His signs are not so good. He signs carelessly. He has to improve.*

6. **Auditory Training:** *He has hearing and can understand speech which is unaccompanied by signs at times.*

7. **English:** *He has a problem. His performance can be judged as fair. He needs to put more effort in order to improve.*

8. **Maths:** *He likes counting, especially addition but in multiplication he encounters a problem but may improve.*

9. **Handwriting:** *His handwriting is poor. This is due to haste. He doesn't devote time when writing. His goal looks to be wanting to finish quickly rather than writing neatly.*

10. **Art and Crafts:** *His work is fair.*

11. **General Remarks:** *He can be described as on and off. But most of the time he is off. Another serious problem about him is untidiness. His work is very untidy because it is hastily written and even himself is untidy. He seldom washes his body.*

b) **Individual Reports**

Educational Report

He responds better to written than to verbal or sign stimuli.

There is a lot of confusion in his language and he is too playful.

c) **Speech, Language and Hearing Report**

He does not make any speech sounds.

He vocalises inconsistently – only vocalises on demand.

Language delay – characteristic of hearing impairment.

Language consist only of key words.

He has a conflicting audiological defect that is ABR (Auditory brainstem response).

His comprehension of Sign Language is better than his comprehension of Signed English (S.E.).

He has a problem of verbal language, both expressively and receptively.

He is always careful when talking or signing to the other person as he may have difficulty in understanding that person.

He uses different modes of communication to reach over to the person he communicates with.

Verbal communication is meaningless to him, as a result he improvises a lot.

He has a speech defect and communication with him should include a combination of speech and sign.

6.5.4   Analysis of Data from Jabulani's Reports

He participates inside and outside the class.

His problem of oozing ears impedes his performance in class.

He has weak communication skills.

He always tries hard to do the best. He was described as communicating with inhibition, and experiences difficulty with speech production.

His speech reading makes him more of an introvert.

In 1995 he shows more change and is very active and keen to participate.

His signing is improving day by day.

His only means of communication is signing.

6.5.5   Data Collected from Sithembiso's Reports

a)   **School Report**
December 1994:
He mixes well with other pupils.

He has made vast progress in his language as compared to last year 1993.

He is very oral, his sentence construction improves from time to time.

He is trying hard to articulate, he normally rushes his speech and needs to be told to slow the pace.

He makes careless mistakes because of rushing to finish.

He does not take his time because he rushes to finish first.

He is trying to communicate confidently in signing and non–signing environments.

His speech reading is not impressive.

He always tries hard to participate in discussions.

He is a quite, ambitious boy.

He signs very well.

September 1995

Name: *Mtshelu Sithembiso*   **Std:** *SSB*

1.   **Social Adjustment:**   *He mixes well with other pupils.*

2.   **Physical Health:**   *His condition of health is good..*

3.   **Motor Development**
3.1   **Fine:**   *He writes and fingerspells well.*
3.2   **Gross:**   *He is very active.*

4.   **Memory:**   *He remembers with ease what has been taught.*

5.   **Communication**
5.1   **Language Development:**   *He is capable of taking instructions very well.*
5.2   **Signs:**   *He signs well and is good in signs.*

6.   **Auditory Training:**   *He responds to sounds like the beating of the drum and the clapping of hands.*

7.   **English:**   *His English is good.*

8.   **Maths:**   *He is doing very well in this subject.*

9.   **Handwriting:**   *His handwriting is good.*

10.   **Art and Crafts:**   *He is doing fairly well.*

11. **General Remarks:**   *He is brilliant but his tendency to be playful affects his performance. Otherwise he gets on well with his work and behaviourally he is good.*

b) **Individual Reports**
    Educational Report
    In terms of accuracy and fluency his written work did not match his oral output. In reading he concentrates more on form than in meaning.

c) **Speech, Language and Hearing Reports**
    Sithembiso has excellent speech reading skills.
    He can easily follow oral conversation. He has also shown improvement in language development, but still weak in his vocabulary knowledge. His hearing loss is not profound only severe, he attempts to make speech sounds and articulate. He has the most difficulty with high frequency sounds which is consistent with his hearing loss. Sensori neural loss — Language does not appear to be very different from that of his peers.
    He uses jargon for instance he calls margarine, peanut butter, jam (spreads) he says *Gqobisa* — Zulu word for spread.

6.5.6   Analysis of Data from Sithembiso's Report

He is a lively and enthusiastic child who makes good progress in language.
His articulation is improving daily but still makes mistakes because of rushing to finish, in both writing and reading he often makes careless mistakes because of his rush rush.
Sithembiso's speech reading skills improves yearly.
He communicates confidently in both sign and speech.
He has good Sign Language skills.

6.5.7   Teachers Interview Report

The teacher was asked different questions which will be written down. The questions and answers are as follows:

Q. 1.   Do children learn to read according to the straight for English model for the DET?

A. 1.   Yes. Material that is used in classes is prescribed by the DET.

Q. 2.   Can pupils learn a language and learn to read congruently?

A. 2.   Yes.

Q. 3.   Between L_1 and L_2 which one should be taught first, especially at Grade 1 level?

A. 3.   For the deaf L_1 is Sign Language and L_2 is English. I therefore think the two should be taught simultaneously, because they go hand in hand.

Q. 4.   Do you believe that English is the language of economic, stability, empowerment and liberation?

A. 4.   Yes, it is the language used commonly all over the world.

Q. 5.   Do you think instruction in the vernacular is of poor quality and that it does not satisfy the need for a proper, well balanced education?

A. 5.   Yes, Vernacular is just not applicable because in real classroom situations you find pupils of different ethnic groups with different languages, e.g. Zulu, Xhosa, Tswana, etc. Therefore there must be a Medium of Instructions.

Q. 6.   Which method of teaching do you prefer most and why?

A. 6.   Self–activity method. It gives pupils the opportunity to really get involved in the lesson and consequently understanding is promoted.

Q. 7.   Do you allow chorus reading in class especially of single words?

A. 7.   Yes, but with the deaf you have to check that their signs are correct and this is very difficult in chorus reading.

Q. 8.   Do you think your school is well equipped with teaching equipment, stationary, media and facilities for effective teaching? If no, why? What do you think can be done?

A. 8.   No, firstly our library or media centre is ill–equipped. There are not even textbooks to supplement the one's we use in class. Secondly there should be enough overhead projectors and not only one photocopying machine.

Q. 9. Do you know anything about the contemporary theory of enliteration?

A. 9. No.

Q. 10. Do you think it is important to translate English and vernacular sentences? That is, can they be compared and contrasted?

A. 10. No, I think it would be very confusing and time—consuming to do that.

Q. 11. Do you sometimes explain the difference between Sign Language and Signed English to the children.

A. 11. No.

Q. 12. Which one do you prefer and why?

A. 12. I just cannot differentiate between the two because Sign Language is based on English words.

Q. 13. How often do you check children's word order in a sentence when signing (always, sometimes, never).

A. 13. Sometimes at this level.

Q. 14. Do you sometimes use flash cards in your lesson?

A. 14. Yes.

Q. 15. Why do we teach reading in class?

A. 15. To enable pupils to read independently without anyone's assistance.

Q. 16. In brief, what kind of problems do you encounter when teaching reading?

A. 16. Pupils lack Sign Language and therefore their reading cannot flow freely. They have to stop and ask how some words are signed. Also pupils cannot read with rhythm. They just read without acknowledging the punctuation marks like commas, full stop, exclamation.

Q. 17. In brief, do you think deaf people are fully represented here in South Africa?

A. 17. No.

Some of the questions answered by the teacher will be broadly explained and elaborated in chapter seven.

6.6 DATA COLLECTED BY MEANS OF OBSERVATION

Data was also collected throughout the year via unscheduled observation by the researcher as a participant—observer.

Fieldnotes were compiled in a logbook format and concentrated mostly on 'critical' incidents in a reading classroom.

6.6.1 Examples of Data from Fieldnotes

7 March 1995

Sithembiso is listening very attentively.

Kholi looks very passive.

Pupils have mixed feelings about their new teacher who signs a little bit different from their previous teacher.

28 March 1995

Jabulani does not follow teachers reading instructions very well.

Kholi is so puzzled she gazes outside the classroom.

6 April 1995

Pupils seem shocked at the work pace and work load, they do not seem to be used to it.

12 April 1995

Jabulani is trying hard to sign and he is doing well in his reading. He does not easily give up. He always tries his best to follow teachers instructions.

19 April 1995

Kholi is watching the teacher, but she looks so bored. Sometimes rather than asking, Kholi decides to keep quiet. It takes her guards to ask when she does not understand especially the meaning of the word which the teacher has just signed.

4 May 1995

Sithembiso is actively involved. He can concentrate for longer periods at a time. He is trying hard to read well. It is hard for him to keep up ... but he is improving his signing daily.

10 May 1995

Jabulani is still weak in English. He still takes time to link between sign and word. His progress is very steady but promising.

26 May 1995

Jabulani has never learned coping skills when faced with a situation (especially English reading), he often gives up.

30 May 1995

Kholi is slumbering. The teacher asks her questions, she bites her nails and keeps on saying 'I do not know'. Her span of concentration is limited.

7 June 1995

Sithembiso is out of his cocoon, he is now beginning to see the light of day. He signs and fingerspell better and better, but has difficulty in understanding some of the words read and signed by the teacher.

Sithembiso is not shy to request the teacher to sign very slowly.

21 June 1995

Sithembiso wants to read without signing, sometimes he is just lazy to sign.

26 June 1995

Kholi has her blank moments (which is really frustrating).

2 August 1995

Jabulani, who has good (mature) signing, is also doing well in making the link between Sign Language and English, but it is limited to simple sentences. (He is still battling in reading and articulating correct words.)

Sithembiso is watching his teacher, observing signs attentively and participating fully. He is enjoying his lessons to the fullest. He still find difficulty in changing sentences from English to Sign Language and from reading and signing simultaneously. He either reads looking into the book or sign without reading.

Hence he fails to correlate the two, encoding and decoding the text.

Kholi is grinning, half watching the teacher reading and busy drawing funny faces on her piece of paper. Sometimes she speaks without signing. Her reading is not as good as she thinks (... she is very oral, and assumes her English is good).

23 August 1995

Jabulani's playful behaviour has improved. The teacher called him to order and he has gradually learned to be attentive.

Sithembiso is attentive from the start and appears to be following the story.

Kholi is passive and one will never be sure if she is watching you until or unless you call her back.
Kholi is so reserved, humble and not active at all.

5 September 1995

For a change Kholi is attending to the story with all her mind, body and soul and she seems to be enjoying the story dramatised by the other pupils. She is also participating. She seems to understand the story because she giggles and laugh loudly even when unnecessary.

Jabulani is panicking, because the teacher announced that in three days time they will be writing a short test concerning the story they just read. He is not sure whether he was dreaming, or it was really happening. Later his mind is back to class and he participates fully.

Sithembiso as usual is laughing and looking at other pupils as they role play the story. He is very greedy, he wants all the characters to be played by him. He told the teacher that he knows the test coming is going to be very simple and he is going to obtain first position.

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Kholi, a shy, timid and self—contained little girl is enjoying the story and demonstrating words like bite, dog to the teacher with enthusiasm. She seems to be getting along very well eventually.

6.6.2 Processing of the Data from Fieldnotes

The data was assessed in chronological order. One can see the changes and growth of these pupils. Once again three pupils are used as examples. This time their names are: Jabulani, Sithembiso and Kholisekile.

Jabulani's Chronological Development

March:	He did not follow the new teachers reading instructions very well.
April:	He was trying hard to sign and doing well in his reading. He does not give up easily. He always tries best to follow his teachers instructions.
May:	He is still weak in English. He still takes time to link between sign and word. His progress is very steady but promising.
May:	Jabulani has never learned coping skills when faced with a situation (especially reading in English), he often gives up.
August:	He has good (mature) signing, is also doing well in making the link between Sign Language and English, but it is limited to simple sentences. (He is still battling in reading and articulating words correctly.)
August:	His playful behaviour has improved. He has gradually learned to be attentive.
September:	Jabu is panicking because the teacher announced that in three days time they will be writing a short test concerning the story they just read.

Summary of Jabulani

Jabulani struggled initially to acquaint himself with the new teachers signing system and eventually grasped the signing. He is very active, does not easily give up. He seemed resistant to ask questions but he was willing to work. He always fight to get things right and ultimately he becomes the winner in most of the time. His perseverance breeds more success to him, hence towards August he appeared to be making the link between English and Sign Language. His reading has gradually increased and his written work was observed and found to be improving. He has developed more self–confidence.

Sithembiso's Chronological Development

March:	Sithembiso is listening attentively.

May:	Sithembiso is actively involved. He can concentrate for longer periods at a time. He is trying hard to read well. Its hard for him to keep up ... but he is improving his signing daily.
June:	Sithembiso is out of his cocoon. He is now beginning to see the light of day. He signs and fingerspells better and better. He has difficulty in understanding some of the words read and signed by the teacher. Sithembiso is not shy to request the teacher to sign very slowly. Sithembiso wants to read without signing, sometimes he is just lazy to sign.
August:	Sithembiso is watching his teacher and observing signs attentively and participating fully. He still finds difficulty in changing sentences from English to Sign Language and from reading and signing simultaneously. He finds them queer to be equivalent. He either concentrates on reading only or signing only.
August:	Sithembiso is attentive from the start and appears to be following the story very well.
September:	Sithembiso as usual, he is laughing and looking at other pupils as they role play the story. He is very greedy, he wants all the characters to be played by him. He told the teacher that he is going to pass the test.

Summary of Sithembiso

Sithembiso is a very hyperactive, young, little intelligent boy. He is always actively involved. Initially he cried when getting things wrong, but seemed excited as he understood the signing. His behaviour improves daily. He relied more on memory rather than study (and this appeared to be linked to his reading problem). His Sign Language is improving but he is hesitant of re—asking the teacher what he did not understand the previous day. He also has a tendency of crying if you do not respond positively to his questions. Be it his teacher, friends or family. He seems to be enjoying his schooling and passes remarks randomly.

Kholisekile's Chronological Developments

March:	Kholi looks very passive.
March:	Kholi is so puzzled, she gazes outside the classroom. She is totally out of her mind.

April:	Kholi is watching the teacher, but she looks so bored. Sometimes, rather than asking the teacher a question, she resort to keeping her mouth shut. It takes her guards to ask when she does not understand. Meaning of words and how to sign them still chills her spine.
May:	Kholi is slumbering. The teacher ask her questions, she keeps on saying 'I do not know'. Her span of concentration is very limited.
June:	Kholi has her blank moments (which is really frustrating).
August:	Kholi is grinning, half—watching the teacher reading and busy drawing funny faces on her piece of paper. Sometimes she speaks without signing. Her reading is not as good as she thinks .(... she is very oral, and assumes her English is good).
August:	Kholi is passive and you will never be sure if she is paying attention until you point or call her back.
August:	Kholi is so humble, timid, reserved and not active at all.
September:	For a change Kholi is attending to the story with all her mind, body and soul. She seems to be enjoying the story dramatised by other pupils. She is also participating. She seems to understand the story because she giggles and laugh piercingly even where unnecessary.

Summary of Kholisekile

Kholi is a shy, timid, introvert young lady. She is shy to venture forth. She battles a lot to concentrate for long periods of time hence her school work always suffers. She thinks she knows but in vain. Although she had several 'blank moments' she was gradually becoming closer to her peers. She is gradually accepting the responsibility. Her eyesight needs immediate attention.

6.7   CONSOLIDATION OF THE FINDINGS

All the main categories identified from each of the data collection methods are now placed on a dendogram (*figure 6.4*, p. 131) in order to network findings across methods.

This summary shows the overall findings, compared and networked across methods, in order to give a comprehensive view of the findings as a whole.

FOCUS GROUP INTERVIEW

1. READING
- read too much
- Important
- read everyday you pass school
- read new things everyday

2. TEACHER
- sign very well
- want all to sign no talk
- always sign talk sometimes
- understands us

3. MEANING
- understand the teacher when he signs
- sometimes do not know
- very difficult

4. SIGN LANGUAGE
- made happy
- love sign
- understand it
- like stories in sign language
- I am lucky to sign

5. PARTICIPATION
- we play together in class
- we play a lot in class
- we all play in class

6. LIPREADING
- concentrate a lot
- done in bright sunny day
- evening is dark cannot see well

7. ACTIVITIES
- I watch my brother as he talks
- I watch TV
- we draw animals sometimes

8. FOUNDATION
- my family do not understand sign language
- I like sleeping
- all teachers sign different

9. ORALISM
- hate it
- same as lipreading, difficult

10. REPITITION
- sometimes the teacher repeats if we do not understand

INDIVIDUAL INTERVIEW

1. MEANING
- difficult
- I do not like English
- I only understand when the teacher teaches slowly

2. SIGN LANGUAGE
- fun
- easy to understand
- I love sign language

3. PARTICIPATION
- sometimes we read, sometime we play
- hard work
- I love my schoolmates

4. READING
- like reading
- explain it in sign language
- I love reading it keeps us awake

5. ACTIVITIES
- I bring magazines
- I bring books with pictures in class
- we play with a ball

6. TEACHER
- communicates good
- I like him
- I love him

7. FOUNDATION
- I hate to be deaf
- I hate my father he just point at things
- my brother does not have deaf books

8. MEMORY
- easily forget
- I do not understand

9. LIPREADING
- dont understand
- very difficult
- watch carefully

10. PARENTS
- do not want to teach me
- do not know sign language

WRITTEN DOCUMENTS

1. TEACHER
- signing teacher is best
- kind
- loving
- good
- laugh
- enjoy his class

2. PARTICIPATION
- want to pass test
- I like working together

3. READING
- good for stories
- enjoy it
- make us clever
- always alert

4. MEANING
- angry about it
- do not understand
- difficult

5. SIGN LANGUAGE
- understand it
- happy when taecher can sign
- speak without sign

6. FOUNDATION
- sister signs different
- brother does not know sign language
- my parents are not deaf

7. ACTIVITIES
- we sit and play with a ball
- we cut pictures
- we draw things

8. PARENTS
- point things without naming
- refer to my teacher

9. MEMORY
- cannot remember yesterday's work
- I do not know

10. LIPREADING
- difficult to see
- do not understand

Figure 6.4: A summary of all the main categories

Through this final clustering, stronger patterns I believe, have emerged making strong links and bonds with each other and outlying patterns which have few links of their own. These show that various sources of data support each other, which as a result helps to strengthen the validity of the findings of this research. A chain is formed and is very strong on both ends.

6.8   CONCLUSION

From the data (thus from the ground) it is evident that pupils in the Sub B class researched do not prefer reading in English as compared to other subjects. They are not against Sign Language, but there are very strong winds from all angles which pushes them to say: "down with reading, especially reading only in the books". They prefer playing, that is making reading more alive and active. They enjoy dramatising but still it takes time for them to make meaning out of what they read (context). It still takes them time to recall, remember and make concrete meaning out of what they read. Signing and reading simultaneously still leave much to be desired.

An overview of the route the data followed from raw material to the substantiated findings, has been given in this chapter. Findings will be interpreted in the following chapter.

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CHAPTER SEVEN

INTERPRETATION OF THE DATA, CONCLUSIONS

AND IMPLICATIONS OF THE RESEARCH

7.1   INTRODUCTION

In this, the final chapter of the study, the consolidated analysis of the data will be interpreted against the background of the existing theoretical framework, as well as against theory included at this stage as control for those findings which were of too grounded a nature to have direct links with the theory presented in chapters one, two, three and four.

Conclusions will be drawn from the theoretically illuminated findings together with a brief mention of verification for conclusion drawing procedures. Thereafter the implications of this study will be discussed.

For the purpose of the following argument, findings are regarded as final, consolidated and analysed data, prior to interpretation and conclusion drawing.

The findings of this study are interpreted with a view to establishing their credibility from a research point of view. They are also interpreted in order to incorporate relevant theory, both from the existing theoretical framework and from literature which was consulted as a result of the findings.

7.2   INTERPRETATION OF THE FINDINGS PER DATA CATEGORY

In this section the central categories identified will be discussed and argued on an empirical level after which the argument will concentrate on trends in contemporary theories. The empirical data will be interwoven with theory in order to authenticate and verify various findings of this investigation. The categories were derived from the combined clustered data, and conceptualised along broad descriptions as set out in this section. The most important one

was that of communication.

7.2.1   Mode of Communication

Since this part forms intrinsically part of many of the other categories, the researcher deems it fit to be identified as the most important and fundamental aspect of the investigation.   This category is subdivided into the various modes of communication which the participants referred to and which were discussed.   These are Oralism, Lip—reading, Sign Language and Signed English. The researcher will only discuss the last two cardinal categories (that is Sign Language and Signed English), since they appeared more essential to her. The two will be interwoven with theory, in order to explicate their value and their validity within deaf education today and within the broader framework of theory of deaf education.

7.2.1.1   Sign Language as Mode of Communication

In the data collected in Chapter Six (by means of focus group interviews, individual interviews, observation and personal sketches) the following was found regarding Sign Language as mode of communication:

Sign Language was described throughout as the mode which all the Grade II pupils understood. They also expressed that their teacher is well able to sign. They were happy about Sign Language and preferred it mostly.   They associated this mode of communication as having fun. One of the pupils even proposed to speak without signing as he enjoyed the fun of it.

a)   Empirical Argument of this Category

Sign Language can be regarded as the fundamental part of all of the other categories constructed in the research, thus it pulls all the threads together in order to make a strong validation device. Pupils are content with their teacher's Sign Language. The spirit prevailing in the class— room is positive and they are delighted about it, because there is more fun, as they juggle around using Sign Language. Within this classroom pupils seemed to enjoy communicating (signing and talking with their class—mates). Pupils said that they worked very hard (although in my observation I discovered a lot of relaxation and laziness, especially when

piled with too much work—load simultaneously). The categories fit together when the link is made between the amount of work done and the use of Sign Language; work can be done faster in the child's first language (Sign Language). Deaf children encountered problems with their families, this can be due to lack of Sign Language. Misunderstanding and impatience result as the hearing people speak or point to them without using real Sign Language.

Reading as a category is directly joined to the Sign Language category to the extent that they explain reading as something very important and that explaining in sign language what he has read makes him think. (One pupil mentioned that he likes reading because he wants to be a doctor, because doctors read newspapers a lot.)

b)   Discussion in Theoretical Context

This section will entwine the empirical findings with existing theoretical views, to support, strengthen and clarify the arguments in order to present a woven and durable set of findings.

Sacks (1989) mentioned that "The deaf feel sign as a most intimate, indissociable part of their being, as something they depend on". The Sign Language is regarded as mode of communication, because pupils liked, understood it and enjoyed it and the environment was pleasant much that the teacher knew how to sign and communicate with them. This love and preference for Sign Language can be ascribed to it being the pupils' natural language in that it is acquired naturally over time without much effort, only when they are exposed to it by deaf adults and peers (Kyle & Woll, 1985; Penn, 1992; Pettito, 1993).

Liddell and Johnson (1992) maintain that when a child arrives at school, the adults and peers with whom that child interacts need to be using the same language that the child knows and need to be able to communicate fully and comprehensibly with that child (1992:30) and for deaf children this language ought to be Sign Language without fail. Sign Language therefore allows them to understand communicated messages and it gives them access to knowledge.

This can only materialise if deaf children are given access to the things we (as educators) want them to learn through their first language. Johnson (1989) states that "the first language of deaf children should be a natural Sign Language, which should be acquired as early as possible". Danny, a young oral deaf boy, was described by his mother as a frustrated boy with a bad temper. As a last resort they turned to Sign Language and as each week passed with each new sign he got happier and the tantrums got less and less (Harding, 1993:15).

Language, that is Sign Language, is both the medium and the message of socialisation (Erting, 1990:37) which allows the children social interaction in their own language.

The aim of education, according to Gardner (1993) is the generation of understanding, and this is possible through a message that can be perceived and decoded and therefore appropriated successfully. Vygotsky (1978) refers to language as the cardinal component of learning, on both a social level (interpsychological) and a personal, reflective (intrapsychological) level.

7.2.1.2   Signed English as Mode of Communication

Pupils described Signed English (S.E.) as difficult to understand; only the one who could lip-read said she understood it and that she did not mind it as a mode of communication.

a)   Discussion in theoretical context

S.E. is regarded as both the manual and the oral mode of communication, where English speech is supported by sign (Johnson, 1989; Sacks, 1989). As both signed and spoken language are used, it has also been referred to as simultaneous communication (Woodward, 1992) but one should not confuse it with Total Communication.

S.E. has been regarded as confusing and complex to the deaf child, especially when practised at primary level. This method requires that the deaf child understands and learns through spoken English (even though it is supported by sign) it is the practise of oralism which

Johnson (1989) refers to as crypto–oralism.

Furthermore, the task for the teacher to sign and speak simultaneously is said to be psychologically and physically overwhelming and leads to both parts of the message being flawed. This has been mentioned by the teacher in Chapter Six. Modes become telegraphic as speech is slowed down in order for the signs to be made, and signs are omitted in order to fit in with the rhythmic pattern of the English Speech. Pupils in Sub B class described S.E. as difficult to understand, even though the oral communication is supported by sign. I still support that language of instruction in the class should be in the deaf child's naturally acquired language, as the innate ability and environment should complement each other.

7.2.1.3   **Limited Reading Proficiency**

Pupils responses from the reading point of view did not reflect on their enjoyment of the stories. Less interest was shown in their long faces. Emphasis for the need of teaching initial reading in the first language (SL) is cognitively and emotionally sound.

a)   **Discussion in Theoretical Context**

Reinking, Mealey and Ridgeway (1993:458) believe the following about teaching of initial reading: "Dominant approaches to preparing teachers do not address the unique challenges of content reading (and initial reading instruction) courses" to pay attention on pupils involvement in classroom.

Teachers need to be informed about different skills and strategies to solve the problem of initial reading instruction at school. Pupils need to be taught to read actively from primary level. It often happens that 'the sounding out' of graphic symbols in order to provide proof of the recognition of the symbols remains the reading pattern. Reading then becomes reading aloud which is done with expression. Pupils tend to concentrate more on signing to the extent that meaning is neglected.

Pupils start reading English as a second language and their breakthrough to understanding stories become another language with a different graphic phonemic relationship, thereby complicating the reading act in the already complicated English orthography even more.

The teacher teaches the reading skills for comprehension adequately and he also focuses on writing skills but the problem arises from the fact that the pupils do not read and write often enough.

When one is trying to understand why pupils think learning is something that 'happens' when they 'get' an education, the skills–based instructional approach comes to mind. If pupils 'receive' instructions on how to acquire a reading skill they practise the skill, if all goes well the skill eventually becomes personal automised knowledge (Henning, 1991).

Role play as one device of many in language teaching methodology is very essential. Role play motivates pupils and leads to learning of practical things which may be used frequently. In the role–play teaching situation pupils are not supposed to merely play in an improvised manner. They are expected to recreate a part of reality (giving the classroom the dramatised status of the real world intuitively). Role playing is not a play, a drama; there is usually no audience; all present take part, even the teacher or facilitator. The roles are not in depth "becoming" another person; it is thinking and saying what such a person or thing in such a position would say or think. Physically and even emotionally changes do not occur overtly – it is a change in thinking and language register which can be noticed.

There is usually no 'story' – maybe a situation, an incident or an attitude or concept is being explored; or the meaning of a story, not the story itself. It has no beginning, middle and end, no form. It explores its material until saturation is reached or nothing. Further can be advanced to open up the subject at that point in time.

Its aim is to make people think about issues, put themselves in other people's places and see things from a different angle. According to Brumfit and Carter (1986:23) reading is the process of meaning creation by integrating one's own needs, understanding and expectations with a

written text.

Roe (in Leighton et al., 1990:10) says that Reading comprehension is the reconstruction, interpretation and evaluation of what the author of written contents means by using knowledge gained from life experience.

7.2.2   The Teacher and Classroom as Learning Environment

Throughout the investigation, the majority of participants made some reference to the teacher. Positive experiences were associated with the teacher very well. Although one pupil complained that their new teacher, Mr. T. from Natal, signed differently from their previous teacher but later in the year the child managed to understand the teacher's Sign Language. All in all pupils and the teacher were relating to each other very well. Pupils have shown that they prefer their classroom, which they described as more comfortable, more beautiful, more exciting, they laughed, teased, talked and felt happy rather than their homes.

a)   Empirical Argument of this Category

Many teachers focus on teaching perfect, often stilted, forms, which is really not advisable. The teacher is a facilitator in the learning process, fortunately in this classroom they were quite aware of that fact. The category teacher seems to be linked to all the categories, as it is the teachers who communicate within a classroom, initiating reading work, with the aim of preparing the children for better adulthood. The teacher involves learners in learning to read skills in which they are required to negotiate meaning. The teacher also encourages participation with his positive and supportive attitude. He plays with the children on the floor. He is ready to support, guide and clarify meaning and signing vividly to his pupils. He takes his time to make his point. He prevents digression at all costs and keeps his pupils alert all the time. Language used in the classroom determined the extent of understanding, working, preparation for adulthood and the pupils' attitude towards the learning process becomes positive. Pupils in this classroom welcomed their new teacher with warm hands, they enjoyed his teaching, his presence, his appearance in the school and in the classroom at large. The classroom was taken as the protected learning environment in the heart of the

child's cognitive development. It is where she learns skills, socialises and is cognitively prepared for adulthood.

b)   **Discussion in Theoretical Context**

A teacher has the right to explain language to pupils, their rules of classroom interaction, their methods, and the reasons for them. According to Fitzgerald (1993:647) this may ease the pupils into an inner circle. A teacher can also find ways to reach out to the pupils' families to bridge distances created by home and school culture in congruencies. They can try to clarify for parents their rules of classroom interaction, their methods and the reasons for them, and they can explain potential benefits of their approaches (Fotos & Ellis, 1991).

Teachers who are inefficient in signing can be a doom to pupils, especially at initial reading level. Studying the effects of signing, a teacher in classes of deaf children is important, because findings will initiate future 'models' of effectively teaching deaf children. Storbeck (1994) says research is required before any plans and models for effective change in teachers of the deaf can be initiated and eventually applied in the classes". The teacher with his skills plays an important role in the life experience of the child. One can compare the performance of a deaf child who is taught by a deaf teacher and will discover that a deaf child and a deaf man in conversation is more enjoyable and intimate as any one can ever see (Fletcher, 1987). The child observes the signified sign from the teacher in a Sign Language he knows, allowing him to respond spontaneously and participate in the learning process (Wertsch, 1991). This interaction promotes real communication within the classroom, and essentially positive experiences by the child in the class. Classroom education depends on a teacher's ability to teach strategies and what they say to the children's needs (Johnson, 1989) and with reference to education of the deaf, the 'how' of 'what' is being said plays a major role.

Most of children's learning process takes place in a classroom and this cannot be measured by existing observation scales.

Pupils in this investigation complained that they were working very hard, the teacher was overloading them but recognised later the value of

working together. Hard work was mentioned frequently throughout the research and it became clear that pupils were not used to the amount of work and level of work being done, although when confronted with it, they had the ability. The fact that work was being explained and done in their first language (SL) allowing the pupils to be active participants in the learning process (Wertsch, 1991) appears to be a contributing factor to the increased amount of work covered.

7.2.3   Participation as Learning Experience

The child is regarded as an individual, with personal, intellectual and social needs, as of the utmost importance in any initial reading programme. Throughout this investigation participation also contributed to drive the point home. It is therefore important for the teacher to choose strategies and materials that can meet individual needs of every child within a reading programme.

a)   Empirical Argument of this Theory

Pupils were observed and most of the time they were enjoying the lessons. They learned new things every day and they were anticipating to know new stories every day. One child's span of concentration was very short and the teacher used to keep her awake by not concentrating on one method. First pupils read stories and later role played their stories. The teacher created a comfortable atmosphere in the classroom in which the pupils could feel free to express themselves as individuals and reach out into the unknown with confidence, provides pupils with an opportunity for superior conceptual development.

The class teacher regarded participation as being of the utmost importance because he believes that children activate procedural knowledge more successfully and with substantial permanent retention if each of them is rendered a chance to 'feel' the signing of sentences for themselves, without the barrier of other pupils around them doing exactly the same thing at the same time (for instance in chorus reading).

Constructivism as the cognitive theoretical basis for schema theory, can also be linked to the notion of individual participation, because the

action of learning involves the construction of one's own knowledge, using one's own framework of references and therefore producing unique constructs of knowledge and also recalling them from schema in highly individual ways. The individual feedback (understanding) is the most vital support for learning to decode written material.

7.2.4   Parents and Other Hearing People

This refers to people who are not deaf, therefore they are unable to use Sign Language.

a)   Empirical Argument of this Category and Discussion in Theoretical Context

Most deaf children who use Sign Language as their first language usually belong to the deaf culture. Vygotsky (1978) suggested that culture becomes a part of each person's nature. The majority of Black deaf pupils are born into and grow up in hearing families which do not share this same culture. In the focus group interview, the children said that they did not understand when hearing people spoke to them, and that when they asked them to repeat what they said, hearing people would get angry and impatient.

One child mentioned that he hates his brother because he was not interested in learning Sign Language.

Some parents, instead of learning Sign Language, just point at things. Although pointing has an important role in Sign Language, it is used primarily to identify people or objects specifically, and to place them in space or time (Penn & Reagan, 1994). Throughout the data collected it appears that parents do not take pains to know S.L.; it is only a handful who are trying to learn and the teacher has to be a 'baby-sitter' at school. Most parents are reluctant and irresponsible towards their deaf children. This, as a result, creates a bridge between the school and home. Most parents do not know what is happening to their children in a school situation. In other words, the rate and quality of what these children learn is unknown to the parents, who have little communication with the school.

7.2.5   Meaning Making as Reading Activity

Reading includes those processes that are involved in approaching, perfecting
and maintaining meaning through the use of printed page.

a)   Discussion in Theoretical Context

Pupils had difficulty in making meaning out of what they read. Deaf
pupils can be used to observing, and know how to sign a word, but fail to
know the exact meaning, hence the teacher had to repeat some reading
activities until he made sure that pupils really understood the story.
Zintz (1980:94) maintains the following with regard to meaning–making
as reading activity "With every lesson the child needs to relate first to
meanings ... when the teacher's effort is centred on meanings, the child's
opportunity to see the last as a whole is enhanced. In all teaching of
reading, a primary consideration must be the development of concepts
...". The pattern of meaning–making as reading activity cannot be
separated from the notion of individual participation. The teacher also
must be substantively in line with contemporary theory of reading.

7.3   DRAWING CONCLUSIONS OF FINDINGS

The development identified in the three pupils who showed significant growth
during individual interviews, focus group and personal sketches and data
collected from reports and via participant observation will be discussed by
means of empirical analyses, which will be followed by theoretical support
from contemporary research.

7.3.1   Kholisekile's Development Identified in Reports and Observations

Throughout the reports Kholi showed chronological development. In the
initial reports she was described as a quiet, shy, passive young girl who did not
seem to be participating consistently in the class. Her concentration span was
very short, needing urgent attention, she often gave up easily. In contrast she
was described as confident and fluent and participated in class. The reports
mentioned that she was now receptive and expressive in language
improvement. However in the last report (September 1995) she was recorded

as initially being always subdued, but then she was blossoming into a participating self—confident young girl and was later eager to participate in class.

In the third term Kholi's slumbering was gradually decreasing and she was becoming alert in class; this showed more participation.

Kholi's experience can be compared to James Tucker's experiences as an oral deaf child. Tucker described his inability to concentrate for long periods of time, and he remembers his feelings of isolation and his inability to become involved in the class (Tucker, 1993).

It appears that the teacher's concern about Kholi's concentration and lack of poor eyesight shows more responsibility. "Showing respect for the child's first language gives the child pride in [her] language by giving it the status it deserves" (Plant, 1990:39). The teacher did his best to give Kholisekile the best chance to participate and concentrate in class. Through sharing in class the child understands the language. The more signs Kholi learned in class everyday, the happier she became.

7.3.2   Jabulile's Development Identified in Report and Observation

Jabulile was initially described as a boy who struggled to acquaint himself with the new teacher's signing system but he later managed to grasp the signing. He appeared to be concentrating for longer periods of time. His concentration and performance was improving day by day.

Just like Tucker, an oral deaf child, who was unable to concentrate for long periods of time, this coincide with Jabu's behaviour. Because he was willing to work and he always fought to get things right, ultimately he became the winner especially in reading, using Sign Language in the classroom. Johnson, et al. (1989) claims that children will learn and concentrate if they are given access to the educational content, an occurrence which cannot take place if there is no shared code.

7.3.3   **Sithembiso's Development Identified in Reports and Observation**

Sithembiso has been very hyperactive from the onset. He always jumps to conclusions. He was said to have behavioural problems, to be very disruptive and cries frequently when things did not come his way. When he did not do well, he did not cope with difficult situations and appeared not to have the coping skills for classroom life. Later in the middle of the quarter, Sithembiso was doing his work without whining and the crying also decreased. He was observed to be using good Sign Language and English. His behaviour improved a lot towards the end and he was fully partaking in class and he did not believe in defeat because he always told himself that position one will always be his. After he turned to Sign Language, he described the change: As each week passed with each new sign, he got happier and the tantrums got less and less (Harding, 1993:15).

In all three narrative continuums, development growth and change were evident. Pupils were gradually reading and signing in class proudly. The two were perceived as contributing factors to the children's development.

7.4   **CONCLUSION**

The overriding conclusion of the investigation is that pupils want more fun when reading in class: they avoid getting bored, they want something they will understand better, something real and alive. They love reading and signing and would prefer it to any of the other classroom activity if given a chance. The classroom in which reading occurs is experienced as fun and interesting, since they were playing on the floor. They love their teacher who signs as well. An outlying data category that appears to carry much weight is comments that some children want to learn without sign. They found English very difficult to understand. Sign Language won the day as it allowed learning to occur naturally and optimally, in that the messages were understood and therefore appropriated (Wertsch, 1991). Pupils prefer to dramatise stories more than sitting and watching the teacher signing and writing on the board.

The main findings of the study are that the process of language learning have revealed a haphazard Sign Language acquisition process, the most important characteristic of which is that the pupil's reading proficiency is extremely

limited. In this section these findings will be discussed as conclusions, verified by means of the procedures as suggested by the respected authors on qualitative research, namely Miles and Huberman (1994). Subsequently the implications of the study will be discussed.

7.5 VALIDATION OF THE CONCLUSIONS BASED ON THE VALIDATION MODEL OF MILES AND HUBERMAN (1994)

Miles and Huberman (1994:263–280) give distinct guidelines on how to verify findings, and these will each be discussed and brought into relation with this investigation. It is of the utmost importance to ascertain whether the research undertaken is meaningful and whether the conclusions are complementary by their very nature.

7.5.1 Checking for Representativeness

One should ensure the research is representative, as researchers who move with their findings from the specific to the general are biased, making the research unacceptable (Tvesky & Kahnmeman, 1971, referred to in Miles & Huberman, 1994:263). The researcher's investigation made use of representative informants within a representative collection of events, as they were a class of deaf children in a school for the deaf, observed within their natural daily events, therefore being representative within the school for the deaf and the wide black community of deaf people. The process inferred from within were also representative, as similar findings were identified throughout in most of the processes.

7.5.2 Checking for Research Effects

Miles & Huberman refers to the two possible sources of bias by mentioning the effects of the researcher on the case and then the effects of the case on the researcher. Both these can affect the analysis, Le Compte, et al. (1992) made suggestions on how to avoid these pitfalls. Biases of the researcher on the case have been stated in chapter one in the researcher's profile. The most important effect of the researcher would be that she is a signing teacher who is in favour of teaching initial reading for deaf pupils.

Unobtrusive methods of data collection were used. In such a black school children are often observed and assessed. They were used to my presence and also the video camera did not chill their spine. My intentions regarding the study were unambiguous as the aim was to do a case study of the Sub B class and I was given a go ahead by the principal. As participant observer, it was impossible to move an inch as the case study comprised a year's investigation. Therefore, considering an extra observer would not have been feasible.

As researcher one should beware of losing one's perspective; this was overcome to a degree by the fact that the researcher had been a teacher in the environment for four years prior to the investigation, not so long as to have caused her perspectives to have stabilised when the research commenced. The research question was firmly kept in mind throughout the study, triangulation was achieved through data collection by means of various methods, and through following up on the outliers and discrepant data items. Triangulation was done through various methods of data collection, triangulation by means of theory and triangulation through the use of different sources. With regard to different sources, the method of stimulated recall was used to triangulate findings with the same participants a few months later, at which the findings were supported by their recall.

7.5.3 Clustering

Clustering is a tactic that can be applied at many levels, and a phenomenon can be understood better by grouping and then conceptualising objects that have similar patterns or characteristics systematically. "Clustering is thus a general name given to the process of inductively forming categories" (Miles & Huberman, 1994). It is also closely interwoven with the creation and use of codes. Shared patterns were clustered and categorised in chapter six during the processing of the data.

7.5.4 Comparison Making

Comparison making is a classic way to test a conclusion as it draws a contrast or makes a comparison between persons, roles and activities that differ in some important respect. This method was applied to the case studies as comparisons were made according to their progress throughout the period of one year.

7.5.5   **Weighting the Evidence**

Miles and Huberman (1994) gives guidelines on how to detect strong and weak data, saying it is essential that the researcher states them clearly in order to illustrate the weight afforded to certain results.   As the data of the investigation were reported first hand and the behaviour reported on was observed by the researcher, the data can be referred to as strong.   The ecologically holistic version of the whole body of raw data was provided.

7.5.6   **Checking the Meaning of Outliers**

In every research findings exceptions are bound to appear, and Miles and Huberman (1994) suggest that although researchers are tempted to discard them, these outliers are often the researcher's friend and could eventually turn out to be prototypical. In this study, reference to pupil's feelings was seen as an outlier category, as it occurred in two data items. The significance of this 'small' discrepant item proved to be more than what was originally assumed. Pupil's feelings are overlooked.   The research can now present a valid construct for future research, namely pupils feelings towards reading.   They should not be passive listeners, but they should be doers and thinkers.

7.5.7   **Subsuming Particulars into the General**

Clustering involves clumping together things that 'go together' by using single or multiple dimension.   The process is often an intuitive, first—level process corresponding to ordinary coding, and was used extensively during the data processing and data interpretation phases.

7.5.8   **Following up Surprises**

'Surprises have more juice than outliers' (Miles & Huberman, 1994), and if something happens outside the researcher's expectations, it needs to be followed up in order to reveal the "violated theory", consider how to change it and find evidence to support the revision. In this case study of Sub B pupils experiences and perceptions in their class, twelve as they are, it came as a great surprise that some of the children preferred Oralism and lip—reading. On reflection it became clear that the model of the investigator at the time of the investigation had to be revised, and surprisingly enough it could be

supported by theory. Pupils can be funny sometimes.

7.5.9 Building a Logical Chain of Evidence

When using the tactics of noting patterns, clustering subsuming particulars into the general, following up surprises, discrete bits of information come together "to make a more economical whole that, analytically speaking, is more than the sum of its parts" (Miles & Huberman, 1994). "The evidential trail has to be gradually constructed, getting an initial sense of the main factors, plotting the logical relationships tentatively, testing them against the yield from the new wave of data collection, and modifying and refining them into a new explanatory map, which then gets tested against new cases and instances", continues Miles & Huberman (1994:260). This method uses two interlocking cycles. One is called "enumerative induction" in which one tests the hypothesis against alternatives and looks carefully for qualifications that 'bound' the generality of the conclusion. When qualitative researchers invoke 'progressive focusing', they are talking about enumerative induction. When they get into "constant comparisons' and structural corroborations", they are switching into eliminative inductive mode of work.

7.5.10 Making Conceptual/Theoretical Coherence

When you are trying to determine what someone's behaviour 'means', the mental exercise involves connecting a discrete fact with other discrete facts, and then grouping these into lawful, comprehensible, and more abstract patterns" state Miles and Huberman (1994:261). Progression is made from the 'bottom—up', that is from the field to the concepts, by following various steps. The function of these statements is a means of 'formalising propositions' and generating predictions' in the investigation.

If pupils had been given a chance to be taught by an oral teacher, they would not have experienced their class in such a positive way.

In this investigation constructs were also sharpened by connecting them carefully to the data.

7.5.11   Getting Feedback from Informants

Presenting the study's findings to the informants is a venerated, but not always executed, practice" (Miles & Huberman, 1994:275). As this includes the very people that were being studied, it seems only fair to allow these people to comment on the findings: afterall, an alert and observant actor in the setting is bound to know more than the researcher ever will about the realities under investigation (Blumer, 1969 in Miles & Huberman, 1994:275). Pupils were all involved in the verification process, and by their agreeing with and supporting the findings, they assisted in strengthening the argument.

7.5.12   Checking out Rival Explanations

This tactic is a very good way of ensuring that the selected explanations are in fact the correct explanations. One can never be cork sure in this case, because the children mentioned they were happy and then say why: 'because they play on the floor', 'they use Sign Language'. Pupils themselves therefore give the immediate explanation, but this still allows for any rival input.

7.6   LIMITATIONS OR WEAKNESSES OF THE STUDY

Even though this research is asserted to be of cardinal importance to deaf education, it also has some restrictions which will be briefly discussed.

—   As this study took the form of a case study of a Sub B class of twelve pupils, the outcome cannot be generalised to the whole Black population. However if this study were to be replicated, results would be duplicated significantly.

—   There was not enough focus on the rest of the pupils in the classroom and other activities which support reading. The main focus was on the context (reading). No doubt different patterns would have emerged if more pupils had been involved in the study.

—   In South Africa little or no research has been done in this area, which meant that the research was executed without sufficient local research control in any of the related fields in similar educational context. This

restricted the guidance and support that such research could have provided, especially for the Blacks.

— Due to its qualitative design with its strong emic, holistic character (Henning, 1993), the study is a pioneering study in South African deaf education classroom in a township context. A limitation of this study is that, due to its naturalistic design it stands alone in local context like a recluse. It cannot gain strength from local studies which have been conducted in quasi—experimental or survey format, because they do not share research methodologies.

7.7 IMPLICATIONS OF THE STUDY

The role of theory in research has been discussed by a number of researchers such as Firestone (1991), Martin and Sugarman (1993), Silverman (1993) and Phillips (1987). Strauss and Corbin (1991:112) maintain that "final (grounded) theory is limited to those categories, their properties and dimensions, and statements of relationships that exist in the actual data collected". However the empirical findings are not valued on their own but seen as part of a larger theoretical whole.

The research implications of this study are that extended data collection procedures, carried out over an extended period and analysed systematically, reveal research findings which are profound in their quantity and quality. The data collection methods also revealed a world which does not end at the school gate.

For this reason the study has implications for future research, parent—involvement, policy and language curriculum design, Teacher education, and a model for bilingual education in South Africa.

7.7.1 Research

The research reported is pioneering work in investigating deaf education in South Africa, which further highlights the need for local research regarding initial reading for the deaf (Penn & Reagan, 1991). Rigorous research and inquiries to motivate follow—up research and research in other related fields,

should be done in order to improve the level of the education of deaf children in South Africa. Libraries should be well equipped with deaf education material. Media should also put a hand in this field which has been casted out for so long.

7.7.2 Parent–Involvement

Involving parents in helping in school is usually seen as an important part of good home–school relations. It involves immersing the parent in all school activities. Although the pupils are at the heart of the school, they are also the vortex for parents and teachers to get together. Thus parents and teachers must get together and acknowledge their different responsibilities and recognise each others' roles (Stacey, 1991:27). When parents are involved in school, the home and community benefit as well. One should note that 'participating democracy is at work and the value–added effect is a more informed policy". The more pupils are closer to their parents the easier they can relate. Magazines and newspapers can always be transferred or given to children after use but the parents should be available and willing to help the child all the time. This will improve the child's reading skill.

Parent's involvement can take many different forms. When parents and school work together, there are many implicit and explicit benefits to be derived from the collaboration. Children benefit which means that parental involvement could improve pupils' academic self–esteem and achievement. Schools reach out and create opportunities for parents and teachers, new attitudes develop. Parents can keep vigil in two main ways: by reinforcing the mission of the school at home and by monitoring their children's progress.

7.7.3 Policy and Language Curriculum Design

At present in South Africa there is no national policy or language curriculum for deaf education. Penn and Reagen (1991) have made policy and language curriculum recommendations for the education of the deaf in South Africa, but to date the researcher is unaware of any such national document being applied. I agree with Storbeck that:

— Every child should acquire a language as early and naturally as possible, which means that the education of the deaf must begin at the point of identification.

— The use of Sign Language should be considered an indispensable feature of the deaf education, however the Sign Language used in a specific school needs to be that of the surrounding community (Penn & Reagen, 1991).

— The curricula should include general educational subjects such as English, Maths and History, as well as studies on deaf issues, including Sign Language and deaf culture (Moores, 1991:31, in Penn & Reagen, 1991).

— Policy and curriculum formation should be done along with vigorous research, including researchers in the field of deaf education, teachers of the deaf, and deaf people themselves.

— There should be more direct parent participation in the language curriculum in Sizwile School for the deaf. This can take place only if the headmaster, the head of department and the teacher work closely together for the development of language across the curriculum. Parents should be invited to attend workshops.

7.7.4   Teacher Education

Teachers must have knowledge about the children's family backgrounds to ensure and let them understand that their school tasks that go home must be part of the curriculum. If they need or expect parents to participate and support in teaching, reading, they need to ensure that parents realise their role. For this to succeed there must be a continuous communication between the teacher, pupil and parent, and vice versa. Teachers should be approachable and be available whenever required to develop that mutual trust. Education for teachers of the deaf is an essential component of this recommendation, as it is the teachers who will be applying what is found, and therefore directly involved in teaching initial reading in the classroom.

A thorough and intensive initial reading teacher training needs to be undergone by every teacher, in order to prepare him sufficiently for such a specialised education.

Dolman (1988:12, in Penn & Reagen, 1991) suggested the following subjects as part of this specialised teacher education:
* language development,
* Sign Language,
* teaching methods,
* survey of deafness,
* speech development,
* aural rehabilitation,
* speech science,
* parent counselling; and
* teaching of reading skills.

Throughout the teacher training, Sign Language should be taught and used with the goal of having fluent signing teachers linguistically equipped for this task.

Intensive research with outside countries should be thoroughly done. Deaf community need to be involved, teachers of the deaf country—wide consulted, which will alleviate the problem of schooling struggling internally regarding mode and method of classroom instruction.

Teachers training course for teachers of the deaf need to be compiled, in order to attain equal educational standards for the deaf throughout South Africa.

Institutions for learning and teaching Sign Language, like universities, colleges should be reconstructed so that the voice of the deaf can be heard.

7.7.5 A Model for Bilingual Education of the Deaf in South Africa

The aim of education for the deaf should be bilingually competent deaf children, with Sign Language as their first language and English (literacy, reading and writing) as their second language (Johnson, 1992; Johnson, et al., 1989; Svartholm, 1994). The teaching of initial reading could lay the foundation.

The first language of the deaf child should be acquired naturally from as early as possible, as research has shown that a well established first language is advantageous, and could presage the learning of a second language (Davies, 1991; Johnson, 1992). Sign Language should thus be naturally acquired, and then be the language of instruction (Johnson, et al., 1989). Language should therefore be the language through which all knowledge schemata are learned and acquired, as it is the natural language, which allows learning to occur without misunderstanding. Sign Language should be taught at school as a subject, including structure, rules and grammar (Elmer, 1991). This will make deaf and hard of 'hearing adults' life and activities and making the students increase their understanding of Sign Language and develop their skills in using it fully and comprehensively (Elmer, 1991:403–400).

English is to be taught as a second language, once fluency is acquired, and it is to be taught mainly in its written form. Knowledge schemata, that were initially taught and acquired by means of Sign Language, are also now learned through the written text of English. However, the goal is second language literacy, English in its spoken form also requires attention, and is to be taught in a relaxed and non—pressurised manner. The use of role play in teaching initial reading should not be left out: One should remember that Sign Language and spoken language are two separate languages and must be kept separate in use and in the curriculum" (Johnson, 1989:10), they should be taught separately. In short, this model suggests that deaf children have the right to be educated in Sign Language. This is their first language, and from the case study it is evident that the children experience it as their favourite mode of communication. The model encourages the natural Sign Language acquisition at the earliest possible age, in order to maintain 'normal cognitive development' (Strong, 1988:117).

7.8 FINAL COMMENTS

This one site research was conducted with the view of finding significant variables in a class of deaf children where Sign Language had been used. The findings of the analysed data were consolidated against the background of the existing theoretical framework concerning the teaching of initial reading instruction at Sizwile School for the Deaf in a Sub B class.
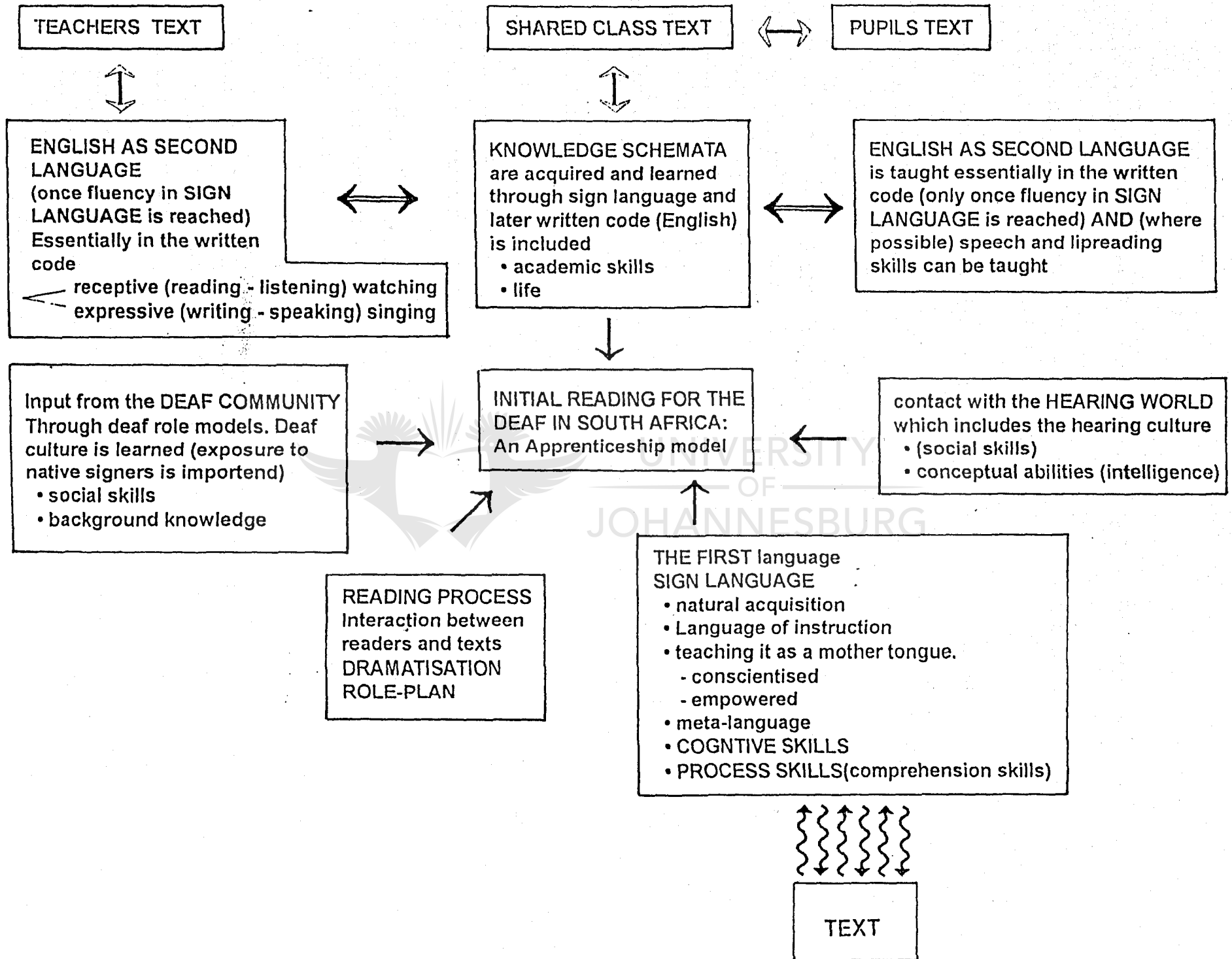
The researcher painstakingly collected data via different methods and at different times, combining views of significant others with those of respondents, and including longitudinal phenomena such as their school records.

(See *figure 7.1*, p. 157).

The aim of this model for initial reading is bilingually competent deaf children, with Sign Language as their first language and English (literacy: reading and writing) as their second language (Johnson et al., 1989; Johnson, 1992; Liddell & Johnson, 1992; Svartholm, 1994). The first language of the deaf child should be acquired naturally from as early as possible, as research has shown that a well—established first language is advantageous, and could presage the learning of a second language (Johnson, 1992; Strong, 1988). Sign Language should thus be naturally acquired, and then be the language of instruction (Johnson et al., 1989). Sign Language should therefore be the language through which all knowledge schemata are learned and acquired, as it is the natural language, which allows learning to occur without misunderstanding. Sign Language should therefore be taught at school as a subject, including structure; function and grammar (Elmer, 1991).

This study has aimed to contribute one small part of a model of education for the deaf — namely the real—life phenomena, systematically presented, in an initial—reading context.

Figure 7.1: A Model for the Education of the Deaf in South Africa

| TEACHERS TEXT | | SHARED CLASS TEXT | ⟷ | PUPILS TEXT |

ENGLISH AS SECOND LANGUAGE (once fluency in SIGN LANGUAGE is reached) Essentially in the written code
- receptive (reading - listening) watching
- expressive (writing - speaking) singing

⟷

KNOWLEDGE SCHEMATA are acquired and learned through sign language and later written code (English) is included
- academic skills
- life

⟷

ENGLISH AS SECOND LANGUAGE is taught essentially in the written code (only once fluency in SIGN LANGUAGE is reached) AND (where possible) speech and lipreading skills can be taught

Input from the **DEAF COMMUNITY** Through deaf role models. Deaf culture is learned (exposure to native signers is importend)
- social skills
- background knowledge

→

INITIAL READING FOR THE DEAF IN SOUTH AFRICA: An Apprenticeship model

←

contact with the **HEARING WORLD** which includes the hearing culture
- (social skills)
- conceptual abilities (intelligence)

READING PROCESS Interaction between readers and texts **DRAMATISATION ROLE-PLAN**

THE FIRST language SIGN LANGUAGE
- natural acquisition
- Language of instruction
- teaching it as a mother tongue.
  - conscientised
  - empowered
- meta-language
- COGNTIVE SKILLS
- PROCESS SKILLS(comprehension skills)

TEXT

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