A comparative analysis of the phonological acquisition of consonants in the speech of pre-school age isiXhosa and English-speaking children in selected schools in the East London area

by

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DECLARATION

I, Ndileka Myoli, declare that this study titled: *A comparative analysis of the phonological acquisition of consonants in the speech of pre-school age Xhosa and English-speaking children in selected schools of the East London area* is my own work and has never been submitted for any degree at any university. All sources that I have used or quoted have been indicated and acknowledged by means of complete references.

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DEDICATION

I dedicate this thesis to my beloved children, Nangamso and Tamsanqa Myoli for, their love, patience, motivation and support.

ABSTRACT

The problems of reading and incomprehension found in South African schools are often linked to children's differences of phonological acquisition rates and the articulation of consonants. This is according to the report of the Impact Study of the System Method for Reading Success study (SMRS) of 2009. This problem has always been associated with the racial inequalities that have previously ruled the South African education system. An understanding of the existence of the differences in children's articulation of consonants between the English-speaking and the isiXhosa-speaking children may lead to further understanding of the causes of such differences and the application of strategies that are aimed at remedying that situation.

While many studies have been conducted in the area of language acquisition, this study found it necessary to contribute further to this debate. This study investigated the different rates of consonant articulation between pre-school-going English-speaking and isiXhosa-speaking children of 2-6 years of age. The main aim was to establish which of these two cohorts have early phonological acquisition of consonants and, therefore, master their articulation and why.

26 children from the two pre-schools within the East London directorate were sampled, 13 consisting of females and males from each of the two pre-primary schools. This study used informal interviews and case study as the means of data collection as well as a case study as its investigation strategy. Children's speech utterances were recorded in order to analyse and compare with respect to order of acquisition, types of errors as well as the ages at which consonants were acquired.

This study ensured a high degree of validity as well as giving due consideration to ethical matters in order to ensure the reliability of the results.

The study found that isiXhosa speaking children have earlier consonant acquisition than English-speaking children do. While that is the case, the study also found that English-speaking children's rates of phonological acquisition accelerated from the age of 4 years to the age of 6 years much more than the isiXhosa-speaking children of the same age could do.

The implications of these results to education stakeholders, particularly the teachers and other related professionals who deal with children with articulation disorders on a daily basis, will create an understanding as well as an awareness of the existence of such problems. Policies formulated will have to take the existence of articulation disorders into consideration. The distribution of resources relevant to the needs of children will include and cater for children with such disorders.

Further research is recommended to investigate more around this area of study to a point where solutions for the existing differences of articulation of consonants for one group of children over another are realised.

AMAGQABANTSHINTSHI

Ingxaki zokungakwazi ukufunda kwabantwana kwizikolo zeli loMzantsi Afrika kwanokungaqondi kwabo noko bakufundayo zikholisa ukwayanyaniswa namaqondo esantya awahlukileyo abathi abantwana bafunde ngawo uphimiselo lwezandi. Le yindlela ebona ngayo ingxelo yophando yeQumrhu elaziwa ngokuba yi-“The Systematic Method for Reading Success” (SMRS) yomnyaka wama-2009.

Lo nto nje iyodwa, isoloko isayanyaniswa nokungalingani ngokobuhlanga ebebukhe bagquba kulawulo lwemfundo yeli loMzantsi Afrika.

Ulwazi olungokwahluka kwamaqondo esantya seendlela aphinyinyiselwa ngayo ngabantwana abantetho isisiNgesi nabantetho isisiXhosa amaqabane, lungakhokelela kulwazi oluthe vetshe ngezizathu ezibangela loo mahluko. Oko kunokukhokelela nasekusetyenzisweni kwamacebo ajoliswe ekulungiseni loo meko.

Olu phando ke, lubone kuyimfuneko ukuba lube negalelo kwiindlela abalufunda ngayo abantwana ulwimi nangona kubonakala nje ukuba sele kuphandwe kangako kule ndima. Olu uphando luqwalasele uthelekiso olucalula ukufundwa kwendlela yokuphimisela amaqabane phakathi kwabantwana abantetho isisiNgesi nabantwana abantetho isisiXhosa, abafunda kwizikolo zeemveku abaphakathi kweminyaka emi-2 ukuya kwemi-6 ubudala. Isizathu sokwenza oku kukuzama ukuqonda ukuba phakathi kwaba bantwana, ngabaphi abankqenkqeza phambili ngokwamaqondo esantya sophimiselo ukuze kwaziwe nokuba kubangwa yini na oko.

Ngabantwana abangama- 26 abaphuma kwizikolo ezibini zengqingqi yeMonti abathi bakhethelwa ukumela abantwana abafunda kweli banga leemveku kwanabakwesi sithuba seminyaka. Yaba lishumi elinesithathu (13) kwisikolo ngasinye, kuquka amakhwenkwe namantombazana. Ulwazi lwaqokelelwa ngokuthi kusetyenziswe izixhobo zophando ezinjengodliwano-ndlebe olungacetywanga kwaneendlela zokuqwalasela izimbo zophimiselo-zandi zomntwana ngamnye. Zonke iincokwana zomntwana ngamnye zabhalwa phantsi ngokwendlela athe waphendula ngayo. Kwenziwa oku ukuze ezo ntethwana zicalulwe, ze kuqala zithelekiswe ngokwendlela umntwana ngamnye athi aphimisele ngayo, ngokweendidi zeziphoso azenzileyo

kuphimiselo, nangokweminyaka athe umntwana waba nokuwaphimisela ngayo lo maqabane.

Olu phando luyiqwalasele ngeliso elibanzi indima yokunyaniseka kwanokulandelwa kwemikhwa yophando eyamkelekileyo ukuze kuqinisekiswe ukuba iziphumo zalo zizizo. Lukwafumanise nokuba, abantwana abantetho isisiXhosa ngabona bazifunda ngesantya esikwiqondo eliphezulu iindlela zophimiselo lwamaqabane kunokuba besenjenjalo abantwana abantetho isisiNgesi. Kananjalo, lufumanise nokuba, amaqondo ophimiselo kubantwana abantetho isisiNgesi abakwiminyaka emine ukuya kutsho kwiminyaka emithandathu obudala akhawuleza ngaphezu kwawabantwana abantetho isisiXhosa abakwakule minyaka yobudala.

Iinkqubo-mgaqo ezingathi zisekwe kufuneka ukuba ziyithathele ingqalelo le ndima yezi ngxaki zophimiselo-maqabane ukwenzela into yokuba, uvimba ojongene neemfuno zabantwana ubalungiselele nabantwana abanezi ngxaki.

Iziphumo zolu phando ziya kuba yinzuzo kwabo basebenzisana neSebe leZemfundo ngakumbi kootitshala kwanabanye abantu abanonxulumano olukwanjalo, abathi bona mihla le, basebenze ngabantwana abaneenkathazo zophimiselo. Ziya kuthi kananjalo, zidale ingqiqo nolwazi oluthe xhaxhe ngezi ngxaki zophimiselo-zandi.

Kungakuhle kakhulu xa kungahanjelwa phambili nophando olulolu hlobo, ngakumbi olumayela nale ndima yophimiselo-maqabane ukuze kude kufikelelwe kwimeko apho kunokuthi kufumaneke isisombululo mayela nomahluko okhoyo kumaqondo esantya sokuphinyiselwa kwamaqabane liqela elithile labantwana ngokwahlukileyo kwindlela elinye eliphimisela ngayo.

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Chapter 1: INTRODUCTION

1.1. RATIONALE

Human beings are born with certain natural features such as the ability to hear, to see, to eat, and to sleep. This, however, does not include the ability to communicate linguistically in a coherent manner. The human ability to speak a language should not be regarded as an inborn skill but, rather, as an acquired one. Hypothetically, a human being who is born and brought up in total isolation from other human-beings will not be able to talk. Language, therefore, should be regarded as a cultural bestowal rather than a natural one.

Over the years, a number of studies such as Chomsky's and others have been completed into the phenomenon of first language acquisition. The various factors that play a role in this regard have been identified and evaluated by researchers in the field of psycho-linguistics. The various speech disorders that occur have also been documented and studied by language practitioners including speech therapists and speech pathologists with the view to finding possible remedies or therapies in order to cure these disorders. (Fromkin, *et al.* 2007:340).

This study seeks to contribute to this debate on how children acquire their first language by investigating one specific area of language acquisition amongst pre-school children. The aim is to identify possible deficiencies that could prevent these children from realising their full potential as the members of a future adult generation and to come forward with strategies that would assist them to overcome these deficiencies.

1.2. PRELIMINARY LITERATURE REVIEW

Consonant articulation attainment level in children of pre-school going age varies from language to language. This is according to the report given by the Impact Study of Systematic Method for Reading Success (SMRS), using Early Grade Reading Assessment (EGRA) criteria. This is a study that was conducted in June of 2009 by

the South African Education Department in partnership with the Molteno Institute of Language and Literacy (MILL) and RTI International (RTI International, 2009:41).

The Impact Study of SMRS gives a clear picture of reading and articulation problems in South African schools. In each province ten treatment and five controlled schools were sampled to ensure gender equality. For Grade 1, the study ran separate analyses by province. English language as a medium of instruction was used during the process of investigation.

The report on the Impact Study of SMRS revealed that, of the 650 learners in the study's sample, only four, which is equal to 0, 6%, met DIBELS' (Dynamic Indicators of Basic Early Literacy Skills) International benchmark for learners not at risk for experiencing reading difficulties and for articulation problems. It also reported that the DIBELS benchmark score for letter sound tasks shows that learners who score below 37 sounds and above 26 are at some risk, while those scoring less than 26, which represents 99,4% of the South African learners sampled, are at greater risk (RTI International, 2009:42).

According to this report, very few of the learners in the baseline sample had much, if any, introduction to basic phonemic skills. It further states that of the 650 learners who attempted the letter sound task only 524 undertook the common word identification task. Of those that did, the mean score was only 18 and, therefore, for the average of five learners, only one could correctly identify one word.

It further says that the maximum words correct score was ten which is regarded to be far less than the International benchmark of 26.

This report states that, on baseline assessment, 65% of the learners were unable to name a single word. This is not a very good reflection for the education system of this country and this should be a cause for concern for all. Drastic action should be taken before the whole education system of this country is brought into disarray.

This problem is a cause for concern, not only for schools but for the entire Department of Education. When children proceed from preparatory school to grade R and from Grade R to Grade 1 lacking phonemic skills, this could create further

serious problems. An example of such problems is poor reading, which could, in turn, result in low reading comprehension.

According to the Impact Study of SMRS, there is an indication that very little has been done by the Department of Education to address articulation disorders. The report revealed that, in schools, children are given more opportunity to have sound and word exposure (RTI International, 2009:53).

This report confirms that use has been made of the multi-sensory approach recommended by the study on special education needs. It says that the mentioned approach is about enhancing three pathways: visual, auditory and tactile-kinaesthetic. The report further explains that, when teaching a new sound or a letter, we do not teach only what the letter looks like but also how we hear it and what we do about our mouths when we sound it out.

The Department of Education together with the stake-holders concerned need to devise means and ways to rectify the image portrayed by the statistics given by the Report of Impact Study of SMRS on letter sounding fluency. It becomes clear that there is a need for the execution of more effort in this regard, in order to address articulation problems in South African schools.

1.3 PROBLEM STATEMENT

The aim of this research work is to investigate the existing challenge in schools in and around of East London. Schools around this area are faced with problems of speech sound production where children reach school-going age without being able to overcome speech problems. It becomes more serious when sometimes such problems persist until children reach the age of ten and even beyond and still find it difficult to articulate certain sounds, consonants in particular.

According to the Impact Study of the SMRS' report, there is an indication that at least something has been done by the Department of Education to address articulation disorders. Having said that, it seems that, not enough has been done as far as the existing problem is concerned. It is learnt from the report that, in schools, children are given more opportunity to have sound and word exposure.

Considering the statistics given by the Impact Study of SMRS' report on letter sounding fluency, one cannot help but feel tempted to believe that not enough effort has been done to address articulation problems in South African schools.

1.4 OBJECTIVES OF THE STUDY

This study seeks to investigate an existing problem in schools in and around East London. Schools in this area are faced with a situation where a significant number of children reach school-going age with speech sound production problems. Sometimes this problem drags on until children reach the age of ten and even beyond.

The main purpose of this study is to:

- Find out to what extent the problem of sound articulation exists amongst the learners in the schools around the East London area.
- Compare analytically the rate at which isiXhosa and English-speaking pre-school age children acquire consonant usage skills.
- Determine the reasons behind the different phonological consonant acquisition rates, if any, for these two cohorts of pre-school children based on existing literature.

Hence, this study seeks to answer the following;

1.4.1 **Research questions**

1. Which of these two groups of children, Xhosa and English-speaking pre-school children, have early phonological consonant acquisition?
2. Why do some children have early consonant articulation development while others do not?

This study, therefore, undertakes to dig deep into the assumed inequalities and prove them beyond reasonable doubt. This will be done by comparing the fore-mentioned groups of children.

1.5. THEORETICAL FRAMEWORK

This work discusses the various factors leading to children's different phonological acquisition rates with reference to the relevant scholarly works that give light to what articulation is. Works of that nature provide various reasons that lead to children's inability to articulate sounds, the types of articulation errors as well as the various strategies that could be employed to remedy such speech disorders. That can only be achieved by evaluating critically the previous literature that is relevant to this study. It would also be of great benefit for this study to make use of the kind of literature that is capable of providing a comprehensive overview of language acquisition in children. The reason behind this is to have an understanding of the articulatory processes.

Since this study is mainly about children's phonological acquisition and articulation of consonants, the study sees it necessary, first, to make its readers aware of the term 'articulation' together with its antonym, 'mis-articulation'.

According to Bowen (2009:95-97) the inability to articulate speech sounds is an articulation disorder. She describes this phenomenon to be a speech disorder that adversely affects the phonetic level so that the child has difficulty in producing particular consonants and vowels. The reason for that may be unknown or poorly understood, as is the case for children who do not have serious problems with muscle function. The reason may be known and well understood, as is the case for children with dysarthria, i.e. those who have serious problems with nerve and muscle function, for example, children with cerebral palsy or children with anatomical differences such as some children with cleft lip and palate.

A child can have both phonetic and phonemic difficulties at the same time. The phonetic and phonemic difficulties can co-occur with other speech disorders at the same time. This challenge refers to disorders at the level of motor planning and at the perceptual level.

Bernthal and Bankson (1988:1) define articulation as a process of producing and using the speech sounds. They seemingly agree with Collins and Inger (2008:13) who define articulation as a movement made by the organs of speech in order to produce speech sounds.

There are various factors contributing to children's different consonant acquisition rates. Bernthal and Bankson (1988:77) state that young children face a series of production tasks on their way to learning the language of their environment. They must first gain control of their laryngeal and articulation gestures to develop the precision necessary to produce the sounds of language at will. Developing such control involves both maturation of the laryngeal, articulatory and perceptual mechanisms, and accommodation to the specific language spoken by the child.

Collins and Inger (2008:24) agree with Bernthal and Bankson (1988:1) when they emphasise the importance of articulating speech sounds. Layton and Deeny (2002:56) agree with the above mentioned authors when they strongly believe that children with poor phonological skills are most likely those with persistent speech difficulties.

Bernthal and Bankson (1988:1) appear to be in agreement with the above mentioned idea. They highlight the process of producing sounds and using the speech sounds of one's linguistic community as a critical communication skill. When sounds are consistently produced at variance with cultural or age expectations and norms, such productions may be said to constitute a phonological disorder or impairment.

The phonological development in the young child involves the interaction of physical maturation, as well as social experience. Children's progression rates differ in the extent of variability on their way to phonological development. Some advance in an exploratory way and others progress more systematically.

Based on the above arguments, it therefore transpires that what Winitz, cited by Bernthal and Bankson (1988:146) has pointed out has some element of truth. Furthermore, Bernthal and Bankson confirm that some variables that have been studied in relation to articulation disorders be viewed as macro-variables, meaning, formed from several other variables.

Peccei (2006:12) believes that children first need to learn what sounds and what combination of sounds are permissible in their language. They need to build up mental representations of the sound structure of individual words. They need to gain mastery over the myriad muscles and nerves that control the vocal tract in order to produce words accurately. Because of the complexity in phonological development, children tend to make simplifications that allow them to reduce the number of sounds and contrasts between sounds that they have to deal with.

According to Lust (2006:143-158), language development during the first twelve months lies neither in the auditory system nor in the vocal tract, but in the cognitive computation that relates one to the other. It also lies in the phonological grammar of the specific language being acquired. Several phonological processes frequently deform the child's early productions. In the light of the above, there seems to be a great need to recognise and understand the various causes of articulation disorders.

The American Speech Language Association (2007:6) believes that an articulation disorder involves problems making sounds. Due to an articulation disorder, sounds can be substituted, left off, added or changed. Such errors may make it difficult for one to be understood. A child may have an articulation disorder if such errors continue past the expected age. Children with speech sound disorders may not learn how to produce sounds correctly or may not learn the rules of speech sounds of their own which may result to problems with speech development.

Bird, Bishop and Freeman (1995:446-462) maintain that the severity of the phonological problems in relation to age is an important determinant of literacy outcome. Children who have impairment at the time they start school are at particular risk of acquiring reading and spelling problems.

In a study meant to examine the relationship among variables that may contribute to poor phonological awareness skills in pre-school children with speech sound disorders, Crawburg and Rvachew (2006:74-87) concluded that children with speech sound disorders are at great risk of delayed phonological awareness skills if they have poor perception abilities and/or relatively poor perception vocabulary skills. They share their view with Pi-Yu-Chiang and Rvachew (2009:1175-1188) in their study to examine the relationship between the types of errors produced by children

with speech sound disorders, and the children's phonological awareness skills during pre-kindergarten and kindergarten years.

Pi-Yu-Chiang and Rvachew (2009:1175-1188) agree with Bowen (2009:95) who, in her explanation of functional articulation disorders, states that they are graded in severity as mild, moderate or severe. In the severe category are children with multiple mis-articulations. Such children could be taught how to produce sounds. Bernthal and Bankson (1988:146) citing Winitz resonate with this view when he thought it; quite possible that substantial relationships between articulation and other independent variables would be forthcoming if the independent variables were examined collectively rather than singularly.

It is for this reason that he suggests that some variables that have been studied in relation to articulation disorders may best be viewed as micro-variables. He gives the variable of age as an example. According to him, this variable may be understood to comprise components such as physical maturation, motor co-ordination and cognitive linguistic maturity.

Bernthal and Bankson (1988:159) have found out that a significantly larger proportion of children with dental deviations mis-articulated consonants. Three quarters of the children with defective dentition do not mis-articulate these sounds. Although dental status may be a crucial factor in sound productions for some children, it does not appear to be significant for most. For this reason, approaches such as motor and cognitive-linguistic approaches to remediation have emerged.

According to Bernthal and Bankson (1988:295-296) a cognitive–linguistic approach to remediation is based on the notion that some individuals produce phonological errors because they have not learned to use certain sounds contrastively in some or many contexts. They have neither acquired the rules for appropriate sound usage nor learned to establish the phonemic contrasts of the language.

In order for the listener to understand certain words produced by the speaker, it is best to teach critical contrasts between sounds. This can be done through minimal word pair sorting tasks as well as activities requiring appropriate rule application, for example, bow - boat, stop – top. They encourage use of activities that assist the individual in both the development of an appropriate conceptual base of linguistic

knowledge and development of appropriate motor skills. They recommend that activities of both motor and linguistic be a part of most therapy programmes.

The first phase of remediation for individuals who do not produce target behaviours upon request or who have perceptual and production difficulty with particular adult phonological contrasts is called ‘establishment’. During this phase of instruction, the therapist seeks to teach target behaviour and establish phonological contrasts. The focus of instruction in this phase of treatment is usually the production of a sound in isolation, in syllables or in words or the perception of contrasts in words.

The second of their strategies focuses almost exclusively on motor production tasks, for example, when an individual says, ‘hout’ when he means to say ‘house’. Speech sound discrimination training is most commonly used. It should be one of the initial steps in phonological remediation. Discrimination training should occur prior to production training during the establishment phase of the treatment continuum.

A child who does not hear differences between sounds, hardly can be expected to produce sounds precisely. Clinicians must help the child to know how the sound looks and, especially, how it sounds.

A basic principle of cognitive-linguistic approaches to remediation is that the individual must be able to discriminate between the critical contrasts differentiating an error production from the target utterance, for example, plus versus minus aspects of a feature, presence or absence of a phonological process.

1.6 SIGNIFICANCE OF THE STUDY

The results of this study will enable education stake-holders to understand and be aware of the different consonant acquisition rates when dealing with children from different language groups. They will also provide insights into the various strategies relating to how children could be taught or trained to produce sounds correctly. Additional to that, they will enable children to understand the rules of speech sounds of their own to avoid problems with speech development

Furthermore, they will enable education stake-holders to understand and be aware of the different consonant acquisition rates when dealing with children from different language groups.

Finally, they will create awareness around the problems of consonant articulation in-abilities in general, right from the classroom up to the highest office of the Department of Education.

This study hopes that, once the findings are made, all stakeholders will be able to determine what kind of remediation or therapy to apply when dealing with problems of sound articulation.

1.7. RESEARCH METHODOLOGY

This study, by its nature, is qualitative as well as quantitative. It draws its sample from two Pre-Primary schools that fall under the East London district directorate in the area of East London. Altogether, 26 isiXhosa home language-speaking and English-speaking children of 2-6 years of age, consisting of 13 females and 13 males, were studied. Five children in each group of five age levels were compared with respect to order of acquisition, types of errors, types of substitutions and ages of sound acquisition.

The paradigm in which this study was conducted included informal interviews (semi-structured), as well as case studies. Data was collected by means of keeping a record of samples of children's speech.

This study also employed concept and comparative analysis to analyse its data. Matters of validity and reliability as well as of ethical considerations were also addressed. Since this study sought to determine which children have phonemic consonant acquisition first, it was, therefore, of vital importance to make use of comparison as one of the techniques towards achieving that goal.

1.8. ETHICAL CONSIDERATIONS

This study realised that its participants were only doing the study a favour by allowing to be used as part of it. This study, therefore, took upon itself the responsibility to treat children as its participants with dignity, irrespective of age, by

being polite and considerate. It was of vital importance to let them know beforehand what the investigation would be about and how much of their time the study would need.

It was also important to make the process of investigation interesting and that was, hopefully, achieved by sharing the results with them, even if it was only the conclusions part of it. This study kept the participants' identities confidential and did not use any form of identity. Fictitious names were used throughout the investigation process. Reasonable attempts were made to counteract any potential for harm in this study.

1.9 ASSUMPTIONS

This study assumed the following:

- that school authorities would be accommodative and kind enough to allow the study to be conducted in their premises, making use of their learners;
- that teachers would be flexible enough to assist where possible, especially with such learners who do not easily open up to strangers; and
- that children would be able to open up to the researcher and that they would be responsive and agree to be part of the study.

1.10 DELINEATION AND LIMITATIONS

This study focused only on comparing and analysing phonological acquisition rates of consonants in the speech of children of 2-6 years of age. In the process of doing that, the focus was only on isiXhosa and English-speaking children. Only pre-schools in and around of East London area were considered for this study. As a matter of preference, the study was conducted only on government-run pre-schools.

One of the reasons why this study was not conducted in pre-schools outside of East London was that it would be difficult to travel to faraway places due to financial constraints. I, therefore, submit to my readers that, due to all the limitations mentioned here-above, my conclusions might not be definitive but suggestive.

1.11 ORGANISATION OF THE STUDY

1.11.1 Introduction to the study

This part of the work serves as a preview into how this study is structured. It is, therefore, an outline of the contents of the various chapters. Aspects such as rationale, problem statement, objectives/aims of the study, literature review and research methodology, are dealt with here.

1.11.2 Theory

This study was undertaken within the framework of recognised theoretical models on language acquisition, particularly those on children's language acquisition. Some of the theories this study hoped to be anchored on were: imitation model, a theory based on the fact that children learn by imitating and repeating what they hear; reinforcement, a process in which adults and teachers coach children, using praise and correction to inculcate language proficiency and understanding of diction; active construction of grammar model which is about rules that hypothesise the linguistic inputs recognised by children in the process of language acquisition and, innateness model that holds a view that humans are genetically predisposed to acquire language.

This study found it very important to do so as the children's inability to articulate certain sounds could result in the inability to read and write and eventually to the incomprehension of concepts.

1.11.3 Investigation

This part of the work concerned itself with the investigation into language acquisition tendencies amongst children of different age levels. Eight English consonants and eight for isiXhosa, each representing the different places of articulation, were investigated. The focus was on the order of acquisition, the types of errors, the age of sound acquisition and sex variables.

1.11.4 Analysis and interpretation of the findings

The findings of the study were analysed and interpreted thereby comparing the variables in question with the acquisition data of a similar number of consonants used by the counter-part.

1.11.5 CONCLUSION

This chapter includes a summary of the discussions that took place in the respective chapters. It touched on the study's hope to probe into the reasons for the different rates of articulation in children's speech by making use of semi-structured interviews as well as case studies. Finally, this chapter discussed how collected data will be analysed, how judgement will be interpreted as well as the implementation of the findings. Recommendations for strategies to be used regarding the future investigations into children's in-articulation problems were also discussed in this particular chapter.

CHAPTER 2: LITERATURE REVIEW

2.1. INTRODUCTION

It is the purpose of this study to analytically compare the rate of consonant acquisition between the isiXhosa-speaking and the English-speaking children of pre-school going-age. The intention in this chapter is to review a wide range of existing literature, especially that regarding theories on children's acquisition of language. This is done with the hope that it may further assist in the development of a conceptual theoretical model that can be used to understand and bring the intentions of the study to the fore. This could also help to locate the study amongst the already existing body of knowledge about the issue under investigation.

This chapter will, then, be about the discussion of language acquisition and theories by various linguists.

2.2. LANGUAGE

It is of vital importance to first understand what language is before we can say something about language acquisition. The word 'language' is defined as the use of words in an agreed way or method of human communication (Rundell, Fox and Hoey, 2002:798). Peens (2009:24), citing Fromkin*, et al.* perceives language as a system that relates sounds or gestures to meaning. Wherever humans exist, language exists. All languages are equally complex and equally capable of expressing any idea. The vocabulary of any language can be expanded to include new words for new concepts. All languages change through time.

Pinker (1994) would rather see language as an instinct. This idea is based on the fact that humans are genetically predisposed to learn language. Basically, saying that something is an instinct is a way of saying that something is an innate behaviour, meaning a biologically controlled behaviour. One of the points which suggests that Pinker' s view of language as an instinct has some validity is this: behaviour emerges before it seems necessary to the extent that humans begin to develop and use it before they need it, and while their every need is still taken care of by their primary care-givers. Its emergence is not triggered by external events.

Furthermore, he states that one of the major differences between humans and animals is that human's use of a language is not just a response to external or internal stimuli as are the sounds and the gestures of animals. The human language ability is rooted in the human mind, just as the communication system of other species is determined by their biological structure. On the same note, Lindfors (1997:2) is of the opinion that language is always everywhere with us. It pervades every area of our waking lives, our family relationships, our friendships, our working relationships and, even, our aloneness. He further states that language has various types of units. Every language has its own set of possible sounds, sound combinations, words and word combinations. Not all selections and combinations of words convey meaning. Language, therefore, is seen not only as behaviour to be acquired but also as a structural system where different components such as vocabulary, syntax and discourse skills may involve quite different acquisition mechanisms. It is through language that our school children encounter a wider world of ideas than they have known at home. Through talk and print, they interact with others in new worlds of thought, knowledge and feeling.

The various definitions of language will be followed by the discussion of how language is acquired.

2.3 LANGUAGE ACQUISITION

Language acquisition can be described as the process humans undergo in order to achieve the capacity to understand, produce and utilise words in a coherent form, to communicate or perceive extensive vocabulary in communication. (AcademicWritingTips.org. October, 2011).

Lindfors (1997:91) is of the opinion that acquiring a language is a basic form of our humanness. Whether a child grows up in a traditional society or in a technological one, the child will acquire the language of his own community.

He further points out that language acquisition involves a language and a learner. Human languages, however diverse, are all remarkably similar in their basic elements and organisational schemes, for example, similar syntactic devices such as affixes, word order, same sentence types, such as statements, questions, negatives, commands, occur in many languages. Similar sound features and combinations

occur in the verbal expression system of many languages, and so on. In other words, language acquisition is deeply rooted in the physical and cognitive structures and possibilities all humans share.

He is also of the opinion that, naturally, the specifics of the learning differ depending on the characteristics of the language being learned as well as some environmental factors. He believes that there is a sequence of stages that children follow in acquiring language as well as a certain cognitive process that children seem to use as they figure out how the verbal sounds they hear relate to the meanings they understand.

Chomsky (1994) cited by Fromkin, Rodman and Hyams (2007:318), claims that nobody is taught a language and, therefore, no one can prevent a child from learning it. Language acquisition is a creative process and, therefore, children are not given explicit information about the rules by either instruction or correction, hence he takes issue with reinforcement theory. Fromkin, *et al.* (2007:319-320) find it strange and extremely phenomenal that, as extremely complex as the language may be, yet very little children before the age of five already know most of the intricate system that comprises the grammar of a language. They are amazed that at that tender age children have acquired the syntactic, phonological, morphological and semantic rules of grammar.

They further state that children do not learn a language simply by memorising the sentences of the language. Rather, children acquire a system of rules that enables them to construct and understand sentences, most of which they have never produced or heard before. They are equipped with a perfect theory of language and they use that theory to construct the grammar of the language to which they are exposed. They acquire language so quickly and effortlessly and, then, figure out the rules of language as no one tells them that this is grammatical utterance and that is not. Yet, somehow, they are able to create the grammar of the language of their speech-community based on the language they hear around them. It is somehow mysterious how children accomplish this task.

Lightfoot (1999:52-63) in his support for innateness, believes that language emerges through an interaction between our genetic inheritance and the linguistic

environment to which we happen to be exposed. According to him, English speaking children learn from their environment that the verb “is” may be pronounced “iz” or “z”, for example, ‘Kim’s happy’, and native principles prevent the reduced form from being used in the wrong places. The interaction of the environment information and the native principles, account for how the relevant properties emerge in an English-speaking child.

Arguing against the environment and its contribution, he does not believe that pattern generalisation is the answer to how children acquire speech, citing the fact that even though, undoubtedly, they register only part of their linguistic environment, there is no way of knowing exactly what any individual child registers. He, therefore, points out that there is no factual basis for the claim that children register only what is filtered for them through parents’ deliberately simplified speech. Children have access to more than this, including defective utterances. If the child registers only the simplified, well-formed sentences from the environment, the child’s information would be more limited. There is a need for a genetic basis to language acquisition. The child is primarily responsible for the acquisition process, not the parents or playmates.

Slobin (1979:74) cited by Lindfors (1997:1) is of the opinion that, even though the mental abilities of a little child seem to be rather limited in many ways, yet he masters the exceedingly complex structure of his native language in the course of a short three or four years without instruction in the abstract. All children master the structure of at least one language system and they do so in a remarkably short time and across a wide range of diverse environments. He agrees with Fromkin, *et al.* (2007:319) when they emphasise the fact that children, whether more or less fortunate intellectually, economically, socially or physically, learn the language of their community and do so at a time when their overall cognitive functioning appears far less complex than language learning seems to require.

According to O’Grady (2009:36), some developmental psychologists have contributed a somewhat different idea about children’s language learning. They locate children’s ability to figure out language within a larger, more general ability to make sense of things and, above all, make sense of what people do which includes what people say. They believe that children have a general capacity for inference;

the child's ability to interpret situations makes it possible for him, through active processes of hypothesis-testing and inference, to arrive at the knowledge of language.

However, he further says that the end result of language acquisition is grammar. One has acquired grammar when one is able to produce and understand an inherited number of novel sentences. Speech errors inform the extent to which the acquisition process works. It is from these errors that it is determined that children create rules of their own to capture the regularities they observe in the speech of those around them.

In the light of the above this study will further discuss the phonological acquisition of consonants.

2.4. PHONOLOGICAL ACQUISITION OF CONSONANTS

According to Bowen (2007:78) the term 'consonant' refers to types and not to the letters that represent them. For example, the letter 'C' represents consonant sounds. He stresses that while phonetics provides the data for describing speech, phonology generalises from these so as to produce deeper insight into the structures and patterns of language sound systems.

Goodluck (1991:24) mentions three separate possibilities with regard to children's mispronunciations. Firstly, mispronunciations could reflect incorrect lexical representations on the child's part, without an adult lexical entry for the word in question. Secondly, there may be no phonological rules operating to distort adult-like lexical representations. Thirdly, the reason could be non-systematic error articulation. Even when the child does not pronounce the word correctly, it is evident that in many instances he does have in his head something like the correct adult form.

He further explains that one clear type of evidence that some mispronunciations are the result of adult-like lexical forms is the fact that children can recognise their own mispronunciations as deviant, as in the case where a child would pronounce the word 'yellow' as 'wellow', replacing the initial sound [y] with [w], even when the adult repeatedly pronounces it to the child correctly.

Although there is a good deal of variation from child to child in terms of the order in which speech sounds are mastered in production and perception, children have a general tendency to replace certain sounds with others that they find easier to produce in as far as linguistic speech errors are concerned (O'Grady, 2005:155).

In the light of the above, this study has strived to bring forth the common recurrent types of errors in children's speech so that every stakeholder dealing with children may better understand all of these error-speech processes.

2.4.1. Stages of phonological acquisition

According to Lillo-Martin children acquire language in stages and different children reach various stages at different times, although they have one thing in common and that is children learning the same language will follow almost identical patterns in the sequence of stages they go through (en.wikiversity.org/wiki/psycholinguistics).

This view further assumes that children's phonological acquisition stages will create better understanding of their mispronunciations, hence this study sees it necessary to mention each of them in its endeavour to uncover children's articulation problems. It is of vital importance to acknowledge that the stages of language acquisition overlap according to each child's maturity age.

Most children begin to produce recognisable words at some point in the second year. However, they pass through a period in which speech-like sounds are produced and, with no obvious links to words in the adult language (O'Grady, 1991:18).

The following are the stages of language acquisition as described by O' Grady (1991):

2.4.1.1. Stage 1

This would be from 4 to 6 months, the stage at which children playfully produce isolated consonant and vowel-type sounds. This stage is sometimes called cooing and that is when children selectively use phonemes from their native language. The babbling stage can be thought of as a period of time in which the children are practising the difficult sequence of coordinated gestures that are necessary for

normal speech production. That refers to the jaw, tongue and velum movement, together with the voicing control. One could call these one word utterances.

Reduplicative babbling replaces cooing at round about 6 months when the child produces a series of consonant-vowel syllables in which the individual syllables in each babbled series are identical or very similar to one another. Babbling may include sounds not used in the language to which the child is exposed. While English does not have a velar fricative, a child exposed to it as a language may babble, for example, the fricative [x]. At around about ten months, syllable sequences with different consonants and a wide range of syllable types, 'vowel consonant' and 'consonant vowel consonant', in addition to 'c v', emerge (Goodluck, 1991:19).

(a) Reduplication

At this stage, children duplicate a series of individual and similar types of syllables, for example, 'da-da', 'ma-ma', 'ba-ba', 'pa-pa', 'na-na' and, 'ta-ta', depending on the language the individual child has been exposed to. One could call this one word utterance. If one may notice, all of these duplicated sounds are stops and nasals. Voiceless stops are more frequent in the languages of the world than their voiced counter-parts. Reduplication progresses through to the second stage and words such as 'water' are pronounced as 'wawa' and 'TV' as 'didi'.

(b) Consonant harmony

As children progress with real world speech, more sounds are added to their inventory and that is when speech errors occur such as, for example, consonant harmony where consonants tend to assimilate in words with the same structure. An example of such a process is when words such as 'duck' are pronounced as 'gak' and 'tub' as 'bab'. Children tend to maintain the same place of articulation for all the consonants in a word, for example, 'self' become 'felf.'

(c) Final consonant deletion

Children reduce a 'CVC' (consonant vowel consonant) syllable to a 'CV' (consonant vowel), for example, 'bib' is articulated as 'bi', with the final consonant [b] left out.

2.4.1.2. STAGE 2

Vihman *et al.* cited by Goodluck (1991:19) says at this stage a child produces recognisable words which may be preceded for some children by a silent period in which babbling ceases. This is typical of ten months to two year olds, a telegraphic speech stage when utterances lack in function. It is also at this stage where a decrease in the use of velar stops is seen, only to be re-introduced later on in the course of acquisition. Such sounds are found in virtually all languages.

First words tend to be composed of a narrow range of sounds, typically, front voiceless stops, [p'], [t'], [k'], [d] and the nasals, [n] and [m]. No matter what language the child is exposed to, fricatives and liquids are generally avoided. According to Jakobson cited by Goodluck (1991:20), front stops are mastered before back stops and stops are mastered before fricatives while rare sounds are generally acquired late.

(a) Voicing and devoicing

Throughout the world, voicing and devoicing of segments in the final position is one of the distinctive error types that have been noted as one of the most common for all children in this stage. Consonants tend to be voiced when preceding a vowel and devoiced at the end of a syllable. For example, the word 'paper' may be pronounced as 'beber' when voiced while 'pig' may become **'**bik' when devoiced.

(b) Fronting

The place of articulation is fronted with velar and palatal consonants being replaced by alveolars. For example, the word 'shoe' becomes 'zu', with the alveolar sound [z] replacing the palatal sound [ʃ].

(c) Progressive vowel assimilation

An unstressed vowel will assimilate to a preceding vowel as in the following: the word 'flower' becomes 'fawa'.

2.1: Table of consonants to be acquired by age of two to three years

Stops	Fricatives	Glides
p b m	f	w
t d n	s	
k g		

Source: O'Grady (2005)

2.4.1.3. STAGE 3

At about two to three years of age, affricates such as [f] and [s] are acquired.

(a) Substitution and stopping

It is at this stage that children replace certain sounds by other sounds. An example of such a situation is when the word 'see' is pronounced as 'tee' and where [t], an alveolar stop substitutes an alveolar fricative [s]. This kind of substitution process is called 'stopping' (Goodluck 1991:25).

2.4.1.4. STAGE 4

By age four, the child's inventory of sounds has grown considerably with the sounds such as [ŋ] and [ʃ] having been added by the age of two. At about three to four years of age, less common sounds across languages are still to be acquired. Such sounds are the inter-dental [θ], words such as 'thing' become 'ting' and the alveo-palatal [ʒ] and the affricates [ʧ] and [ʤ]. Crain and Lilo-Martin cited by Wiki (1999) believe that normal speech should almost have been developed by the age of five.

(a) Deletion

It is common occurrence at this stage for children to delete an [s] when it is followed by another consonant. Examples given to that effect are of such words like 'stop' pronounced as 'top', 'desk' becoming 'dek'. Children at this stage have another strategy for some words where their order is changed when an [s] precedes another consonant. For example, 'ask' becomes 'aks' and 'spaghetti' is pronounced as

'pasghetti'. Seemingly, children find it easier to pronounce an [s] at the end of a syllable than at the beginning, if it is next to another consonant (O'Grady, 2005:155).

Table 2.2: Table of consonants to be acquired by age of four years and above

Stops	Fricatives	Affricates	Other
p b m	f v	tʃ ʤ	w j
t d n	s z		l r
k g ŋ	ʃ		

Source: O'Grady, (2005**)**

Fromkin, *et al.* (2007:326) found out that children's first words are generally monosyllabic with 'CV' (consonant vowel) form. The vowel part can be a diphthong, depending on the language being acquired. Children seem to pay much attention to phonemic differences. They produce utterances such as 'ba' and 'da' and [b] and [d] are allophones of different phonemes which can be found in many minimal pairs. Children's phonemic inventory at this stage is much smaller than is found in the adult language.

Jakobson cited by Fromkin, *et al*. (2007:326) suggests that children first acquire the small sets of sounds common to all languages no matter what language they hear. Such sounds are [b], [m], [d], and [k]. It is in the later stages that they acquire the less common sounds of their language. In general, the order of acquisition of classes of sounds goes by the manner of articulation. Usually, nasals are acquired first and then glides, stops, liquids, fricatives and affricates. Natural classes are characterised by place of articulation. Features also appear in children's utterances according to an ordered series: labials, velars, alveolars and palatals. It is, therefore, not surprising that 'mama' is an early word for many children.

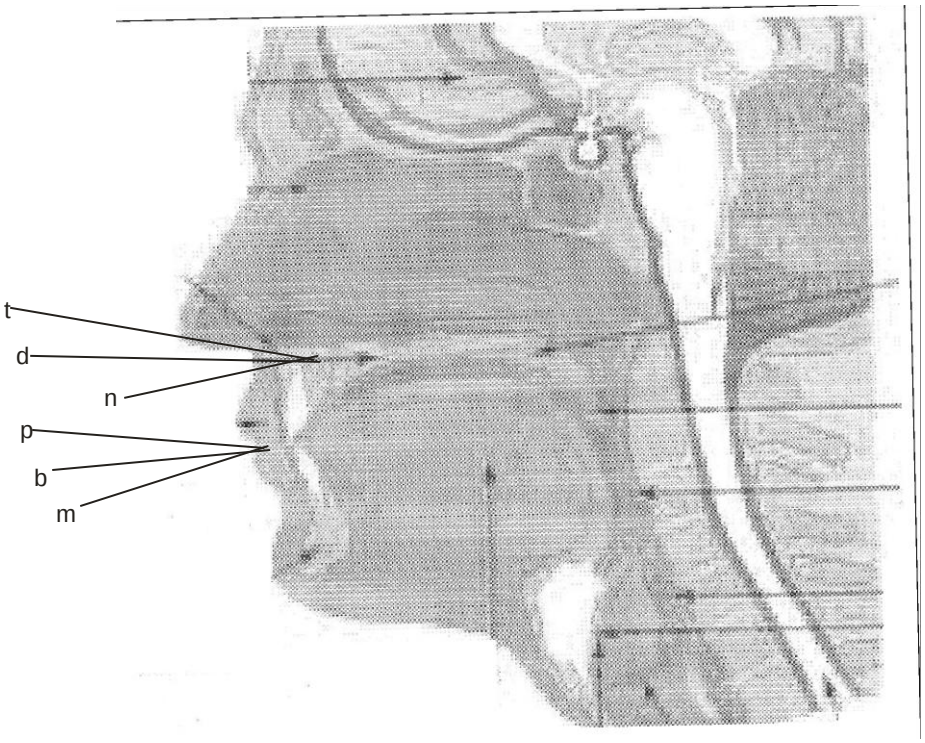
By the time the child is a year old, he has begun to learn the words of his language. At this point, sounds are not just sounds anymore; they are pieces of words (O'Grady, 2005:147).

Fromkin, *et al.* (2007:328) reiterates O'Grady on how children are devoted to figuring out the phonetic inventory of the target language during the first year while the second year involves learning how sounds are used in the phonology of the language and they are then well on their way to pronounce those sounds. They can perceive or comprehend many more phonological contrasts that they can produce and sometimes that ability develops well in advance of their ability to produce them. That enables the children who are unable to produce the difference between words, for example, 'cart' and 'card', to be able to point the pictures of the correct objects in a comprehensive task. Children even seem to know that their pronunciations are not correct.

They further state that a child's first words show many substitutions of one feature for another or one phoneme for another. The word 'mouth' is pronounced as 'mawθ' and 'mouse' as 'maws', with the alveolar fricative [s] replacing the less common inter-dental fricative [θ].The word 'light' becomes 'yight', pronounced with a glide replacing the liquid [l] while 'rabbit' is pronounced as 'wabbit', with the glide [w] replacing the liquid [r]. Glides are acquired earlier than liquids and hence substitute for them. The substitutions are simplifications of adult pronunciation. They make articulation easier until the child achieves greater articulatory control. Children tend to shorten long words by deleting syllables that are not stressed and which precede a stressed vowel. One such example is of the word 'potato' which is pronounced as 'tato'. Children's early pronunciation is not haphazard. The phonological substitutions are rule governed: 'peyne' – 'plane', 'tis' – 'kiss', and their rules conform to the possibilities made available by universal grammar.

It is important to note that children's non-adult pronunciations are not a response to absolute inability to produce certain sounds. It is frequently the case that where a sound is eliminated by a child rule, the same sound will be introduced by another rule in the child's phonology. According to Smith's study (1973:1-270), children velarise alveolar stops before [l], pronouncing the word, for example, 'puddle' as 'puggle' and at the same time they change non-final [z] to [d] and thus pronounce 'puzzle' as 'puddle'. The mispronunciation of 'puddle' is clearly not rooted in some motor deficit, since the child produces the adult form in his version of adult 'puzzle' (Stampe, 1972:9).

The following picture depicts a model of consonant articulation:



Source: Google Image Viewer

This model of consonant articulation is used to illustrate the fact that children's first words tend to be composed of a narrow range of sounds, typically the front stops [p], [t], [b], [d] and the nasals [n] and [m]. Seemingly, the child's pronunciation tends to favour these sounds, particularly during the holophratic stage (a one word stage). All the other sounds are acquired later, from the fricatives to the affricates.

Foll**o**wing will be the discussion of the theoretical models of language acquisition.

2.5 THEORETICAL MODELS OF LANGUAGE ACQUISITION

The Oxford Advanced Learner's Dictionary defines theory as a formal set of ideas that is intended to explain why certain things happen or exist (Hornby, 2005:1533).

Furthermore, Hornby is of the opinion that theories of language acquisition in speaking and understanding can be summarised to include innateness, imitation and active construction of grammar. It is, however, noted with interest that behaviourism

theory entails the central idea with similar characteristics as that of imitation theory that children imitate adults hence this study will move from this premise.

Some of the early language acquisition theorists are of the view that language acquisition depends upon the child being exposed to language and that the language a child acquires is that of his surroundings. They believe that children who are deprived of language in their environment simply do not begin to speak spontaneously. Akbar, a 16th century Mogul Emperor of India is one of those who believed that language is learned by people listening to each other and, therefore, a child cannot develop a language alone. He maintains that a language is acquired and does not simply emerge spontaneously in the absence of exposure to speech. (AcademicWritingTips.org 29 July, 2011). In this same article, it is also stated that there is yet another group that includes Psammeticus, an Egyptian Pharoah, from round about the same century who believed that language is inborn and maintained that children isolated from birth from any linguistic influence would develop the language they had been born with. The view was later on supported by King James V of Scotland who performed an experiment similar to Psammeticus'. According to the findings of the experiment, children were reported to have spoken good Hebrew.

Fromkin, *et al.* (2007:314), state that early theories of language acquisition were heavily influenced by behaviourism, a school of psychology prevalent in the 1950s. It focused on people's behaviours which are directly observable, rather than on the mental systems underlying those behaviours. Language, therefore, was viewed as a kind of verbal behaviour; hence it was proposed that children learn language through imitation, reinforcement, analogy and similar processes.

They further say that the behaviourist view holds a belief that language learning, like other kinds of learning, occurs as a result of the environment shaping an individual born with a given IQ (Intelligence Quotient). According to this view, an individual is reinforced positively or negatively for responses to various stimuli, positively, for example, by praising, rewarding and smiling; negatively by scolding, correcting and so forth.

Lindfors (1997:97-104) argues that the behaviourist view of language acquisition is somewhat simplistic and general. She feels that some behaviourists emphasise one

aspect, some another and, elaborate the details of this general position differently, one from another. She, however, credits the behaviourist view's area of common ground that justifies our speaking and also includes the belief that, firstly, children are born with a general learning potential which is part of their genetic inheritance, but without any specific learning abilities, such as a special innate capacity for acquiring language; secondly, that learning occurs entirely through the action of the environment shaping the individual's behaviour; thirdly, that behaviour is shaped through the reinforcement of particular responses emitted in the presence of particular stimuli; and fourthly, that in the shaping of very complex behaviour, such as language, there is a reinforced progressive selection or narrowing of responses which are positively reinforced.

She believes that children differ in their general learning abilities regardless of their environment. Some are simply born with greater potential than others. She, however, acknowledges that the environment plays a crucial part in one's learning and that important people in the child's world, positively as well as negatively, reinforce some behaviours and that they reward and punish different behaviours.

Chomsky (1968:5-7) also denounces the behaviourist view of language and how it is learned, emphasising the fact that humans have a special innate capacity for human language. The behaviourist view of language acquisition is found to be unable to account for, amongst other things, uniformity of language acquisition and, also, the early stage in children's lives during which they acquire so much of a complex linguistic system.

2.5.1 The imitation theory

This theory suggests that children learn language through copying and imitating others. This approach highlights children's ability to copy the speech they hear around them. It is important for phonological development because children develop regional accents, suggesting that they imitate sounds from people around them.

Imitation plays a large role in the development of speech acquisition. In humans, there is a natural tendency to try to imitate, which is important in the early life of the individual and facilitates trial-and-error learning. Fry (1981:I67) emphasises the importance of environmental contingencies in the process of imitation as he is of the

opinion that the acquisition of speech through imitation depends upon the parent's frequent presentation of vocal models and reinforcement. Parents present vocal models to their children in appropriate contexts, and the child's attempt to appropriate the model is usually followed by praise and repetition of the correct vocal model by the parent. Under these circumstances the child should produce successively closer approximations to the model, eventually imitating the parent successfully.

The limitations of this approach are that language is based on rules and sets of structures and, therefore, language will not simply be acquired through imitating individual's utterances. Children do not pick up grammatical structures immediately, as some children show an incorrect use of grammar; for example, they may say, 'wented', instead of 'went', showing, they have not imitated this from others. Children normally use the words they understand so, if they would copy all words spoken by another person, what about the deaf children? They cannot imitate another person's speech and, therefore, use sign language, suggesting that this theory does not account for all children (AcademicWritingTips.org. 2011 July 29).

Generalised imitation, as defined and analysed by Baer and Deguchi cited by Kymiss and Poulson (1990:123) may be a sufficiently robust formulation of learned imitation to facilitate a behaviour-analytic account for first language acquisition. They generalised imitation from a radical behavioural view point. Any behaviour may be considered imitative if it temporally follows behaviour demonstrated by someone else, called a model, and if its topography is functionally controlled by the topography of the model's behaviour. Such control could result, for example, if topographical similarity to a model's behaviour were a reinforcing stimulus dimension for the imitator.

They argue that the experimental analysis of the conditions governing the formation of imitative and other linguistic response classes would provide a satisfactory account of language acquisition at the empirical and the theoretical levels of most behaviour analysts. It is however interesting to note that such analyses would, probably, not satisfy the questions of a more traditional psycholinguist such as Chomsky. He would likely seek a separate mechanism to further explain the formation of a response-class acquisition device of some sort.

Fromkin, *et al* (2007:315) believes that imitation is involved in children's acquisition of language but only to a certain extent. They think that the early words and sentences that children produce show that they are not simply imitating adult speech. They substantiate their view by giving an example of a child who says, 'holded', even when the mother said, 'held' three times. They also cite a situation where the children are unable to speak, for neurological or physiological reasons, but learn and understand the language spoken to them. When they overcome their speech impairment, they immediately use the language for speaking.

O'Grady (2005:165-167) is partial about the role of imitation in children's language acquisition. He argues that even though imitation of some sort, probably, is involved in certain aspects of language acquisition but there are major parts of language that cannot be imitated. Sentences are the most obvious example for, unlike words which are memorised and stored in the brain, they are created as the need arises. Sentences simply do not involve the sort of remembering and repeating associated with imitation. Based on the above, he therefore concludes that imitation is not the explanation for how children learn to produce sentences. He bases his argument on the fact that children are not very good at imitating sentences containing unfamiliar words and structures. They typically repeat only what they can already say. Children do not even try to imitate sentences often.

There is more, much more to language acquisition than mimicking what we hear in childhood, and there is more to it than the simple transmission of a set of words and sentences from one generation of speakers to the next (Lightfoot, 1999:49).

2.5.2 The innateness theory

This view sees the language learning child as a cognitive activist (Lindfors 1997:104). It is a view of language acquisition that gives increased importance to innate factors in language acquisition.

The critical period for language acquisition is from birth until puberty and, after this, normal language acquisition cannot take place (Fromkin, *et al.* 2007:340).

Chomsky maintains that every child is born with universals of linguistic structure wired in. The child does not have to learn those features common to the structure of

all human languages, for he is born with the skeletal framework of linguistic structure innately specified; the semantic, syntactic and phonological possibilities of human language are already present. As a human being, the child already has a start on knowing what kind of system a language is in its basic design. He has the start on cracking the particular linguistic code of his speech community because he already knows what kind of system the code must be. His job, then, is to figure out how the particular language system of his speech community actualises linguistic universals. He knows what kind of systems human language can be. His job is to discover which particular subset of the semantic, syntactic and phonological possibilities his community happens to use.

The innateness theory illustrates the process in which children are born with the ability to receive language input that is biologically determined. Language acquisition is triggered by a natural predisposition that triggers language learning and development by being able to interpret what they learn (Palmer, 2007:54).

He further states that, according to innateness, although children hear many utterances, the language they hear is incomplete, noisy and unstructured. This refers to children's exposure to adult's utterances such as slips of the tongue, false starts as well as ungrammatical and incomplete sentences. In other words, the data they are exposed to is impoverished; thus, it is less than what is necessary to account for the richness and complexity of the grammar they attain.

Fromkin, *et al.* (2007:319) is of the view that children are not told about structure dependency. They are not told about constituent structures. The input they get is a sequence of sounds, not a set of phrase structure trees. According to this view, no amount of imitation, reinforcement, analogy or structured input will lead the child to formulate a phrase structure tree, much less a principle of structure dependency, yet children do create phrase structure and the rules they acquire are sensitive to that structure.

They further state that children come "pre-wired" with knowledge of universal grammar, including structure dependency and the co-ordinate structure constraint, among many other principles. That is why they are able to construct rules that are structure dependant and that is also why they know that,

‘what/where/who/which/why’ phrases are frozen inside a co-ordinate structure. They, nevertheless, also acknowledge the fact that children learn many aspects of grammar from their specific linguistic environments. For example, in English the subject comes first and the verb precedes the object inside the verb phrase and that is why it is said, English is a ‘subject, verb and object’ language. It also holds a view that the child extracts from the linguistic environment those rules of grammar that are language specific, such as word order and movement rules. The reason children acquire complex grammar quickly and easily without any particular help beyond exposure to the language is because they do not start from scratch. Universal grammar helps them to extract the rules of their language and to avoid many grammatical errors, since children construct their grammar according to the blue-print.

They are also of the opinion that innateness suggests it is the brain mechanism called the Language Acquisition Device children are born with that causes them to acquire language so quickly. The only problem with this device is that no one has ever known where it is placed. Inter-actionist or input theory contrasts with this view by stressing the significance of interaction of care-givers to the acquisition of language.

2.5.3 Grammar theory

Grammar theory or ‘active construction’ is a theory which highlights linguistic inputs which are recognised by children as they learn to acquire language. This theory maintains that children invent the rules of grammar for themselves and the language they invent may be based on the language around them. As children continuously receive language input, their language is revised more and more to become a model of adult grammar. This is the only approach that explains how children go about producing incorrect past tense forms such as, for example, ‘goed’ or ‘cutted’, how they generate novel sentences that they have never heard of and also why they seem almost not responsive to correction from adults (Gottlieb 2006:71).

In the process of learning language, children apply learned grammatical rules incorrectly and that is termed over generalisation. They also over extend on the basis of features that combine to give an abject meaning. One such example is over

applying a word ‘daddy’, which could refer to any male that walks in the room. Here over extension results from similarities in the uses to which objects are put, for example, things used to hold liquid might be called ‘cups’. Over extension is not always related to cognitive processes and is not always dominated by shape, colour or sound of an object. A child simply does not have the lexical capacity to find a word and, therefore, uses the nearest word they know, as many adults do. Children under extend when, for instance, to them ‘white’ only refers to snow (Lindfors, 1997:6).

Francis Gilbert cited by Lindfors (1997:6-10) is amazed by the telegraphic nature of children’s speech where content words such as nouns, verbs and adjectives are kept while function words such as pronouns, prepositions and auxiliary verbs are omitted. Francis also finds it confusing that pronouns change with context.

Furthermore, he is of the opinion that children’s vocabulary develops in stages. In the first stage the child begins to respond consistently to words but he is highly dependent on context. In the second stage, after a few months, a baby has worked out what words are for. Acquisition of new words speeds up dramatically so that the child is now capable of fast mapping.

He further maintains that in the third stage, from about the age of three to four years, word learning becomes even faster. Children at this stage are re-organising the way they categorise words. That is when they can now put things into more than one category at the same time so that, for example, something can be a dog and an animal at the same time.

What transpires in the children’s language acquisition process for starters is the fact that, children already know about the most important and major contributing elements of speech such as nouns and verbs. They get this knowledge from their native language backgrounds. It is this knowledge background that helps children make assumptions about the language they receive and, therefore, work out a set of rules. As they continue to receive language from the environment, children’s grammar develops to a point where it becomes like that of adults (Peccei, 2006:22).

Below, this study will look at the discussions deliberated on this part of this work in order to draw its conclusions.

2.6 CONCLUSION

In the fore-going discussion, literature has been consulted with the objective to put into perspective the concepts involved as well as the driving principle for this study. The driving principle for the study is children's phonological acquisition of consonants. In its quest to find out which of the two between the isiXhosa-speaking and the English-speaking 2-6 year old children master consonants first, this study has probed the various proposals concerning the psychological mechanisms involved in the acquisition of consonants.

Language is viewed as a source of human life and power. The possession of language, perhaps more than any other attribution, distinguishes humans from other animals. Hence, to understand one's humanity, one must understand the nature of language that makes one human. Part of knowing a language means knowing what sounds are in that language and what sounds are not. The younger you are, the easier it seems to learn a language.

Children's organisational system of language may not exactly match the adult's. Nevertheless, they have a system, a set of expectations, for the selection and arrangement of language elements to express meanings.

The history of the evolution of language acquisition theories dates as far back as the Phylogenetic studies (concerned with the origin of the oldest or first language) that were concerned with the precise way in which individual infants acquire speech through to the Ontogenetic (later studies).

Language acquisition is fast but not instantaneous. From first words to adult competence takes three to four years and, during that time, children pass through linguistic stages.

Children develop their language on many fronts simultaneously. They do not wait until they have acquired all of these adult rules of language to produce embedded sentences. For every culture, from all speech communities, children acquire the adult grammar for the core construction of their native language. Their organisational system for language may not exactly match the adult's. Nevertheless, children have

a system, a set of expectations for the selection and arrangement of language meanings.

The children's construction of their language system is more creative than imitative because they use forms that cannot be the result of imitation, forms that adults in children's environment do not use. Children say things that parents never say.

Some say children are born with an innate knowledge of language and how it works. This is questioned by those who believe in the notion that there is a critical period of time for when language must be acquired and, thereafter, normal acquisition of language cannot take place.

Some children's mispronunciations are as a result of their incorrect lexical representation with no adult lexical entry for a particular word.

The problem with active construction of grammar is the over-generalisation of rules. When they are learned, they are applied incorrectly to irregular form.

Children make frequent and systematic errors. They devoice segments in the final position. They may move the place of articulation forward. They simplify consonant clusters, deleting consonants or introducing a vowel to break up the cluster.

The other contributing factor is lack of adult phonological rules as well as non systematic errors of articulation.

This study anticipated that the above discourse of the theoretical concepts would assist in the stage of fieldwork and would, eventually, inform the study's methodology and the research instruments that will be discussed in detail in the following chapter.

CHAPTER 3: RESEARCH METHODOLOGY

3.1 INTRODUCTION

The Oxford English Dictionary defines ‘methodology’ as a guideline system for solving a problem with specific components such as phases, tasks, methods, techniques and tools. In other words, methodology focuses on the tools and the procedures that are used in the study.

In its quest to discover the differences in phonological acquisition rates of consonants between isiXhosa-speaking and English- speaking children, this study employed both qualitative and quantitative paradigms (mixed method) in order to achieve its desired objective.

This study used the above-mentioned paradigms because they are naturally designed to yield the kind of results that are explicitly and statistically indicative of the most competent of the cohorts under study with regard to the differences in the rates of phonological articulation of consonants. It is of vital importance to do that in order to make it easy for everyone working with children of this age to deal with different children based on the knowledge of these varying capabilities.

Another reason for making use of such a concurrent approach, the mixed method, is the fact that data is collected at the same time as the visit to the field of study (Creswell, 2009:216). This study, therefore, found it to be less time consuming.

This study had more of a qualitative slant and yet it was quantitative in approach. The study was positioned in the interpretivist-positivist paradigm in order to ensure an adequate communication between the subjects of investigation and the researcher. The researcher used the quantitative approach in the sampling stage, the stage that detailed the number of participants and the number of representatives per gender, as well as the number of items prepared for face-to-face type of interviews. The researcher used the qualitative approach by consulting relevant sources of information and used a relevant theoretical frame-work as a basis to develop the study.

This chapter, therefore, discusses the various types of methodology used in this research such as the qualitative and the quantitative research design, data analysis, the limitations and ethical procedures.

3.2 RESEARCH DESIGN

This study employed a case study as its research design of choice. Somekh and Lewin (2005:53) view a case study as an approach to research which seeks to engage with and report the complexity of social and education activity in order to represent the meanings that individual social actors bring to sites and manufacture in them. Maree, Creswell, Ebersohn, Eloff, Ferreira, Evankova and Jansen (2007:75) citing Yin define the case study research method as an empirical inquiry that investigates a contemporary phenomenon within its real-life context when the boundaries between phenomenon and context are not clearly evident and in which multiple sources of evidence are used.

Somekh and Lewin 2005:53) argue that one of the characteristics of a case study as seeking to identify and describe before trying to analyse and theorise, meaning it places description before explanation. In its endeavour to understand the case, they therefore believe that this kind of research method appeals to and privileges in-depth enquiry over coverage and this takes place through detailed in-depth data collection methods such as interviews and documentary analysis. This warrants the researcher's access to the participants and their confidence.

Somekh and Lewin (2005:55) claim the origins of the case study go back to the late 1960s in the USA and the early 1970s in the UK. It derives from an anthropological-sociological tradition on the one hand, and to an applied research and programme evaluation tradition on the other. It was first exemplified in the Chicago School of Sociology with a case study of a grammar school and a case study of a comprehensive school and the emphasis in the field is coming to know the insider. With regards to this particular study it is necessary to explain why I decided on the case study for my research design.

3.2.1. Rationale for the case study

The reason behind the case study as a design of choice is that the study needed the kind of research method that produces practical knowledge to inform practical action. Bell (1999:11) describes the case study approach as being particularly appropriate for individual researchers because it gives an opportunity for one aspect of a problem to be studied in some depth within a limited time scale. With that said, this study aimed at investigating the differences in children's consonant acquisition rates. It also sought an explanation as to why some children have early phonological acquisition and some do not. In order to get a holistic picture of the root cause of the problem, data was collected for evidence. A case study has proved to be a suitable method to accomplish that as it enabled the researcher to gain insight into the problem holistically.

Cohorts were compared and that made this study a comparative study in nature and comparative research methods are case study types.

3.2.2. Strengths and limitations of the case study

According to Somekh and Lewin (2005:54), a case study can take an example of an activity, an instance in action and use multiple methods and data sources to explore and interrogate that activity. It can achieve a thick description of a phenomenon in order to represent it from the participant's perspective.

Walsh (2001:1-112) believes that a case study is best when one needs to collect data on subtle and complex situations; when one does not need to impose control over events or variables, and when one wishes to do small-scale project research.

Somekh and Lewin describe a case study as being particular, descriptive, inductive and ultimately heuristic. It seeks to illuminate the reader's mind.

Some of the disadvantages of case studies are: the findings cannot be generalised and if they can be generalised, they are often not credible. This kind of method of data collection is viewed as producing 'soft' data and lacks rigour. In order to gain access to the research sites, researchers have to negotiate access with the gate-

keepers and ensure ways of limiting the effects of their presence on the natural behaviour and the processes of the setting (Napier, 2013:42).

3.3. THE MIXED METHOD DATA COLLECTION

I found it necessary to use the mixed method approaches of both qualitative and quantitative research in order to enhance the study's research design of choice and to better understand the concept being explored. This enabled me to present a holistic picture of the study at hand.

The advantages of the mixed method of data collection are: it strengthens the research in the sense that the use of multiple methods helps to research the problem from every side. Concurrent approaches further complement a result from one type of research with another. This occurs because making use of different approaches helps to focus on a single process and confirms the accuracy of data. It is less time-consuming as data for both approaches is collected at the same time in the same visit to the field (Creswell, 2009:216).

Each component of the mixed method approach will be briefly discussed based on its reliability in previous studies and how it relates to this study.

3.3.1. Qualitative approach as a component of the mixed method

Qualitative research uses a naturalistic approach that seeks to understand phenomena in context-specific settings such as real-world setting where the researcher does not attempt to manipulate the phenomenon of interest (Patton, 2001:39). Qualitative research, broadly defined, means any kind of research that produces findings not arrived at by means of statistical procedures or other means of quantification (Strauss and Corbin, 1990:17) and, instead, the kind of research that produces findings arrived from real-world settings where the phenomenon of interest unfolds naturally (Patton, 2001:39).

Examples of qualitative research methods include action research, case study and ethnography. Creswell (2009:176) points out the idea behind qualitative research as being to learn about the problem or issue from the participants and to address the research to obtain that information. These kinds of research methods were

developed in the social sciences to enable researchers to study social and cultural phenomena. Qualitative researchers realise that the issues they are studying are layered and dimensional and, as such, they try to portray them in their multifaceted forms. Hence, Denzin and Lincoln's (2008:98) assertion that qualitative researchers use a wide range of interconnected interpretive practices hoping to get a better understanding of the subject under study.

Qualitative methods hold the promise to yield findings that reflect the participants' perspective and that fit the substantive field. As a result, it is expected that the findings will have some relevance for the field and can be easily transformed into interventions for those directly involved in teaching the children and those involved in parallel programmes (Boeije and Hodkinson, 2009:33).

Making use of qualitative research methods has enabled this study to investigate the differences in consonant acquisition rates between the isiXhosa-speaking and the English-speaking children. The task at hand was to find out whether or not one of the two cohorts has earlier consonant articulation than the other.

3.3.2. Quantitative approach as a component of the mixed method

Quantitative research methods were originally developed in the natural sciences to study natural phenomena. However, the examples of quantitative methods are now well accepted in the social sciences and education. Their examples include surveys such as laboratory experiment, formal methods like economics and numerical methods such mathematical modelling (www.edu.plymouth.ac.uk/..quanthme.htm June, 2013)

Quantitative research differs from qualitative research in the sense that it makes use of the deductive scientific method while the qualitative research assumes the inductive scientific method. It is scientific and objective in its ways of using numerical data from only a selected subgroup to generalise the findings to the universe that is being studied (Maree, *et al.* 2007:145).

Quantitative method uses measurable data to formulate facts and uncover patterns in research. It is used to quantify attitudes, opinions, behaviours and other defined variables and generalise results from a larger sample population.

The quantitative component of the study was used to articulate issues such as the number of participants, their age, sex and so forth, in statistical forms.

3.3.3. How qualitative and quantitative paradigms were mixed in this study

The essential goal of mixed methods is to tackle a given research question from any relevant angle, making use of previous research and or more than one type of investigative perspective. It offers the researcher the best of both worlds; the in-depth, contextualised and natural but more time-consuming insights of qualitative research coupled with the more efficient but less rich or compelling predictive power of quantitative research (http://spahp2.creighton.edu/officeofresearch/share/sharedfiles/userfiles/filegalt_spahp_methods_presentation_082609.pdf 25 June, 2013).

According to Maree, *et al.* (2007:145-153) there are four different ways in which the methods could be mixed depending on the purpose of the study. They are the explanatory, the exploratory, triangulation and/or the embedded mixed method design.

The explanatory mixed method in this study has concerned itself with explaining the quantitative results. The first stage of mixing qualitative and quantitative methods was when the objectives of the study were described and that could be ascribed to a qualitative pattern.

A quantitative component of the research was used at the data collection stage as a certain number of participants were randomly selected for a comparative study detailing the number of participants representing each group as well as their gender. Cohorts were compared in terms of observational effects and open-ended interview-types of questions, based on the quantitative results from the first phase, were developed to that effect. The results from the qualitative and quantitative phases were integrated at the interpretation stage for the quantitative and the qualitative data themes.

3.4 METHODOLOGY

3.4.1 Data collection instruments

Data collection instruments refer to the devices used to collect data, such as a paper questionnaire or a computer assisted interviewing system (http://www.census.gov/quality/standards/glossary.html 26 June, 2013).

Creswell (2009:149) advises that the survey instrument to be used to collect data be named and over and above, check whether it is designed for the planned research.

It is therefore, in the light of the above that it has been the strategy of this study to strike a balance between case study and face-to-face interviews as research designs of choice.

This study is however, cognisant of the fact that everything has its advantages as well as disadvantages and, therefore, the researcher came to the research field prepared for situations such as when children may become tense and may be intimidated by some means of recording such as video recordings as well as digital voice recordings which are necessary means of data capturing.

3.4.2. How face-to- face interviews were applied

This study approached the research field armed with special recording equipment in the form of a video recorder in preparation for the informal interviews with the participants. This move enabled the researcher to record and transcribe, taking notes using digital voice recording devices.

The study developed a target word list for each target consonant for both the isiXhosa and English languages. The researcher administered six words to each participant child with special focus on the articulation errors presented by children, errors such as substitutions, distortions, additions, deletions, omissions, and so forth.

With the help of an additional participant during the process of informal interviews, the researcher used a digital voice-recording device to capture the verbal productions of each and every individual child so that the researcher was able to go backwards or forwards in time repeatedly, replaying children's articulation of words

as often as necessary. All of that became possible by gaining assistance from the children's teacher who helped with the process of setting them at ease during the interviews.

The researcher saw it necessary to rephrase his question-like utterances whenever it deemed necessary to ensure understanding. Understanding what the question actually meant is permissible with semi-structured interviews.

Face-to-face interviews proved to be appropriate for this kind of research in the sense that it encouraged personal contact and drew-out richer and more detailed responses. Above all, as my participants were young children of pre-school going age, they did not need to be able to read and write to respond. Face-to-face interviews provided an excellent opportunity to elicit consonant production from the study's participants.

3.4.3. Data sampling

According to some authors sampling is a technical accounting device used to rationalise the collection of information, to appropriately choose the restricted set of objects, persons, events, and so forth, from which the actual information is drawn. Sampling is concerned with the selection of a subset of individuals from within a statistical population to estimate characteristics of the whole population. (en.wikipedia.org/wiki/Sampling_(sta...29 June, 2013).

Maree, *et al.* (2007:172) classify sampling methods into two categories: probability methods and non-probability methods. According these authors, probability methods are based on the principles of randomness and probability theory while non-probability methods are not. Probability samples satisfy the requirements for the use of probability theory to accurately generalise to the population, while this is not the case with non-probability samples.

In this study the researcher made use of probability sampling to afford every unit of the population a chance of being selected and be part of the sample. This was done to produce unbiased estimates of population totals by weighing sampled units according to their probability of selection (Creswell, 1994:126).

The study has actually used stratified random sampling. The reason to opt for this kind of sampling is that it can generate results which are more representative of the whole population, especially if the subsets of the population are known. In addition, correlations and comparisons can be made between subsets (www.rgs.org>Home>Our work>Schools and Education›› 01 June, 2013).

However, Sudman (1976:125) claims there are four major types of probability sample designs, namely simple random sampling, systematic random sampling, stratified random sampling and cluster sampling. The researcher made use of the stratification method for the purpose of the study.

There were two primary reasons for using a stratified sampling design. The first reason was to potentially reduce sampling error by gaining greater control over the composition of the sample, particularly concerning variables where it is important that the sample be representative of the population. The second reason for using a stratified sampling design was to ensure that a small group within a population is adequately represented in a sample in order to compare it to a larger group (www.sagepub.com/upm-data40803_5.pdf).

The researcher considered the stratified sampling method suitable for the study for its population was divided into two groups made up of isiXhosa-speaking and English-speaking children. Each group consisted of an equal number of males and females totalling up to 26 children and five children in each age level.

3.4.4 How the sample was obtained

Orsmond (1993:105) citing Romaine argues that human action is content-based and therefore presents it as a basic premise for anyone wishing to do research on some human behaviour, linguistic and otherwise. The environment tends to have an effect on and determine human behaviour. It is for that reason that the children's play centre within their school premises proved to be the appropriate setting to conduct the research processes. The suitable setting was, therefore, one which impacted as little on the behaviour of the children as possible, where they could move freely and naturally. The children seemed unhindered and less suppressed.

East London district has eight (08) government Pre-Primary schools. It would therefore been difficult to cover all of those Pre-Primary schools within the limited time for that specific research. Two Pre-Primary schools under the East London district directorate namely, R.H. Godlo and Little Blessings were, therefore, intentionally selected to be the field of study to conduct the research according to their geographical as well as their economic status.

The participants for this research were the Pre-Primary school isiXhosa home language-speaking and English first language-speaking children ranging from 2-6 years of age. The researcher had brought to each Pre-Primary school a colleague to be a participant observer and there was one researcher-aid whose presence was specifically to help with the video-taping and the voice-recording of all the proceedings at the research site.

52 children were randomly selected, 26 from each Pre-primary school, with an equal number representing males and females as the study had involved stratification of the population. Further selection involved using a random numbers table where 13 children from each Pre-Primary School were studied, representing seven males and six females and vice versa. Five children in each group of the five age levels were compared with respect to order of acquisition, types of errors, and types of substitutions, as well as ages of sound acquisition.

3.4.5 Triangulation of data

Briggs and Coleman (2007:100) state that triangulation of data is about comparing many sources of evidence in order to determine the accuracy of information or phenomena, that is, the cross-checking of data.

The participation of children as well as their teachers enhanced the credibility and dependability of the study. Entering into informal conversation with the children from both mentioned pre-primary schools resulted in the articulation of the target-sounds and thereby gaining knowledge of the kinds of errors each child commits. Assistance from the teachers helped to keep the children calm and relaxed during the investigation process. This ensured some degree of data validity.

3.4.6 Experiencing the participants and the research sites

The researcher gained access to the research site by requesting permission to conduct the research from the principals of the two affected schools and their School Governing Bodies. This became possible through the assistance given and the request made to schools by the University of Fort Hare on behalf of the study. The researcher, therefore, approached the two schools armed with an official letter requesting permission to conduct research by means of unstructured (informal) interviews and observations. Permission to go on with the research was granted and time and dates for (informal) interviews were agreed upon by all parties involved. The (informal) interviews were scheduled for a period of thirty minutes with the agreement that more time might be needed. Promises to professionally observe and respect confidentiality were guaranteed and honoured.

Both schools warmly welcomed the researcher with a positive attitude. That kind of a good reception made it easy for the researcher to ask for children who would be participants for the study and also to make a request to the teachers to help with the handling of children during the process of informal interviews.

3.5 DATA COLLECTION

3.5.1 Data collection instruments

In order to gather multiple types of data, it was the strategy of this study to strike a balance between case study and informal interviews as my choice of research instruments.

Firstly, case study was chosen for being the most important method of data collection and, mostly, for being an appropriate tool for the production of the expected results for this kind of investigation. It gave the researcher an opportunity to have a schedule for data collection prepared in advance. It also allowed for record-keeping in order to code and then store the children's responses for careful scrutiny and analysis afterwards (Somekh and Lewin, 2005:131).

This study is cognisant of the fact that everything has advantages and disadvantages and it is for that reason that the researcher came to the research field

prepared for situations such as when children may become tense and be intimidated by recording activities such as video recording as well as digital voice-recording that are necessary means of data capturing.

3.5.2 Data analysis

For both Pre-primary schools the researcher collected data from the 27th of November in 2012 to the 1st of February in 2013. Creswell (1994:166) citing Merrian (1988) contends that data collection and data analysis must be a simultaneous process in qualitative research. It is for that reason that the researcher recorded in order of occurrence every detail during the process of informal interviews. Two Pre-Primary schools were involved in the research project; one with isiXhosa-speaking children is in Mdantsane and the other one with English-speaking children is in East London.

The Pre-Primary school in Mdantsane was coded as Pre-Primary School A and the one in East London as Pre-Primary School B. The population of Pre-Primary School A is 98 and the population for Pre-Primary School B is 100.

The participant-teacher for the Pre-Primary School A was coded as Teacher- A and the participant-teacher for Pre-Primary School B as Teacher-B.

For Pre-Primary School A, 13 children participated and of that 13, 6 were females and 7 were males and the number of children participants for Pre-Primary B was 12, 7 females and 6 males. They were given pseudo-names to conceal their identity even though their names were known to the researcher.

Their pseudo-names were constructed according to age, sex and the letter-code assigned to their Pre-Primary school:

Table 3.1: Pseudo-names and letter-codes for research participants

Pre-Primary School A	**Pre-Primary School B**
2. 2-3 years	**2. 2-3 years**
FA-2	FB-2
FA-3	FB-3
MA-2	MB-2
MA-3	MB-3
3. 3-4 years	**3. 3-4 years**
FA-3	FB-3
FA-4	FB-4
MA-3	MB-3
MA-4	MB-4
4. 4-5 years	**4. 4-5 years**
FA-4	FB-4
FA-5	FB-5
MA-4	MB-4
MA-5	MB-5
5. 5-6 years	**5. 5-6 years**
MA-6	FB-6

For both columns, all the children whose pseudo-names start with F are females and those that start with M are males. Symbols A and B represent the names of their Pre-Schools and then the numbers depict the participants' ages.

Creswell (1994:167) suggests that data should be organised categorically, reviewed repeatedly and continually coded.

Data analysis is the process of making data more measureable through organising the data collected into categories and interpreting the data, searching for recurring patterns to determine the importance of and make sense of relevant information (Van Niekerk, 2008:117).

Creswell (2009:186) views coding as the process of organising the material into chunks or segments of texts before bringing meaning to information. He further gives advice on transcription of voice-notes or of taped interviews. This study examined and sorted data by segmenting participants' utterances into categories and then labelling them. Responses from the participants were matched and frequencies of word pronunciations were calculated so as to compare. Complex data collected was captured and systematically analysed in sentences and phrases. The material was coded so as to categorise and develop the theory (Flick, 2006:296).

The researcher transcribed the taped informal interviews and, more than often, read through each transcript to gain full understanding of the content. For each target consonant representing a particular place of articulation, words were elicited from the participant's speech arising from the informal interviews. They were then organised and arranged according to the different kinds of phonological articulation errors. Themes were grouped together under well pronounced and mis-pronounced words for analysis purposes. Interesting and significant occurrences were noted, key words to capture essential qualities were used, and themes were clustered and put together. A coherent master list of themes that enabled the researcher to write up and to summarise the findings was developed and codes for such themes were produced.

3.5.3 The researcher's role

In qualitative research the role of the researcher as the primary data collection instrument necessitates the identification of personal values, assumptions and biases at the outset of the study (Creswell, 2009:163). The researcher's personal experiences, particularly of working in the school environments and having encounters with children for most of her teaching career have shaped her perceptions of the context and that has enhanced the researcher's awareness, knowledge and sensitivity to many of the challenges, decisions and issues encountered when working with people, children in particular. That has assisted in working easily with participants in this study. In her capacity as an educator, the researcher brought knowledge of some of the processes of the education system and the role of teaching at the same time, in as far as educational policies in dealing with learners is concerned.

Due to previous experiences of working closely with children, the researcher brought to the study certain biases that might shape her view and understanding of the data the researcher collected and the way she interpret her experiences. Efforts to ensure objectivity were made. The researcher made sure that opinions and experiences the researcher has about children's word pronunciations are left out of the particular research.

The typical role of the researcher in qualitative study is to be the respondent observer or interviewer. Maree, *et al.* (2007:177) believe that one's role as researcher should empower one to enter into a collaborative partnership with the respondents in order to collect and analyse data with the main aim of creating understanding. The researcher in this study was an interviewer and an observer at the same time. The researcher spent considerable time in schools, approximately, three hours and more collecting data of educational concern in the natural setting of the respondent (Buchel, 2007:229).

The researcher obtained data through making use of face-to-face interviews, and made sure to listen attentively. Collected data was coded, interpreted and analysed with one aim in mind, to draw reliable and valid conclusions.

3.5.4 Trustworthiness of data

This study used multiple methods to collect, analyse and interpret data to strengthen reliability and validity. The researcher provided a detailed description of the focus of the study as well as the role played by the researcher (Creswell, 1994:168).

3.5.5 Validity and reliability

Validity refers to the truth of propositions generated by the research. Patton (2001) cited by Golafshani states that validity and reliability are two factors which any qualitative researcher should be concerned about while designing a study, analysing results and judging the quality of the study. He further states that reliability is a consequence of the validity in a study.

Golafshani citing Joppe (2000:1) defines reliability as, “The extent to which results are consistent over time and an accurate representation of the total population under study is referred to as reliability and if the results of a study can be reproduced under a similar methodology, then the research instrument is considered to be reliable” (http://www.nova.edu/ssss/QR/QR8-4/golafshani.pdf).

The objective for triangulating the methods of data collection and data analysis was to ensure that there were no inconsistencies as far as the findings were concerned. The researcher provided a detailed description of the focus of the study as well as the role played by the researcher (Creswell, 1994:168).

3.5.6 Transferability of findings

Patton cited by Golafshan (2003:603) states that generalisability is one of the criteria for quality case studies depending on the case selected and studied. Maree, *et al.* (2007) agrees with Patton when he views generalisation as the way in which the audience is able to take the findings and transfer them to other contexts. This study has, therefore, supplied intense descriptions of data and contexts by providing large, clear and detailed information of the findings to ensure transferability.

3.5.7 Limitations

This study experienced a couple of limiting circumstances during the process of research and, more so, because its participants were small children. Some would easily get tired and want to discontinue despite the researcher's gentle encouragement. I respected their wishes whenever such behaviour emerged, took a break and then resumed to complete the process of investigation. Some of the less assertive children would simply cry and ask for mom. It then became difficult to even try to work with a child in that state and the only solution was to release that child.

It proved to be a bit difficult to work with small children. Some did not respond freely and tended to verbalise what they thought they ought to say. One child, just out of the blue, told the researcher that, "mommy" is going to buy her a Barbie doll. The researcher exercised patience when such surprising responses emerged. Other children became shy and did not respond at all and the researcher had to replace such a child in order for the study to come to valuable and reliable conclusions.

The amount of time that was initially agreed on between the Pre-School and the researcher was not enough to accomplish the research project and the negotiations for an increase in time became a bit of a problem at one of the Pre-Schools even though, eventually, the two parties arrived at a mutual agreement.

Despite of all the mentioned limiting circumstances the study experienced, its findings are still worthwhile.

3.5.8 Ethical considerations

Ethics in research generally means an investigator has a moral obligation to protect the participants from harm, unnecessary invasion of their privacy and the promotion of their wellbeing (Bless, Higson-Smith and Kagee, 2006:1).

Concerning ethical considerations, House (1993) as cited in Somekh and Lewin (2005:2) points out that ethical principles are abstract and it is not always obvious how they should be applied in given situations and that some of the intractable ethical problems arise from conflicts among principles and the necessity of trading one against the other. The balancing of such principles in concrete situations is the

ultimate ethical act. Deducing from House's statement on the nature of ethical principles, Somekh and Lewin (2005) view ethics in research as a situated practice.

Furthermore, Somekh and Lewin believe that while ethical considerations may initially be viewed as road blocks to beginning a study, they are clearly integral to the process. Hence they point out that attention to the ethics of an investigation requires extra thought and effort and that a payoff for a study that is both methodologically intact and ethically sound is extremely exhilarating. Basically, this means that more effort should be given to these two mentioned sections of the study in order to attain the described feeling.

Whether a researcher is a psychologist, an educator or an anthropologist, the primary responsibilities to participants are clear: obtain consent, protect from harm and ensure privacy (www.sagepub.com/upm-data/26094_3.pdf 07 September 2007).

The researcher cited a couple of potential problems at the proposal stage of the study, such as matters of confidentiality, harm of participants' dignity, the time span for the investigation and misleading them about the actual purpose of the study. However, the researcher had formal approval from the University's Ethics Committee to do the study and, therefore, had an obligation to comply with the rules thereof.

To conform to the ethical research guidelines of the researcher's institution, even before she conducted the research, the researcher completed a form that was to be signed by children's parents consenting to their participation. Attached to the form was a document that spelled out the intensions of the study and the objectives thereof. It was in that document that it was clearly stated why it was necessary to carry out the investigation and the benefits thereof. Most importantly, it was emphasised that the researcher's goal was not to evaluate individual children in any way but rather to learn about children's articulation of consonants in general.

It was well documented that all the participants were not being forced to participate as they had a choice to or not to and that, either way, there would be no penalties and no one would be prejudiced. Participants were informed about the duration of the research and the in and out movement of people was well controlled. Their privacy was respected and pseudo-names were used to hide their true identities. The information resulting from the research proceedings remained confidential.

3.6 CONCLUSION

This part of the study has dealt particularly with the research methodology. Face-to-face type of interviews and data probability sampling were used as tools for the research. This chapter has been an interesting journey for the researcher. It afforded the researcher an opportunity to gain a great deal of experience in the field. In the process of research the researcher learned theories and methods and applied them. These experiences have reconstructed the researcher in the sense that through them the researcher has emerged a more confident and able interviewer and observer. The researcher has also gained insight into the children's different articulation problems. It has been quite an interesting experience in the field having to apply the learned theories and assess the results.

CHAPTER 4: DATA PRESENTATION AND ANALYSIS

4.1 INTRODUCTION

This chapter introduces the reader to the kind of data this study collected with regard to children's different consonant acquisition rates. Hofstee (2006:137) views this part of the dissertation as the heart of the research study mainly, for its role in letting the researcher probe and test his thesis statement, giving feedback and, at the same time, dealing with the concerns of his research. This chapter, therefore, deals with the presentation, analysis and the interpretation of the data.

The study was conducted at two different sites within the East London area and they cannot be named for ethical considerations. This study has coded the first site as Pre-Primary School A, which is a township school in Mdantsane while the second site was coded as Pre-Primary School B, a suburban school in the heart of East London.

The investigation started towards the end of November of the year 2012 and proceeded through to the end of January of 2013. The research process started at Pre-Primary School A, an area that is mainly for blacks and formerly classified as a disadvantaged area. It is characterised by high levels of unemployment where poverty and crime have become the order of the day. Socio-economically, Pre-Primary School B is situated in a middle class suburb, a former advantaged area.

The two Pre-Primary schools were examined to provide case studies of children's pronunciation of words that later translates into the articulation of individual sounds constituted therein. The research processes at both sites included collecting data by means of informal interviews aiming at finding out the differences of rates, if any, in phonological acquisition of consonants between the isiXhosa-speaking and the English-speaking Pre-Primary school children. Children's utterances were closely examined and broken down in order to find interpretations for the data collected as well as explanations for unusual observations, themes and patterns that relate to children's pronunciation of words or, rather, articulation of consonants (acquisition rates). Hence this chapter is an attempt to distinguish between presentation of data and the interpretation of the same.

4.2 PROFILES OF THE PARTICIPANTS

The description of the participants of the study and their backgrounds are of utmost importance in order to bring to light the purpose, the intentions and the rationale behind the questions that were used to elicit the responses to be analysed (Simon, 2006:6). Pre-Primary School A is a complete black school situated in the Mdantsane area of East London. The school has an enrolment of about 98 pupils who all speak Xhosa. The head-mistress manages the school with the assistance of an Administrator, four (4) teachers and two (2) teacher aids.

Pre-primary School B is in the Cambridge area of East London, an all white school population of about 100 learners. The school has one (1) principal, one (1) administrator, seven (7) teachers and eight (8) teacher-aids. It did not take much time for one to notice inequalities in terms of resources between the two schools. Even though there is not much difference in their enrolment totals, there are noticeable differences in as far as the staff establishment and the infrastructure are concerned. There are fewer teachers and teacher-aids at Pre-Primary School B than at Pre-Primary School A. The kitchen space is almost invisible at Pre-Primary School A while children at Pre-Primary School B enjoy large areas of interior as well as exterior grounds. From what we gather from the Pre-School Learning Centre website on the benefits of early intervention, it is evident that there is a relationship between children's early experiences and their development. Children's early experiences affect both the structural and the functional development of the brain and, whether positive or negative, can have long term consequences for children. These effects are huge for children from disadvantaged communities, (http://www.healthy...August, 2013). Some of the things mentioned by the Pre-School Learning Centre website to ensure the quality of children's early experiences are school resources, quality school programmes, and in-door and out-door experiences. One can only wonder how it is possible to ensure that children's experiences remain positive in the midst of all the vast and obvious inequalities that exist between the two schools within the same Directorate.

4.2.1 Presentation and analysis of biographical data

Out of a population of 98 learners, 13 children of 2 to 6 years of age were studied at Pre-School A. Of those, 6 were females and 7 were males. They were children from 2, 2-3, 3-4, 4-5 and 6 years of age. For Pre-Primary School B, out of a population of 100 children, 13 were studied. They were 7 females and 6 males and their ages ranged from 2, 2-3, 3-4, 4-5 and 6 years. On the whole, 26 children were studied.

The above narrative is reflected in the two following tables:

4.1 Table of data demographics: Pre-School A

Pre-Primary School A	**Age**	**Females**	**Males**	**Total**
	2	1	1	2
	2-3	1	1	2
	3-4	2	2	4
	4-5	2	2	4
	6	0	1	1
Total		**6**	**7**	**13**

Table 4.1

Table 4.2 A table of data demographics: Pre-School B

Pre-Primary School B	**Age**	**Females**	**Males**	**Total**
	2	1	1	2

	2-3	1	1	2
	3-4	2	2	4
	4-5	2	2	4
	6	1	0	1
Total		**7**	**6**	**13**

Table 4.2

The total number of children representing both Pre-Primary Schools in this research study was 26.

4.3 Profile of the age of the participants

	Age group				
	2-3	3-4	4-5	6	
Pre-School A	4	4	4	1	13
Pre-School B	4	4	4	1	13
Totals	8	8	8	2	26

Table 4.3

This research studied children between 2 to 6 years of age and the sample from both Pre-Schools reflected as such. For both schools the child representation in terms of numbers per age group was as follows: the number for children between 2 to 3 years of age was 8 four, 8 again for 3 to 4 years of age, 8 for 4 to 5 years of age and 2 for 6 years of age.

4.4 Profile of the gender of the participants

Gender			
	Male	Female	Total
Pre-School A	7	6	13
Pre-School B	6	7	13
Total	13	13	26

Table 4.4

The above table reflects the study's participant representation in terms of gender. Out of 13 children sampled at Pre-School A, 7 were males and 6 were females and vice versa for Pre-School B. This means that there were more males than females at Pre-Primary School A while at Pre-Primary School B the situation was reversed. This, therefore, brings the total child representation for both schools in this study to 26.

The above table indicates that the ages of the children studied ranged from 2 to 6 years of age and that is a reflection of the fact that they were young and still of the pre-school going age. That also suggests that they may not have acquired all the consonants of their respective languages at the time of the research. Various concerned scholars have made an assertion about children's ages and the phonological acquisition of consonants. This becomes evident in Fromkin, Rodman and Hyams' (2007:327) claim that, while the child's first year is devoted to figuring out the phonetic inventory, the second year involves learning how those sounds are used in the phonology of the language. This notion refers to children's ability to use and distinguish certain consonants at about this age.

4.2.2 The general picture of the biographical data

The participants of this study were all little children between the ages of 2 to 6 years who were only at the beginning of their formal schooling. They were sampled from one of the so-called disadvantaged community schools in Mdantsane and from one

of the city schools in East London. The township school was coded as Pre-Primary School A and it consisted of more males than females. The sub-urban school was coded as Pre-Primary School B and there were more females than males. Both Pre-Schools had an equal number of participants.

Children from these schools were keen to speak to the researcher. I guess they became comfortable in the presence of their teacher-aids.

The following part of this work deals with presentation and analysis of the acquired data.

4.3 PRESENTATION OF DATA/REPORTING RESULTS

This study used informal interviews and as its research instruments to investigate Pre-Primary School children's utterances. The reason behind that was to fulfil the study's objectives of comparing the participants' word pronunciations in isiXhosa and in English, focusing on the articulation of target sounds (consonants).

4.3.1 Report on Pre-Primary School A

The researcher's investigation started at Pre-Primary School A and began with the 2 year old participants and moved up in age order to finish with the 6 year olds. Pre-Primary School participants were black and were also isiXhosa speaking. Through informal interviews participants were subjected to the pronunciation of the following words; *ulwimi (tongue), inyama (meat), isonka (bread), isandla (hand), ihlahla (a branch), ixolo (a peel), unwele (a single hair of the head), ndigqibile (I have finished), xukuxa* (brush the teeth) and *isitshixo (a key)*. The aim of subjecting the participants to pronouncing these words was to target the articulation of sounds such as *lw, ny, s, ndl, hl, x, k, nw and gq*. Also targeted were the places of articulation of the selected words. At the same time, the researcher was on the look-out for articulation errors such as omissions, reductions, distortions, substitutions, and so forth.

Informal Interviews were deliberately held just after lunch and children had their lunch earlier than usual in order to allow time for the informal interviews and also so that children would not panic because of hunger during the informal interviews. Children were willing to give the researcher more than she had *bargained* for. The

informal interview questions were designed such that they were appropriate with the age of the participants. One sentence-question triggered lengthy conversations. They wanted to talk about everything that was of interest to them. Time for interviews was readily scheduled and the researcher had the question sentences on food-related topics and everything related to that planned well in advance.

4.5 A table of questions and responses

Sentence question	Participant	Target word	Target sound	Response
Have you finished your food?	FA 2	*ndigqibile (I have finished)*	*gq [!g]*	*-gqibile*
What did you eat at lunch?		*isonka (bread)*	*s [s]*	*isonka*
		inyama (meat)	*ny [ɲ]*	*inama*
What is in your mouth?		*ulwimi (tongue)*	*lw [lw]*	*ulwimi*
What is in your lunch box?		*ixolo (a peel)*	*x [ǁ]*	*ixolo*
Do you brush your teeth after meals? What do you do?		*xukuxa(brush the teeth)*	*k [k']*	*xuxuxa*
Whose key is that? What is that?		*isitshixo(a key)*	*tsh [ʧ']*	*isixixo*
Have you finished your food?	MA 2	*ndigqibile(I have finished)*	*gq [!g]*	*-kibile*
What did you eat at lunch? And what else?		*isonka* *inyama*	*s [s]* *ny [ɲ]*	*ithsonka* *inyama*

Sentence question	Participant	Target word	Target sound	Response
What is in your mouth?		*ulwimi (tongue)*	*lw [lw]*	*ilimo*
What is in your lunch box?		*ixolo (a peel)*	*x [ǁ]*	*ikolo*
Do you always brush your teeth after every meal? What do you do?		*xukuxa(brush the teeth)*	*k [k']*	*xuxuxa*
Whose key is that? What is that?		*isitshixo(a key)*	*tsh [ʧ']*	*-xixo*
Did you wash your hands before eating your lunch? Show me your hand? What is that?	FA3	*isandla (a hand)*	*s [s]*	*ihlandla*
Can you say ihlahla.		*ihlahla (a branch)*	*hl [ɬ]*	*ihlahla*
What are you playing with? Are those not my keys?		*Isitshixo (a key)*	*tsh [ʧ']*	*isitixo*
Did you wash your hands before eating your lunch? Show me your hand? What is that?	MA3	*isandla(a hand)*	*s [s]*	*ihlanza*
Can you say ihlahla?		*ihlahla (a branch)*	*hl [ɬ]*	*ihlahla*
What are you playing with? Are those not my keys?		*isitshixo(a key)*	*tsh [ʧ']*	*isitixo*

Sentence question	Participant	Target word	Target sound	Response
What are those? Are those not my keys?	FA4	*isitshixo(a key)*	*tsh [ʧ']*	*isitixo*
What is your clan name?		*marhadebe (clan name)*	*rh [x]*	*mahladebe*
What are those? Are those not my keys?	MA4	*isitshixo(a key)*	*tsh [ʧ']*	*isixixo*
Beautiful hair! Is it your hair?	FA5	*unwele a single hair of the head)*	*nw [nw]*	*unywele*
What are those? are those not my keys?		*isitshixo (a key)*	*tsh [ʧ']*	*Isitsixo*
What are those? Are those not my keys?	MA5	*isitshixo (a key)*	*tsh [ʧ']*	*Isitixo*
What are those? Are those not my keys?	MA6	*isitshixo (a key)*	*tsh [ʧ']*	*Isitixo*

Table 4.5

4.3.2 A narrative report on Pre-Primary School A's responses

Every child develops at a different pace (http://www.precho...20.August, 2013). During the research process this study took note of the above assertion by the Pre-School Learning Centre website and observed that children of 2 to $2\frac{1}{2}$ years of age mostly answered with isolated words and seldom answered in sentences.

The codes used to refer to the participants reflect the gender, with symbol F indicating a female and symbol M a male. Symbol A represented the name of the Pre-School and the figure represented the age of the participant.

As it has been mentioned on the previous page, using food-related words during informal interviews at Pre-Primary School A worked well for the researcher. When the researcher asked participant FA2, a female child of two years, if she had finished

her food, her response was, *-gqibile* (I have finished it). Amongst the foods she mentioned when the researcher asked what she had eaten at lunch time was, *inama* meaning, 'meat'. The researcher then, asked her if she brushes her teeth after every meal and her response was, "yes". The researcher rephrased her question in order to elicit the word, *xukuxa (brush the teeth)*. She then asked, "What do you do?" The participant's response was, *xuxuxa*. Noticing the keys with which the participant was playing during the conversation, the researcher further asked, "What are those? Are those not my keys?" The response was, *isixixo*. She meant to say, 'It is the keys'.

Participant FA2 seemed to have no problem in pronouncing words such as, *ihlahla (a branch), isandla (a hand), ulwimi (tongue), ixolo (a peel), isonka (bread) and unwele (a single hair of the head)*. She pronounced each and every one of them well.

When the researcher asked participant MA2, a male child aged two years, if he had finished his food, his response was, *-kibile (finished)*. The researcher's next question went like this, "What were you eating?" The participant's responce was, *ithsonka*. He meant to say, 'bread'. The researcher teased the participant to further illicit more words and said, "No! That is not true. You have not finished your food". That is when the participant stuck out his tongue to prove to the researcher that, indeed, he had finished his food. The researcher's focus then shifted to the tongue and further asked, "What is that?" The participant's response was, *ilimo (tongue)*. The next question was, "What else is there in your lunch box?" The answer was, i*kolo (a peel)*. That is an orange peel. The researcher ended her interview with participant MA2 with a question that is based on the word 'key'. "What is that, is that not my key?" The response was, *-xixo (key)*. This participant pronounced words, *ihlahla (a branch), inyama (meat), isandla (hand)*, and *unwele (a single hair of the head)*. He pronounced each and every one of them well.

When the researcher asked participant FA3 if she had washed her hands before she ate her lunch, she said, "yes". The researcher held her one hand and asked, "What is this?" The response was, *ihlandla (a hand)*. When the same question was directed to participant MA3, the response was, *ihlanza (a hand)*. Wondering what their responses would be, the researcher asked both participants to pronounce the word, *ihlahla (a branch)*. The response was, *ihlahla (a branch)*, with both participants

correctly pronouncing the word. Noticing that participant FA3 was playing with her keys, the researcher asked, “What are those? Are those not my keys?” The participant’s response was, *isitixo (a key)*. The same question went to participant MA3 and the response was, *isitixo (a key)*.

Participant FA3 pronounced most of the words well except for two words, *isandla (hand)* and *isitshixo (a key)*. Words that participant MA3 managed to pronounce well are *unwele (a single hair of the head)*, *ihlahla (a branch)*, *ixolo (a peel)*, *xukuxa (brush the teeth)* and *inyama (meat)*.

Seeing that participant FA4 was a talkative young lady, the researcher had earlier on asked her what her clan-name was. The response was, *mahladebe (clan name)*. That is when the researcher had heard this amazing response that the word *marhadebe* was spontaneously included in the list of target words. Of interest to the researcher was the response of the other participants to the same word. The case was not the same for participant MA4 as he could not tell the researcher his clan-name. When he was asked about a key, his response was, *isixixo* (a key) while his counter-part’s response participant FA4, to that same question was, *isitixo (a key).*

Of the scheduled words for this research, only one word participant FA4 could not pronounce and that is the word, *isitshixo (a key)*. The same could be said about participant MA4 as he did not even try to pronounce the word *marhadebe (clan name)*.

The researcher complimented participant FA5 on her long and beautiful hair and asked, “Is this your hair?” In her response she pronounced the word *unwele* (a single hair of the head) as *inywele* and *isitshixo* (a key) as, *isitsixo*. Participant MA4 pronounced this very same word as, *isitixo (a key)*. This participant pronounced most of the given words correctly except for the two mentioned above.

Participant MA6 pronounced every given word well except for the word, *isitshixo (a key)* which he mispronounced as, *isitixo (a key)*. This was the only word that participant MA6 found difficult to pronounce.

Below is a table indicating the number of words that Pre-School A’s participants of each age range were able to pronounce well, and those they mispronounced.

4.6 A table of well pronounced and mispronounced words: Pre-School A

Word	Number pronounced	Age range	Number mispronounced	Age range
ndigqibile	11	3-6	2	2
inyama	12	2-6	1	2
isandla	11	2-6	2	3
Ixolo	12	2-6	1	2
ihlahla	13	2-6	0	0
xukuxa	11	3-6	2	2
unwele	12	2-6	1	5
ulwimi	12	2-6	1	2
isonka	12	2-6	1	2
marhadebe	12	2-6	1	4
isitshixo	0	2-6	13	2-6

Table 4.6

4.3.3 Report on Pre-Primary School B

The next site of investigation was Pre-Primary School B with white English-speaking participants between the ages of 2 to 6 years of age. The school had an equal number of participants as Pre-Primary School A and the only difference was the number of female representation which was one digit more than in Pre-Primary School A and vice versa with males. The presence of their teacher aid set them at ease and it was, therefore, easy to communicate with them.

The researcher started the investigation with the 2 year olds, moving up in age order and finishing with the 6 year olds. Through the use of informal interviews, specific words from which to elicit specific sounds were targeted. The words that the participants were made to pronounce were as follows: brown bread, chef, cup, pest, this, three, watch throw, thumb and spaghetti. The aim of the participants' pronunciation of the mentioned words was to further target the articulation of sounds such as b [br], ch [ʧʰ], th, [□], sp [sp], p [p], c [kʰ], st [st], th [ð]. Places of articulation for the target words as well the structure of the target sounds were of importance to the researcher. The focal point was on such articulation errors as additions, omissions, reductions, distortions, substitutions, and so on.

The interviews took place at the beginning of the festive season and the interviewer took advantage of that atmosphere by setting interview questions based on Christmas-related topics. That move ignited children's interest and changed the mood for the better. They were happy and willing to co-operate with the researcher as well as the teacher aids.

Below is a table displaying the informal interview questions as well as the responses of the participants.

4.7 A table of questions and the responses – Pre-Primary School B

Sentence **Question**	**Participant**	**Target word**	**Target sound**	**Response**
What is in your lunch box?	FB2	brown bread	br [br]	bown wed
Can you say, 'chef'?		chef	ch [tʃʰ]	feth
What are you drinking with?		cup	c [kʰ]	tup
Can you say, 'this'?		this	th [ð]	this

Do you get presents at Christmas?		watch	tch [ʧʰ]	wash
What is mom cooking for dinner?		spaghetti	sp [sp]	ghetti
Can you count to three?		three	thr [θr]	three
Where are you going?		throw	thr [θr]	throw
Can you say, ‘pest’?		pest	st [st]	pet
You are sucking your thumb. Are you? What is that?		thumb	th [□]	thumb
You are sucking your thumb. Aren’t you? What is that?	MB2	thumb	th [□]	tum
What is in your lunch box?		brown bread	br [br]	bown baed
Can you say, ‘pest’?		pest	st [st]	pest
Can you say, ‘this’?		this	th [ð]	this
Can you count to three?		three	thr [θr]	three

Where are you going?		throw	thr [θr]	taw
What are you drinking with?		cup	c [k^h]	cup
What is mom cooking for dinner?		spaghetti	sp [sp]	ghetti
Can you say 'chef'?		chef	ch [$tʃ^h$]	cef
Can you say, 'watch'?		watch	tch [$ʧ^h$]	watch
What is mom cooking for dinner?	FB3	spaghetti	sp [sp]	pasghetti
Can you say, 'watch'?		watch	tch [$ʧ^h$]	watch
What is in your lunch box?		brown bread	br [br]	brown bread
Can you say 'chef'?		chef	ch [$tʃ^h$]	feth
How old are you?		three	thr [θr]	three
Where are you going?		throw	thr [θr]	throw
You are sucking your thumb. Aren't you? What is that?		thumb	th [□]	thumb

What are you drinking with?		cup	c [k^h]	cup
Can you say, ‘pest’?		pest	st [st]	pest
Can you say, ‘this’?		this	th [ð]	this
Can you say chef?	MB3	chef	ch [$tʃ^h$]	fef
What is mom cooking for dinner?		spaghetti	sp [sp]	pasghetti
What is in your lunch box?		brown bread	br [br]	brown bread
How old are you?		three	thr [θr]	sree
Where are you going?		throw	thr [θr]	throw
Can you say, ‘this’?		this	th [ð]	dis
You are sucking your thumb. Aren’t you? What is that?		thumb	thr [θr]	thumb
Can you say, ‘watch’?		watch	tch [ʧ ^{h}]	watch
Can you say, ‘pest’?		pest	st [st]	pet
What are you		cup	c [k^h]	cup

drinking with?				
Can you say, ‘this’?		this	th [ð]	this
What is in your lunch box?	FB4	brown bread	br [br]	brown bread
Can you say ‘chef’?		chef	ch [tʃʰ]	chef
What is mom cooking for dinner?		spaghetti	sp [sp]	spaghetti
Can you count to three?		three	thr [θr]	three
Where are you going?		throw	thr [θr]	throw
You are sucking your thumb. Aren’t you? What is that?		thumb	th [□]	thumb
Can you say, ‘watch’?		watch	tch [ʧʰ]	watch
What are you drinking with?		cup	c [kʰ]	cup
Can you say, ‘pest’?		pest	st [st]	pest
Can you say, ‘this’?		this	th [ð]	this
What is mom cooking for	MB4	spaghetti	sp [sp’]	thspaghetti

dinner?				
What is in your lunch box?		brown bread	br [br]	brown bread
Can you say ‘this’?		this	th [ð]	dis
Can you say ‘chef’?		chef	sh [ʃ]	chef
Can you count to three?		three	thr [θr]	three
Where are you going?		throw	thr [θr]	throw
You are sucking your thumb. Aren’t you? What is that?		thumb	th [□]	thumb
Can you say, ‘watch’?		watch	ch [ʧʰ]	watch
What are you drinking with?		cup	c [k]	cup
Can you say, ’pest’?		pest	st [st]	pest
Can you say, ‘this’?		this	th [ð]	dis
Can you say ‘chef’?	FB5	chef	ch [tʃʰ]	chef
What is in your lunch box?		brown bread	br [br]	brown bread

What is mom cooking for dinner?		spaghetti	sp [sp]	spaghetti
Can you count to three?		three	thr [θr]	three
Where are you going?		throw	thr [θr]	throw
You are sucking your thumb. Aren't you? What is that?		thumb	th [□]	thumb
Can you say, 'watch'?		watch	tch [ʧʰ]	watch
What are you drinking with?		cup	c [kʰ]	cup
Can you say, 'pest'?		pest	st [st]	pest
Can you say, 'this'?		this	th [ð]	this
Can you say 'chef'?	MB5	chef	ch [ʃ]	chef
What is in your lunch box?		brown bread	br [br]	brown bread
What is mom cooking for dinner?		spaghetti	sp [sp]	spaghetti
Can you count to three?		three	thr [θr]	three

Where are you going?		throw	thr [θr]	throw
You are sucking your thumb. Aren't you? What is that?		thumb	th [□]	thumb
Can you say, 'watch'?		watch	tch [ʧʰ]	watch
What are you drinking with?		cup	c [kʰ]	cup
Can you say, 'pest'?		pest	st [st]	pest
Can you say, 'this'?		this	th [ð]	this
What is in your lunch box?	FB6	brown bread	br [br]	brown bread
Can you say, 'chef'?		chef	ch [tʃʰ]	chef
What is mom cooking for dinner?		spaghetti	sp [sp]	spaghetti
Can you count to three?		three	thr [ɵ r]	three
Where are you going?		throw	thr [ɵ r]	throw
You are sucking your thumb. Aren't you?		thumb	th [□]	thumb

What is that?				
Can you say, 'watch'?		watch	tch [ʧʰ]	watch
What are you drinking with?		cup	c [kʰ]	cup
Can you say, 'pest'?		pest	st [st]	pest
Can you say, 'this'?		this	th [ð]	this

Table 4.7

4.3.4 A narrative report on Pre-Primary School B's responses

Pre-Primary School B is a 2 to 6 years Pre-School with 100 children on its roll. It is situated in a suburban area serving a large and mainly white community. The researcher first interviewed the 2 year olds using English as a language of communication. The codes used to refer to the participants reflect the gender, with symbol F indicating a female and symbol M a male. Symbol B represented the name of the Pre-School and the figure represented the age of the participant.

Words that were part of the interviews were: brown bread, cup, chef, pest, spaghetti, this, three, throw, thumb and watch. Informal interviews were based more on the Christmas season to create the kind of atmosphere that would excite the participants. That worked well for the research team because the children seemed to be happy and free. The catch phrase that worked as a magic question for each individual interview was, "Are you excited about Christmas?" Participant FB2, a female child of 2 years, first responded to the question by saying, "No". Her mood changed completely when the researcher further asked, "Do you get presents at Christmas?" Her response was, "Yes. I got a doll and a new wash''. She was referring to a pink plastic watch she was wearing. She misarticulated the voiceless aspirated palatal affricate [ʧʰ] and replaced it with a less complex sound, a voiceless

palatal fricative [ʃ]. The researcher had difficulty moving to the next question as participant FB2 continued to talk about Christmas presents. The researcher had to find ways to divert the talk back to the next question. The next question asked was, “What is in your lunch box?” The response was, “wed”. The researcher asked, “What kind of bread, white bread or brown bread?” The response was, “bown wed”. FB2 found it difficult to articulate a cluster combination sound [br] thereby simplifying it by reducing it to a single consonant and hence the first part of the word was pronounced as, ‘bown’. She replaced the consonant combination in the word with [w] only to be pronounced as, ‘wed’. This participant pronounced the word ‘chef’ as, ‘feth’, completely distorting the whole structure of that word. For the first syllable, the voiceless aspirated palatal affricate [ʧʰ] became the voiceless labio-dental fricative [f] and for the last, the voiceless labio-dental fricative [f] became the voiceless dental fricative th [□]. Each participant was offered something to drink and, pointing to the cup, the researcher asked her what that was. Her response was, “tup”. He replaced the voiceless aspirated velar explosive ‘c’ [kʰ] with the voiceless aspirated alveolar explosive [tʰ]. The last question the researcher asked was, “What is mom cooking for dinner?” The response was, “ghetti”. She simply omitted the first syllable of the word ‘spaghetti’.

When the researcher asked participant MB2, “What is in your lunch box?” his response was, “bown baed”, meaning to say, ‘brown bread’. He avoided articulating the consonant combination ‘br’ and by means of omission, ‘br’ became ‘b’. When this participant was asked to say, ‘chef’, his reply was, “cef”, thereby replacing the voiceless aspirated pre-palatal affricate [ʧʰ] with the voiceless aspirated velar explosive [kʰ]. Having noticed that MB2 was attempting to leave his chair, the researcher asked, “Where are you going?” Clutching something in his hand, his response was, “taw paper”. He pronounced the word ‘throw’ as, ‘taw’. By means of cluster reduction, the dental affricate ‘thr’ got substituted by an alveolar sound [t]. Participant MB2 pronounced the word ‘spaghetti’ as, ‘ghetti’, deleting the first syllable of that word. His problem seemed to be the multi-syllabicity of the word ‘spaghetti’ and to solve the problem he opted to drop the unstressed initial syllable, ‘spa’. Noticing that MB2 had a habit of sucking his thumb, the researcher held his hand and said, “You are sucking your thumb, do you?” He further asked, “What is this?”

The response was, “tum”. The researcher asked, “What is mom cooking for dinner?” He replaced the dental fricative ‘th’ [□] with an alveolar sound [t].

When participant FB3 was asked what her mom was cooking for dinner, her response was, “pasghetti”. To avoid the consonant combination, [sp], she re-arranged the structure of the word such that ‘spa’ became ‘pas’. She pronounced the word ‘chef’ as, ‘feth’, [ʧʰ] a palatal replaced [f] a dentilabial.

When the researcher asked participant MB3 if he could say, ‘chef’, the response was, “fef”. He resorted to what O’Grady, cited by Goodluck (1991:25) refers to as consonant harmony, a situation where a consonant tends to assimilate with the structure. A palatal 'ch’ [ʧʰ] became a denti-labial [f]. When the researcher asked how old he was, his response was, “sree”. He simplified the cluster combination sound by replacing the dental sound [□] with an alveolar sound [s]. The researcher ended the conversation with participant MB3 by asking him to say, ‘pest’. His response was, “pet” [pʰ□t]. This participant pronounced ‘this’ as ‘dis’, substituting the sound th [ð] with [d].

Participant FB4 pronounced well every word given while participant MB4 when asked what his mom was cooking for dinner, his response was, ‘thspaghetti’. The sound [s] became [□], thereby pronouncing that word with a lisp. That articulation error is called distortion. He went on to pronounce the word ‘this’ as, ‘dis’, preferring an alveolar sound [d] to a dental sound [ð].

Participants FB5, MB5 and FB6 pronounced every given word well.

Below here is a table indicating the number of the words that each participant pronounced well and the number the number for those mispronounced.

4.8 School B's table of well pronounced and mispronounced words

Word	Number pronounced	Age range	Number mispronounced	Age range
brown	11	3-6	2	2
bread	11	3-6	2	2
Chef	09	3 -6	4	3
Three	12	2-6	1	3
Watch	12	2-6	1	2
Throw	12	2-6	1	2
Thumb	12	2-6	1	2
spaghetti	09	3-6	4	2-4
This	11	2-6	2	3-4
Pest	12	2-6	1	2
Cup	12	2-6	1	2

Table 4.8

4.4 INTERPRETATION OF FINDINGS

4.4.1 Presentation of Pre-School A's findings

At Pre-primary School A, of the total number of 11 words, participant FA2 pronounced 7 well and that equals 64 percent. This, therefore, means that she mispronounced 4 words which are equal to 36 percent of the total number. Participant MA2 pronounced well 5 of the 11 words which is 45.5 percent and thereby mispronouncing 4 the other which is 36 percent of the total number. Between participants FA3 and MA3 as well as FA4 and MA5, 18.2 percent of the

total number of words, which is 2 words each, was not well pronounced. That leaves a total number of well pronounced words at 81.8 percent which is about 9 words for each child.

Participants MA4, MA5 and MA6 mispronounced 1 out of the total number of 11 words and that translates to 90.9 percent of pronounced words thereby each failing to pronounce 9.1 percent of the total words given.

The table below indicates the number of words each participant pronounced well as well as those that were mispronounced

4.9 A table of Pre-School A's findings in percentages

Participant	Number of words mispronounced	Percentages	Number of words well pronounced	Percentages
FA 2	4	36	7	64
MA 2	6	54.5	5	45.5
FA 3	2	18.2	9	81.8
MA 3	2	18.2	9	81.8
FA 4	2	18.2	9	81.8
MA 4	1	9.1	10	90.9
FA 5	2	18.2	9	81.8
MA 5	1	9.1	10	90.9
MA 6	1	9.1	10	90.9

Table 4.9

4.4.2 Presentation of Pre-School B's findings

Of the 11 words that formed the basis of the informal interviews, participant FB2 pronounced well 5 and mispronounced 6 and that translates to 45.0 per cent of the words pronounced well and 54.5 percent of them mispronounced. MB2 pronounced 5 words and mispronounced the other 6. That makes 45.5 percent of well pronounced words and 54.5 percent mispronounced words. Between participants FB3 and MB4 each pronounced 9 words well, translating to 81.8 per cent while mispronouncing 2, amounting to 18.2 percent. MB 3 managed to pronounce 8 words which translate to 72 percent of the total number of 11 words. This participant mispronounced 3 words and that amounts to 27 percent. FB4, FB5, MB5 and FB6 pronounced well every target word.

The above narration is indicated in the form of a table below.

4.10 A table of Pre-School B's findings in percentages

Participant	Number of words mispronounced	Percentages	Number of words well pronounced	Percentages
FB 2	5	45	6	54.5
MB 2	6	54.5	5	45.5
FB 3	2	18.2	9	81.8
MB 3	3	27	8	72.7
FB 4	0	0	11	100
MB 4	2	18.2	9	81.8
FB 5	0	0	11	100
MB 5	0	0	11	100
FB 6	0	0	11	100

Table 4.10

4.11 A table of a comparative analysis of findings

Age range	English misarticulated sounds	Number	Xhosa misarticulated sounds	**Number**
2 years	[ḅr], [tʃʰ] ,[kʰ], [st], [ʧʰ], [□], [ð], [sp]	8	[!g], [k'],[lw], [□], [s], [ʧ'], [x]	**7**
2-3 years	[ʧʰ], [sp], [st], [□], [ð]	5	[s], [ʧ']	2
3-4 years	[sp], [ð]	2	[x], [ʧ']	2
4-5 years	-	-	[nw], [ʧ']	2
5-6 years	-	-	[ʧ']	1

Table 4.11

Below is a narrative analysis of findings as reflected by the above table.

4.4.3 A comparative analysis of findings between Pre-Primary School A and Pre-Primary School B

The above table reflects the differences in rates of articulation between the isiXhosa-speaking and the English-speaking participants. The English-speaking two year old participants misarticulated all 8 consonants between themselves, while their counter-parts misarticulated 7 and managed to articulate 1 only. In percentages, English-

speaking two year old Participants failed to articulate 100%, while the percentages for the isiXhosa-speaking Participants are; 87.5% for misarticulated consonants and 12.5% for well articulated consonants. The difference between the consonant articulations of the two cohorts was only one word which made 12.5% of the total of the consonants that to be articulated.

There was a remarkable difference in the rates of consonant articulation between the age ranges of 2 years and of 2 to 3 years and upwards. As the participants were getting matured, there was an indication of a considerable decline in the rates of consonant misarticulations. For the second age range, the participants of between 2 to 3 years of age, both the isiXhosa-speaking and the English-speaking participants, yielded numbers of consonant misarticulations lower by far than the number for well articulated consonants. Only five of the eight consonants were not articulated by the English-speaking group and the other three were well articulated. In terms of percentages that translated to 62.5% of consonants not articulated and 37.5% of well articulated while the isiXhosa-speaking participants misarticulated two consonants which is 25% and made a maximum articulations of 6 consonants that in terms of percentages translated to 75%.

For both cohorts in the age range of 3 to 4, the rate of misarticulations became even lower. There were only two misarticulations, 25%, as against the six well articulated consonants which in percentage translates to 75%. There was, therefore a tie on this category in as far as articulation of consonants is concerned.

English-speaking participants of 4 to 5 years articulated every single consonant given as against the two misarticulations by their counter-parts. This therefore, means there were 0% misarticulations on the part of the English-speaking group while the isiXhosa-speaking participants had two misarticulations and six articulations between themselves. Essentially, that means 75% of consonant articulations and 25% of misarticulations.

English-speaking participants of the 6 year age range had 100% consonant articulations for they articulated well each and every one of the eight consonants given. On the other hand their counter-parts, the Xhosa-speaking participants of the

same age range articulated well seven that translated to 87.5% and misarticulated one which came to 12.5%.

Based on the facts mirrored by the above table, it can therefore be concluded that, from two to four years of age already, isiXhosa-speaking children were able to articulate a significant number of consonants more than the English-speaking children could. It was, however, noted that by the age of five and six years, English-speaking children articulated well every consonant given.

The following part of this work shall briefly discuss the judgment of the findings of this study.

4.5 JUDGEMENT OF THE FINDINGS

In the midst of the sentences that formed the content of informal interviews were words targeted to further elicit target sounds. Each of the participants, therefore, was subjected to the pronunciation of a particular number of target words from which a particular number of certain sounds was elicited.

Both isiXhosa-speaking and English-speaking children produced meaningful and recognisable utterances. This was an indication that they had acquired most of the speech-sounds of their languages in accordance with their age. Of the words they did not pronounce well, they created an impression that they had the correct structure of the word in their minds and that the problem lay with the articulation of some of the sounds constituting that particular word. Participants indicated that they knew what they meant even when they had mispronounced a word. This became evident when, no matter how many times a child would be made to pronounce a particular word, he would repeatedly and confidently mispronounce it and, yet, he was able to point out what he was referring to. Smith cited by Goodluck (1996:24) supports this idea when he claims that a child has in his head a representation that is identical to the adult's pronunciation. This simply means that children can distinguish among words almost as well as adults can.

Participants found ways to avoid articulation of sounds they could not pronounce. They, however, devised other means to articulate them.

It was strange that the participant who pronounced the word, *ixolo* (peel) as *ikolo* thereby replacing the voiceless alveo-lateral click [*//*] with the voiceless ejective velar explosive [*k'*] did not maintain that pattern in his pronunciation of the word i*sitshixo (a key)*. One would have expected to see the voiceless ejective pre-palatal affricate [ʧ'] replaced by the voiceless ejective velar explosive [*k*'], instead, the word was pronounced as -*xixo* with the initial syllable dropped and had [ʧ'] replaced by [*//*].

One would believe that children would prefer to articulate a velar sound to [*k*'] to articulating a click sound [*//*]. It was, therefore, surprising when one of the 2 year old participants replaced the velar sound [k'] in the second syllable of the word *xukuxa* [*//uk'u//a*] (cleanse the teeth) with a click sound [//]. One would also suspect that the move to substitute the velar sound with a click sound in the second syllable of that word, more than anything else, had more to do with the length of the word. To make things simple, the participant opted to create her own alignment of the multi-syllabic word to rather become, *xuxuxa*.

It was surprising that one of the participants of 2 years of age who, having reduced the cluster sound in the word, *ulwimi* (tongue) from [*lw*] to [*l*] and pronouncing the word as *ilimo*", would further assimilate the initial high back close vowel [*u*] to become the high front close vowel [*i*]. This participant went on to replace the final high front close vowel [*i*] with the mid-back half open vowel [ɔ].

O'Grady (2005:159-161) states that one of the noticeable features of children's early speech is that they often drop the entire syllable, especially when they try to pronounce longer words. They pronounce a syllable with a primary stress louder than any other syllable in the word while its vowel is fully articulated. That became evident when the 2 year old English speaking participants pronounced the word 'spaghetti' as "ghetti" where the initial syllable 'spa'- was omitted and the remaining part of the word was pronounced loudly. Unstressed syllables are dropped syllables for they are just not audible enough to make it past the threshold of perceptibility when a child is getting started on language.

It was noted that the 2 year old participants dropped the initial syllable when pronouncing polysyllabic or multi-syllabic words. This became evident in the pronunciation of the word *ndigqibile (I have finished)*. Participant FA2 pronounced

the word as *-gqibile (finished)*. While the target sound [!g] which is the voiced palatal click was well articulated, [*ndi-*] the initial syllable of the word was omitted. Participant MA2 did not do justice to the word, *ndigqibile (In have finished)*, [ndi-] either as he had pronounced it as, *-kibile*. One, he dropped the initial syllable and then substituted the voiced palatal click [*!g*] with a voiceless ejective velar sound *[k'*].

It was strange to hear a 2 year old English participant articulating the combined sound [br] of the word 'bread' as a semi-vowel [w] especially because the participant had previously articulated the same sound as [b] in the word 'brown' and coming up with the word version 'bown'. It became amazing when the participant pronounced the word 'bread' as 'wed'. The two same sounds were dealt with differently, perhaps due to the complex structure of the sound.

It sounded strange to hear participant MA3, a three year old male child, articulating the word *isandla* (hand) as *ihlanza*. One would believe it is simpler to articulate a voiceless alveolar fricative [*s*] than a voiceless alveo-lateral fricative [ɬ] but there he was opting for the latter rather than the former. What has become strange is the fact that he articulated the sound [*s*] well in his pronunciation of the words *isonka* (bread) and his version of the word *isitshixo (a key)*. The participant might have found it easier to articulate the sound with the side of the teeth than with the front. Judging by the number of participants who preferred the cluster sound (lateral fricative) [*ɬ*] over other sounds, as referred to other articulations such as, *i<u>hl</u>andla* (hand) and *ma<u>hl</u>adebe(clan name)*, one can thus conclude that children prefer the articulation of sounds they found easier over more complex ones.

It was quite interesting to hear a five year old participant pronouncing the word *unwele* as *inywele*. A cluster sound [*nw*] got substituted by a seemingly more complex consonant combination *nyw* [*ɲw*] which is a nasalised voiced velar semi-vowel. This is a situation where an alveolar replaces a pre-palatal. In a case like this, one would believe a child would prefer consonant reduction to further complication of sounds. It therefore transpires in this particular situation that the child was more comfortable with the articulation of a more complex consonant combination than a less complex one. A common rule is to delete when two or more consonants occur in a row within the same syllable (O' Grady 2005:154). The situation with participant

FA5 seems to be contrary to what O' Grady is suggesting. Of the isiXhosa-speaking children, not a single participant could articulate the voiceless ejective pre-palatal affricate [ʧʼ]. Participants produced various versions of articulation of that sound. Some of them are: the voiceless ejective alveolar explosive [*t*ʼ], e.g. '*isitixo*' (a key), the voiceless ejective alveolar affricate [*ts*ʼ], e.g. '*isitsixo*' (a key) and the voiceless alveo-lateral click [*//*], e.g. '*isixixo*' (a key). As to what age should a child be expected to be able to articulate this sound should be a cause for further research.

It is noticeable that, generally, most of the target sounds given for both isiXhosa-speaking and English-speaking children were well articulated and only a few were not. Above the age of four years, there were only two words that isiXhosa-speaking children mispronounced. Such words were: '*isitshixo*' (a key) and '*unwele*' (a single hair of the head) while English-speaking participants of the same age mispronounced the word 'spaghetti'. The four year old participant changed the order of the initial syllable of the word to become 'pasghetti' where 'spa-' became 'pas'. Probably, the participant found it to be less trouble to articulate the voiceless alveolar fricative [s] at the end of the syllable than at the beginning. IsiXhosa-speaking children above the age of five years did not pronounce well two words, and, '*isitshixo*' (a key). Both male and female English-speaking children of five and six years old pronounced well every word given and thus articulated every target sound.

The situation portrayed above, therefore, has some implications for the stakeholders dealing with the children of the age-range between two to six years, particularly teachers. These children are almost at full fluency as far as the acquisition of language is concerned and, therefore, they are ready to read and write.

This study makes a call to applied researchers interested in links between articulation of consonants, reading and comprehension as well the acquisition of language so that, from the findings of this study, further investigation is pursued.

What follows next will be a discussion of the determination of the quality as well as the trustworthiness of the findings of this study.

4.6 ESTABLISHING THE TRUSTWORTHINESS OF THE FINDINGS

Having reported its results, the next step that this study followed was to determine the quality and the trustworthiness of the findings. One of the things that this study did was to spend considerable time with its participants in order to establish some form of a relationship that would eventually make the children free to open up to the researcher. This was done so that, even before getting down to the business of investigation, the researcher got to know the participants a little bit. This was done by putting in place in-built checks before information gathering began and applying all the criteria that were put in place when designing the study. For instance, the triangulation of the sources, research methods as well as the investigator was applied. Right from the start the researcher had discussions with the teacher -aids who played the role of being the children's caretakers from both Pre-Primary schools. Data was obtained by interviewing and by observing each participant in order to cross-check information. Trustworthiness of results was, therefore, cross-checked through triangulation of sources and methods, and triangulation of methods and the researcher. This was then monitored throughout the progression of the study.

4.7 CONCLUSION

This chapter was about the presentation and the analysis of data on phonological acquisition of consonants by children of Pre-School going age. To accomplish this, the study used case studies of two Pre-Primary Schools with the aim of making a comparison of the findings between them.

This study discovered that children have acquired most of the words of their language by at least the age of two. Even though there are sounds they still were not able to articulate and, therefore, they mispronounced certain words at this stage, they had the meaning of those words in their minds. They had strategies to deal with the articulation problems at their disposal and, therefore, were able to simplify complex words by means of reductions, substitutions, deletions, additions, and so forth. As a result of the children's various means of word simplifications, they ended up with their own interesting versions of words that adult people were able to understand.

This study did not find the reasons for children's inability to articulate certain sounds to be something to worry about as there were no clinical concerns found to be the cause of them. Hence the study believes that, through time, words which children have not acquired yet will be acquired soon.

In the light of the above, this study can say that the questions that led to this investigation were, in one way or another, answered and, therefore, the objectives were met.

In as far as the children's phonological acquisition of consonants is concerned the next chapter will deal with the summary of the findings, the recommendations and the conclusions.

CHAPTER 5: DISCUSSION OF FINDINGS, CONCLUSIONS AND RECOMMENDATIONS

5.1 INTRODUCTION

This study set out to determine and compare the differences in the phonological acquisition rates of consonants between the English-speaking and the Xhosa-speaking children of pre-school going ages of 2 to 6 years. This, therefore, was the study's overriding purpose. To accomplish that goal, it became necessary to reach some prerequisite goals. What general language acquisition techniques mean and how they contribute to language acquisition by children assumed a high degree of importance during the literature review conducted for this thesis. Literature reviewed served as a frame of reference to which results may be connected. Related to that, it became necessary to reach an understanding of the processes of phonological acquisition of consonants (sounds). To provide for the possibility that children's different rates of articulation of consonants could be compared and analysed, it was important to develop a model with the potential to indicate all the articulators responsible for the production of sounds in their order of emergence in the child's speech. Once these basic steps were achieved, this study was able to go forward.

Two types of research instruments, informal interviews and unstructured observations, were used to collect data and participants were randomly selected from two pre-schools that are socio-economically and racially different. Both participants, English-speaking and isiXhosa-speaking were subjected to the pronunciation of a total of eleven words targeting an articulation of the same equal number of consonants (sounds). Teacher-aids from both pre-schools formed part of the research team and their role was to manage the participants. Data that was collected addressed the research problems posed in the first chapter of this work.

This chapter then discusses the main findings as presented in chapter four. Conclusions will be drawn and recommendations made, followed by suggestions for future research. The following are the research questions that guided this study:

This study seeks to answer the following questions:

1. Which of these two groups of children, isiXhosa and English-speaking pre-school going-age children, have early phonological consonant acquisition?

2. Why do some children have early consonant articulation development while others do not?

5.2 COMMENTS ON THE FINDINGS

The main findings were discussed based on the data collected. Although the sample populations were different, an interesting comparison of findings can be made. The researcher interviewed both isiXhosa-speaking and English-speaking participants giving attention to the articulations and the misarticulations of words elicited from informal interviews. Both participants' responses led to the discussed findings below.

The findings revealed that, even though by the age two both cohorts had acquired many of the consonants of their languages, there were still words they were not able to pronounce due to some consonants that were not yet acquired and, therefore, could not articulate. That was understandable, given the assertion that there is a small set of challenging consonants that children acquiring isiXhosa master relatively late (Pascoe and Montoa, South African Med J 2012;102 (6):469-471, on-line journal accessed on the 11 December, 2013). This assertion is no different with the English language.

The findings also revealed that both isiXhosa-speaking and English-speaking participants of two to three years of age found complex words hard to pronounce. An example of such words are the isiXhosa words *ndigqibile* (I have finished), *xukuxa (*brush the teeth) and *isitshixo* (a key) as well as the English word 'spaghetti', words that due to their complex structures compelled the participants to find simpler versions. It became evident from the findings that participants from both languages found it difficult to articulate sounds that are composed of more than one consonant, the so-called combined sounds such as, for example, the isiXhosa sound [nw] of the word *unwele* (a single hair of the head), [ɲ] of the word *inyama* (meat), [lw] in the word *ulwimi* (tongue) and [!g] of the word *ndigqibile* (I have finished). Some of the examples of combined sounds that gave the participants a hard time to articulate are, [br] as in 'brown bread', [sp] of the word 'spaghetti' and [st] of the word 'pest'. In order to pronounce such words, participants of both languages found ways and

means to simplify them by rearranging the word structure such that, for example, ‘spaghetti’ became ‘pasghetti’ and *ulwimi* (tongue) became *ilimo* (tongue). Children’s efforts to simplify words until they are learned correctly characterise acquisition from first words up until the age 6 or so (www.asu.edu/clas/shs/...phonology accessed on the 22 September, 2013).

Just as O’ Grady (2005:331) states that velars and alveolars are second to be acquired, it was discovered that, by the age of 2 to 3 years, both isiXhosa-speaking and English-speaking participants were able to articulate the voiceless aspirated velar sound [k^h] for English-speaking participants and the voiced ejected velar stop [k’] for isiXhosa-speaking participants. All the participants of the age range of 3 to 6 years pronounced well the English word ‘cup’ and the isiXhosa word *xukuxa* (brush the teeth).

English-speaking participants of the age range of 2 to 4 years were found to have difficulty articulating fricatives, particularly, the voiceless dentilabial [□] and the voiced dentilabial [ð]. This was proved in the mispronunciation of words, for example, ‘thumb’ which was pronounced as ‘tum’ and ‘this’ became ‘dis’ while the word ‘throw’ was pronounced as ‘taw’. IsiXhosa-speaking participants of the age ranges of 2 to 5 years did the same. O’ Grady cited by Minijung and Gammon, *Journal of Child Language* 2010; 38 (02):331) justifies this behaviour when he explains that inter-dentals [□] and [ð] are acquired late. The voiceless velar fricative [x] in the word *marhadebe* (clan name) became a voiceless lateral fricative [ɬ], with the participant avoiding the articulation of that fricative in favour of a less difficult consonant. It was found that all the isiXhosa participants of 2 to 6 years of age did not articulate the voiceless ejected affricate [ʧ’] wherein many versions of the word *isitshixo* (a key) emerged with the word either becoming *isixixo (*a key*), isitsixo* (a key) *or isitixo* (a key).

Below is a discussion of the theoretical implications of the study’s findings.

5.2.1 Theoretical implications of the findings

In order to determine and discuss any gaps and similarities that may be found, it is important to clearly state what the findings mean for this study. It is for this reason,

therefore, that this study found it necessary to revisit other theoretical cases for diversification in order to understand the differences of articulation rates between English-speaking and isiXhosa-speaking children and even the nature of articulation errors experienced by children of pre-primary school going age of 2-6 years of age so that eventually remedial solutions for such problems could be reached.

This study noted that, across the age ranges for both English-speaking and isiXhosa-speaking participants, there were differences in terms of the rates of consonant articulation. English-speaking participants of 2 years of age did not articulate a single consonant of the 8 given consonants while the isiXhosa-speaking participants of the same age range articulated 1 and misarticulated 7.

The two cohorts committed similar articulation errors such as cluster reductions, the deletion of a syllable as in 'ghetti' where the initial syllable 'spa' was dropped. The same error occurred in the word *ndigqibile (*I have finished). The participant's version was *–kibile* and the initial syllable *ndi-(I) was* dropped. There were also some substitutions observed as in the case where a isiXhosa-speaking participant articulated the sound x [//] as k [k'] when pronouncing the isiXhosa word *xukuxa* (brush the teeth) and, as a result, tsh [ʧ'] became either, t [t'], x [//] or ts [ts'] and this, therefore, created various versions of the word *isitshixo* (a key). The consonant n [n] became ny [ɲ] when the word *inyama* (meat) was misartitulated. The same articulation error got repeated in the pronunciation of the word *isonka* (bread) and s [s] became ths [ɵs] as well as in the articulation of the sound ch [ʧ^{h}] in the word 'chef'. Various versions of substitutions by the 2 year olds came up for that sound. For example, one of the replacements was the consonant [c] thereby changing the word to become 'cef'. Another replacement was f [f] resulting in the word becoming 'fef'. The consonant c [k^{h}] became t [t^{h}] once the word 'cup' was pronounced as 'tup'.

The picture painted above therefore, indicates the reality that both participants of this age range at this age for both languages have not yet acquired enough consonants to complement their speech. Probably, one of the reasons for the many misarticulations reflected by the findings for this age group might be due to the fact that Gxilishe and Tuomi, *et, al* (2001), citing Pascoe and Smouse in the South

African Med J, 2012; 102 (6): 469-471, are pointing out when they emphasise anterior sounds as the ones that occur early in the child's speech. Seemingly, participants of this age range lacked full phonemic inventory. It was noted that isiXhosa-speaking participants were one step ahead compared to their English-speaking counter-parts. This therefore, made isiXhosa-speaking participants of the age of two years to be found more articulate than the English-speaking children of the same age even though there were no distinctive differences of articulation errors.

In the age range of 2-3 years, English-speaking participants misarticulated 5 sounds and articulated 3 while the isiXhosa speaking participants misarticulated 2 sounds and articulated 6. The situation, therefore, reflected a couple of issues. It meant that as participants matured, so did their phonological consonant acquisition and this applied to both cohorts. This view is supported by the fact that, as far as the reflection of the results are concerned there were less articulation errors found committed by children of this age range. It also means that isiXhosa-speaking participants of this age range articulated more consonants than their English-speaking counterparts and that their counterparts articulated less.

Both participants shared similar speech errors. There were deletions, re-arrangement of sounds, substitutions, additions and other related kinds of errors. The word 'spaghetti' was re-arranged such that the first syllable 'spa-' became 'pas'. O' Grady (2005:155) supports this notion when he explains that the consonant [s] is dropped when it is followed by another consonant and that is exactly what the English-speaking participants did in their effort to simplify the word 'spaghetti'. The word *isandla* (a hand) became *ihlanza* (a hand) and *ihlandla* (a hand) where s [s] was substituted by [ɬ]. This articulation error could be attributed to the fact that *ihlanza* is an acceptable version of the word *isandla* in some isiXhosa dialects. One participant deleted th [□] to substitute it by s [s] in the word 'three' to become 'sree'. In the word *isonka* (bread), one participant added the sound th [□] before s[s] only for the word to become *ithsonka* (bread). None of the isiXhosa-speaking participants articulated the sound [ʧ'] in the word *isitshixo* (a key) and one participant of this age range substituted that sound with t [t'] only for the word to become *isitixo* (a key). In the word 'pest' the sound st [st] was dropped for the word to become 'pet' and, of course, the sound ch [ʧʰ] of the word 'chef' became [ʃ]. The two sounds tsh [ʧ'] and

ch [ʧʰ] fall within the category of fricatives and affricate which, according to Gxilishe (2008:76), they come last and most probably that is the reason participants of both languages found them hard to articulate.

Gxilishe's view resonates with Demuth's (2007:5340) perception that isiXhosa children have full phonemic inventory at 2, 6 years except for the [r], affricates tsh [ʧʰ], tsh [ʧʼ] and click q [!] which is realised as [k']. What is reflected by the findings of this study bears testimony to the two scholars' views on children's consonant acquisition.

In the light of the above, one can, therefore, conclude that isiXhosa-speaking participants of the age range of 3 years or so were ahead of the English-speaking participants of the same age. This scenario appears to be in line with what Gxilishe (2008-79) claims that by the age of 3 all isiXhosa consonants were occurring in speech of some children even if at a relatively low level of frequency. Mowrer and Burger cited by Tuomi and Matomela (2001:533) agree with Gxilishe when they report that, at 3 years of age, early segmental acquisition for isiXhosa-speaking children is twice the number compared with their English-speaking counterparts.

Regarding the participants of the age range of 3-4 years, they both made few articulation errors and both cohorts misarticulated only 2 out of 8 eight sounds. The structure of the word 'spaghetti' was rearranged such that the initial syllable 'spa' became 'pas' and a new word version emerged as 'pasghetti'. The dental fricative th [ð] was articulated as a voiced alveolar explosive d [d] and that substitution resulted in the derivation of a nonsense word 'dis' instead of the word 'this'. On the other hand, the one participant simplified the word *marhadebe* (clan name) by means of substitution where a voiceless velar fricative rh [x] became a voiceless lateral fricative hl [ɬ]. The word *isitshixo* (a key) became *isitixo (*a key) when a voiceless ejected pre-palatal affricate [ʧʼ] was substituted by a voiced ejected alveolar explosive t [t'].

The decreasing number of misarticulations reflects that, at that stage both participants' phonological acquisition skills were gaining momentum as far as

consonants are concerned. Both cohorts were at the same level of consonant acquisition.

English-speaking participants of 4 to 5 years of age articulated every consonant in every word given. These participants, therefore, had zero articulation errors while their counterparts, the isiXhosa-speaking participants, misarticulated 2 out of 8 given consonants. The word *unwele* (a single hair of the head) became *inywele (*a single hair of the head). A voiceless alveolar compound [nw] was substituted by a voiceless pre-palatal sound [ɲ]. The word *isitshixo* (a key) became *isitixo* (a key) and *isitsixo* (a key), respectively. A voiceless ejected pre-palatal affricate [ʧ’] was substituted by both a voiced ejected alveolar explosive t [t’] and the voiceless ejected alveolar fricative ts [ts’].

It became phenomenal when, again, English-speaking children of the age range of 5-6 years articulated every consonant of the 8 given, leaving their counterparts with 7 articulations and 1 misarticulation. One of the isiXhosa-speaking participant’s artitulation of the voiceless ejected pre-palatal affricate [ʧ’] was substituted by a voiced ejected alveolar explosive t [t’] in the word *isitshixo* (a key) and a new version *isitixo* (a key) came up.

The above scenario placed the English-speaking participants of 4 to 5 and 5 to 6 years of age ahead of the isiXhosa-speaking participants in the race of phonological acquisition of consonants and that leads to the conclusion that English-speaking participants of these age ranges are found to be more articulate than isiXhosa-speaking participants of the same age range. This resonates with what Fromkin, Rodman and Hyams (2005:314) have found to be extremely phenomenal that, as extremely complex the language may be, yet very young children before the age of five already know most of the intricate system that comprises the grammar of a language. This was with reference to the acquired syntactic, phonological and semantic rules of grammar.

The significant difference observed between the English-speaking participants of the age ranges of 4 to 5 and of 5 to 6 years and the isiXhosa-speaking participants was when the English-speaking participants articulated every consonant and well

pronounced the entire word range from which the concerned consonants were elicited.

In the light of the above, this study can conclude that between the English-speaking and the isiXhosa-speaking participants of the age range of 2 to 6 years, isiXhosa-speaking participants scored 65% of articulated consonants and 35% of misarticulated consonants while their English-speaking counterparts scored 62.5% of articulations and 37.5% misarticulated consonants. IsiXhosa-speaking participants scored more by 2.5%.

On the basis of the above scores, one can, therefore, conclude that isiXhosa-speaking participants of 2-6 years of age master the articulation of consonants more compared with the English-speaking participants of the same age.

For all the children that participated in this study, none could be identified to be suffering from severe speech impairment and, therefore, this study did not believe the articulation errors they committed during the investigation process qualifies them to be considered as being unintelligible.

What follows now will be a discussion of the significance of the results of this study for the concerned stakeholders.

5.3 SIGNIFICANCE OF THE STUDY

The focus of this research work was to establish and compare the differences in phonological acquisition rates of consonants between children of pre-school going age from different racial backgrounds. This study undertook to carry out that mission in order to gain better understanding into the reasons behind children's problems of consonant articulation.

While this study deemed it necessary to undertake this kind of a research, there were gaps due to the lack of previous work done in the area of language acquisition and, in particular, in isiXhosa as one of the indigenous languages. This is contrary to the policies of the South African Language Practitioners, especially as some of its responsibilities are to raise the status of the language profession and improve the

quality of language products. Over and above that, there is lack of standardized tests for assessing isiXhosa-speaking children's speech.

This study, however, used empirical findings to indicate that the situation regarding problems of articulation and reading have since improved from what the 2009 Impact Study of SMRS Report on Early Grade Reading Assessment (EGRA) reported it to be. Its findings on a representative sample from schools in three provinces, namely, Limpopo, Mpumalanga and North West, revealed that for the average of 5 learners only 1 could correctly identify one word and only 4, which is 0, 6%, meet DIBEL'S international benchmark for learners not at risk for reading difficulties and for articulation problems. It further pointed out that, on the baseline assessment, 65% of learners could not name a single word (Piper, 2009:1-2).

In the light of the above, this study hopes that from its findings school teachers, especially those that directly deal with children who experience articulation problems, will gain a better understanding of such articulation disorders and not only be able to correct them but also be able to select suitable remedial strategies such as demonstrating how to produce the sound and drilling children on a certain sound until it is correctly articulated. They can also teach children the rules of speech. This study hopes that through its findings other speech and language therapists shall be able to find and apply better treatment approaches when dealing with children with speech and language difficulties.

In the light of the above, this study suggests a policy review that will enable a policy diversification to intensify strategies designed to improve the problems of articulation of sounds to a point where future findings report 100% success with regard to children's problems of consonant articulation.

It is, therefore, the view of this study that various stakeholders such as language practitioners, including speech and language professionals such as clinical educators, speech therapists, speech pathologists, teachers and researchers, could benefit from its findings by accessing information that has relevance to children with articulation problems. Working in collaboration could result in the integration of whatever they consider of value and the application of that knowledge to life situations in their respective fields.

It is against such a background that the researcher decided to embark on a study that focuses on children's different articulation rates with the objective to establish the extent of such differences as well as the magnitude of the existence such problems so as to draw attention to their solution.

The following part of this work will reflect on the issues that might have negatively affected the results of the study.

5.4 LIMITATIONS

This study focussed on only two of the many East London pre-primary schools and that made the study such a small scale one that this might have an unpleasing effect on the results.

This study experienced some limiting circumstances, most probably due to the young ages of children the study dealt with. Children of 2 to 6 years of age could sometimes be difficult to handle because they are still young and vulnerable with issues of insecurity for some. Some of the children selected randomly would become teary or shy and, as a result, become difficult to work with. At times a replacement proved to be necessary just for the sake of valuable and reliable conclusions.

Children have a short attention span and, as a result, they get easily distracted. That became a major problem as far as the proper management of time is concerned. The involvement of the teacher-aids proved to be of great assistance in this regard for they are fully experienced in handling children of that particular age. Had it not been for them, it would have been very difficult for the study to meet its time frames and still be able to go forward.

It became a major problem when a co-supervisor had to leave the country in the middle of the study. That incident created a bit of a delay but, thanks to the assistance of another supervisor, progress became possible.

Time has been the worst enemy for this study. Having to study and work at the same was not easy at all. Time management strategies had to be put in place and new work schedules had to be drawn up to accommodate the existing work conditions.

With all of the above-mentioned hindrances experienced, the findings of the study are rich and provide a deep insight on acquisition of consonants as well as articulation problems experienced by children in the process of phonological acquisition of consonants.

In the next section I will outline the plans for future action and at the same time, speculate on future trends.

5.5 RECOMMENDATIONS

The scale of the debate on phonological acquisition of consonants by children is extensive and multi-faceted. It is for this reason that this study calls for the generation of achievable language policy strategies and development targets regarding further studies on this subject. The following recommendations are offered for related research in the area of phonological acquisition of consonants.

5.5.1 Recommendations for the school level

The following recommendations are offered to the Department of Education:

- The Department of Education should take it into consideration the fact that learners with articulation disorders are at risk for reading problems. Such problems may further result in incomprehension that can, in itself, lead to further serious learning barriers. It, therefore, would be proper for the Department of Education to ensure that language policies related to problems of this nature are not only enforced but are also maintained.

- Teachers should be more sensitive in effectively accommodating learners experiencing articulation disorders and should adjust their teaching methods towards that fulfilment. More opportunities should be created to afford them sound and word exposure.

- They should be able to introduce learners to phonemic skills and be well conversant with remedial strategies related to problems of articulation.

What has been said above would only be possible when teachers are properly developed such that they are equipped with skills to enable them to identify learners with articulation problems and be in a position to address such problems. Mkhwanazi (2007:59) advises the Department of Education to invest in education by providing continuous development of educators through life-long programmes.

- The kind of training they should undergo is one that will be in line with the Guidelines for Inclusive Learning Programmes, Department of Basic Education (2005 c), which proposes the use of multi-level teaching strategies, accommodating multiple intelligences and various learning styles.

The Department of Education should offer bursaries to enable teachers to pursue further formal studies in the area of speech disorders as well as in other related studies to capacitate them to be able to deal with learners with articulation disorder.

5.5.2 Recommendations for improving the study

The following recommendations are offered to improve the study:

- Articulation disorder is a more inclusive term. It is, therefore, recommended that, when researching more precisely about articulation disorders, the scope should be explained and the term delimited due to its inclusive nature.

- Although it is costly, it may be more efficient for the study to be of a larger scale in order to have findings that are much more representative of a larger society.

Based on the results of this research, it is recommended that particular attention be given to children from the age range of 2 to 3 years when implementing remedial programmes designed to address articulation related problems.

5.5.3 Recommendations for further research

The following recommendations are offered for related research in the area of phonological acquisition of consonants.

- More case studies at the local level would allow further investigations of children's articulation problems in order to gain common understanding

regarding the different reports on the articulation rates between the English-speaking and the isiXhosa-speaking children.

- While the study has found the isiXhosa-speaking children to articulate consonants more than the English-speaking children do, it should be noted that English-speaking children from the ages of 4 to 6 years old mastered more consonants than their counter parts. Questions such as the following need to be addressed:

- Which intervention strategies could be employed to bridge the existing divergence in relation to the differences of rates of articulation between the two language groups?

- What kinds of resources could the Department of Education specifically provide to address the special needs of children with articulation disorders?

5.6 SUMMARY

In spite of what is often reported in theoretical debates about the differences of articulation rates between the English-speaking and the isiXhosa-speaking children of pre-primary school-going age, as far as scores are concerned, this study did not experience vast differences in its findings.

5.6.1 Reflections on the research process

When the researcher took the decision to embark on a comparative study aiming to establish the existence and the extent of the different articulation rates between children from different racial backgrounds, it was the beginning of a long but interesting road. The participants' responses revealed a number of articulation errors but also revealed children's natural abilities and strategies of dealing with complex words and sounds until they are able to pronounce and articulate them the best way they know how.

The study has come to the realisation that major education stakeholders should work in collaboration to generate and implement language policy strategies that are designed to address problems of articulation of sounds.

Empirical implications, including taking into consideration the sensitivity of the study, were adhered to and hence the confidentiality and anonymity of the participants will forever remain protected.

5.6.2 Conclusions

Literature reviewed cited a number of causes behind the reasons some children experience articulation problems. It is also relieving to learn that there are various strategies in place to correct such problems.

Literature reveals that children have their own way of dealing with the inability to articulate certain sounds. They use various means of simplifications and are said to be intelligible throughout the processing of events. While children have been found to come up with their invention of words during the simplification process, at least they have the meanings of those words in mind.

The study concludes that, while the findings point to the isiXhosa-speaking children of 2 to 6 years of age being able to master the articulation of consonants more than English-speaking children of the same age, the results also indicate that for English-speaking children phonological acquisition accelerates from the ages of 4 to 6 years and that could be attributed to the fact that they have more opportunities to engage with sound and word work while isiXhosa-speaking children get less exposure opportunities. This imbalance could be attributed to depleted resources in township schools. This situation, therefore, suggests that strong policy interventions should see to the creation of additional opportunities to improve the language skills of young learners from disadvantaged backgrounds.

Under-resourced schools could make partnerships with schools with adequate resources. That initiative would create a situation where teachers learn to share not only the resources but also share knowledge and expertise on how to deal with children with articulation problems. The main aim would be to monitor and strive to control the existing different rates of articulation between the groups of children who are under a common system of education within the same country.

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APPENDICES

NAME OF APPLICANT NDILEKA MYOLI — Ethics Human 2011 —

<<Approved >>

OFFICE USE ONLY

Ref:	Date:

University of Fort Hare
Together in Excellence

Ethics Research Confidentiality and Informed Consent Form

Please note:

This form is to be completed by the researcher(s) as well as by the interviewee before the commencement of the research. Copies of the signed form must be filed and kept on record

I am from The University of Fort Hare's Department of African Languages and I am conducting research regarding A Comparative Analysis of The Phonological Acquisition of Consonants in the Speech of the Pre-School Going-Age isiXhosa and English-Speaking Children in Selected Schools of the East London Area. This is to fulfill a requirement for my post graduate study. We are interested in finding out more about why some children have early consonant acquisition when others seem not to. It has been noticed that, generally, some learners at the age of 2-6 years experience articulation problems. These problems could create problems such as poor reading, which could in turn, result in low reading comprehension.We are carrying out this research to help find out the root cause or source of this problem in order to be able to contribute towards its eradication.

Please understand that your school, your teachers, and/ or your students/ your children are not being forced to take part in this study and the choice whether to participate or not is yours alone. However, we would really appreciate it if you do share your thoughts with us. If you choose not take part in answering these questions or participating, you will not be affected in any way. If you agree to participate, you may stop me at any time and tell me that you don't want to go on with the interview or spelling dictation. If you do this there will also be no penalties and you will NOT be prejudiced in ANY way. Confidentiality will be observed professionally.

I will not be recording your name anywhere on the questionnaire or answer sheets and no one will be able to link you to the answers you give. Only the researchers will have access to the unlinked information. The information will remain confidential and there will be no "come-backs" from the answers you give.

The interview will last around (30) minutes. I will be asking you questions and ask that you (teachers) are as open and honest as possible in answering these questions, and (students) I will be giving 6 consonants for you to articulate in isiXhosa and English. I will be asking some questions that you may not have thought about before, and which also involve thinking about the past or the future. We know that you cannot be absolutely certain about the answers to

NAME OF APPLICANT NDLEKA MYOLI Ethics Human-2011

<<Approved >>

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Ref:	Date:

these questions but we ask that you try to think about these questions. When it comes to answering questions there are no right and wrong answers.

If possible, we would like to come back to this school once we have completed our study to inform you and your community of what the results are and discuss our findings and proposals around the research and what this means for isiXhosa learners in this school.

INFORMED CONSENT

I hereby agree to participate in research regarding S. MPETA ..... I understand that I am participating freely and without being forced in any way to do so. I also understand that I can stop this interview at any point should I not want to continue and that this decision will not in any way affect me negatively.

I understand that this is a research project whose purpose is not necessarily to benefit me personally.

I have received the telephone number of a person to contact should I need to speak about any issues which may arise in this interview.

I understand that this consent form will not be linked to the questionnaire, and that my answers will remain confidential.

I understand that if at all possible, feedback will be given to my school on the results of the completed research.

.....
Signature of participant Date: 26.10.2012

I hereby agree to the tape recording of my participation in the study

.....
Signature of researcher Date:...10/26/2012..

R.H. GODLO J.P.S
P O BOX 193, MDANTSANE, 5219
PRINCIPAL :
DATE : 26/10/2012

R.H. GODLO J.P.S
P O BOX 193, MDANTSANE, 5219
PRINCIPAL :
DATE : 26/10/2012

NAME OF APPLICANT NDILEKA MYOLI Ethics Human 2011

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these questions but we ask that you try to think about these questions. When it comes to answering questions there are no right and wrong answers.

If possible, we would like to come back to this school once we have completed our study to inform you and your community of what the results are and discuss our findings and proposals around the research and what this means for isiXhosa learners in this school.

INFORMED CONSENT

I hereby agree to participate in research regarding Isizwa Kengel. I understand that I am participating freely and without being forced in any way to do so. I also understand that I can stop this interview at any point should I not want to continue and that this decision will not in any way affect me negatively.

I understand that this is a research project whose purpose is not necessarily to benefit me personally.

I have received the telephone number of a person to contact should I need to speak about any issues which may arise in this interview.

I understand that this consent form will not be linked to the questionnaire, and that my answers will remain confidential.

I understand that if at all possible, feedback will be given to my school on the results of the completed research.

.....

Signature of participant **Date:** 27/10/2012

I hereby agree to the tape recording of my participation in the study

.....

Signature of researcher **Date:** 10/26/2012

Little Blessing.