ENQUIRY INTO THE ATTRIBUTION OF PHONETIC SKILLS AS AN ENABLER OF INITIAL WRITTEN AND ORAL COMMUNICATION PROFICIENCY AMONG GRADE 1 AND 2 LEARNERS: THE CASE OF SELECTED SCHOOLS IN LUSAKA AND CHINSALI DISTRICTS

By

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ABSTRACTION

This is a report of a study enquiring into the attribution of phonetic skills as an enabler of initial written and oral communication proficiency among grade 1 and 2 learners in selected schools of Lusaka and Chinsali districts. Observing the low reading levels among pupils and school leavers, the study aimed at affirming the key elementary skills required to enable learners acquire effective reading and writing skills i.e. communication proficiency. To achieve this, the study made a progressive enquiry from the frequency and magnitude of problematic reading, the awareness levels among educators and learners of skills imperative to effective communication, phonetic skills as imperative to reading and writing, and the design of the phonetic messages with specified channels and duration used for their transmission to the learner audience. The study was conducted in selected 15 primary and 4 secondary schools of Lusaka and Chinsali districts through methods of in-depth interviews with 33 educators, class observation of 30 classes and written and oral assessments of a total of 1,934 selected learners.

Analysis of the collected data was done by tabulation of results in Microsoft Excel programme and then computation of these tabulations usingSoftware Package for Social Sciences(SPSS) to obtain percentages, ranges, tables and graphs indicating the correlation of the tabulated results. From this analysis, the study results indicate progressive low reading levels among learners from grade 1 to 12. The causal factors include a correlation of progressive low awareness levels of the imperativeness of phonetic skills in reading and writing among learners, a lack of systematic phonetic message design and transmission among educators and inadequate duration of phonetic skills communication to the learners. The implication of these factors is seen in the inadequate acquisition of phonetic skills which result in problematic reading and writing i.e. communication lapse. The study thus indicate that even with current efforts by educators to improve the literacy levels in schools, there still exists an alarming level of problematic reading and writing (communication) which is caused by an inadequate acquisition of phonetic skills by the learners. It is therefore imperative that the entire elementary literacy programme at grade 1 and 2 levels should heavily be tilted towards the acquisition of phonetic skills to enable the learners acquire communication proficiency in later schooling and tertiary education.

DEDICATION

To my miracle *Emitel Twins* – Nathan Mwenge 'Nsansa' Chilufya & Cleopatra Mutende Chilufya for turning my world around when they were sent to me on Angels' Wings and their mother, my beloved spouse Maureen Mukuka Chilufya for giving me an inner new life beyond all telling.

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ABBREVIATIONS AND ACRONYMNS

CDC	Curriculum Development Centre
ILO	International Labour Organisation
MOE	Ministry of Education
NBTL	New Breakthrough To Literacy
NRC	National Reading Committee
ROC	Read On Course
SACMEQ	Southern African Consortium for Monitoring Learning Quality
SITE	Step Into English
SPSS	Software Package for Social Sciences
UNESCO	United Nations Educational, Scientific and Cultural Organisation
USAID	United States Agency for International Development
ZABEC	Zambia Basic Education Course
ZPC	Zambia Primary Course

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CHAPTER ONE

BACKGROUND INTRODUCTION

1.0 INTRODUCTION

Poverty levels in Zambia are high with causal factors ranging from low productivity to unskilled labour force. It is common knowledge that there are high levels of youth unemployment in Zambia which vexes succeeding governments in creating jobs for this population. The republican President Mr Michael Sata while hosting the International Labour Organisation (ILO) Regional Director Mr. Gay Rogers on 11th December, 2013 at State House alluded to the fact that Zambia today is experiencing the highest levels of unemployment in its history[1]. A correlation can be identified among the three factors of low productivity that keeps poverty levels high, unskilled labour force and high levels of youth unemployment. A proposition can be made that in order to eliminate massive youth unemployment, youths must be given the necessary training to be a skilled labour force which will translate into high productivity and consequently reduce the levels of poverty in Zambia. With a skilled labour force sustainable development can be attained which Mozammel (2008) describes as 'the process of maximizing the use of available resources in order to ensure the long-term well being of present and future beneficiaries.'

However for this youth training which produces desired skills to occur, the element of *communication* is imperative. Skills information must be transmitted (i.e. communicated) from the trainer to the youth via the official English language here in Zambia. This implies that both the trainer and the receiving youth are predisposed to both the oral and written communication process. The receiving youth then should have had acquired a proficiency in both oral and written communication at the foundational level of schooling i.e. grades 1 and 2. A failure in mastering the basic elementary skills of communication in the reading and writing of coded symbols called *words* at grade 1 and 2 level renders communication proficiency improbable at the level of acquiring complex and specialized skills at tertiary level. Mastering of communication by way of deciphering coded symbols is not a natural process. It requires the acquisition of elementary skills to decipher the coded symbols (words) which are taught at the foundational level of grades 1 and 2 here in Zambia.

[1] Zambia National Broadcasting Cooperation (ZNBC) News Telecast, 11th Dec. 2013

With the challenge of massive youth unemployment occasioned by a lack of skills among these youths mentioned above, this researcher embarked on investigating the cause of this challenge in retrospect. As alluded to, a lack of skills transfer to the youths is sighted as a major factor which is occasioned by a lapse in communicating these skills. Such unskilled youths did not acquire the basic elementary concepts in communication at school level. This researcher therefore made a study at the foundational level of schooling (i.e. grades 1 and 2) in 15 selected primary schools in Lusaka and Chinsali districts and observed if there was a failure in imparting and acquiring basic elements in communication proficiency for later use at tertiary level.

The basic elements of this coded communication are the *phonetic skills*. Throughout the history of human civilization several different systems of writing have been constructed separately and independently and at different places and periods. From the ancient civilizations of Mesopotamia and Egypt, speech was being codified in cuneiform or hieroglyphics around 3200 BC (Budge 1973:1). Iversen (1961:11) alluded this development of codified communication to 'the fundamental urge of primitive man (sic) at a certain stage of his development, to reproduce the concepts of the world surrounding him (sic), in pictorial representations, mainly for magical and religious purposes.' The turning point at which true writing in our sense of the word was created and separated from pictorial art was reached when it was realized that artistic representations of individual objects could convey not only visual associations, but also associations of *sound*, which could be 'read' and understood as words, an elementary mental observation which necessarily had to precede the invention of phonetic writing(ibid.). Therefore phonetic skills become the bedrock of communication proficiency and their acquisition at foundational level is imperative to later acquisition of complex skills. This study therefore presents an enquiry made into attribution of these phonetic skills in enabling initial written and oral communication among grade 1 and 2 learners in selected schools in Lusaka and Chinsali districts. It highlights the frequency and magnitude of the problem of communication lapses among the sampled learners and then assesses the awareness level among curriculum developers, teachers and learners on the imperativeness of phonetic skills in communication proficiency. It then enquires into attribution of phonetics as enabler of communication proficiency and finally analyses possible factors that impede the transfer of these phonetic skill to the grade 1 and 2 learner.

1.1 BACKGROUND TO THE PROBLEM

As alluded to above, an unskilled labour force is a major factor in the persistence of poverty in Zambia. In a survey on rural poverty conducted by the *Zambian Economist* online journal in 2008, poverty levels were recorded at 89.6%. This poses a question on what manner of investment would be required to alleviate this challenge of poverty and initiate sustainable development. Among other ways, the *Zambian Economist,* in its article entitled *Rural Poverty in Zambia*, advocates for education as a way forward in poverty eradication:

> Comparison of households trapped in chronic poverty with those who maintain consistent high incomes suggests two major pathways out of poverty in rural Zambia. One pathway involves agricultural asset accumulation and commercialization. An alternate, though complementary path revolves around investment in secondary and post-secondary education of children which translates, in the next generation, into high-paying nonfarm employment (Zambia Economist, 2011).

And if the two theories of poverty are considered as a lack of access and as a lack of human rights as propounded by Thomas (2008), education becomes centrally cardinal in the fight against poverty and as a vehicle to sustainable development. Thomas explains that poverty is not only an indication of a lack of resources but is also, rather fundamentally, about the lack of awareness on the part of a people of their own role in the fight against poverty. He suggests that the notion of access suggests that when people become aware of their rights, they are empowered to confront and deal with the many reasons that continue to them in poverty. And education plays a key role in this awareness process for the alleviation of poverty and subsequent development of a society.

It is for this reason that every national education system is tailored to equip its citizens, among other skills, with proficient *communication skills*. In Zambia, the official communication language is English and therefore at the end of a twelve (12) year foundational education, a person is expected to be fluent in the English language and thus participate in the political, economical and developmental aspects of the nation which is wholly conducted in the English language. However, forty nine years into independent Zambia, in spite of profound changes in the language policy in the education system, the reading levels of many indigenous Zambian pupils continue to be regrettably low (MoE 1996, Matafwali, 2010).Eddie Williams' *Report on Reading*

in English in Primary Schools in Zambia – Education Research Paper No. 5, (1993), had identified the problem of 'reading ability in English of most pupils is lower than that needed to cope with their English course books, and lower than their teachers estimate it.' He further stated that 'it is difficult to see how such limited ability can enable them [learners] to read to learn in other subject areas.' In an attempt to solving this basic problem, the Ministry of Education through the Curriculum Development Centre (CDC) designed and implemented a number of reading programmes to improve reading levels in the learners. Nearly 20 years since the above research was conducted, there has been relatively less improvement in the reading levels among learners.Currently, there is no empirical evidence to establish the causal factors underlying the persistent reading failure of indigenous Zambian children given the rich literacy programme in place (Matafwali 2010). However, it is apparent that this failure to read renders efficient and effective communication at all levels redundant for the majority subsequently with a huge negative impact on sustainable development caused by lack of a skilled work force. This problematic reading disadvantages school leavers in a market economy that demands nothing less than proficiency in communication in the language of trade and commerce.

Matafwali (2010) has undertaken research in attempting to identify causal factors by taking the root of literacy and language in her PhD thesis *'Literacy and Language: Relationships in the First and Second Grade.'* She argues that there is little correlation between the Bantu language the first grader is introduced to and the English language the child later learns in the second grade thus creating a failure in the transfer of learning from one language to the other.

This researcher opted to take a different route in searching for a causal factor for this failure. The researcher primarily identifies *learning as a communication process*. In other words, this research took a communication dimension to resolving a problem in the educational field.And since reading has to do with decoding coded symbols called *letters*, this researcher postulate that *phonetics*(letter sounds) which translates into actual speech is an elementary knowledge required for any communication proficiency. In short, phonology skills are a basis of all later advanced communication. The literacy programmes introduced over the years in the Zambian

educational system (ZPC, ZABEC, NBTL, SITE, ROC, etc)[2]have had less impact to improve or impart the reading skill effectively in the indigenous Zambian pupil. It can be observed therefore that there is still a lacking or gap in these programmes that should enable a learner develop initial written and oral communication proficiency. This lacking or gap is attributed to phonemics and their transmission (communication) to the learner. This researcher takes this as a communication entry point of resolving an educational problem using communication strategies. After identifying this link between an educational problem and communication, the paradigm of the investigation was framed by a Communication Design Strategy rendering this an interdisciplinary approach in identifying and solving a problem.

In summary, it can be noted that the Ministry of Education had observed the downward spiral of reading competences among learners in Zambia at the turn of the 1990 decade. It thus initiated interventions to reverse the problem of low reading levels. Eddie Williams' report of 1993 cited above acted as a baseline survey to ascertain the extent of the problem. Thereafter, a series of build up literacy programmes were designed by CDC with cooperating partners taking a structural approach to mitigate the problem. Thus NBTL targeted early grade learners (grades 1 and 2) primarily set in vernacular. This progressed to SITE which introduced the grade 2 learner to the English language. Eventually, it was hoped, after the grade 2 leaner has 'stepped into English' he/she would 'go on' with fluency into more reading even in other subjects and thus the ROC literacy programme completed the series. However, this envisioned progression has been disappointing with reading levels still continuing to be very low. In 2011, the Ministry of Education enlisted assistance form Creative Associates International with cooperation from USAID to develop a new literacy framework that recognises *phonetics* as a basis of reading. It employs individual assessment techniques to identify and mitigate the reading problem. This study, in the same line, aimed at establishing if phonetics were the basis of a learner's acquisition of effective reading and writing skills (i.e. communication proficiency) through assessing the messages designed, the communication channels used and the impact they have had on the learner.

[2] ZPC – Zambia Primary Course, ZABEC – Zambia Basic education Course, NBTL – New Breakthrough To Literacy, SITE – Step Into English, ROC – Read On Course

1.2 STATEMENT OF THE PROBLEM

Indigenous Zambian children's communication speech is in their mother tongue from birth which is wholly acquired through listening. Upon entry into formal education, they encounter the new communication language of English which they are not only expected to speak but *read* as well. Learning to communicate in speech in the English language for the child is relatively easier as it happens through mimicking of speech of the speaker as happened when they acquired their mother tongue. Communication through reading of written words is a specialized cognitive operation and researches in reading levels among learners in Zambia indicate that there is very low reading capacity thus rendering communication proficiency in the English language problematic. This inadequacy hinders learners completing schooling opportunities for tertiary education and the evolving of unskilled labour which retards development of the nation and increases the poverty levels.

In spite of well intentioned literacy programmes in schools, a vigorous drilling in reading communication for a 12 year period, and the training of teachers for the English language, the problem of low reading levels persist. Factors that include poor home backgrounds, inadequate teaching and learning materials, teacher attitude and approach, school location (urban vs. rural) and poor pupil cognitive capacity are cited as possible causes of poor reading skills for communication proficiency. An element that seems to have been largely ignored and less stressed in the acquiring of the reading skill is the notion that each of the 26 alphabet characters not only has a distinct shape (symbol) and name, but also a *sound (phoneme).* The three entities must be recognized by a pupil in order to read a word and subsequently communicate proficiently through reading. Reading is thus a three-step cognitive skill of recognition – symbol, name, sound (phoneme) - which is collectively termed *phonetic skills*.

Currently, the frequency and magnitude of problematic reading among learners especially at the foundational level of grades 1 and 2 is underestimated occasioning inadequate attention to addressing the problem in the schooling system. The rate and scale at which learners cannot read and write in Zambia requires an accurate statistical assessment in order to determine the level and type of intervention required

to address the low reading and writing levels which have occasioned inadequate communication proficiency for skills attainment.

One possible aspect that persists this low reading and writing level is the oblivion that both educators and learner are in to the key skills that enable reading and writing. A problem cannot be solved if the persons experiencing the problem are oblivious to the tools available in resolving it. A statistical assessment is required to determine the awareness levels among educators and learners of the key skills that enable reading and writing and subsequent communication proficiency.

As alluded to above, there has been an ignoring and a less stress on phonetics as the reading skills that enable a learner to communicate effectively. In the literacy programmes referred to above, there is hardly a systematic and prolonged drilling in phonetics at any level including that of grades 1 and 2. Language learning is largely based on 'look and say' of the printed words without training in the individual sounds of each letter forming the word. Attribution of phonetics as the reading skills which enable a learner to communicate effectively has not been recognised in the existing literacy curriculums.

Finally, even with the existing literacy programmes, it is still expected that a degree of learning to read and write should be at a much higher level than is obtaining at present. The low reading and writing levels among learners calls into question the nature of communication that occurs between the teacher and the learners. And since communication involves message design, a particular channel of transmission and duration of contact with the delivered message by the receiver, the effectiveness of this communication process in this teacher-learner contact is then problematic. The nature of the messages designed for transmission to the learner is not having the desired learning outcome of enabling the learner to read and write. Equally, the channels of transmission of these messages could not be as effective as envisioned by the educator rendering the learning process ineffective as well. Lastly, consideration is made as to the duration in which the educator and the learner has on respectively imparting and acquiring the reading and writing skills as adequate or inadequate for effective transfer of these skills.

1.3 RATIONALE

Community and societal development at large occurs through advances in the manipulation of the environment to enhance better living standards. Such manipulation is attained through acquisition of skills by individuals. A large body of these skills are technical and can only be acquired through a very formal and structured way termed formal education. It therefore follows that if the intended skills are not properly assimilated due to laps in *communication* caused by a language barrier, community development will be negated. This research will contribute in highlighting a major component that occasions this communication laps by the English language barrier which is the mode used for skills training in Zambia. If every person passing through the formal primary and secondary educational system can attain a proficiency in communication through reading and writing the English language, there will be less difficulty in acquisition of occupational skills and hence the advancement of community development in Zambia and reduction of persistent poverty.

Literacy experts in Zambia have over the years recognized that the phonetic component in English language learning is indispensable for proficient communication and literacy curricula have been developed and textbooks produced for teacher use. However this effort has not produced favourable outcomes judging by the 60% of indigenous Zambian pupils having problematic communication skills in the English language as this research has highlighted. Therefore this research will contribute to the re-evaluation of how the phonetic component in the acquiring of reading skills can better be *communicated* to the learner and produce the desired goal.

This research also highlights the magnitude and frequency of the reading problem among indigenous Zambian pupils and therefore stimulates further research in methodologies of *communicating* the phonetic skills to the learner. This will prompt Zambian linguistic researchers to ask questions why the current status quo in approaches, methodologies and techniques is not achieving a significant transfer of learning in phonetics.

1.4 RESEARCH OBJECTIVES

1. By the end of the study, estimate the frequency and magnitude of the incidence of the problem of *communication lapses* due to inadequate reading skills among learners in grades 1, 2, 7 and 12 in Lusaka urban and Chinsali rural districts.

2. Examine the awareness level of the teacher as a *message source* of the imperativeness of phonetics in reading skills for communication proficiency.

3. Examine the awareness level of the pupil as a *target audience* of the imperativeness of phonetics in reading skills for communication proficiency.

4. Examine the attribution of phonetics as the reading skills enabling a learner to communicate effectively through reading and writing.

5. Determine the nature of the *messages* designed in the teaching and learning of reading and writing as a basis of communication proficiency.

6. Investigate and list possible *channel failures* in the existing approaches, methodologies and techniques among curricula developers and class teachers as a cause of insufficient acquisition of reading skills occasioning communication lapses in the learners as target *audience*.

7. To assess the adequacy of learning time allocated for the communication of phonetic skills to the learner in the existing literacy programmes.

1.5 RESEARCH QUESTIONS

1. How frequent and at what magnitude is the problem of *communication proficiency* occasioned by inadequate reading skills among learners in grades1, 2, 7 and 12 in Lusaka urban and Chinsali rural districts?

2. To what extent is the teacher as a *message source* aware of the imperativeness of reading skills for communication proficiency?

3. To what extent is the pupil as a target *audience* aware of the imperativeness of reading skills for communication proficiency?

4. To what extent do phonetic skills enable the learner communicate effectively through reading and writing?

5. What is the nature of *messages* used in teaching and learning of reading and writing as a basis of communication proficiency?

6. Does a *channel failure* occur in the existing approaches, methodologies and techniques among curricula developers and class teachers which cause an insufficient acquisition of reading skills and thus occasioning communication lapses in the learners as target *audience*?

7. Do the existing literacy programmes recognise and give adequate learning (50% of total learning) to the *communication* (learning) of phonetics as the basis of reading skill at grade 1 and 2?

CHAPTER TWO
CONCEPTUAL& THEORETICAL FRAMEWORK

2.0 INTRODUCTION

In the preceding chapter, it was established that communication is imperative to the acquisition of skills that enhance development and thus alleviating chronic poverty. It was further pointed out that acquisition of phonemic skills at foundation level in formal education is the basis of communication proficiency in later learning of these complex skills. Therefore in order to appreciate the cardinal position that phonetics play in communication, this chapter shall review the concepts and theories regarding codified communication as embodied in reading and writing and its teaching and learning thereof.

For such a scheme to be communicated effectively to the learners, a communication strategy must be developed. In the teaching and learning of codified language, the Curriculum Development Centre (CDC) under the Ministry of Education in Zambia has drawn up a strategy which shall be analysed in this chapter. This communication strategy extricates three essential elements namely message design of phonemes, message communication and the impact of the message itself. In the first element of message design, a historical overview of codified communication in written language shall be presented and the later development of phonology as the basis of this written language. The CDC's current attempt to infuse it in the learning of language in grades 1 and 2 shall thereafter be analysed.

A review of the communication theory forms the basis of the second element of message communication by looking at the class teacher as the message source and the teaching approaches, methodologies and techniques as the message channels. The grades 1 and 2 learners as the target audience of the message shall be analysed and later, in the third element assess the impact of the message on them. This impact evaluation reviews both the outcome of a successful or unsuccessful communication with correlating implications.

2.1 COMMUNICATION STRATEGIC DESIGN

The Curriculum Development Centre (CDC) in its language department has endeavoured to produce a literacy programme scheme that enables teachers to communicate the principles of a language to learners. This scheme can be termed as a communication strategy for language teaching. The relationship between the two terms, *communication* and *strategy*, is worth noting. Mefalopulos and Kamlongera (2004) presents a clear definition that links these terms appropriately as it used in this research. They define a strategy as a systematic, well-planned series of actions, combining different methods and techniques to achieve an intended change or objective utilizing the available resources within a specific time frame. They therefore state that a communication strategy then is a well-planned series of actions aimed at achieving certain objectives through the use of communication methods, techniques and approaches. This definition implies that a communication strategy begins with clear set of goals or objectives which the strategy intends to achieve in solving the pending problem.

Faced with the problem of low reading levels in schools, the Ministry of Education in its Language Policy (1996) had set forth the following general objective as a starting point: 'The fundamental aim of the curriculum for lower and middle basic classes (Grades 1-7) is to enable pupils to read and write clearly, correctly and confidently in a Zambian language and in English…the Ministry of Education attaches the highest priority to the attainment of this goal.' The New Literacy Framework which has been introduced in schools with effect from Term 1, 2014 is tailored to attain this objective. Methods, techniques and approaches are being realigned to effectively communicate phonetics at the early grade.

The success of the communication strategy however depends on the *message* content and its delivery. This researcher has observed lapses in message design and communication of fundamental phonetic elements at early grade teaching and learning. There is an essential link between the message designed and the methods, techniques and approaches that will be used to communicate it to the target audience. These communication channels must be suitable not only for the message designed but also for the communicator (teacher) and the target audience (learners). There thus exists a precarious balance among messages, channels, communicator and audience.

2.2 MESSAGE DESIGN: PHONEMES FOR READING SKILLS

In communication, messages are information that is passed from one person or a group of people to another with the intention of producing an effect (Mefalopulos & Kamlongera 2004). This research considers *phonemes for reading skills* as the message that needs to be designed (or packaged) for a target audience, the grade 1 and 2 learners. As alluded to earlier, the Curriculum Development Centre (CDC) under the Ministry of Education is the entity responsible for message design for the learner. Phonemes are a basis of codified communication and it is therefore imperative to review their evolution in order to note their imperativeness in reading and subsequent proper handling in message design.

2.2.1 Codified Communication in Written Language

Human civilization has grown to encompass a sophisticated mode of *communication* i.e. language. Psychologists and linguists recognize that language is developed by an infant through the sensory perception of hearing and by repetitive imitation. This is recognised as a natural process. Therefore, learning to *communicate* through a spoken language is a natural process and every human's cognitive ability can encode and decode the spoken word (McDonough 1981). With language being codified in symbols (writing) which have to be decoded to decipher the *message* in them, the process becomes unnatural. Gelb (1969) defines writing as a system of human intercommunication by means of conventional visible marks. He further states that fundamentally, writing is written language, quoting Aristotle's *De Interpretatione* who said 'Spoken words are symbols of mental experience and written words are symbols of spoken words.' Reading and writing is thus not natural and requires specialized skills to decode and encode the written word to achieve proficiency in communication.

Coded communication speech underwent various development forms to today's sophisticated alphabetic systems. Gelb (1969) outlines three broad stages in the development of writing illustrated in the table below:

Table 2.1: Historical Development of Writing

No writing	Pictures				
Forerunners of writing *semasiography*	1. Descriptive-representational device 2. Identifying-mnemonic device				
Full Writing *phonography*	1.Word-Syllabic 2. Syllabic 3. Alphabetic	Sumerian (Akkadian) ↓ Elamite Hurrian etc	Egyptian ↓ West Semitic (Phoenician, Hebrew, Aramaic, etc) ↓ Greek, Aramaic (vocalized), Hebrew (vocalized), Latin, Indic, etc.	Hittite (Aegean) ↓ Cypro-Minoan, Cypriote, Phaistos? Byblos?	Chinese ↓ Japanese

2.2.2 Phonemic Skills as a Basis of Written Communication

Iversen (1961:11) states that the turning point at which true writing in our sense of the word was created and separated from pictorial art was reached when it was realized that artistic representations of individual objects could convey not only visual associations, but also associations of *sound*, which could be 'read' and understood as words, an elementary mental observation which necessarily had to precede the invention of phonetic writing. Abercrombie (1964) defines phonetics as 'the study of the medium of spoken language in all its aspects and these aspects include the process of acquiring, in childhood, the skills needed for the production of the medium, and also the failure to acquire these skills.' He states that phonetics provides two sets of techniques which are relevant to studies of development and disorders of speech: techniques of observation, and techniques of description. In other words, this presents the operational methods and conceptual definitions for the study of language through use of phonetics. Through *observation* (an operational method), deduction is made if the transfer of learning of a language is happening or not. This researcher used this method (i.e. class teacher observation and oral assessments) to deduce the communication of phonetics to the early grade learners. On the other hand, through *descriptive* techniques (conceptual), deduction is made if there has been a permanent learning by the early grader. This method was used by this researcher through written assessments.

However, phonemic writing does not necessarily make reading that straight forward especially for a language like English. Our Zambian Bantu languages are basically phonetic…you read what you see. It is this that makes the communication (teaching) of the second language (English) challenging for the CDC and the class teacher. Gelb (1969) elaborates on this difficulty by pinpointing that writing can never be considered an exact counterpart of the spoken language. He explains that 'such an ideal state of point-by-point equivalence in which one speech unit is expressed by one sign, and one sign expresses only one speech unit, has never been attained in writing.' A crucial observation that Gelb makes is that even the alphabet, the most developed form of writing, is full of inconsistencies in the relations between sign and sound. He states that all writing – even the most developed phonetic writing – is full of forms which, when read aloud, are ambiguous and easily misunderstood as in some examples indicated below:-

Table 2.2: Inconsistencies in Relation Between Sign and Sound

i	*i* in 'dim'	*ay* in 'dime'	ə in 'dirt'
c	*s* in 'Caesar'	*k* in 'cat'	
x	*ks* in 'fox'	*gz* in 'exam'	*z* in 'Xavier'
th	ɵ in 'thin'	ð in 'them'	*t* in 'Thomas'

2.2.3 Phonemic Message Design for Grade 1 and 2 by CDC

Mefalopulos and Kamlongera (2004:30) defines a *message* in communication as 'information that is passed from one person or group of people to another with the intension of producing an effect.' For this research's purpose, the CDC planning of how phonemic skills will be taught to grade 1 and 2 learners can be termed as message design. This message is intended to bring a change in the learner by being able to read written words and comprehend their meaning and thus effect communication. However message designing for an English language education course is delicate as many aspects ought to be considered including the inconsistencies pointed out by Gelb above. Lightbown and Spada (1993:114) points this out by stating that language development is not just adding rule after rule, but integrating new rules into the existing system of rules, re-adjusting and restructuring until all pieces fit (e.g. –ed for past tense, went or goed?). This researcher made a critical observation in the difficulty this problem has been faced at all levels from message deign by CDC through teacher and leaner communication/comprehension.

2.3 MESSAGE COMMUNICATION

2.3.1 Communication Theory

Servaes (2008) describes communication as a process which occurs in a context. In this process, there is an exchange of meaning with an interchange of sender-receiver roles. He states that, with this interchange, the focus moves from a 'communicator' to a more 'receiver-centric' orientation with the resultant emphasis on meaning sought and ascribed rather than information transmitted. With this shift in focus, one is no longer attempting to create a need for the information one is disseminating, but one is rather disseminating information for which there is a need. This research's context is the CDC and the classroom. Not only should the CDC and class teacher consider themselves as communicators of the phonemic message to a passive learner but that the learner has an active role in recipient of this phonemic message. The learner is the centre of the process in need of the phonemic message through which he/she will derive meaning in developing ability for reading and thus communicating proficiently.

2.3.2 Message Source: Class Teacher

In considering the class teacher as a message source, the primary interest as described by Servaes (2008) is the interchange of the 'communicator' with a 'receiver-centric' (learner-centric) approach. The personal disposition of the teacher towards the learner is vital for communication to be effective. However, Allwright and Bailey (1991:98) offer a technical view on this interaction based on Bellack *et al*. (1966)'s work on description of classroom discourse as involving a four-part framework namely *structure*, *solicit, response* and *react*. For example, a discourse would be:

> *Teacher:* The first vowel in the word hippo is *i* (**Structuring**). Mutinta, what is the second vowel in the word hippo? (**Soliciting**)
> *Learner:* The second vowel in the word hippo is *o*. (**Response**)
> *Teacher:* That is correct Mutinta. (**Reacting**)

This process has a key evaluation component in the reaction of the teacher in providing feedback to the learner. For any communication to be completed there ought to be a response and a feedback. The feedback enables the communicator to evaluate the message and possibly rearrange it for a more effective change (impact)

to occur in the recipient. The teacher as a message source must be attentive to this communicative process in disseminating phonemic messages. This researcher made an unfavourable observation that due to blotted enrolment numbers in early grade classes, such an effective communication process has described here was rendered impossible.

2.3.3 Message Channel: Teaching Approaches, Methodologies & Techniques

In speaking of message channel in education, consideration is made of the methods and techniques that are employed by the class teacher in communicating particular components of knowledge. For language teaching, there is a particular challenge. Abercrombie (1964) points out that the acquirement of language as such, and the acquirement of the ability to produce and to receive the medium which carries it, are, naturally, bound up together. In other words, the cognitive mastering of a language and the tools and channels through which it is mastered are highly intertwined and may be difficult to distinguish. Abercrombie however points out that it is often useful to distinguish the two, i.e. acquirement of the language and the medium, 'particularly since there may be failure or breakdowns in the one which do not involve the other.' In this research's context, two scenarios were applicable. Firstly, the teacher using a vernacular (Nyanja/Ichibemba) as a medium to communicate the phonetic principles of the Bantu language to a grade 1 learner. In the second instance, the teacher using a vernacular (Nyanja/Ichibemba) as a medium to communicate the phonetic principles of the English language to a grade 2 learner. Though the breakdown Abercrombie refers to can occur in the first instance either in the Nyanja/Ichibemba used as the medium or in the actual Bantu phonetic principles, it becomes more catastrophic in the second instance where the medium and the principles are in different languages. The chances of a breakdown occurring in both languages at the same time are high and this was observed in numerous samples researched.

Richards and Rogers (1986) present three common theoretical views in the approaches and methods of language teaching and proficiency. These acted as a guide for field research assessment in the effectiveness of any techniques the class teachers were using in communicating phonetic skills. An observation made was that there is little room of choice by an individual teacher on the approach to use.

The ***Structural view*** postulates that language is a system of structurally related elements for the coding of meaning. The target of language learning is seen to be the mastery of elements of this system, which are generally defined in terms of phonological units (e.g., phonemes), grammatical units (e.g., clauses, phrases, sentences), grammatical operations (e.g., adding, shifting, joining, or transforming elements), and lexical items (e.g., function words and structure words) (Richards & Rogers 1986). The early grade literacy programme developed by CDC leans heavily on this approach. CDC views foundational language skills (inclusive of phonetics) teaching and learning as a highly structured system with little room for adjustment.

The ***Functional view*** is more in line with the communication function. Richards and Rogers (1986) states that the functional view postulates that language is a vehicle for the expression of functional meaning. The communicative movement in language subscribes to this view of language. This theory emphasizes the semantic and communicative dimension rather than merely the grammatical characteristics of language, and leads to specification and organization of language teaching content by categories of meaning and function rather than by elements of structure and grammar. This approach is adopted later from the middle grades of the literacy programme that includes not only elements of grammar and lexis but also specifies topics, notions, and concepts the learner needs to communicate about.

Interactional view, moves from the grammatical and communicative aspects of language to a social interactional aspect. Richards and Rogers (1986) states that the interactional view sees language as a vehicle for the realization of interpersonal relations and for the performance of social transactions between individuals. In this approach, language is seen as a tool for the creation and maintenance of social relations. It focuses on the patterns of moves, acts, negotiation, and interaction found in conversational exchanges. Language teaching content, according to this view, may be specified and organized by patterns of exchange and interaction or may be left unspecified, to be shaped by the inclinations of learners and their interactions. This approach favours group activities in the literacy programme which is not much the case at early grade learning. A major disadvantage of this approach occurs when a class teacher leans much on it ignoring the structural approach in which phonetic skills are acquired in a direct manner than through interaction with peers.

2.3.4 Message Audience: Grade 1 and 2 Learners

This research targeted the communication of phonetic skills to early grade learners (grade 1 and 2). Lado (1964) presents an analysis of the learning characteristics of this target group. However, reviewed here is a complete overview of other learning groups since this research endeavoured to assess also the impact of the message for future sustainable development in the adult life of the now beginners.

Lado (1964) states that age, educational level, capacity, handicaps, level of proficiency, goals, and linguistic and cultural background are significant variables with regard to the learner. He identifies *age* as a major variable. He recognizes four categorises in learning characteristics as preschool, primary school, secondary school, and college, university, and other adult groups. Lado explains that Preschool children can learn a second language by exposure in much the same way that they learned their first. He affirms that they can learn it to the degree of accuracy of native speakers. No special technique is necessary to teach this group other than to bring the children in contact with appropriate situations in which the second language is used as the medium of communication. It can be noted here that grammatical technicalities are irrelevant and hence real communication of phonemic skills inappropriate.

Lado states that for primary school children, special techniques are required. He points out that such children learn by play and memorization. They can therefore achieve superior pronunciation by dint of their power to mimic sounds accurately. He says children in this category are driven to activity and to learning by play rather than any work motive or other sophisticated motive that drive adults. The literacy programme for this research's target group (grades 1 and 2) recognizes the power of mimicking sounds in the learner and utilizes activities of memorization to communicate phonetic skills.

For secondary school pupils, Lado highlights that these pupils study for the sake of a grade or other indirect reward. They can still achieve a good pronunciation and can study grammatical patterns deliberately. Finally, Lado explains that adults learn more effectively by systems and by systematic cataloguing than do children, and they respond favourably to the work motive, i.e., to putting forth sustained effort for some

goal other than the immediate enjoyment of the activity itself. He says they are poor mimics of the sounds of a foreign language and must be helped with propos, partials, and successive approximations to the desired pronunciation. This indicates, for this research's purposes, that communication of phonemic skills in illiterate adults proves problematic and is thus best imparted at foundational level (early grade).

2.4 MESSAGE IMPACT / EVALUATION

A communication strategy design conclusively includes a monitoring and evaluation entity. For this research, the focus is on observing the impact of communication of phonemic reading skills in early grades on subsequent learning in other subjects of primary and secondary learning. This in turn indicates the impact on skills acquisition for advancement in sustainable development. Conversely, if communication of phonemic reading skills failed in early grade, there would be a negation of development due to non-acquiring of skills necessary for innovations.

2.4.1 Successful Communication: Skills & Innovations Resulting in Sustainable Development

In the preceding chapter, Nara Quebral (1972) was cited in emphasizing the link between development and communication. She stated that 'the art and science of human communication is linked to a society's planned transformation from a state of poverty to one of dynamic socio-economic growth that makes for greater equity and the larger unfolding of individual potential.' It was further indicated that this socio-economic growth is wholly dependent on the sustainable manipulation of the environment through acquired skills for developing appropriate innovations. It can now be asked, how does the aspect of proficient communication through the language factor impact on this developmental goal? Robinson (1971) explains that the language we command affects our capacity for communication both with ourselves and with other people. He elucidates that experimental results support the view that our present and future abilities to acquire and use many types of knowledge and understanding depend upon our ability to understand and produce appropriate speech and writing. It is therefore evident that a successful command of the spoken and written word will enable a person acquire the desired knowledge and skills to contribute to sustainable development.

2.4.2 Unsuccessful communication: Semi-literate& Illiteracy Resulting in a Lack of Access & Persistence of Poverty

Thomas (2008:34) describes poverty in terms of a lack of access stating that 'poverty is not only an indication of a lack of resources but is also, rather fundamentally, about the lack of awareness on the part of a people of their own role in the fight against poverty.' And Aliber (2002:6), quoting Butler and Hallows (1998) adds an element of equality by stating that 'the viability of people's livelihoods is often largely contingent on relationships that ensure the continued access to environmental resources. Such continued access, however, requires not only the sustained provision of resources but also the *just and equitable access* to them.' It therefore follows that if communication of the phonemic reading skill failed at early grade, the individual would be either semi-literate or illiterate and hence not be able, through inadequate appropriate knowledge be aware of his/her role in the fight against poverty. The person would further be ignorant on their entitlement to just and equitable access to resources. On a plain level, it is evident that a lack of skills denies an individual an opportunity to participate in the formal and profitable economic activities of a given community and hence renders that person to persist in poverty.

It is overtly evident that there is a strong link between communication and development. Development can only be attained through sustainable manipulation of the environment by appropriate innovations brought about through appropriate skills development. This skills development wholly depends on acquisition of a proficiency in communication for all learning and training entails a form of communication. Basic to this communication is the skills of reading and writing. This literacy skill is communicated (taught) initially at an elementary level of grade 1 and 2 beginning with the phonemic skill. The imperativeness of this phonemic skill has resulted in language curriculum developers designing literacy programmes that aim at an adequate transmission of phonemic skills to the grade 1 and 2 learners. Even with a well designed phonemic message, the task rests on the class teacher, as the message source, to effectively communicate this literacy skill to the learners through appropriate approaches, methods and techniques. A failure in communicating this elementary literacy skill has the negative consequence of illiteracy and a subsequent negation of sustainable development.

CHAPTER THREE
LITERATURE REVIEW

3.0 INTRODUCTION

Research has been conducted on literacy education in Zambian primary schools with an objective of finding the best methods of teaching language to an indigenous Zambian learner. In this chapter, this researcher reviews some important research done in the past on literacy in Zambia's primary education with the objective of identifying a departure point for this particular study. The chapter begins by giving an historical development of literacy in Zambia and then reviews aspects that this study focus on namely frequency of the problem of communication proficiency among learners, the awareness level among teachers and learners of the imperativeness of phonetic skills for communication proficiency and the message design and channels used in transmission of phonetic skills to the grade 1 and 2 learners.

3.1 HISTORICAL DEVELOPMENT OF LITERACY IN ZAMBIA

A historical review into the language of instruction in the Zambia education system reveals that, prior 1965, elementary education was conducted in the vernacular. After independence in 1964, the new Ministry of Education endorsed the Hardman Report (sponsored by UNESCO) to have English as the medium of instruction from the beginning of schooling (Linehan 2006). With findings of a research outlined in the *Report on Reading in English in Primary Schools in Zambia, 1993* by Eddie Williams that indicated very low levels of reading among primary school learners and attributed to English being a second language for initial instruction, the language policy of the Ministry of Education was changed. The *New Breakthrough to Literacy* (NBTL) was introduced in 1996 for grade 1. It was aimed at developing initial literacy in local language. For grade 2, a continuation literacy course was introduced called *Step In To English* (SITE). It aimed at enabling learners read fluently and write clearly and accurately in English in Grade 2. It also formed a bridge between NBTL for the grade 1 and the *Read On Course* (ROC) literacy course for grade 3-7. This *Read On Course* aimed at supporting reading and writing

in both English and the local Zambian Language. It envisioned to produce learners who were able to cope with the reading and writing requirements of Grade 8 and who were functionally literate in a modern society and thus contribute towards the strengthening of a reading and writing culture in Zambia (MOE, 2000).

A fundamental factor to note in all the reading programmes initiated by the Ministry of Education since 1996 is the emphasis put on the instructional learning in the first and second languages. The debate has been on the necessity of teaching literacy for grade 1 in the vernacular before the learner proceeds to the second language in grade 2. Research has been done since 1996 in this area of the correlation between the first and second language as a contributing factor in either achievement in literacy levels or its continued decline. These researches include that of Beatrice Matafwali (2010) who did a PhD research with The University of Zambia and the Netherlands University on *The Relationship Between Oral language and Early Literacy Development: A Case of Zambian Languages and English* aimed at assessing a correlation in literacy progression from the first to the second language; George Tambalukeni (2012) in his masters' degree research with the University of Zambia enquired that *'Does Teaching Reading in a Familiar Language Force a Breakthrough to Literacy?'* He further did a research with Adriana Bus in association with Leiden University of the Netherlands titled *Linguistic Diversity: A Contributory Factor to Reading Problems in Zambian Schools – 2012* in which they stated that 'pupils make more progress in word reading fluency in a Zambian language and English when basic reading skills are practiced in the children's most familiar Zambian language.' However, in this research, Tambalukeni and Bus makes a pertinent observation that 'research into other facets of reading instruction is required to balance various possibilities for increasing efficacy of reading instruction.'

This observation marks the point of departure for this study. The study recognises a facet of phonetic skills as an enabler of reading and writing skills. The difference in language that the leaner is exposed to would not necessitate a barrier in learning to read and write since phonetic skills enables a learner to decode any given word in any language that uses the Latin alphabet.

3.2 COMPONENTS OF REVIEW

3.2.1 Frequency of the Problem of Communication Proficiency among Indigenous Zambia Pupils

When reading is considered as the basis of communication proficiency, research in literacy skills among Zambian learners indicates that there has been a high frequency of learners with problematic reading skills. The revelatory research studies of Williams (1993) alluded to earlier pinpointed low grading levels for grades 3, 4 and 6 in both English and the Nyanja vernacular. The results of the *Word Find* reading test which was used indicated that in the five schools tested there was inadequate comprehension of texts judged to be at their level of approximately 85% of Grade 3 pupils, 88% of Grade 4 pupils and 74% of Grade 6 pupils. Such staggering results clearly indicate the general reading problem in Zambia. Another research conducted by the National Reading Committee (NRC 1997) in four primary schools in Lusaka reported poor levels of reading in these schools. It was estimated that approximately 60% of learners leaving school at grade 7 had extremely poor reading skills in English and were almost illiterate in their local language (Matafwali 2010). The Southern African Consortium for Monitoring Learning Quality (SACMEQ) (1998) equally reported poor reading performance at grade 6 level in the Zambian Basic Schools (ibid.). And in a study conducted by Kelly (2000) prompted by the poor reading levels among grade 5 learners in the National Assessment Report, indication was that grade 6 learners assessed performed much below the level expected for their grade. On the difference between learners equipped with phonemic reading skills and those without, Tambulukani (2012) indicates from his study that 'lower achievers are hardly able to identify first letter sound in spoken words and read or spell simple words in both the vernacular Zambian language and English.' This research had investigated this thoroughly as outline in the results later.

3.2.2 Awareness Level of Phonemic Skills in Communication Proficiency among Teacher & Pupil

Awareness levels for both teacher and learner on the imperativeness of phonemic reading skills for communication proficiency can adequately be known with an actual field research and data analysis as it reflect personal responses from participants in a survey as this research did and results outlined in a later chapter.

However what can be established from literature is that there is scholarly awareness of the imperativeness of phonemic reading skills for developing communication proficiency. Tambulukani (2012) indicates from his study that there is a curricula awareness that 'letters in print words relate to sounds in spoken words' and that 'it is easier to relate the phonology of a word to its written form when the word is part of a child's vocabulary.' He further states that test results of his study reveal that phonemic skills mastered in a vernacular language facilitates development in the English language. The poor score of lower achiever he attributed to the lack of development of phonological skills which seem to have helped the high achiever in benefiting from a good language combination. He adds another possible advantage for the high achiever as duration of instruction on phonological skills. He concludes by stating that his results 'supports the NBTL assumption that basic alphabetic knowledge acquiring for vernacular language facilitates learning to read and write in English.'

3.2.3 Message Content in Teaching/Learning of Phonemics Skills

Linguists have made a serious acknowledgement that there is a serious difference between the English language and the vernacular Bantu languages as those spoken in Zambia. This difference is rooted in the fact that the Bantu languages are phonemic in structure (i.e. you read what you see) while the English language which developed over centuries has borrowed words from many differently structured languages and hence the phonemic arrangement is not consistent and some words end up being sight words e.g. knight. This complication has a telling effect in *communicating* phonetics to the grade 1 and 2 learner whose spoken speech has no such inconsistencies. To circumvent this difficulty, the Curriculum Development Centre (CDC) have devised a concept in which they have a parallel revised alphabet for the seven Zambian languages used for teaching instruction which take into consideration the variations in phonemic stressing (MOE, 2000:14). With its English phonemic alphabet, a literacy learning programme has been designed namely the *Breakthrough to Literacy* (grade 1) and the *Step Into English* (grade 2). The programme has a steady development of relationship of single sound letters to a build up into readable words. The content constantly parallels the vernacular with the English indicating the differences in phonology and word structure (Sampa 2005:22). It is a very well

structured programme simplified for easy understanding and emphasis on the build up nature of phonetic skills.

3.2.4 Channels: Approaches, Methodologies & Techniques of Communicating Phonemic Skills to Grade 1 and 2 Learners

Channel - With an inherent complication in the phonological difference in the vernacular and English languages, difficulties in *communicating* phonetic skills are abound this in spite of a well structured literacy programme. The Teacher's Guide leaves it open for individual teachers to formulate lessons plans for these delicate phonemic instructions. This discretional element compounds the communication difficulty considering the diversity of the Zambian vernacular languages. It therefore follows that leaving the final and actual communication entity to the discretion of individual teachers is open to failure in this communication channel. This study attempted to chiefly investigate the variation in communication and effectiveness of individual teachers as message source and channel and evaluate the impact it has on the grade 1 and 2 learners as the target audience.

Approaches, Methodologies & Techniques – in educational history, different crude methods have been used in the teaching of a foreign language modelled after the teaching of Latin which was an international language of education, religion, commerce and government. By the late nineteenth century, general principles and theories concerning how languages are learned, how knowledge of language is represented and organised in memory, or how language itself is structured emerged (MOE, 2000). Thus a link emerged over approach, method and technique. Richards & Rogers (1986) cites the work of Anthony (1963: 63-7) who presents definition and relationship of these three teaching facets. He states that an *approach* is a set of correlative assumptions dealing with the nature of language teaching and learning. An approach is axiomatic (clear, does not need to be proved). It describes the nature of the subject matter to be taught. He describes a *method* on the other hand as an overall plan for the orderly presentation of language material based upon the selected approach. He states that while an approach is axiomatic, a method is procedural. Within one approach, there can be many methods. Finally, he states that a *technique* is implementational – that which actually takes place in a classroom. It is a particular trick, stratagem, or contrivance used to accomplish an immediate objective. In all

therefore, techniques must be consistent with a method, and therefore in harmony with an approach as well.

In summary, according to Anthony's model, approach is the level at which assumptions and beliefs about language and language learning are specified; method is the level at which theory is put into practice and at which choices are made about the particular skills to be taught, the content to be taught, and the order in which the content will be presented; technique is the level at which classroom procedures are described. It is important to note that there is no one best approach or methodology hence the need to blend or integrate two or more methods or approaches in order to come up with a workable procedure in the classroom and this is referred to as *eclecticism*(Richards & Rogers 1986).

The curriculum developers recognise different approaches to teaching initial literacy. The common ones used in teaching reading are the 'Phonics', 'Look- and –Say', 'Whole Language', 'Language Experience Approach' and 'Syllabic Approach' (MOE, 2000). Our interest is the phonics approach. This approach stresses letter-sound relationship. An advantage of this approach is that the learner is able to recognise single letters and say their sounds which subsequently build words. A disadvantage is that letters may be confused by the learner e.g. 'p' and 'q' (ibid.116). This researcher encountered several cases of this nature. The most confused letters were **a** with **d** and **p** with **b**.

Duration - The New Breakthrough to Literacy for grade 1 is given an allocation of one hour per day for literacy teaching/learning and two 30 minute periods per week for teaching/learning oral English. Its counterpart, Step Into English for grade 2 is allocated one hour per day for literacy teaching/training and half an hour per day for oral English (Sampa 2005:15). This allocation of time had a general dissatisfaction from the teachers during the teacher interview and the consequences are highlighted in a chapter later.

In this literature review, it has been noted that achievement has been accomplished in research on how a language, more so a foreign language should be taught or communicated to the learner. The Zambian situation has not been a success story in

this area with high levels of problematic reading skills among learners. Through the Ministry of Education's CDC, literacy programmes have been developed after much research into best packaging of language learning components. Phonology has been given recognition as vital to the development of reading skills. However, even with a well packaged literacy programme, the vital communication of phonetic reading skill rests on the appropriate and effective us of approaches, methods and techniques by the class teacher. The activities between the class teacher and the learner are key in a successful communication of the phonemic reading skill. This research's investigation showed that there is still a major breakdown in communication between the teacher and the learner as results indicated.

CHAPTER FOUR
METHODOLOGY

4.0 INTRODUCTION

This researcher investigated a failure in *communicating* phonemes to the learner as a basic entity in coded communication proficiency essential for skills acquisition for sustainable development. This basic skill of phonemics is imparted at elementary foundational education (grade 1-2). The phonemic *message* is designed by the Curriculum Development Centre (CDC) in Lusaka. For the learner, the primary message *source* is the class teacher who acts as a *channel* for the message as well through the teaching methodologies used. To adequately investigate this process, this researcher thus first briefly enquired into the message phonemic design by CDC. He then focused on the class teacher as the *message source* and later the grade 1 and 2 learner as the target *audience* in order to establish any communication failures through approaches, methodologies and techniques used. To predict the impact of proper acquiring of phonemic skills or its failure, a very brief assessment was made at the school exit levels of grade 7 and 12. Research instruments were designed in data collection for each appropriate enquiry. Triangulation(qualitative and quantitative research techniques) was used in this data collection.

4.1 METHODS

4.1.1 Study Design

The study was non-experimentation. It was a case study of selected primary and secondary schools in Lusaka and Chinsali district with an in-depth analysis of communication in the key literacy skills of phonetics. Below are tables outlining the components of the enquiries made in the targeted schools.

Table 4.1: Curriculum Developers

No.	Specialist	Location	Method
1	Nyanja Language Specialist	Curriculum Development Centre, Longacres Lusaka.	In-depth Interview *(Research Instrument 1)*
2	Bemba Language Specialist		
3	English Language Specialist		

Table 4.2: Class Observation & Teacher Interview

No.	Grade	Method	Sample				
						Gr. 1	Gr. 2
1	Grade 1 Grade 2	(a) Participant Observer (Class Observation) *(Instrument 2)* (b) Class Teacher Interview *(Instrument 3)*	Lusaka	1	Jacaranda	1	1
				2	Libala	1	1
				3	Mary Queen	1	1
				4	Vera Chiluba	1	1
				5	Woodlands A	1	1
					Total Lusaka	***5***	***5***
			Chinsali	1	Chinsali	1	1
				2	Choshi	1	1
				3	Ilondola	1	1
				4	Kalalantekwe	1	1
				5	Kanakashi	1	1
				6	Kapwepwe	1	1
				7	Lubwa	1	1
				8	Mulakupikwa	1	1
				9	Mwaba	1	1
				10	Nkula	1	1
					Total Chinsali	***10***	***10***
			Total Classes & Teachers				**30**

Table 4.3: Frequency & Magnitude of Communication Failure

No	Grade	Method	Sample			
1	Grade 1 Grade 2 Grade 7 Grade 12 (1 class of each per school)	(a) Written Assessment (All present in class) *(Res. Instrument 4)*	Primary	Lusaka	1	Jacaranda
					2	Libala
					3	Mary Queen
					4	Vera Chiluba
					5	Woodlands A
				Chinsali	1	Chinsali
					2	Choshi
					3	Ilondola
					4	Kalalantekwe
					5	Kanakashi
					6	Kapwepwe
					7	Lubwa
					8	Mulakupikwa
					9	Mwaba
					10	Nkula
			Secondary	Lusaka	1	Arakan
					2	Lusaka
				Chinsali	1	Chinsali Day
					2	Kenneth Kaunda
				Total	**19**	
	Grade 1	(b) Oral Assessment (12(i.e. 25%) of	Primary	Lusaka	1	Jacaranda
					2	Libala
					3	Mary Queen
					4	Vera Chiluba
					5	Woodlands A
					1	Chinsali
					2	Choshi
					3	Ilondola

2	Grade 2 Grade 7 Grade 12	those present in class) *(Res. Instrument 5)*		Chinsali	4	Kalalantekwe
					5	Kanakashi
					6	Kapwepwe
					7	Lubwa
					8	Mulakupikwa
					9	Mwaba
					10	Nkula
			Secondary	Lusaka	1	Arakan
					2	Lusaka
				Chinsali	1	Chinsali Day
					2	Kenneth Kaunda
				Total	**19**	

Table 4.4: Assessment of Acquired Phonemic Skills in Grade 1 and 2 Learners

Grade	**Method**	**Sample**				
					Gr. 1	**Gr. 2**
Grade 1 Grade 2	(a) Alphabetical Skills- Gr. 1 *(Instrument 6)* *(b)* Nyanja Phonemic Skills- Gr. 1 *(Instrument 7)* *(c)* Bemba Phonemic Skills- Gr. 1 *(Instrument 8)* *(d)* Nyanja Phonemic Skills- Gr. 2 *(Instrument 9)* *(e)* Bemba Phonemic Skills- Gr. 2 *(Instrument 10)* (f) English Phonemic Skills – Gr. 2 *(Instrument 11)*	Lusaka	1	Jacaranda	10	10
			2	Libala	10	10
			3	Mary Queen	10	10
			4	Vera Chiluba	10	10
			5	Woodlands A	10	10
				Total Lusaka	***50***	***50***
		Chinsali	1	Chinsali	10	10
			2	Choshi	10	10
			3	Ilondola	10	10
			4	Kalalantekwe	10	10
			5	Kanakashi	10	10
			6	Kapwepwe	10	10
			7	Lubwa	10	10
			8	Mulakupikwa	10	10
			9	Mwaba	10	10
			10	Nkula	10	10
				Total Chinsali	***100***	***100***
		Overall Totals			**150**	**150**
		Grand Total of Pupils				**300**

4.1.2 Variables

Independent, dependent and extraneous variables[3] were all considered during the study as follows:

4.1.2.1 Independent Variables

The variables for learners that were kept constant are the following:-

i. Age
ii. Sex (male/female)
iii. Location (urban/rural)
iv. Class population
v. Grade (1, 2, 7 and 12)

4.1.2.2 Dependant Variables

The variables that were under study are the following:-

i. Phonetic ability
ii. Reading ability
iii. Comprehension ability
iv. Teaching methodology
v. Language of instruction
vi. Teacher competence

4.1.2.3 Extraneous Variables

Extraneous variables that were constantly monitored which had an effect on the collected data were:

i. Subject variable – varying age among same grade learners.
ii. Experimental variable – competence of assistant data collectors
iii. Situational variable – examination period in Chinsali schools during data collection.

[3] The dependent variable represents the output or effect (or is tested to see if it is the effect). The independent variable represents the inputs or causes (or tested to see if they are the cause). In a statistics experiment, the dependent variable is the event studied and expected to change whenever the independent variable is altered. An extraneous variable may alter the dependent or independent variable though it is not the actual focus of the experiment (Everitt 2002, Dodge 2003)

4.1.3 Qualitative Research Techniques

4.1.3.1 In-depth Interview & Questionnaires

(a) Curriculum Developers–Three (3) curriculum specialists were purposively selected in the language department representing the three languages covered in the research namely Nyanja, Bemba and English. They responded to a questionnaire that enquired on four key areas in design namely 1. phonemic imperativeness, 2. phonemic message design, 3. channel of phonemic communication, and 4. duration of phonemic communication to learners.

- *Research Instrument 1:* Curriculum Developer Interview Sheet

(b) Class Teacher - For each Grade 1 and 2 classes observed, an in-depth interview with the class teacher was conducted. The interview enquired into four key areas of phonemic communication namely 1. phonemic awareness, 2. approaches and methods in phonetic communication, 3. techniques as channels of phonetic communication, and 4. duration of phonetic communication to learners.

- *Research Instrument 3:* Class Teacher Interview Questionnaire

4.1.3.2 Participant Observer: Class Observation

For each primary school assessed, a literacy lesson in the sampled Grade 1 and 2 classes was observed by this researcher. The elements of focus in this observation were 1. class teacher's approaches and techniques including language of instruction, 2. phonemic message design presented to learners, 3. learners' audio activities, and learners' writing activities. For the Grade 2 class, attention was also paid to observing how the phonemic knowledge is communicated when a change in language occurs (Nyanja/Bemba -NBTL to English –SITE) with the inherent differences in the language's phonology.

- *Research Instrument 2*: Class Observation Sheet

4.1.4 Quantitative Research Techniques

4.1.4.1 *Frequency & Magnitude of Communication Failure*

To obtain data on the frequency and magnitude of communication failure occasioned by a lack of adequate phonemic skills, two (2) assessments were conducted on the learners in the selected Grade 1, 2, 7 and 12 classes.

(i) Written Assessment on Phonemic Skills & Reading Communication (All learners in Class)
   - *Research Instrument 4*: Frequency & Magnitude Assessment Sheet

(ii) Oral Assessment on Phonemic Skills & Communication Proficiency (12 of learners (25%) from each class randomly selected)
   - *Research Instrument 5*: Oral Communication Assessment Sheet

4.1.4.2 Assessment of Acquired Phonemic Skills in Grade 1 and 2 Learners

This was the core of the study i.e. assessing whether phonemic skills have been effectively communicated or not to the target audience (learners). Assessments were conducted as follows with consideration of the two varying vernacular languages used in Lusaka (Nyanja) and Chinsali (Bemba):

(i) Grade 1 Learners

Assessed their initial comprehension of alphabetical skills i.e. knowledge of ***letter names***.
   - *Research Instrument 6*: Alphabet Skills Assessment Sheet

Assessed their acquired phonemic skills i.e. ***letter sounds*** in vernacular.
   - *Research Instrument 7*: Nyanja Phonemic Skill Assessment Sheet
   - *Research Instrument 8*: Bemba Phonemic Skill Assessment Sheet

(ii) Grade 2 Learners

Assessed their acquired phonemic skills in grade 1 in the vernacular.
   - *Research Instrument 9*: Nyanja Phonemic Skill Assessment Sheet
   - *Research Instrument 10*: Bemba Phonemic Skill Assessment Sheet

Assessed phonemic skills acquired in the English language in grade 2.
   - *Research Instrument 11*: English Phonemic Skill Assessment Sheet

4.2 SAMPLING PROCEDURE

4.2.1 Population

The study targeted Curriculum developers, class teachers and learners in grade 1, 2, 7 and 12. The population catchment area was Lusaka urban district and Chinsali rural district schools. The schools include both primary and secondary schools.

4.2.2 Sample Frame

The sample frame for the study was the following:

4.2.2.1 Schools

Lusaka Urban District	Five (5) Primary Schools
	Two (2) Secondary Schools
Chinsali Rural District	Ten (10) Primary Schools
	Two (2) Secondary Schools
Total Schools in Sample Frame	
	Fifteen (15) Primary Schools
	Four (4) Secondary Schools
	Nineteen (19) Schools in Total

4.2.2.2 Sampled Population

Curriculum Developers	Three (3) language specialists at CDC
No. of Grade 1 & 2 Classes	For each of the selected Primary Schools:
	(i) One (1) Grade 1 Class x 15 schools = 15 classes
	(ii) One (1) Grade 2 Class x 15 schools = 15 classes
	Total of Thirty (30) Grade 1 & 2 Classes
Class Teachers	For each of the 15 Primary Schools:
	(i) One (1) Observed Grade 1 Teacher
	(ii) One (1) Observed Grade 2 Teacher
	Total of Two (2) teachers per primary school x 15 sch.
	Total of Thirty (30) Primary School Teachers

Learners	(i) Frequency & Magnitude Assessment - All learners of one (1) class each of Grade 1, 2 and 7 of the selected Primary Schools. - All learners of One (1) Grade 12 class of the selected Secondary Schools. - **Total Learners undetermined** (ii) Assessments for Grade 1 and 2 Learners - Ten (10) Grade 1 Learners from each selected Primary School x 15 schools = 150 learners - Ten (10) Grade 2 Learners from each selected Primary School x 15 schools = 150 learners - **Total Learners = 300**

4.2.3 Selected Sampling Procedures

4.2.3.1 Non-Probability Sampling: Purposive / Judgement Sampling

This sampling procedure was used for the following in order to obtained specialized data:

(i) Curriculum Developers – in selecting the three language specialists.

(ii) Primary & Secondary Schools – was determined by the size and location of the school to obtain an even distribution across the districts and hence make the results more representative.

4.2.3.2 Probabilistic Sampling

The following probabilistic sampling procedures were used:

(i) *Simple Random Sampling* was used to select the grade 1 and 2 class for Observation and Class Teacher Interview at each primary school selected. Equally, the Grade 7 and 12 classes for frequency and communication proficiency assessments were selected in the same manner.

(ii) *Systematic Random Sampling* was used to select the ten (10) learners from the Grade 1 and 2 selected classes. Both class Registers and number sequencing were used to systematically select the ten learners.

4.3 DATA GATHERING METHODS

The study utilized designed research instruments specified for each particular data required in the various categories. The titles of the research instruments are specified below while the actual samples are featured in Appendix I.

1. Research Instrument 1: Curriculum Developer Questionnaire
2. Research Instrument 2: Class Observation Sheet
3. Research Instrument 3: Class Teacher Interview Questionnaire
4. Research Instrument 4: Frequency & Magnitude Assessment Sheet – Grade 1
5. Research Instrument 4: Frequency & Magnitude Assessment Sheet – Grade 2
6. Research Instrument 4: Frequency & Magnitude Assessment Sheet – Grade 7
7. Research Instrument 4: Frequency & Magnitude Assessment Sheet – Grade 12
8. Research Instrument 5: Oral Communication Assessment Sheet -Grade 1
9. Research Instrument 5: Oral Communication Assessment Sheet – Grade 2
10. Research Instrument 5: Oral Communication Assessment Sheet – Grade 7
11. Research Instrument 5: Oral Communication Assessment Sheet – Grade 12
12. Research Instrument 6: Alphabet Skills Assessment Sheet – Grade 1 Only
13. Research Instrument 7: Nyanja Phonemic Skill Assessment Sheet – Grade 1
14. Research Instrument 8: Bemba Phonemic Skill Assessment Sheet – Grade 1
15. Research Instrument 9: Nyanja Phonemic Skill Assessment Sheet – Grade 2
16. Research Instrument 10: Bemba Phonemic Skill Assessment Sheet – Grade 2
17. Research Instrument 11: English Phonemic Skill Assessment Sheet – Grade 2

4.4 DATA ANALYSIS

Upon completion of administering research instruments to the 1,934 learners and 33 educators, the data was first tabulated into Microsoft Excel spread sheets for logical arrangement, categorizing and comprehension. This formed the basis of codifying and selecting data for particular analysis. The Statistical Package for Social Sciences (SPSS) was then used to enter quantitative data and analysed for frequency and percentage occurrence. The preferred mode of graphical representation was bar graphs as they are visually convenient to observe the progression or declination of values of a category under analysis. For qualitative data, tables were formulated that captured responses from educators using key phrases. Finally, because the data covered a wide spectrum (grades 1, 2, 7 and 12), for the final summation, an aggregate computation was devised (Appendix II) to have a unified statistical and graphic representation of the overall results.

4.5 ETHICAL CONSIDERATION

In a study that involves classroom education of children, it is rare that there will be stringent factors that require special ethical considerations. This may to some extent apply to a study involving children with disabilities. Therefore for this study, the following considerations were taken into account:

(i) *Informed Consent:* Permission was sort from the school administrators in each district namely District Education Board Secretaries (DEBS), head teachers and class teachers. Through this authority consent, it implied parents and pupils were equally covered. The assessments being designed as part of a class exercise did not therefore require a pupil's individual consent.

(ii) *Confidentiality:* In administering the research instruments, all respondents were allocated codes which were used in data entry as well. This maintained anonymity of the educators and learners alike and thus upholding confidentiality.

(iii) *Objectivity:* The research instruments were largely for quantitative data collection. All the 1,934 learners were subjected to standard school assessments exercises which in effect are objective and free from bias. The qualitative responses were recorded in precise key phrases that represented a concrete statement. This approach in recording ensured objectivity even in the qualitative data.

4.6 LIMITATIONS OF THE STUDY

The sheer number of schools in Lusaka and Chinsali districts made it impossible to assess all of them. Therefore the study was limited to 15 primary and 4 secondary schools. And again the number of learners, grade streams and teachers at each of the selected schools was impossible to assess and therefore sampling was done to have a limited and manageable population sample. In doing phonetic assessment for learners, the study allowed for the learner to choose their familiar language (English, Nyanja and Bemba) in which assessment was to be done. This therefore became a handicap in the study in the area of phonology of each specific language. The study was therefore limited in being unable to make a correlation between phonology in two languages and if the grade 2 learners could make a transfer from the vernacular to English in phonology.

CHAPTER FIVE

PRESENTATION OF FINDINGS

5.0. INTRODUCTION

An assessment was conducted in 15 primary and 4 secondary schools in Lusaka urban and Chinsali rural districts. A total of 1, 934 pupils were sampled as follows: Grade 1 – 578 pupils, Grade 2 – 560 pupils, Grade 7 – 619 pupils and Grade 12 – 177 pupils for the respective enquires designed for this study. Included to these, 3 curriculum developers and 30 grade 1 and 2 teachers were interviewed and observed during the study. This chapter presents the findings of the assessment in response to the set objectives and research questions of the study. The results are presented for the four broad categories of the study namely (a) frequency and magnitude of the problem of communication lapses among grades 1, 2, 7 and 12, (b) enquiry into the awareness of the reading skills required for effective communication, (c) attribution of phonetic skills as the reading skills that enable effective communication among the learners, and (d) enquiry into the cause of a communication breakdown in the transmission of phonetic skills from the teacher to the learner.

5.1. FREQUENCY AND MAGNITUDE OF THE PROBLEM OF COMMUNCATION LAPSES AMONG SAMPLED LEARNERS IN GRADES 1, 2, 7 AND 12 IN THE SELECTED SCHOOLS

The first enquiry focused on the measure of the occurrence and degree or extent of the problem of ineffective communication proficiency among learners in schools which would eventually impede their acquisition of complex skills at tertiary level. The sampled grades were grades 1, 2, 7 and 12 in 15 primary and 4 secondary schools with a sample size of 1, 934 pupils (Table 5.1). The variables considered were location, sex and age of the learners (Tables 5.3 – 5:7) observing any bearing the variables would have on the assessment results. The enquiry assessed the following in respect to each grade level assessed (a) recognition of alphabet letters, (b) recognition of the 5 vowels of the alphabet, (c) recognition of the 21 consonants of the alphabet, (d) recognition or reading of words, and (e) response to questions from a read passage (comprehension).

5.1.1 Population Sample and Variables Description

5.1.1.1 Description of the Population Sample

(a) Schools and Learners Sample Size

Table 5.1: Schools & Learners' Population Sample Description

S/N	SCHOOL	CODE	Grade 1	Grade 2	Grade 7	Grade 12	
	PRIMARY SCHOOLS						
1	Jacaranda	01JAC	50	50	33		
2	Libala	02LIB	50	39	50		
3	Mary Queen	03MQP	36	39	35		
4	Vera Chiluba	04VRC	50	43	50		
5	Woodlands A	05WOD	28	25	50		
6	Chinsali	01CHS	36	40	48		
7	Choshi	02COS	46	38	33		
8	Ilondola	03ILD	48	41	50		
9	Kalalantekwe	04KLT	13	10	21		
10	Kanakashi	05KNK	31	37	45		
11	Kapwepwe	06KPW	12	26	21		
12	Lubwa	07LBW	49	47	45		
13	Mulakupikwa	08MKP	36	36	39		
14	Mwaba	09MWB	43	48	49		
15	Nkula	10NKL	50	41	50		
	SECONDARY SCHOOLS						
1	Arakan	06ARK				46	
2	Lusaka	07LSK				45	
3	Chinsali	11CSD				37	
4	Kenneth Kaunda	12KKD				49	
	Total		**578**	**560**	**619**	**177**	**1,934**

(b) Curriculum Developers and Class Teachers Sample Size

Table 5.2: Curriculum Developers & Class Teachers Sample Description

S/N	Educators	Lusaka	Chinsali	Total
1	Curriculum Developers	3		3
2	Grade 1 Class Teachers	5	10	15
3	Grade 2 Class Teachers	5	10	15
		13	**20**	**33**

5.1.1.2 Description of Location, Sex and Age Variables

The population sample was selected from an urban and a rural district of Zambia. The study focused on the rural district on the basis that the new literacy programme was being piloted in rural districts of Zambia. The urban district presented a referral point as to the frequency and magnitude of the problem of communication proficiency experienced by learners in other parts of the country. The sex distribution was carefully monitored to present a balanced gender sample. The age variable was a random occurrence and there was no purposeful selection in it.

(a) Population Sample Location & Sex Distribution

Table 5.3: Sample Location & Sex Distribution

	Grade	**Location**		**Sex**	
		Lusaka	**Chinsali**	**Girls**	**Boys**
1	Grade 1	214 (37.0%)	364 (63.0%)	313 (54.2%)	265 (45.8%)
2	Grade 2	196 (35.0%)	364 (65.0%)	291 (52.0%)	269 (48.0%)
3	Grade 7	218 (35.2%)	401 (64.8%)	315 (50.9%)	304 (49.1%)
4	Grade 12	91 (51.4%)	86 (48.6%)	41 (23.2%)	136 (76.8%)
	Total	**719** (37.2%)	**1,215** (62.8%)	**960** (49.6%)	**974** (50.4%)

(b) Population Sample Age Distribution

Table 5.4: Grade 1 Age Distribution

Age	Frequency	Percent (%)
5	8	1.4
6	87	15.1
7	203	35.1
8	156	27.0
9	85	14.7
10	23	4.0
11	10	1.7
12	3	0.5
13	1	0.2
14	2	0.3
Total	578	100.0

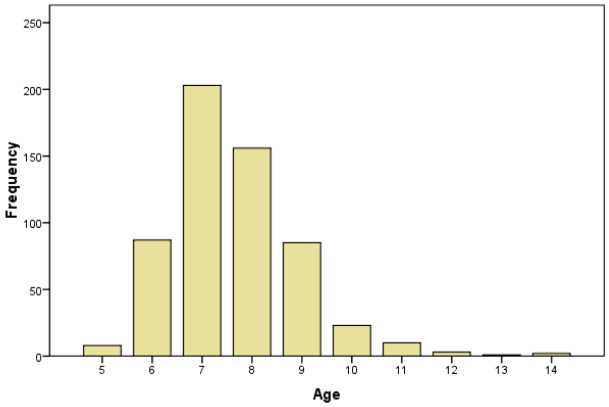

Figure 5.1: Grade 1 Age Distribution

Table 5.5: Grade 2 Age Distribution

Age	Frequency	Percent (%)
6	7	1.2
7	82	14.6
8	156	27.9
9	170	30.4
10	94	16.8
11	27	4.8
12	19	3.4
13	3	0.5
14	1	0.2
16	1	0.2
Total	560	100.0

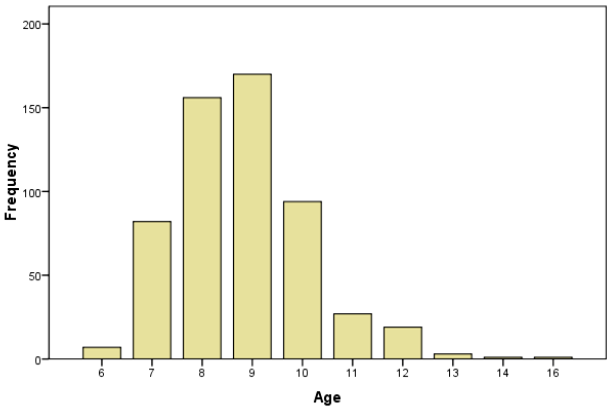

Figure 5.2: Grade 2 Age Distribution

Table 5.6: Grade 7 Age Distribution

Age	Frequency	Percent (%)
10	5	0.8
11	34	5.5
12	140	22.6
13	237	38.3
14	133	21.5
15	47	7.6
16	14	2.3
17	4	0.6
18	3	0.5
21	1	0.2
40	1	0.2
Total	619	100.0

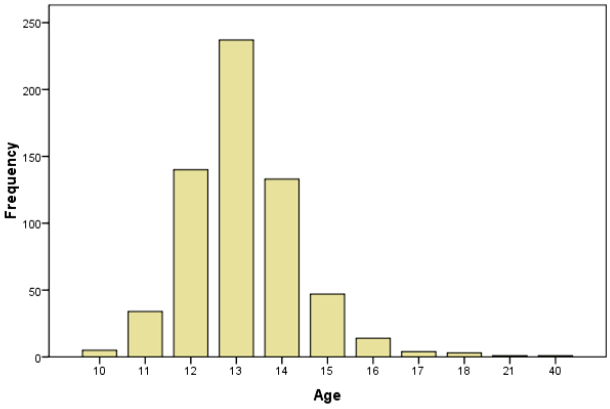

Figure 5.3: Grade 7 Age Distribution

Table 5.7: Grade 12 Age Distribution

Age	Frequency	Percent (%)
15	4	2.3
16	12	6.8
17	38	21.5
18	61	34.5
19	35	19.8
20	19	10.7
21	5	2.8
22	2	1.1
23	1	0.6
Total	177	100.0

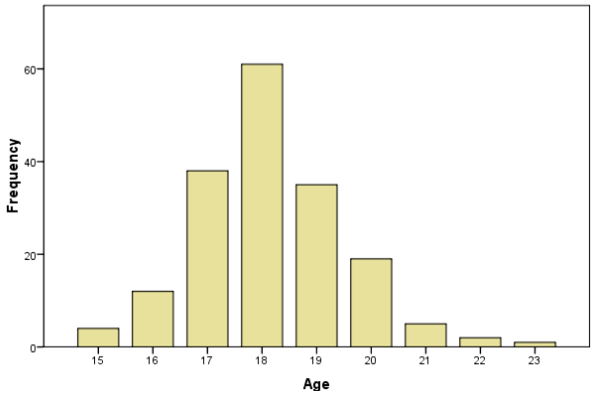

Figure 5.4: Grade 12 Age Distribution

5.1.2 Sampled 578 Grade 1 Learners

For the sampled 578 Grade 1 learners, assessment was made into the level of knowledge on (a) recognition of alphabet letters, (b) recognition of the 5 vowels of the alphabet, and (c) reading or recognition of 3 words through pictorial matching.

5.1.2.1 Alphabet Letters Recognition

Table 5.8: Alphabet Letters Recognition Score

Alphabet	Frequency	Percent (%)
0	30	5.2
1	1	0.2
2	8	1.4
3	17	2.9
4	34	5.9
5	35	6.1
6	54	9.3
7	50	8.7
8	53	9.2
9	66	11.4
10	65	11.2
11	57	9.9
12	108	18.7
Total	578	100.0

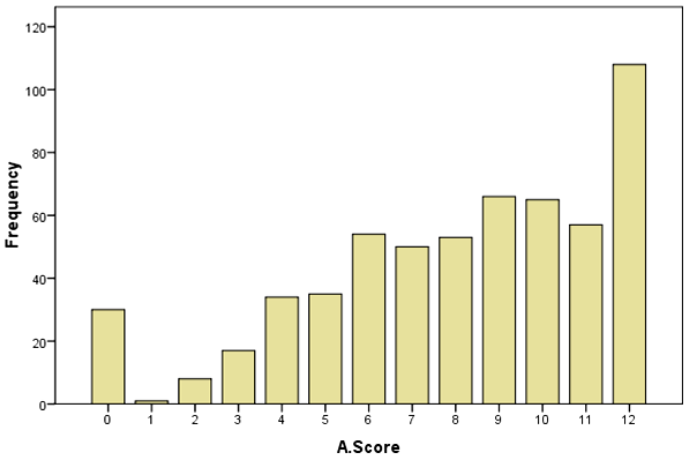

Figure 5.5: Alphabet Letters Recognition Score

5.1.2.2 Vowels Recognition

Table 5.9: Vowels Recognition Score

Vowels	Frequency	Percent (%)
0	94	16.3
1	24	4.2
2	48	8.3
3	51	8.8
4	155	26.8
5	206	35.6
Total	578	100.0

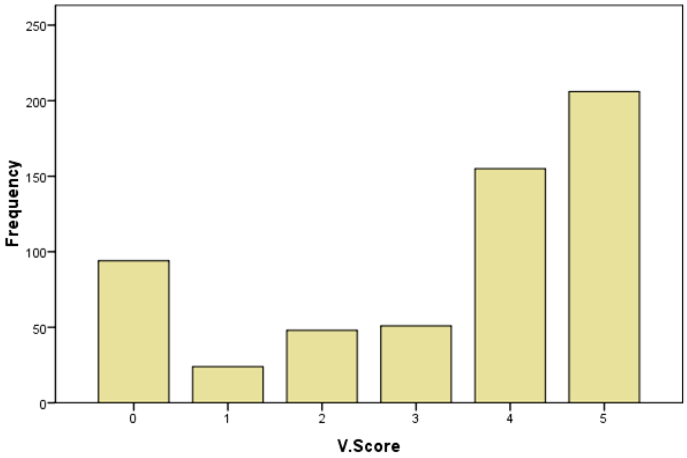

Figure 5.6: Vowels Recognition Score

5.1.2.3 Word Recognition

Table 5.10: Word Recognition Score

Words	Frequency	Percent (%)
0	130	22.5
1	26	4.5
2	74	12.8
3	7	1.2
4	341	59.0
Total	578	100.0

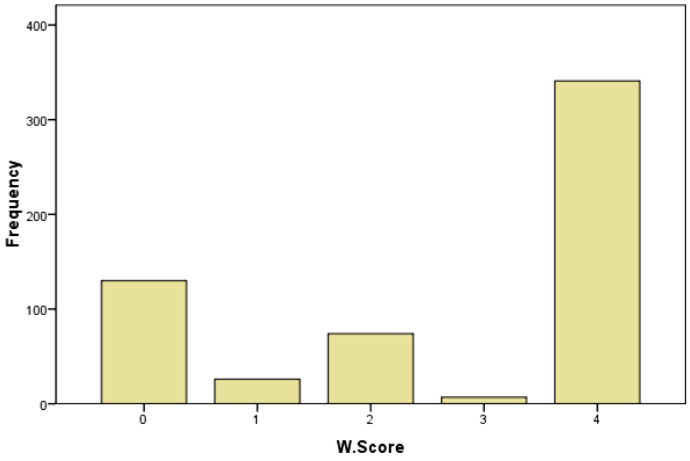

Figure 5.7: Word Recognition Score

5.1.3. Sampled 560 Grade 2 Learners

For the sampled 560Grade 2 learners, assessment was made into the level of knowledge on (a) recognition of alphabet letters, (b) recognition of the 5 vowels of the alphabet, and (c) comprehension (story reading and answering of 3 questions).

5.1.3.1 Alphabet Letters Recognition

Table 5.11: Alphabet Letters Recognition Score

Alphabet	Frequency	Percent (%)
0	37	6.6
1	3	0.5
2	8	1.4
3	12	2.1
4	12	2.1
5	21	3.8
6	22	3.9
7	37	6.6
8	37	6.6
9	35	6.2
10	38	6.8
11	89	15.9
12	209	37.3
Total	560	100.0

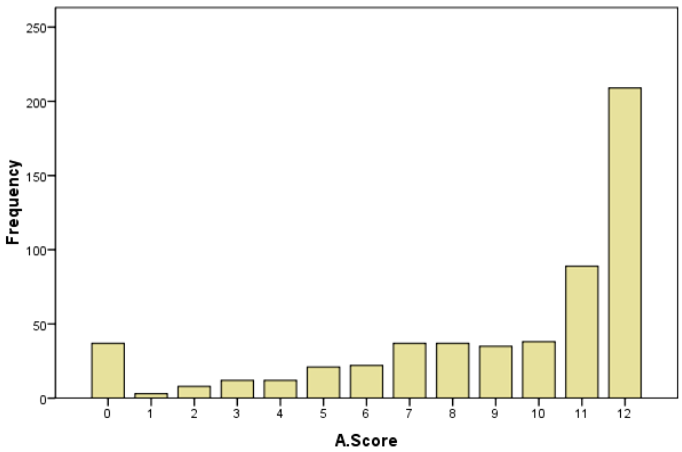

Figure 5.8: Alphabet Letters Recognition Score

5.1.3.2 Vowels Recognition

Table 5.12: Vowels Recognition Score

Vowels	Frequency	Percent (%)
0	132	23.6
1	18	3.2
2	21	3.8
3	41	7.3
4	95	17.0
5	253	45.2
Total	560	100.0

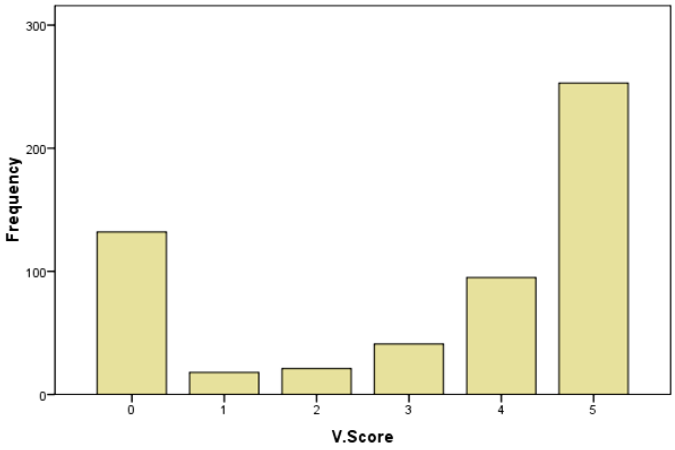

Figure 5.9: Vowels Recognition Score

5.1.3.3 Comprehension

(a) Standard Scoring

Table 5.13: Comprehension Standard Score

Questions	Frequency	Percent (%)
0	308	55.0
1	68	12.1
2	38	6.8
3	146	26.1
Total	560	100.0

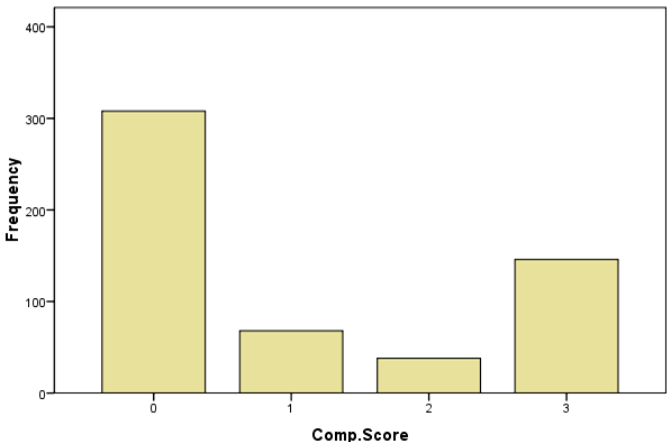

Figure 5.10: Comprehension Standard Score

(b) Imitation Scoring

Table 5.14: Comprehension Imitation Score

Questions	Frequency	Percent (%)
0	460	82.1
1	28	5.0
2	24	4.3
3	48	8.6
Total	560	100.0

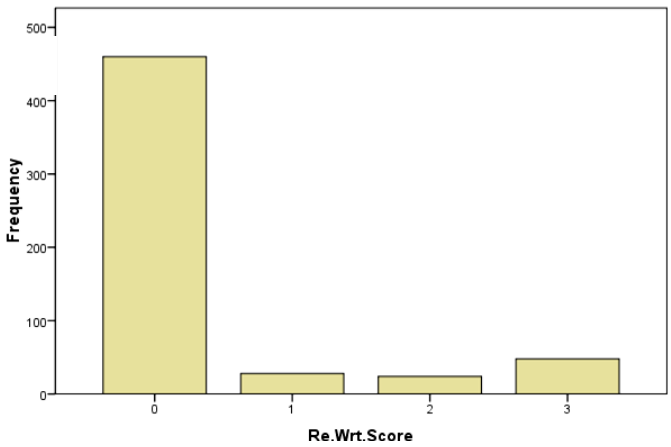

Figure 5.11: Comprehension Imitation Score

5.1.4. Sampled 619 Grade 7 Learners

For the sampled 619Grade 7 learners, assessment was made into the level of knowledge on (a) recognition of the 21 alphabet consonants, (b) recognition of 5 word spellings, and (c) comprehension (story reading and answering of 3 questions).

5.1.4.1 Recognition of the 21 Alphabet Consonants

Table 5.15: Consonant Recognition Score

Consonants	Frequency	Percent (%)
0	179	28.9
1	6	1.0
2	12	1.9
3	6	1.0
4	25	4.0
5	14	2.3
6	29	4.7
7	20	3.2
8	17	2.7
9	9	1.5
10	17	2.7
11	11	1.8
12	15	2.4
13	17	2.7
14	9	1.5
15	8	1.3
16	1	0.2
17	8	1.3
18	9	1.5
19	11	1.8
20	18	2.9
21	178	28.8
Total	619	100.0

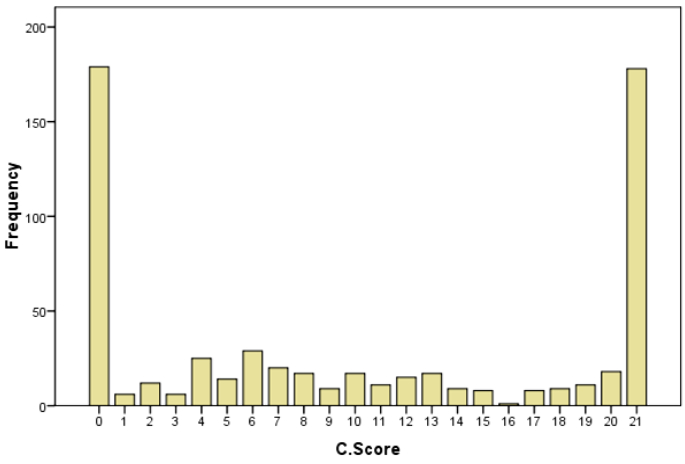

Figure 5.12: Consonant Recognition Score

5.1.4.2 Word Spelling

Table 5.16: Word Spelling Score

Words	Frequency	Percent (%)
0	221	35.7
1	73	11.8
2	84	13.6
3	86	13.9
4	90	14.5
5	65	10.5
Total	619	100.0

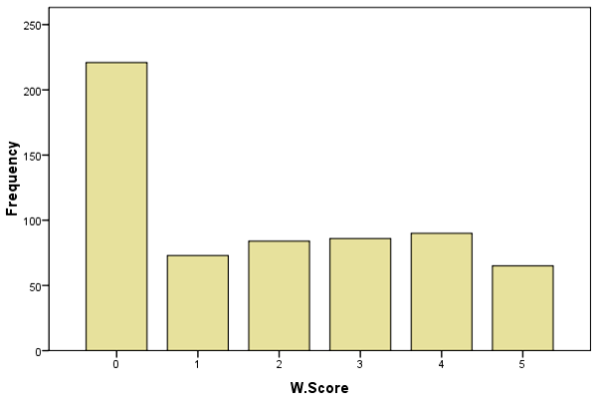

Figure 5.13: Word Spelling Score

5.1.4.3 Comprehension

(a) Standard Scoring

Table 5.17: Comprehension Standard Score

Questions	Frequency	Percent (%)
0	384	62.0
1	144	23.3
2	73	11.8
3	18	2.9
Total	619	100.0

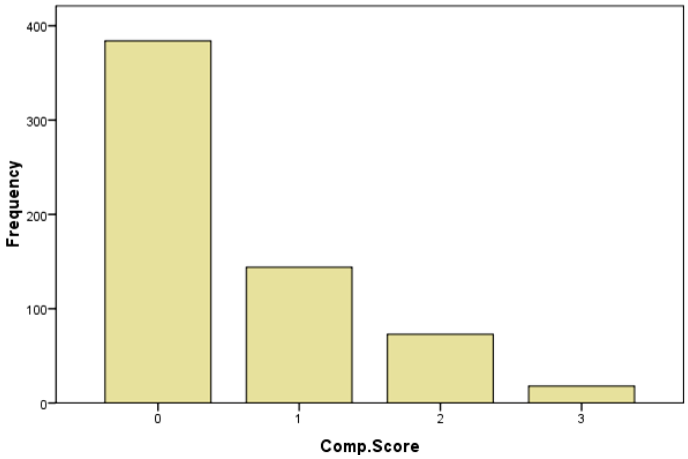

Figure 5.14: Comprehension Standard Score

(b) Imitation Scoring

Table 5.18: Comprehension Imitation Score

Questions	Frequency	Percent (%)
0	189	30.5
1	270	43.6
2	116	18.7
3	44	7.1
Total	619	100.0

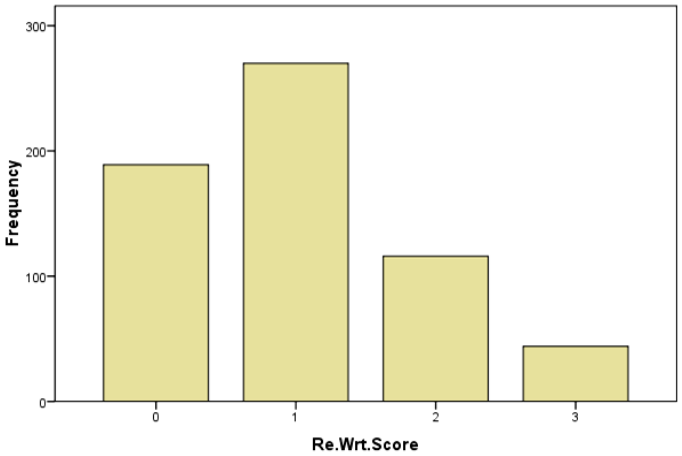

Figure 5.15: Comprehension Imitation Score

5.1.5. Sampled 177 Grade 12 Learners

For the sampled 177Grade 12 learners, assessment was made into the level of knowledge on (a) recognition of syllables in 6 words, (b) inserting missing vowels in 4 words, and (c) communication proficiency.

5.1.5.1 Recognition of Syllables

Table 5.19: Syllables Recognition Score

Syllables	Frequency	Percent (%)
0	55	31.1
1	67	37.9
2	45	25.4
3	9	5.1
6	1	0.6
Total	177	100.0

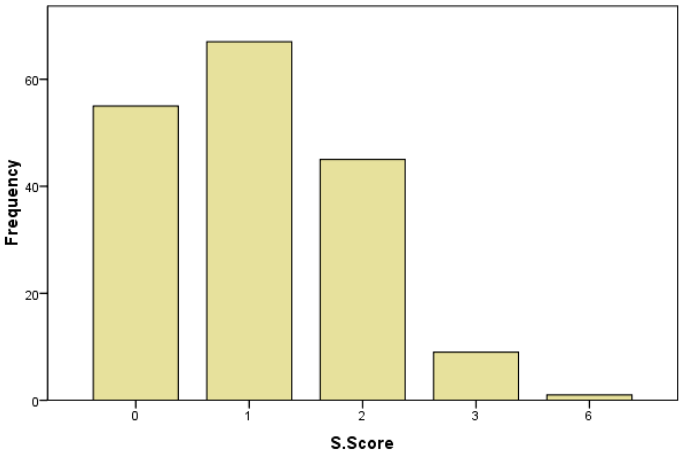

Figure 5.16: Syllables Recognition Score

5.1.5.2 Usage of Vowels

Table 5.20: Vowel Use Score

Vowels	Frequency	Percent (%)
0	24	13.6
1	45	25.4
2	43	24.3
3	40	22.6
4	25	14.1
Total	177	100.0

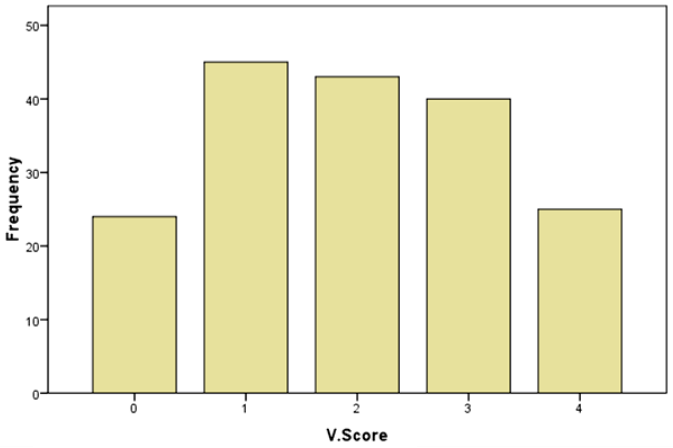

Figure 5.17: Vowel Use Score

5.1.5.3 Communication Proficiency

Table 5.21: Communication Proficiency Score

Words	Frequency	Percent (%)
0	13	7.3
1	24	13.6
2	35	19.8
3	25	14.1
4	35	19.8
5	20	11.3
6	13	7.3
7	6	3.4
8	4	2.3
9	2	1.1
Total	177	100.0

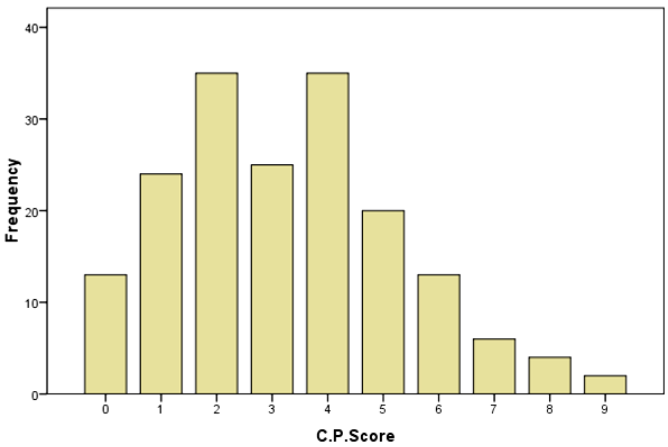

Figure 5.18: Communication Proficiency Score

5.2. PHONETIC AWARENESS AS A FOUNDATION IN WRITTEN COMMUNICATION PROFICEINCY AMONG SAMPLED CURRICULUM DEVELOPERS, TEACHERS AND LEARNERS IN SELECTED SCHOOLS

From assessing the frequency and magnitude of the problem of communication lapse among the sampled population in selected schools, the enquiry progressed into assessing the level of awareness among the selected sampled population of the imperativeness of phonetics in written communication (reading and writing). Three categories of the sampled population were assessed on their level of awareness namely (a) the 3 Curriculum Developers, (b) 30 sampled teachers from 15 primary schools, and (c) the sampled 1,934 learners in the 15 selected primary and 4 secondary schools. Enquiry was made into the following (a) curriculum developers' awareness levels, (b) Grade 1 and 2 class teachers' awareness levels (c) Grades 1, 2, 7 and 12 learners' phonology awareness levels through vowel and syllabic recognition and usage.

5.2.1. Phonetic Awareness Level of 3 Curriculum Developers

An in-depth interview was conducted with three (3) curriculum developers responsible for developing content of the messages communicated to learners in language skills. Each developer is specialised in English, Ichibemba and Chinyanja languages respectively. They each responded to three questions on phonetic imperativeness in written communication as follows:

Q1: What percentage of grade 1 and 2 language content is allocated for phonetic skills?

Q2: Can language be taught without a drilling in phonetics?

Q3: What difficulties would arise if phonetics is not taught to grade 1 and 2 learners?

Table 5.22: Curriculum Developers' Responses

		Response to Q 1	Response to Q 2	Response to Q 3
1	English Specialist	About 60%	Not at all	Reading becomes poor
2	Chinyanja Specialist	Gr. 1 = 100% Gr.2 = Nil	No, it can't	Learners would be unable to identify sounds and develop correct pronunciations
3	Ichibemba Specialist	Gr. 1 = 100% Gr.2 = Nil	No (Zambian languages)	Learners would be unable to identify sounds and develop correct pronunciations

5.2.2. Phonetic Awareness Level of 30 Grade 1 And 2 Teachers

For the sampled 30 Grade 1 and 2 teachers, two assessments were conducted namely class observation and in-depth interview. From the class observation, assessment was made into the level of knowledge on (a) differentiation of letter names and sounds, (b) sound pronunciation, and (c) use of syllables as the literacy lesson was in progress. From the in-depth interview, assessment was made into the level of knowledge on (a) understanding of what phonetics are, (b) possibility of teaching a language without drilling in phonetics, (c) difficulties that would arise in non-phonetic drilling for the learner, and (d) awareness of the phonological differences between English and vernacular languages. The variables of sex and professional qualification were considered.

5.2.2.1 Description of Sex and Qualification Variables

(a) Sex Variable

Table 5.23: Sex of the Teachers Variable

Sex	Frequency	Percent (%)
Female	27	90.0
Male	3	10.0
Total	30	100.0

(b) Qualification Variable

Table 5.24: Teacher Qualification Variable

Qualification	Frequency	Percent (%)
BEd. Counselling	1	3.3
Primary Certificate	20	66.7
Primary Diploma	9	30.0
Total	30	100.0

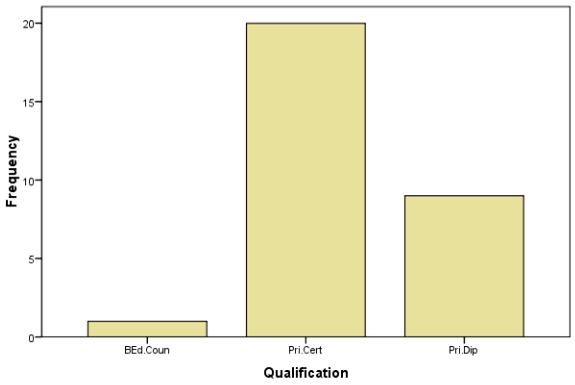

Figure 5.19: Teacher Qualification Variable

5.2.2.2 Differentiation of Letter Names and Sounds

Table 5.25: Differentiation of Letter Names & Sounds

Level	Frequency	Percent (%)
0. Nil	22	73.3
1. Poor	1	3.3
2. Fair	1	3.3
3. Good	3	10.0
4. V. Good	1	3.3
5. Excellent	2	6.7
Total	30	100.0

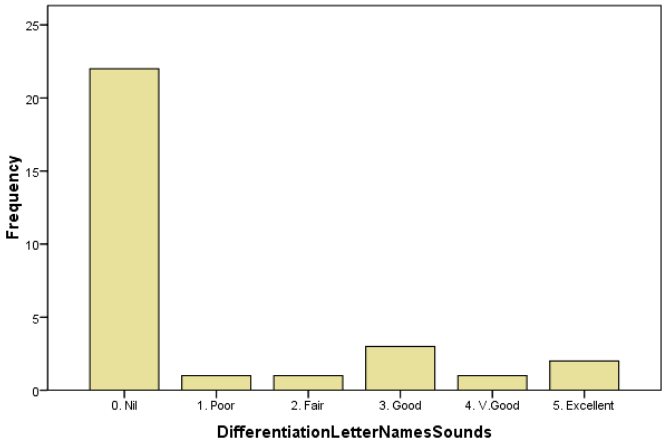

Figure 5.20: Differentiation of Letter Names & Sounds

5.2.2.3 Sound Pronunciation

Table 5.26: Sound Pronunciation

Level	Frequency	Percent (%)
0. Nil	3	10.0
1. Poor	2	6.7
2. Fair	2	6.7
3. Good	2	6.7
4. V. Good	9	30.0
5. Excellent	12	40.0
Total	30	100.0

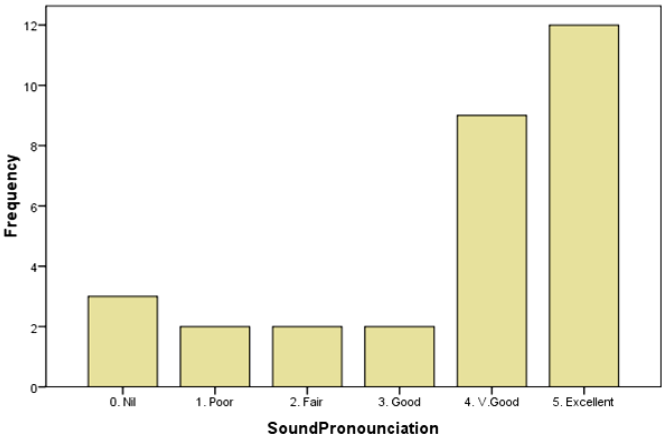

Figure 5.21: Sound Pronunciation

5.2.2.4 Use of Syllables

Table 5.27: Syllable Use

Level	Frequency	Percent (%)
0. Nil	4	13.3
1. Poor	2	6.7
2. Fair	2	6.7
3. Good	5	16.7
4. V. Good	5	16.7
5. Excellent	12	40.0
Total	30	100.0

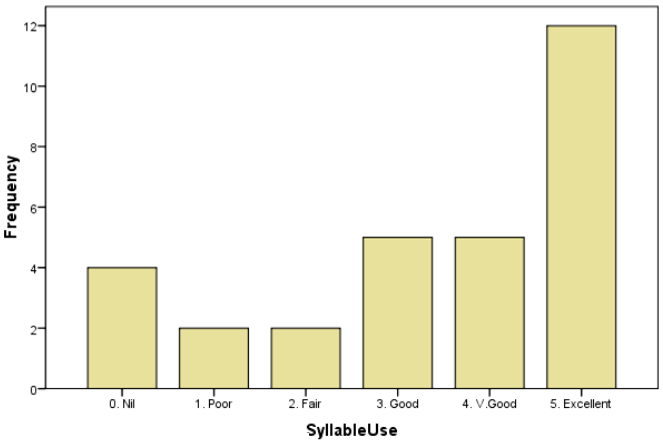

Figure 5.22: Syllable Use

5.2.2.5 Understanding of Phonetics

Table 5.28: Understanding Level of Phonetics

Level	Frequency	Percent (%)
1. Poor	1	3.3
2. Fair	6	20.0
3. Good	5	16.7
4. V. Good	7	23.3
5. Excellent	11	36.7
Total	30	100.0

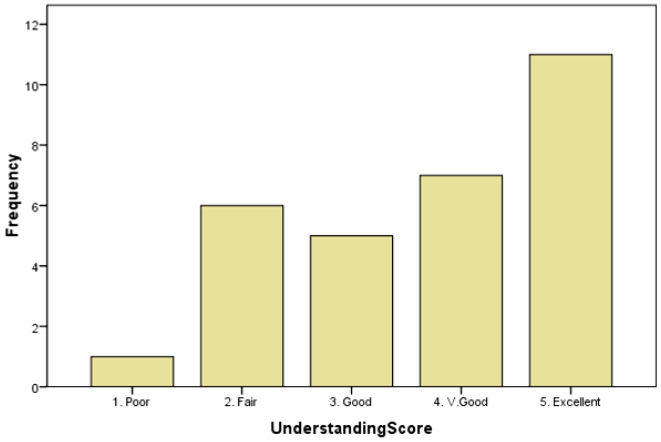

Figure 5.23: Understanding Level of Phonetics

5.2.2.6 Possibility of Teaching a Language without Drilling in Phonetics

Table 5.29: Teaching Possibility Without Phonetic Drilling

Level	Frequency	Percent (%)
1. Poor	2	6.7
3. Good	4	13.3
4. V. Good	17	56.7
5. Excellent	7	23.3
Total	30	100.0

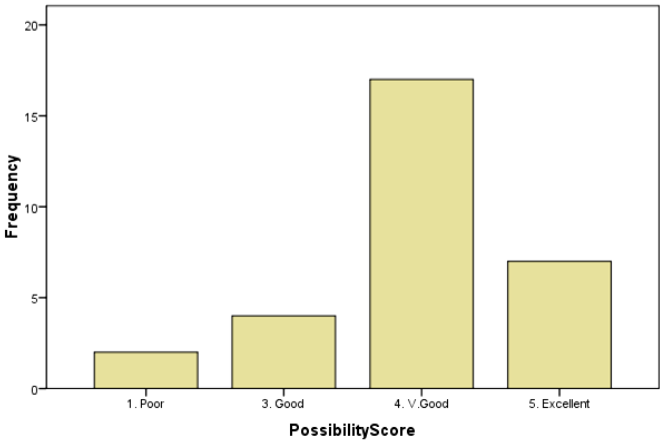

Figure 5.24: Teaching Possibility without Phonetic Drilling

5.2.2.7 Learning Difficulties without Phonetic Drilling

Table 5.30: Learning Difficulties Without Phonetic Drilling

Level	Frequency	Percent (%)
2. Fair	3	10.0
3. Good	1	3.3
4. V. Good	5	16.7
5. Excellent	21	70.0
Total	30	100.0

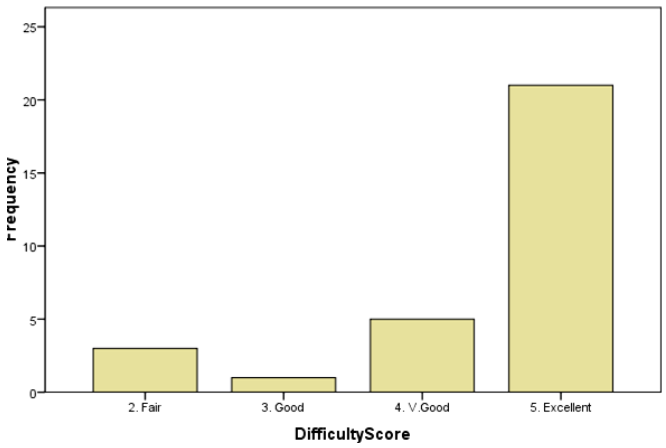

Figure 5.25: Levels Difficulties without Phonetics Drilling

5.2.2.8 Awareness of the Phonological Differences in languages

Table 5.31: Phonological Difference Awareness Level

Level	Frequency	Percent (%)
1. Poor	1	3.3
4. V. Good	19	63.3
5. Excellent	10	33.3
Total	30	100.0

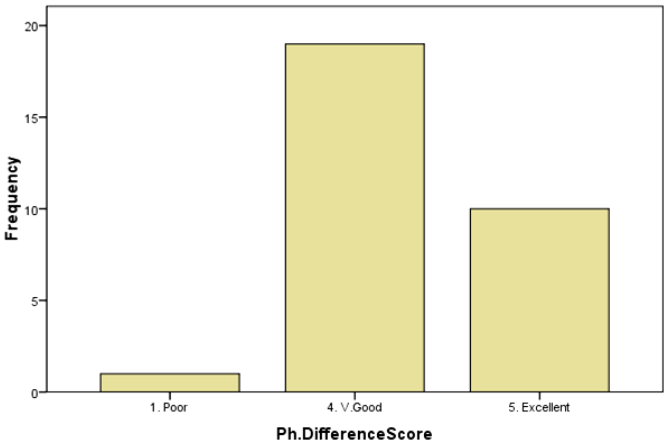

Figure 5.26: Phonological Difference Awareness Level

5.2.3. Phonetic Awareness Level of 1,934 Sampled Learners

In presenting the assessment on the phonetic awareness level of the 1,934 sampled learners, this researcher has avoided a duplication of the same assessment results presented in the other sections of this chapter. For this assessment therefore, this researcher will refer to the following components in discussing the results on this section:

Table 5.32: Referencing for Phonetic Awareness level of 1,934 Sampled Learners

S/N	Grade	Assessment Result Reference
1	Grade 1	5.1.2.2 Vowels Recognition
2	Grade 2	5.1.3.2 Vowels Recognition
3	Grade 7	(a) 5.1.4.1 Recognition of the 21 Alphabet Consonants (b) 5.1.4.2 Word Spelling (Vowels Identification)
4	Grade 12	(a) 5.1.5.1 Recognition of Syllables (b) 5.1.5.2 Usage of Vowels

5.3. ATTRIBUTION OF PHONETICS AS READING SKILLS ENABLING A LEARNER TO COMMUNICATE PROFICIENTLY IN THE SAMPLED 490 LEARNERS IN SELECTED SCHOOLS

Having assessed the frequency and magnitude of the problem of communication lapses among the sampled learners and the awareness levels of the imperativeness of phonetics in communication proficiency among sampled curriculum developers, teachers and learners, the study progressed into the enquiring of attributing phonetics as the skills enabling communication proficiency in a learner. This formed the core of the study and thus for accuracy and a detailed enquiry, the sample size was reduced to 150 each for grades 1, 2 and 7 and 40 for grade 12. A description of variables is presented for each grade. The enquiry done for each grade level is specified in the respective section.

5.3.1 Sampled 150 Grade 1 Learners

For the sampled 150 Grade 1 learners, assessment was made into the level of knowledge on (a) recognition of alphabet letters, (b) recognition of the 5 vowels of the alphabet, and (c) reading or recognition of 3 words through pictorial matching.

5.3.1.1 Description of Sex, Location and Age Variables

Table 5.33: Sampled Gr. 1 Sex Variable

Sex	Frequency	Percent (%)
Girls	81	54.0
Boys	69	46.0
Total	150	100.0

Table 5.34: Sampled Gr. 1 Location Variable

Location	Frequency	Percent (%)
Lusaka	50	33.3
Chinsali	100	66.7
Total	150	100.0

Table 5.35: Sampled Gr. 1 Age Variable

Age	Frequency	Percent (%)
5	1	0.7
6	28	18.7
7	50	33.3
8	38	25.3
9	22	14.7
10	5	3.3
11	4	2.7
12	1	0.7
14	1	0.7
Total	150	100.0

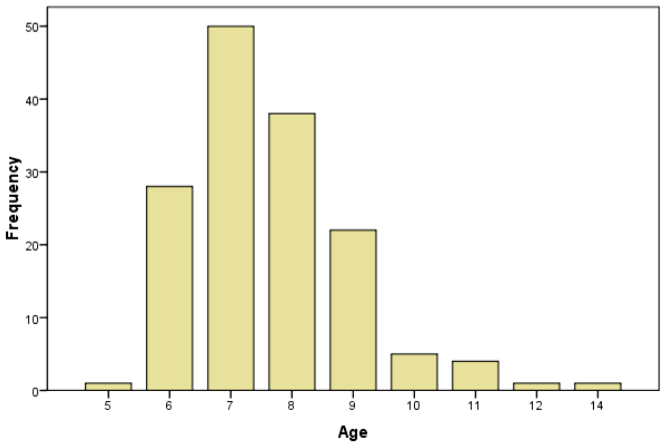

Figure 5.27: Sampled Gr. 1 Age Variable

5.3.1.2 Word Recognition (Matching)

Table 5.36: Word Recognition Score

Words Matched	Frequency	Percent (%)
0	44	29.3
1	4	2.7
2	21	14.0
3	4	2.7
4	77	51.3
Total	150	100.0

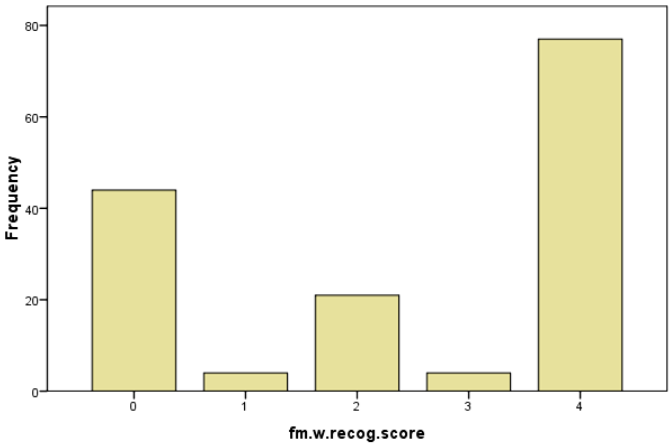

Figure 5.28: Word Recognition Score

5.3.1.3 Phonetic (Sound) Identification

(a) Sounds Read

Table 5.37: Phonetic (sound) Identification: Sounds Read

Sounds Read	Frequency	Percent (%)
10	37	24.7
13	2	1.3
15	1	0.7
17	5	3.3
19	1	0.7
20	24	16.0
21	1	0.7
25	3	2.0
26	1	0.7
30	14	9.3
32	3	2.0
33	4	2.7
34	2	1.3
35	1	0.7
36	1	0.7
40	10	6.7
43	1	0.7
44	1	0.7
45	1	0.7
47	1	0.7
50	6	4.0
52	1	0.7
60	1	0.7
100	28	18.7
Total	150	100.0

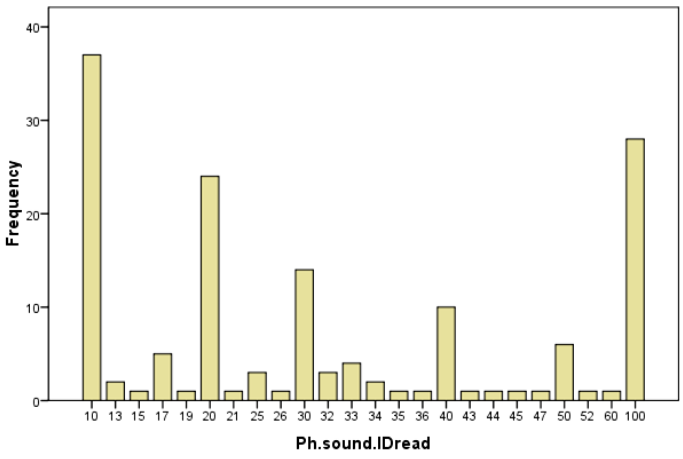

Figure 5.29: Phonetic (sound) Identification: Sounds Read

(b) Sound Score

Table 5.38: Phonetic (sound) Identification: Sounds Score

Sound Score	Frequency	Percent (%)	Sounds Score	Frequency	Percent (%)
0	37	24.7	26	4	2.7
1	2	1.3	27	2	1.3
2	2	1.3	30	2	1.3
3	5	3.3	31	2	1.3
4	4	2.7	33	1	0.7
5	4	2.7	39	1	0.7
6	3	2.2	41	1	0.7
7	3	2.2	42	2	1.3
8	5	3.3	47	1	0.7
9	3	2.0	68	2	1.3
10	4	2.7	75	1	0.7
13	4	2.7	76	2	1.3
14	2	1.3	83	1	0.7
15	2	1.3	88	1	0.7
16	3	2.0	90	1	0.7
17	5	3.3	91	1	0.7
18	2	1.3	92	1	0.7
19	4	2.7	94	1	0.7
20	2	1.3	95	2	1.3
22	3	2.0	96	2	1.3
23	4	2.7	98	2	1.3
24	1	0.7	99	2	1.3
25	3	2.0	100	8	5.3
			Total	150	100.0

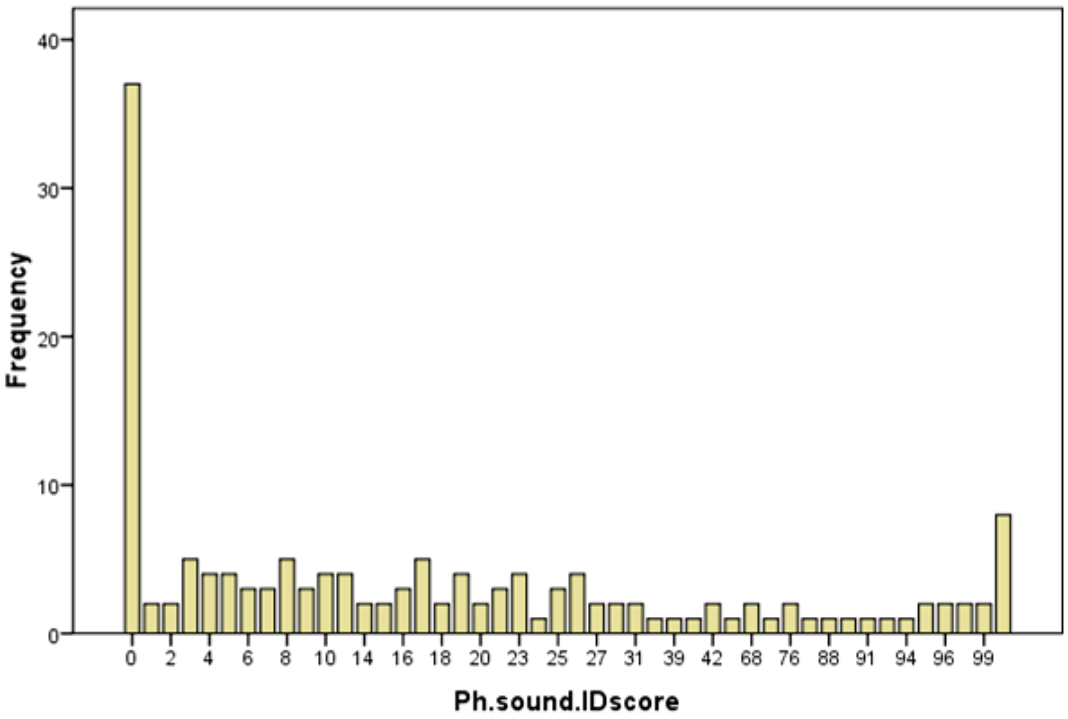

Figure 5.30: Phonetic (sound) Identification: Sound Score

5.3.1.4 Syllable Naming

(a) Syllables Read

Table 5.39: Syllable Naming: Syllables Read

Read Syllables	Frequency	Percent (%)	Syllables Read	Frequency	Percent (%)
0	2	1.3	29	1	0.7
10	54	36.0	30	11	7.3
13	1	0.7	32	1	0.7
14	1	0.7	33	5	3.3
15	1	0.7	34	1	0.7
16	3	2.0	37	2	1.3
17	2	1.3	40	4	2.7
18	1	0.7	44	1	0.7
20	11	7.3	48	1	0.7
21	1	0.7	50	2	1.3
22	1	0.7	56	1	0.7
23	1	0.7	60	3	2.0
24	1	0.7	62	1	0.7
25	2	1.3	70	1	0.7
26	5	3.3	88	1	0.7
27	1	0.7	100	26	17.3
			Total	150	100.0

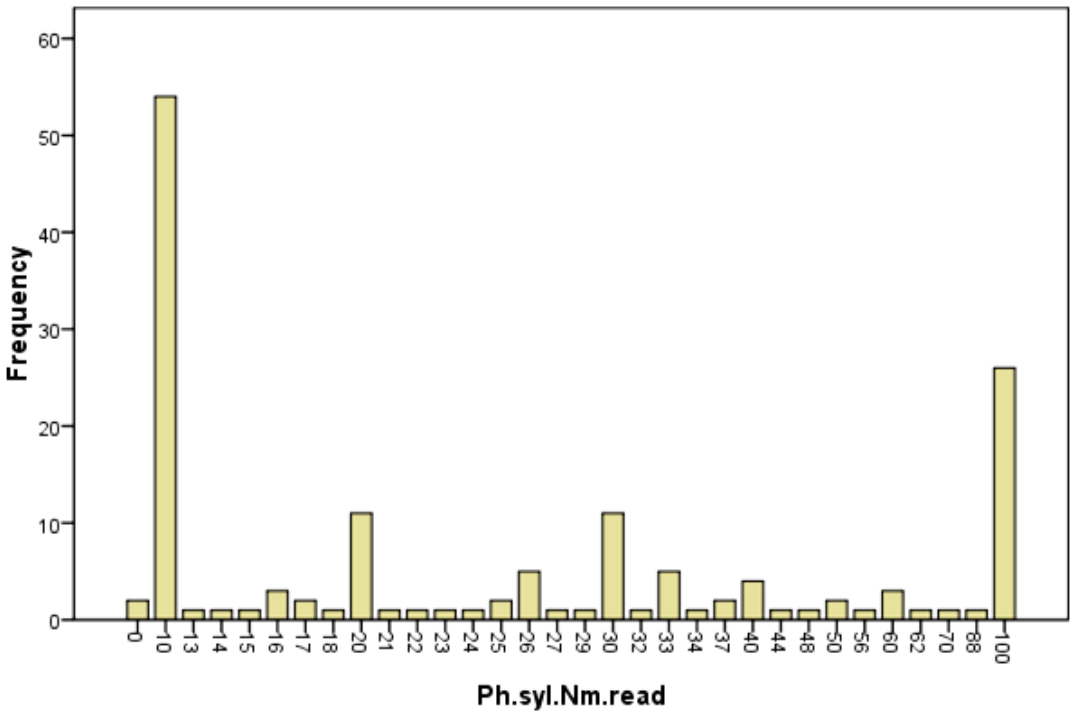

Figure 5.31: Syllable Naming: Syllables Read

(b) Syllable Score

Table 5.40: Syllable Naming: Syllable Score

Syllable Score	Frequency	Percent (%)	Syllable Score	Frequency	Percent (%)
0	55	36.7	32	1	0.7
1	3	2.0	33	1	0.7
2	2	1.3	35	1	0.7
3	3	2.0	37	3	2.0
4	1	0.7	38	1	0.7
5	2	1.3	47	1	0.7
7	2	1.3	49	1	0.7
8	3	2.0	50	1	0.7
9	1	1.3	54	1	0.7
10	3	2.0	57	2	1.3
11	2	1.3	59	1	0.7
12	3	2.0	66	1	0.7
13	2	1.3	77	2	1.3
14	3	2.0	78	1	0.7
16	3	2.0	79	2	1.3
18	2	1.3	81	1	0.7
19	1	0.7	82	1	0.7
20	5	3.3	83	1	0.7
21	3	2.0	84	1	0.7
23	3	2.0	85	1	0.7
25	1	0.7	92	1	0.7
26	1	0.7	93	1	0.7
27	1	0.7	95	1	0.7
28	2	1.3	99	1	0.7
29	1	0.7	100	12	8.0
30	1	0.7			
			Total	150	100.0

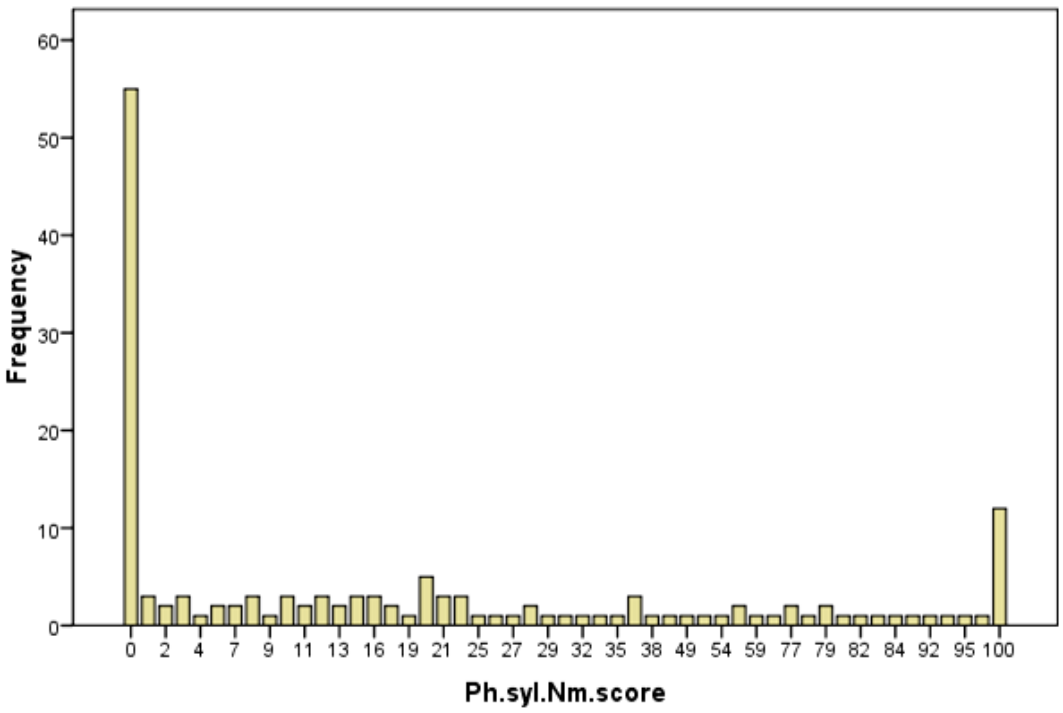

Figure 5.32: Syllable Naming: Syllable Score

5.3.1.5 Word Reading

(a) Words Read

Table 5.41: Word Reading: Words Read

Words	Frequency	Percent (%)
0	1	0.7
5	51	34.0
7	2	1.3
8	3	2.0
10	17	11.3
11	3	2.0
12	7	4.7
13	3	2.0
14	4	2.7
15	12	8.0
16	1	0.7
17	3	2.0
18	4	2.7
19	1	0.7
20	4	2.7
25	2	1.3
26	1	0.7
30	3	2.0
34	1	0.7
35	1	0.7
50	23	15.3
100	3	2.0
Total	150	100.0

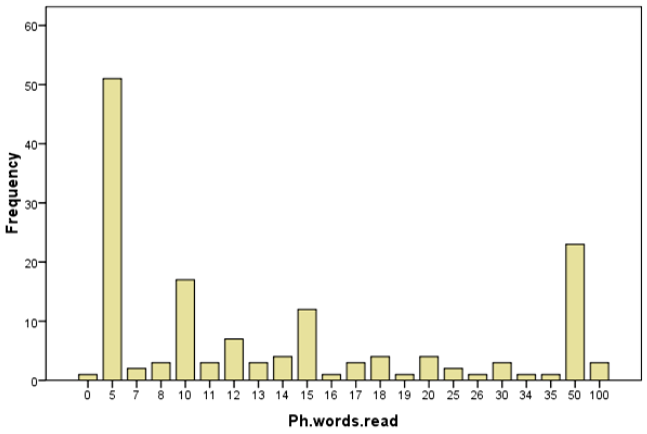

Figure 5.33: Word Reading: Words Read

(b) Word Score

Table 5.42: Word Reading: Word Score

Words	Frequency	Percent (%)
0	54	36.0
1	8	5.3
2	6	4.0
3	5	3.3
4	9	6.0
5	4	2.7
6	4	2.7
7	3	2.0
8	5	3.3
9	4	2.7
10	6	4.0
11	2	1.3
12	2	1.3
15	2	1.3
16	2	1.3
17	1	.7
19	2	1.3
22	1	0.7
25	1	0.7
28	2	1.3
29	3	2.0
30	3	2.0
32	1	0.7
33	1	0.7
38	1	0.7
42	2	1.3
47	1	0.7
49	1	0.7
50	11	7.3
100	3	2.0
Total	150	100.0

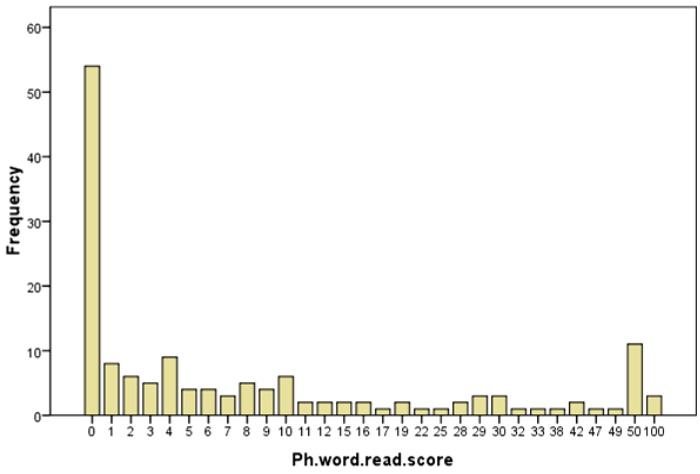

Figure 5.34: Word Reading: Word Score

5.3.1.6 Oral Communication

(a) Words Read

Table 5.43: Word Reading: Words Read

Words	Frequency	Percent (%)
2	1	0.7
3	4	2.7
4	17	11.3
5	128	85.3
Total	150	100.0

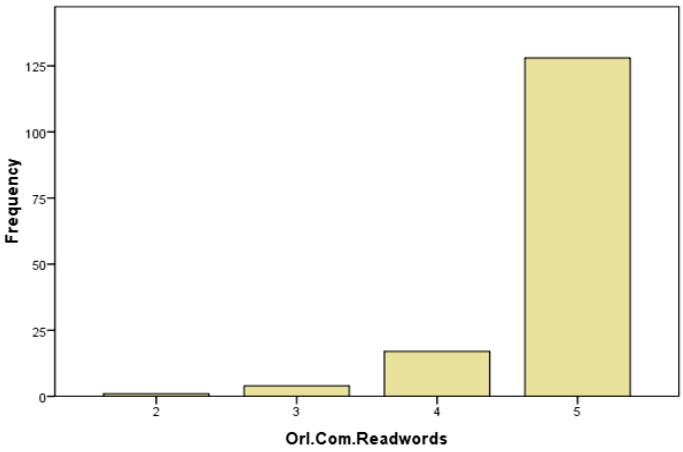

Figure 5.35: Word Reading: Words Read

(b) Word Score

Table 5.44: Word Reading: Word Score

Words	Frequency	Percent (%)
1	2	1.3
2	6	4.0
3	18	12.0
4	42	28.0
5	82	54.7
Total	150	100.0

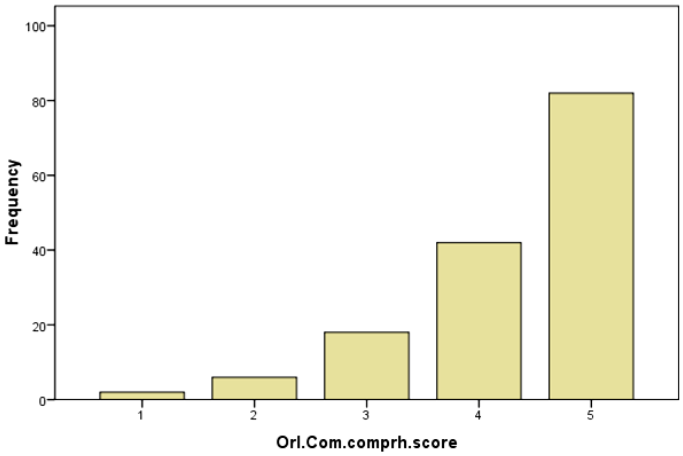

Figure 5.36: Word Reading: Word Score

5.3.2 Sampled 150 Grade 2 Learners

The Grade 2 level was a focal enquiry as at this level, communication is phased from the vernacular (Nyanja/Bemba) into the English and careful observation of the language shift's effect on communication proficiency is necessary. For the sampled 150 Grade 2 learners, assessment was made into the level of knowledge on (a) comprehension skill, (b) vernacular and English phonetic identification, (c) syllabic naming, (d) vernacular and English word reading, (e) non-word reading, and (f) oral communication.

5.3.2.1 Description of Sex, Location and Age variables

Table 5.45: Sampled Gr. 2 Sex Variable

Sex	Frequency	Percent (%)
Girls	80	53.3
Boys	70	46.7
Total	150	100.0

Table 5.46: Sampled Gr. 2 Location Variable

Location	Frequency	Percent (%)
Lusaka	50	33.3
Chinsali	100	66.7
Total	150	100.0

Table 5.47: Sampled Gr. 2 Age Variable

Age	Frequency	Percent (%)
6	2	1.3
7	21	14.0
8	45	30.0
9	38	25.3
10	26	17.3
11	8	5.3
12	7	4.7
13	2	1.3
14	1	0.7
Total	150	100.0

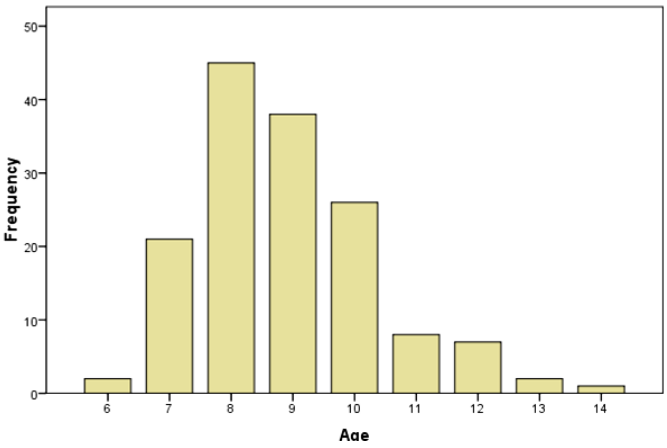

Figure 5.37: Sampled Gr. 2 Age Variable

5.3.2.2 Comprehension

(a) Standard Scoring

Table 5.48: Comprehension Standard Score

Questions	Frequency	Percent (%)
0	86	57.3
1	19	12.7
2	14	9.3
3	31	20.7
Total	150	100.0

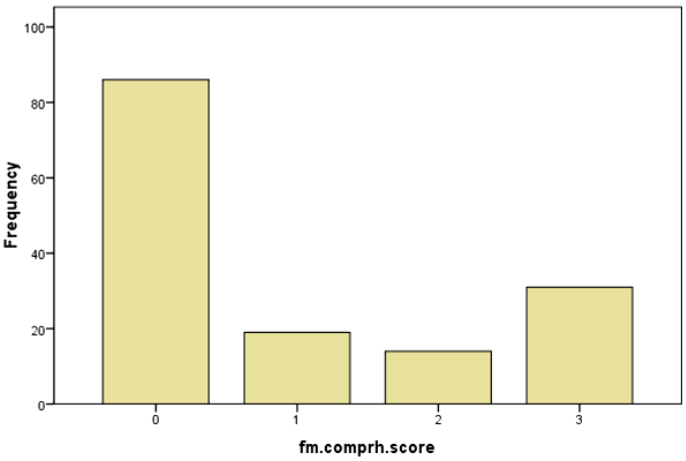

Figure 5.38: Comprehension Standard Score

(b) Imitation Scoring

Table 5.49: Comprehension Imitation Score

Questions	Frequency	Percent (%)
0	129	86.0
1	6	4.0
2	5	3.3
3	10	6.7
Total	150	100.0

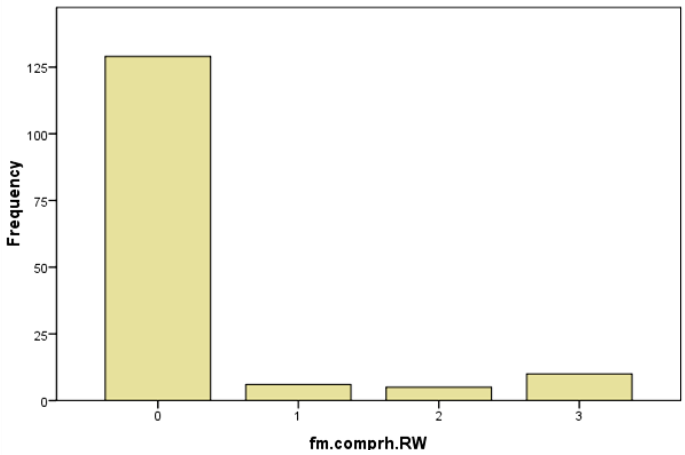

Figure 5.39: Comprehension Imitation Score

5.3.2.3 Nyanja/Bemba Phonetic (Sound) Identification

(a) Sounds Read

Table 5.50: Nyanja/Bemba Sound ID Read

Sounds	Frequency	Percent (%)	Sounds	Frequency	Percent (%)
0	10	6.7	42	1	0.7
5	1	0.7	43	1	0.7
7	1	0.7	44	3	2.0
8	1	0.7	45	1	0.7
10	38	25.3	46	2	1.3
11	1	0.7	50	11	7.3
12	2	1.3	51	1	0.7
13	1	0.7	53	1	0.7
14	1	0.7	56	1	0.7
20	9	6.0	60	7	4.7
24	3	2.0	62	1	0.7
25	1	0.7	64	1	0.7
26	1	0.7	70	4	2.7
28	1	0.7	73	2	1.3
30	9	6.0	77	1	0.7
38	1	0.7	80	2	1.3
40	5	3.3	100	24	16.0
			Total	150	100.0

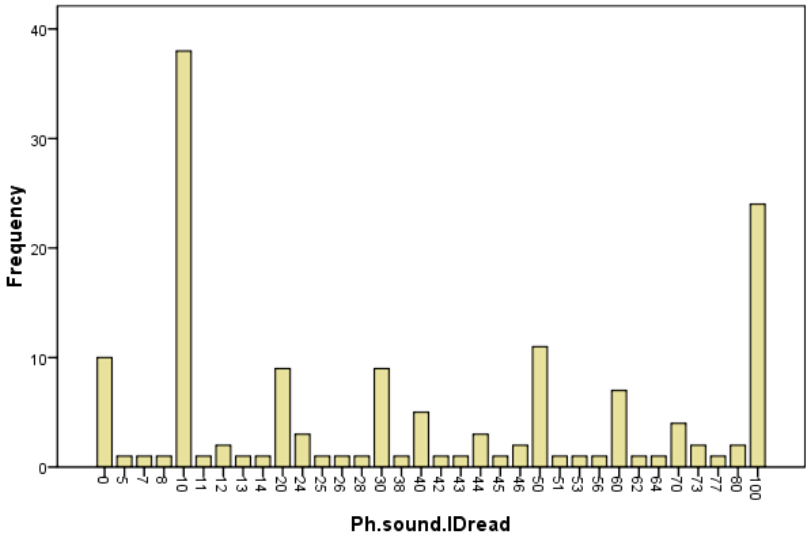

Figure 5.40: Sounds Read

(b) Sound Score

Table 5.51: Nyanja/Bemba Sound ID Score

Sounds	Frequency	Percent (%)	Sounds	Frequency	Percent (%)
0	48	32.0	37	1	0.7
1	4	2.7	38	2	1.3
3	4	2.7	39	1	0.7
4	3	2.0	40	1	0.7
5	2	1.3	41	1	0.7
6	4	2.7	42	2	1.3
7	4	2.7	48	2	1.3
8	6	4.0	49	1	0.7
9	1	0.7	50	2	1.3
10	2	1.3	52	1	0.7
11	3	2.0	54	1	0.7
12	3	2.0	58	1	0.7
13	2	1.3	60	1	0.7
14	1	0.7	61	2	1.3
17	3	2.0	70	2	1.3
18	1	0.7	73	1	0.7
20	2	1.3	74	1	0.7
22	1	0.7	81	1	0.7
24	3	2.0	84	1	0.7
26	1	0.7	89	1	0.7
27	1	0.7	90	2	1.3
29	2	1.3	94	3	2.0
31	1	0.7	95	2	1.3
32	1	0.7	96	3	2.0
33	2	1.3	97	2	1.3
34	1	0.7	100	4	2.7
35	2	1.3			
			Total	150	100.0

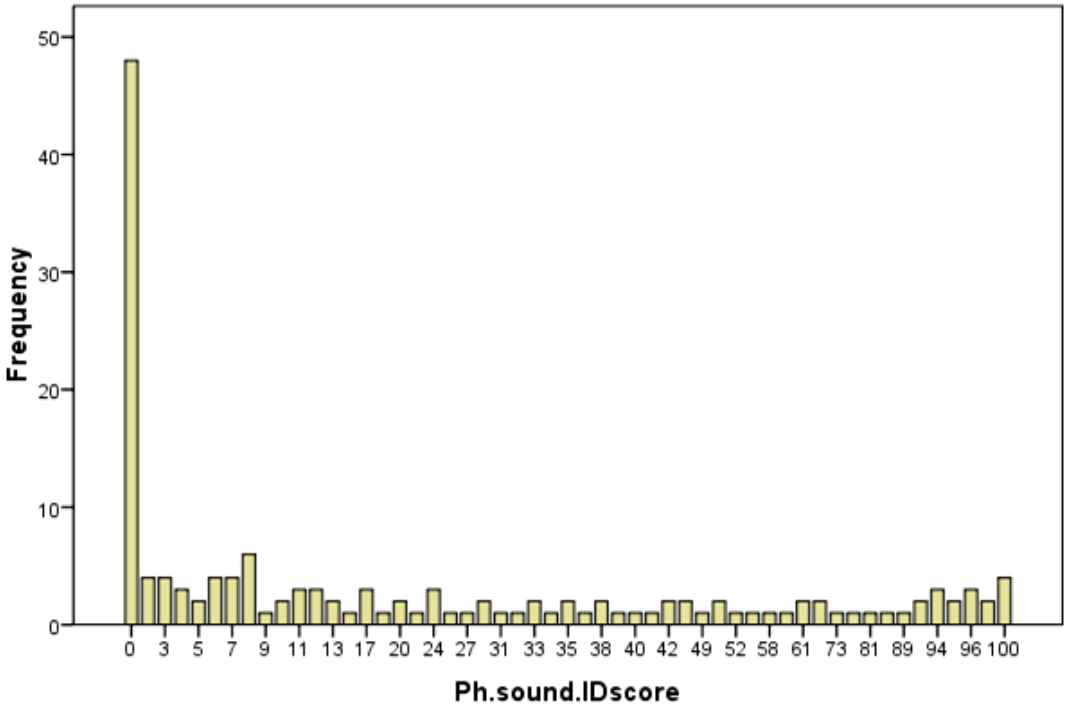

Figure 5.41: Nyanja/Bemba Sound ID Score

5.3.2.4 Syllable Naming

(a) Syllables Read

Table 5.52: Syllable Naming: Syllables Read

Syllables	Frequency	Percent (%)	Syllables	Frequency	Percent (%)
5	1	0.7	35	1	0.7
10	38	25.3	40	6	4.0
11	1	0.7	42	1	0.7
13	2	1.3	43	1	0.7
14	1	0.7	45	1	0.7
15	1	0.7	48	1	0.7
16	1	0.7	50	6	4.0
17	2	1.3	54	1	0.7
20	9	6.0	58	1	0.7
22	1	0.7	60	4	2.7
24	1	0.7	64	1	0.7
25	1	0.7	67	1	0.7
26	1	0.7	68	1	0.7
28	3	2.0	69	3	2.0
29	1	0.7	70	2	1.3
30	7	4.7	80	1	0.7
33	1	0.7	90	1	0.7
34	2	1.3	100	43	28.7
			Total	150	100.0

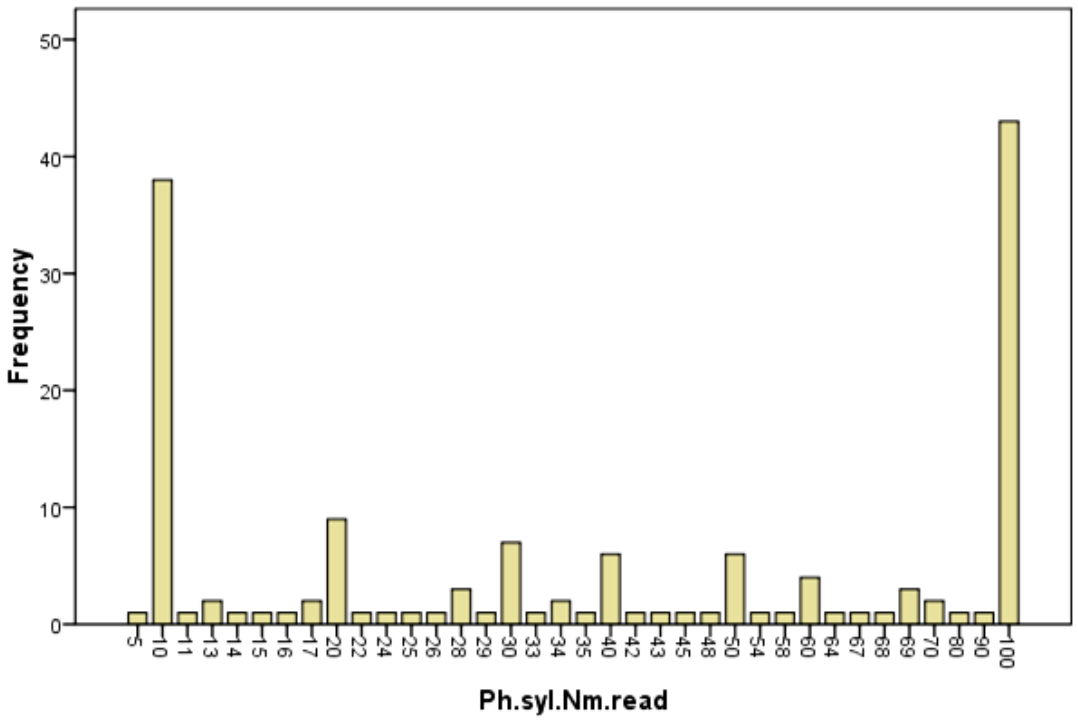

Figure 5.42: Syllable Naming: Syllables Read

(b) Syllable Score

Table 5.53: Syllable Naming: Syllable Score

Syllables	Frequency	Percent (%)	Syllables	Frequency	Percent (%)
0	38	25.3	37	1	0.7
1	7	4.7	38	1	0.7
2	2	1.3	40	1	0.7
3	3	2.0	43	1	0.7
4	1	0.7	44	1	0.7
5	1	0.7	46	1	0.7
6	2	1.3	48	1	0.7
8	1	0.7	50	1	0.7
9	1	0.7	53	1	0.7
10	1	0.7	54	1	0.7
11	2	1.3	56	1	0.7
12	1	0.7	57	1	0.7
13	1	0.7	63	1	0.7
14	1	0.7	64	1	0.7
15	2	1.3	66	2	1.3
16	1	0.7	68	1	0.7
17	2	1.3	69	1	0.7
18	4	2.7	70	2	1.3
19	2	1.3	75	2	1.3
20	1	0.7	77	1	0.7
23	1	0.7	87	1	0.7
25	1	0.7	93	1	0.7
27	2	1.3	94	1	0.7
30	1	0.7	97	5	3.3
32	1	0.7	98	3	2.0
33	5	3.3	99	3	2.0
35	2	1.3	100	25	16.7
36	1	0.7			
			Total	150	100.0

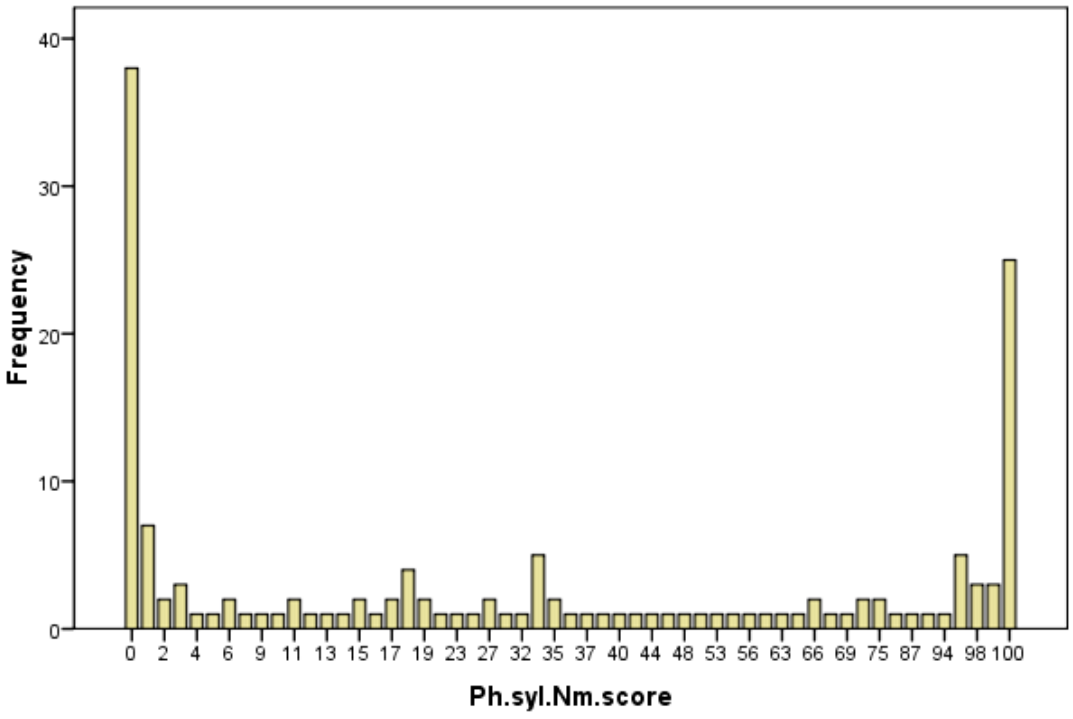

Figure 5.43: Syllable Naming: Syllable Score

5.3.2.5 Nyanja/Bemba Word Reading

(a) Words Read

Table 5.54: Nyanja/Bemba Words Read

Words	Frequency	Percent (%)
0	6	4.0
5	54	36.0
6	1	0.7
7	2	1.3
8	1	0.7
9	2	1.3
10	6	4.0
11	2	1.3
12	6	4.0
13	1	0.7
15	4	2.7
16	1	0.7
17	1	0.7
18	1	0.7
20	3	2.0
22	2	1.3
23	2	1.3
25	5	3.3
30	3	2.0
32	1	0.7
35	3	2.0
38	1	0.7
39	1	0.7
40	4	2.7
50	33	22.0
100	4	2.7
Total	150	100.0

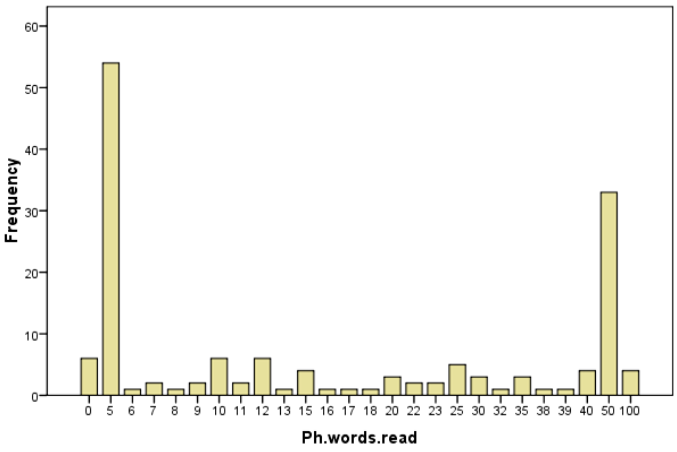

Figure 5.44: Nyanja/Bemba Words Read

(b) Word Score

Table 5.55: Nyanja/Bemba Word Score

Words	Frequency	Percent (%)
0	59	39.3
1	7	4.7
2	4	2.7
3	2	1.3
4	3	2.0
5	5	3.3
6	2	1.3
7	1	0.7
8	1	0.7
9	2	1.3
11	2	1.3
12	1	0.7
13	1	0.7
15	5	3.3
17	2	1.3
19	2	1.3
20	1	0.7
21	1	0.7
22	1	0.7
23	2	1.3
24	2	1.3
25	4	2.7
26	1	0.7
30	2	1.3
34	1	0.7
35	3	2.0
39	1	0.7
40	4	2.7
49	1	0.7
50	23	15.3
75	1	0.7
100	3	2.0
Total	150	100.0

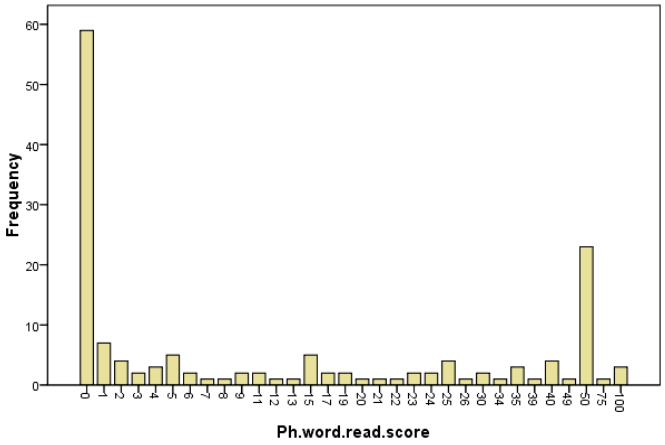

Figure 5.45: Nyanja/Bemba Word Score

5.3.2.6 English Phonetic (Sound) Identification

(a) Sounds Read

Table 5.56: English Sound ID Read

Sounds	Frequency	Percent (%)
8	1	0.7
10	42	28.0
13	1	0.7
14	1	0.7
16	2	1.3
20	11	7.3
24	5	3.3
28	1	0.7
29	1	0.7
30	8	5.3
35	1	0.7
37	1	0.7
40	5	3.3
42	1	0.7
43	2	1.3
44	2	1.3
45	1	0.7
46	2	1.3
47	3	2.0
50	12	8.0
55	1	0.7
57	1	0.7
60	8	5.3
62	1	0.7
64	1	0.7
67	1	0.7
70	3	2.0
73	3	2.0
77	1	0.7
80	2	1.3
90	1	0.7
100	24	16.0
Total	150	100.0

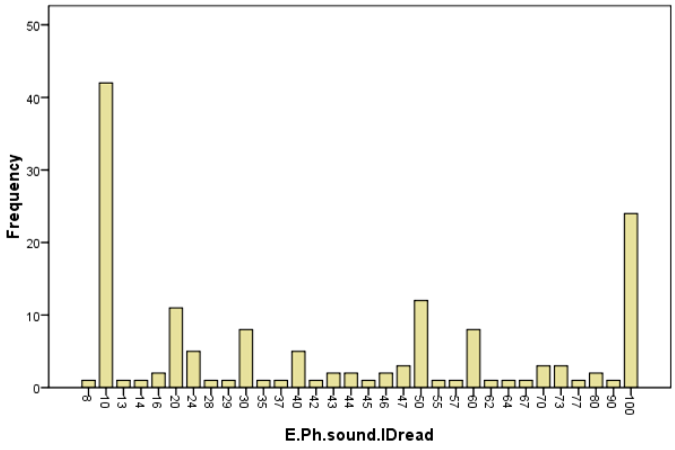

Figure 5.46: English Sound ID Read

(b) Sound Score

Table 5.57: English Sound ID Score

Sounds	Frequency	Percent (%)	Sounds	Frequency	Percent (%)
0	40	26.7	36	2	1.3
1	4	2.7	37	1	0.7
3	4	2.7	38	2	1.3
4	1	0.7	40	1	0.7
5	5	3.3	42	2	1.3
6	4	2.7	46	1	0.7
7	3	2.0	48	3	2.0
8	3	2.0	49	1	0.7
9	3	2.0	50	2	1.3
10	1	0.7	52	2	1.3
11	4	2.7	54	1	0.7
12	2	1.3	55	2	1.3
13	6	4.0	56	1	0.7
14	1	0.7	58	1	0.7
15	2	1.3	59	1	0.7
19	1	0.7	67	1	0.7
20	2	1.3	69	1	0.7
21	1	0.7	70	2	1.3
22	1	0.7	76	1	0.7
23	1	0.7	84	1	0.7
26	2	1.3	88	2	1.3
29	1	0.7	90	1	0.7
30	1	0.7	92	1	0.7
31	2	1.3	94	1	0.7
32	3	2.0	98	1	0.7
33	1	0.7	99	1	0.7
34	3	2.0	100	11	7.3
35	1	0.7			
			Total	150	100.0

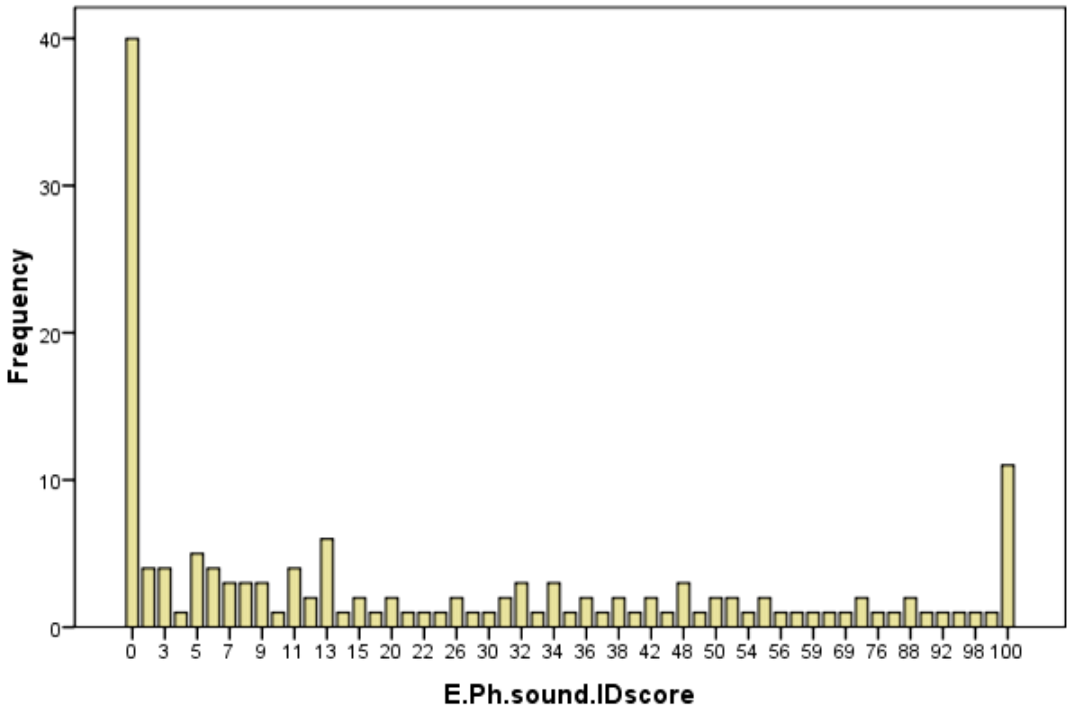

Figure 5.47: English Sound ID Score

5.3.2.7 Non-Word Reading

(a) Non-Words Read

Table 5.58: Non-Words Read

Non-words	Frequency	Percent (%)
0	1	0.7
5	63	42.0
9	2	1.3
10	5	3.3
12	2	1.3
13	2	1.3
14	1	0.7
15	7	4.7
18	1	0.7
20	4	2.7
22	1	0.7
23	1	0.7
24	1	0.7
25	2	1.3
26	1	0.7
27	2	1.3
28	1	0.7
29	4	2.7
30	2	1.3
32	2	1.3
35	3	2.0
38	2	1.3
40	1	0.7
50	39	26.0
Total	150	100.0

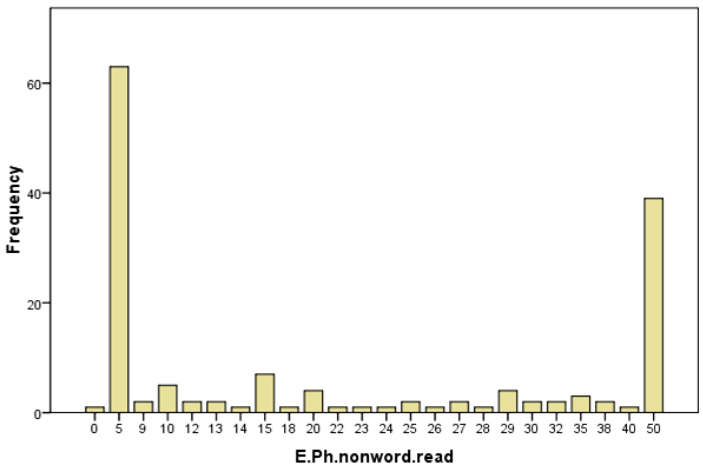

Figure 5.48: Non-Words Read

(b) Non-Word Score

Table 5.59: Non-word Score

Non-words	Frequency	Percent (%)
0	63	42.0
1	1	0.7
2	2	1.3
3	2	1.3
5	4	2.7
6	4	2.7
7	4	2.7
8	2	1.3
9	2	1.3
11	1	0.7
13	4	2.7
14	1	0.7
15	5	3.3
18	1	0.7
19	2	1.3
20	3	2.0
25	1	0.7
26	1	0.7
29	3	2.0
30	1	0.7
35	2	1.3
38	2	1.3
44	3	2.0
45	1	0.7
47	3	2.0
48	6	4.0
49	3	2.0
50	23	15.3
Total	150	100.0

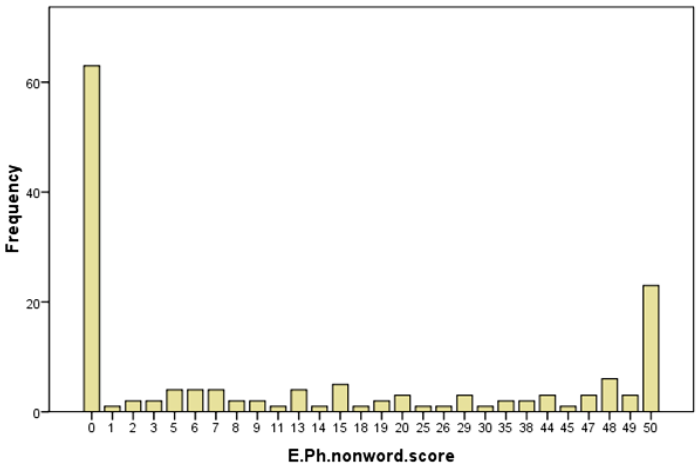

Figure 5.49: Non-word Score

5.3.2.8 English Word Reading

(a) English Words Read

Table 5.60: English Words Read

Words	Frequency	Percent (%)
5	58	38.7
7	1	0.7
10	6	4.0
12	1	0.7
15	6	4.0
16	2	1.3
18	3	2.0
19	1	0.7
20	6	4.0
23	1	0.7
25	7	4.7
26	1	0.7
28	1	0.7
30	5	3.3
32	1	0.7
34	1	0.7
35	5	3.3
36	1	0.7
45	1	0.7
50	41	27.3
100	1	0.7
Total	150	100.0

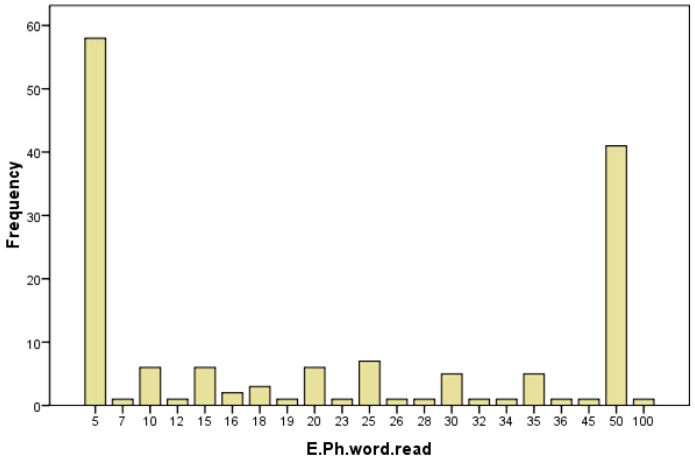

Figure 5.50: English Words Read

(b) English Word Score

Table 5.61: English Word Score

Words	Frequency	Percent (%)
0	58	38.7
1	5	3.3
2	1	0.7
3	2	1.3
4	1	0.7
5	2	1.3
6	4	2.7
7	2	1.3
8	3	2.0
9	1	0.7
10	3	2.0
11	1	0.7
12	5	3.3
13	3	2.0
14	4	2.7
15	2	1.3
17	2	1.3
18	5	3.3
19	3	2.0
20	1	0.7
21	3	2.0
23	1	0.7
24	2	1.3
25	2	1.3
26	3	2.0
27	1	0.7
28	1	0.7
29	1	0.7
30	1	0.7
32	1	0.7
34	1	0.7
37	2	1.3
38	2	1.3
39	2	1.3
40	2	1.3
41	3	2.0
42	1	0.7
45	1	0.7
47	1	0.7
48	2	1.3
50	8	5.3
100	1	0.7
Total	150	100.0

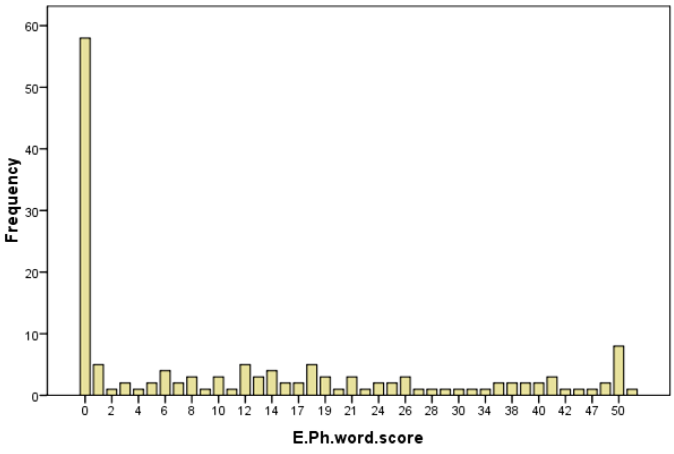

Figure 5.51: English Word Score

5.3.2.9 Oral Comprehension

(a) Responses

Table 5.62: Oral Comp. Responses

Questions	Frequency	Percent (%)
0	41	27.3
1	5	3.3
2	8	5.3
3	10	6.7
4	23	15.3
5	63	42.0
Total	150	100.0

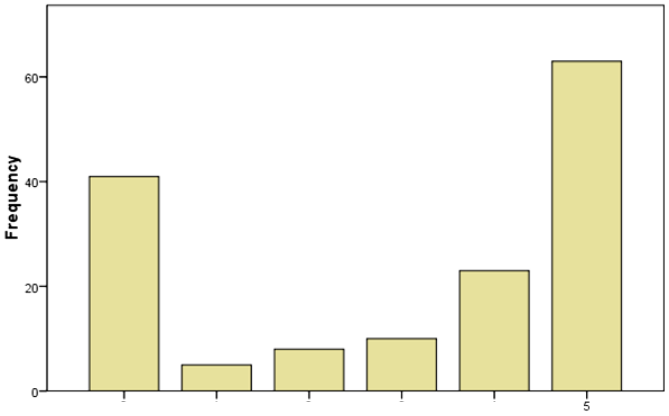

Figure 5.52: Oral Comprehension Responses

(b) Score

Table 5.63: Oral Comp. Score

Questions	Frequency	Percent
0	44	29.3
1	14	9.3
2	19	12.7
3	19	12.7
4	33	22.0
5	21	14.0
Total	150	100.0

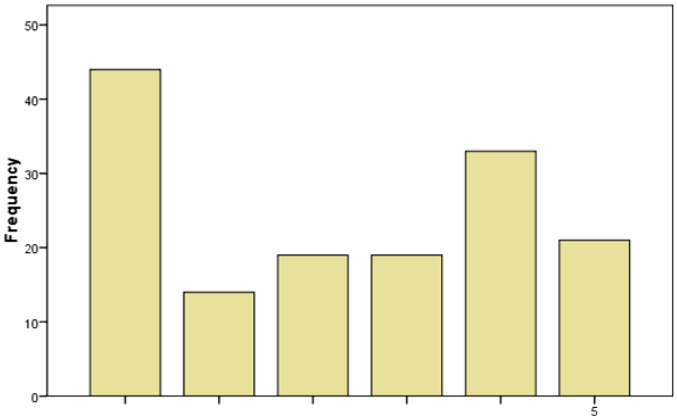

Figure 5.53: Oral Comprehension Score

5.3.3 Sampled 150 Grade 7 Learners

For the sampled 150 Grade 7 learners, enquiry into the attribution of phonetic skills as an enabler of communication proficiency was done through (a) consonant and vowel identification, and (b) written and oral comprehension. The variables of sex, location and age of the learners were considered as well.

5.3.3.1 Description of Sex, Location and Age variables

Table 5.64: Sampled Gr. 7 Sex Variable

Sex	Frequency	Percent (%)
Girls	85	56.7
Boys	65	43.3
Total	150	100.0

Table 5.65: Sampled Gr. 7 Location Variable

Location	Frequency	Percent (%)
Lusaka	50	33.3
Chinsali	100	66.7
Total	150	100.0

Table 5.66: Sampled Gr. 7 Age Variable

Age	Frequency	Percent (%)
11	7	4.7
12	39	26.0
13	52	34.7
14	31	20.7
15	11	7.3
16	5	3.3
17	2	1.3
18	3	2.0
Total	150	100.0

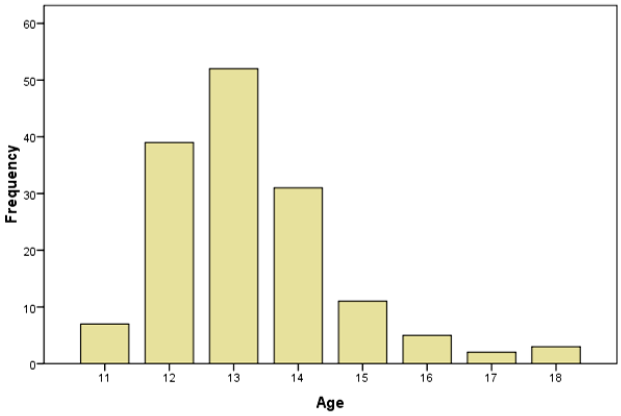

Figure 5.54: Sampled Gr. 7 Age Variable

5.3.3.2 Consonants Identification

Table 5.67: Consonant Identification Score

Consonants	Frequency	Percent (%)
0	38	25.3
1	4	2.7
2	1	0.7
3	1	0.7
4	10	6.7
5	8	5.3
6	8	5.3
7	6	4.0
8	4	2.7
9	4	2.7
10	5	3.3
11	3	2.0
12	2	1.3
13	4	2.7
14	1	0.7
15	3	2.0
17	3	2.0
18	3	2.0
19	7	4.7
20	5	3.3
21	30	20.0
Total	150	100.0

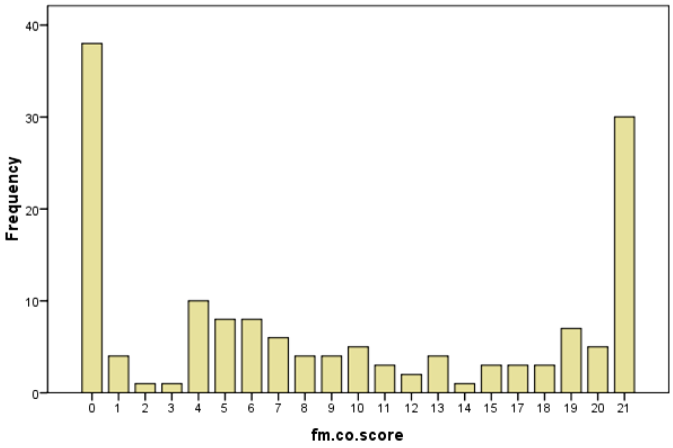

Figure 5.55: Consonant Identification Score

5.3.3.3 Vowels Identification (Word Spelling)

Table 5.68: Vowels ID Score

Vowels	Frequency	Percent (%)
0	63	42.0
1	20	13.3
2	13	8.7
3	19	12.7
4	19	12.7
5	16	10.7
Total	150	100.0

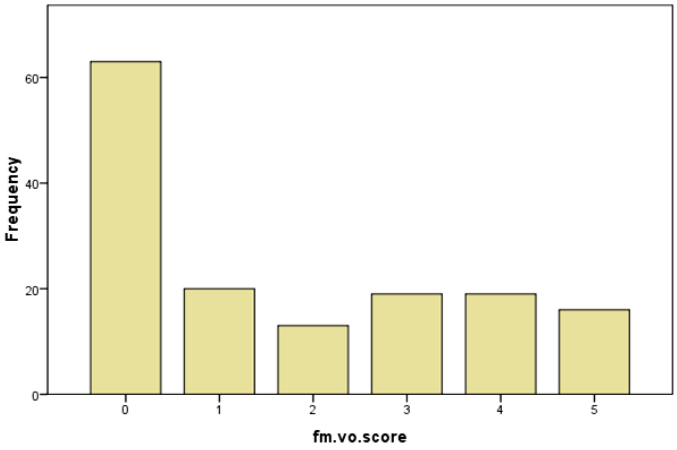

Figure 5.56: Vowels ID Score

5.3.3.4 Written Comprehension

Table 5.69: Written Comprehension Score

Questions	Frequency	Percent (%)
0	98	65.3
1	33	22.0
2	15	10.0
3	4	2.7
Total	150	100.0

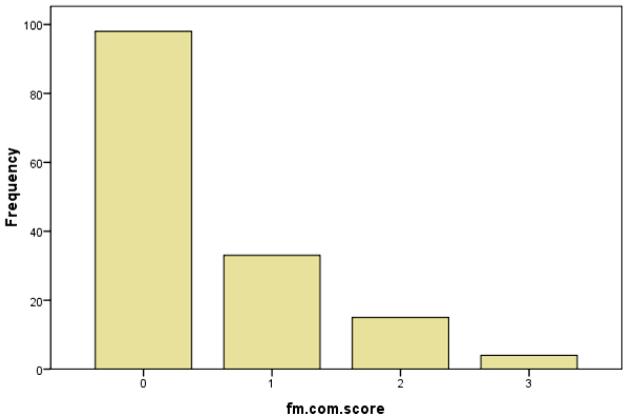

Figure 5.57: Written Comprehension Score

Table 5.70: Written Comprehension Imitation Score

Questions	Frequency	Percent (%)
0	53	35.3
1	66	44.0
2	23	15.3
3	8	5.3
Total	150	100.0

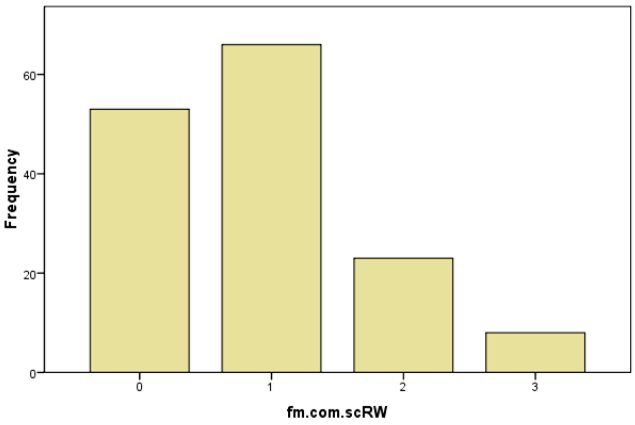

Figure 5.58: Written Comprehension Imitation Score

5.3.3.5 Oral Comprehension

Table 5.71: Oral Comprehension Responses

Questions	Frequency	Percent (%)
0	30	20.0
1	4	2.7
2	10	6.7
3	18	12.0
4	16	10.7
5	72	48.0
Total	150	100.0

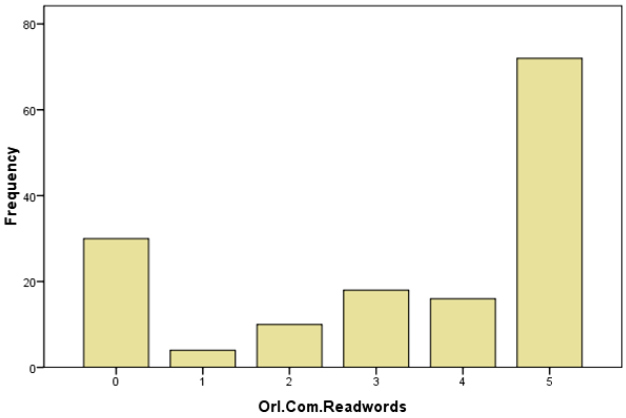

Figure 5.59: Oral Comprehension Responses

Table 5.72: Oral Comprehension Score

Questions	Frequency	Percent (%)
0	39	26.0
1	16	10.7
2	11	7.3
3	25	16.7
4	24	16.0
5	35	23.3
Total	150	100.0

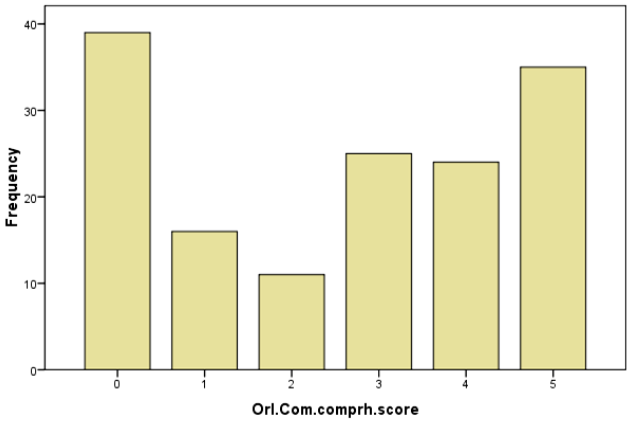

Figure 5.60: Oral Comprehension Score

5.3.4 Sampled 40 Grade 12 Learners

For the sampled 40 Grade 12 learners, enquiry into the attribution of phonetic skills as an enabler of communication proficiency was done through (a) syllabic and vowel identification, (b) communication proficiency exercise, and (c) oral comprehension. The variables of sex, location and age of the learners were considered as well.

5.3.4.1 Description of Sex, Location and Age variables

Table 5.73: Sampled Gr. 12 Sex Variable

Sex	Frequency	Percent (%)
Girls	11	27.5
Boys	29	72.5
Total	40	100.0

Table 5.74: Sampled Gr. 12 Location Variable

Location	Frequency	Percent (%)
Lusaka	20	50.0
Chinsali	20	50.0
Total	40	100.0

Table 5.75: Sampled Gr. 12 Age Variable

Age	Frequency	Percent (%)
15	2	5.0
16	4	10.0
17	7	17.5
18	13	32.5
19	7	17.5
20	6	15.0
23	1	2.5
Total	40	100.0

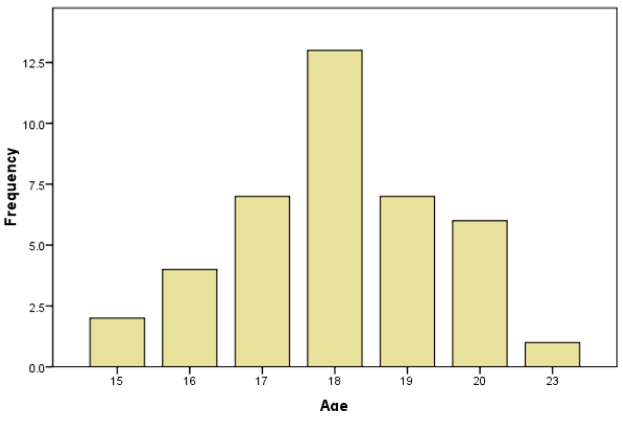

Figure 5.61: Sampled Gr. 12 Age Variable

5.3.4.2 Syllable Identification

Table 5.76: Syllable Identification Score

Syllables	Frequency	Percent (%)
0	16	40.0
1	11	27.5
2	10	25.0
3	3	7.5
Total	40	100.0

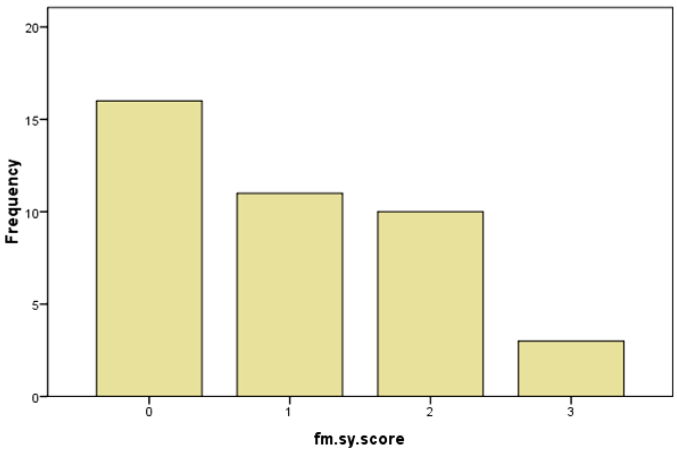

Figure 5.62: Syllable Identification Score

5.3.4.3 Vowels Identification

Table 5.77: Vowels Identification Score

Vowels	Frequency	Percent (%)
0	3	7.5
1	12	30.0
2	9	22.5
3	9	22.5
4	7	17.5
Total	40	100.0

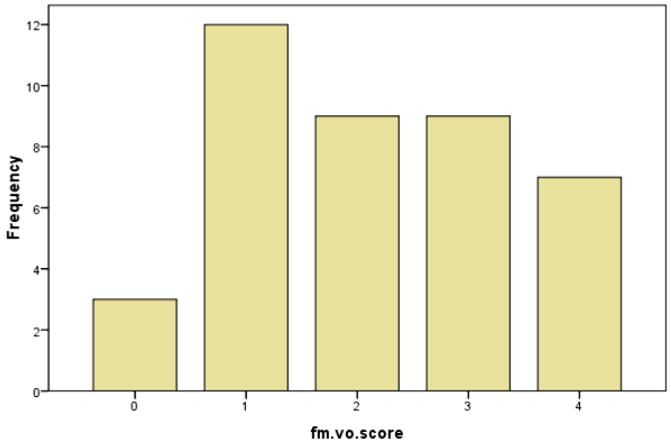

Figure 5.63: Vowels Identification Score

5.3.4.4 Communication Proficiency

Table 5.78: Communication Proficiency Score

Words	Frequency	Percent (%)
0	2	5.0
1	1	2.5
2	10	25.0
3	6	15.0
4	14	35.0
5	4	10.0
6	3	7.5
Total	40	100.0

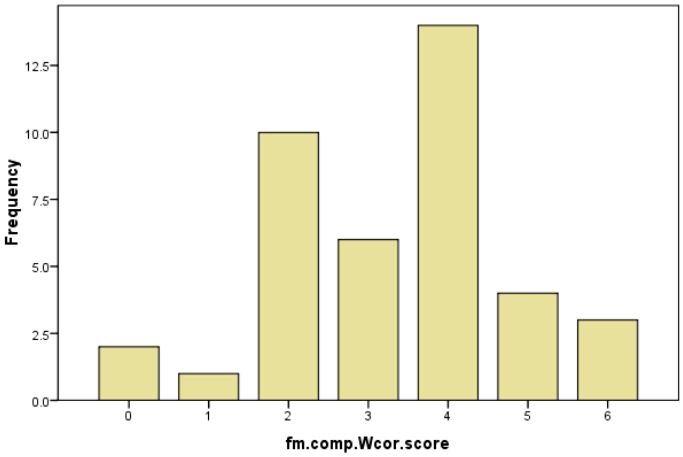

Figure 5.64: Communication Proficiency Score

5.3.4.5 Oral Comprehension

Table 5.79: Oral Comprehension Responses

Questions	Frequency	Percent (%)
1	1	2.5
2	3	7.5
3	8	20.0
4	12	30.0
5	16	40.0
Total	40	100.0

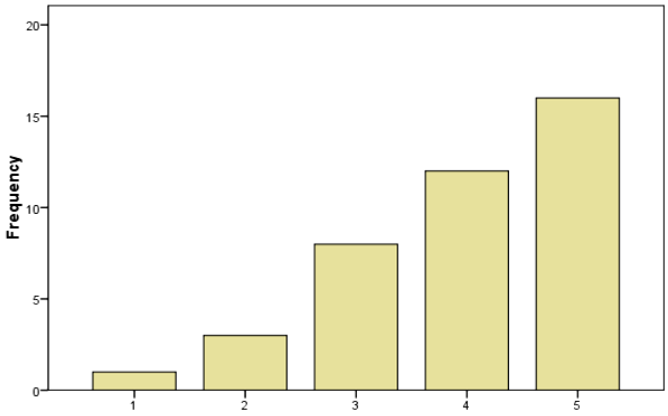

Figure 5.65: Oral Comprehension Responses

Table 5.80: Oral Comprehension Score

Questions	Frequency	Percent (%)
0	2	5.0
1	7	17.5
2	13	32.5
3	11	27.5
4	5	12.5
5	2	5.0
Total	40	100.0

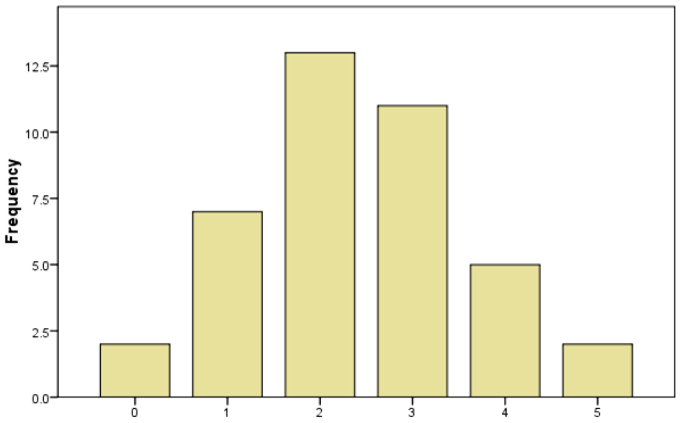

Figure 5.66: Oral Comprehension Score

5.4. POSSIBLE FACTORS IMPEDING THE COMMUNICATION OF PHONETIC SKILLS FROM TEACHER TO LEARNERS IN GRADES 1 AND 2 IN SELECTED PRIMARY SCHOOLS

Finally, possible factors that impede the communication of phonetic skills from the class teacher to the learners were assessed. Three possible factors were the focus of the study namely *message design* by the curriculum developers and the class teacher, the *channels* (i.e. approaches, methodologies and techniques) used in the delivery of these messages from the class teacher to the learners and the *duration*, i.e. time allocated for the transmission of these phonetic skills from the class teacher to the learners.

5.4.1 Message Design as a Possible Impediment in the Communication of Phonetic Skills

5.4.1.1 Message Design by Curriculum Developers

An in-depth interview was conducted with three (3) curriculum developers responsible for developing content of the messages communicated to learners in language skills. Each developer is specialised in English, Ichibemba and Chinyanja languages respectively. They each responded to five questions on their approach in phonetic message designing as follows:

Q1: What aspects do you consider when prescribing phonetic drilling for grade 1 and 2?
Q2: What sequence does phonetic build up follow in the curriculum design?
Q3: Are phonological differences between the vernacular and English pointed out in the design?
Q4: What distinction is made between the two languages' phonology for grade 2?
Q5: Does the current phonetic design for grade 1 and 2 produce positive impact?

Table 5.81: Curriculum Developers' Responses on Message Design

		Response to Q1	Response to Q2	Response to Q3	Response to Q4	Response Q5
1	English Specialist	Knowledge of spoken language	Sound of letters, phonetics, syllables, word, phrase, sentence and paragraph forming passage	Yes especially @ Gr. 2 when moving to literacy in English having acquired enough oral English	The different phonemic aspects – e.g. 'u' being /u/ and /æ/ and /^/ in umbrella	Very much
2	Chinyanja Specialist	Language experience	Sounds, syllables, words, sentences and paragraphs	They are pointed out in translation from vernacular to English in Gr. 2	Differences in sounds e.g. Chinyanja: *ona*, English: *out*	Yes it does
3	Ichibemba Specialist	Language experience	Sounds, syllables, words, sentences and paragraphs	During translation from local to English (Gr. 2)	Difference in sounds e.g. Bemba: batata, English: baby	Yes

5.4.1.2 Message Design by Class Teacher

Through class observation, phonetic message design by the class teacher was assessed in five areas namely (a) alphabet message design, (b) differentiation of letter names and letter sounds design, (c) sound pronunciation design, (d) syllable use design, and (e) word reading design. The following are the results of the assessment:

(a) Alphabet Message Design

Table 5.82: Teacher Alphabet Message Design

Level	Frequency	Percent (%)
0. Nil	21	70.0
1. Poor	2	6.7
2. Fair	2	6.7
4. V. Good	2	6.7
5. Excellent	3	10.0
Total	30	100.0

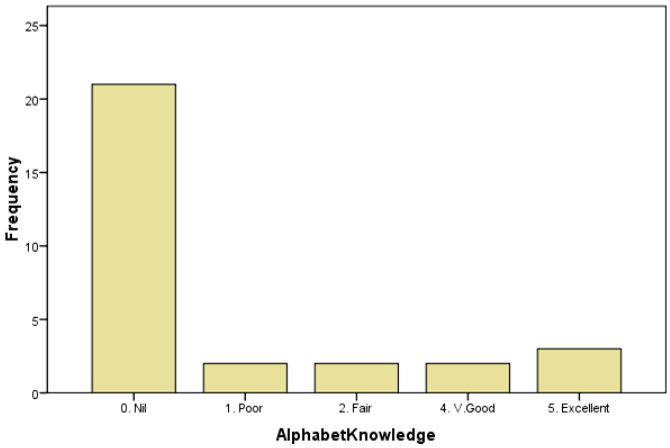

Figure 5.67: Teacher Alphabet Message Design

(b) Differentiation of Letter Names and Letter Sounds Design

Table 5.83: Teacher Differentiation of Letter Names & Letter Sounds Design

Level	Frequency	Percent (%)
0. Nil	21	70.0
1. Poor	1	3.3
2. Fair	2	6.7
3. Good	3	10.0
4. V. Good	1	3.3
5. Excellent	2	6.7
Total	30	100.0

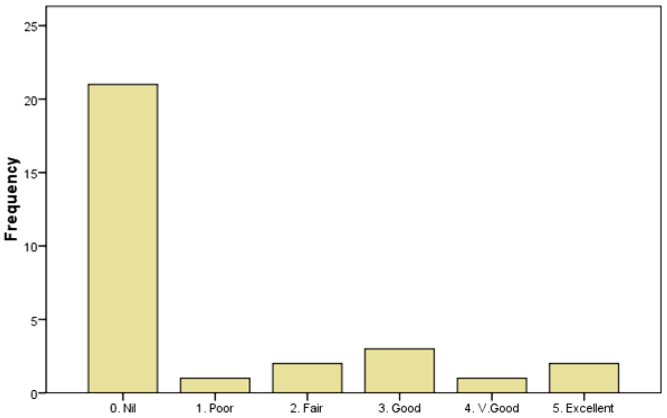

Figure 5.68: Teacher Differentiation of Letter Names & Letter Sounds Design

(c) Sound Pronunciation Design

Table 5.84: Teacher Sound Pronunciation Design

Level	Frequency	Percent (%)
0. Nil	2	6.7
1. Poor	1	3.3
2. Fair	2	6.7
3. Good	3	10.0
4. V. Good	9	30.0
5. Excellent	13	43.3
Total	30	100.0

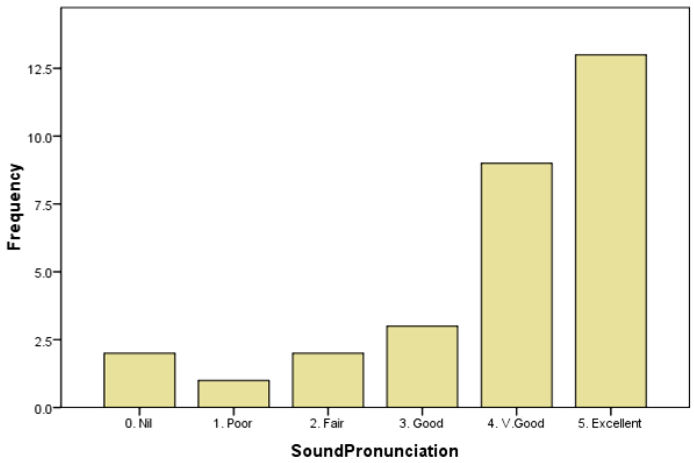

Figure 5.69: Teacher Sound Pronunciation Design

(d) Syllable Use Design

Table 5.85: Teacher Syllable Use Design

	Frequency	Percent (%)
0. Nil	2	6.7
1. Poor	2	6.7
2. Fair	3	10.0
3. Good	6	20.0
4. V. Good	4	13.3
5. Excellent	13	43.3
Total	30	100.0

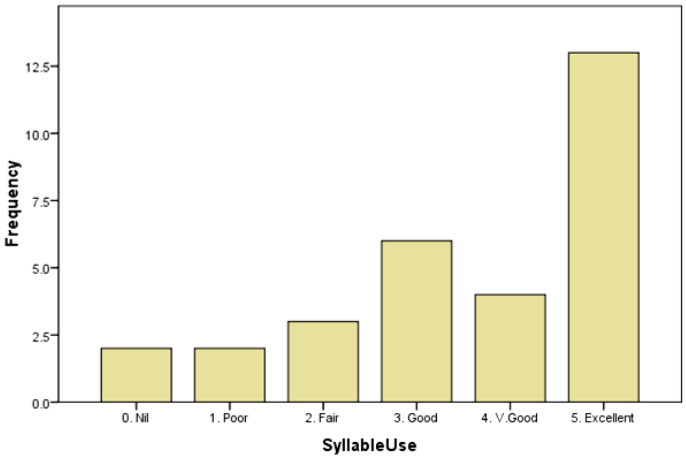

Figure 5.70: Teacher Syllable Use Design

(e) Word Reading Design

Table 5.86: Teacher Word Reading Design

Level	Frequency	Percent (%)
0. Nil	3	10.0
2. Fair	2	6.7
3. Good	5	16.7
4. V. Good	11	36.7
5. Excellent	9	30.0
Total	30	100.0

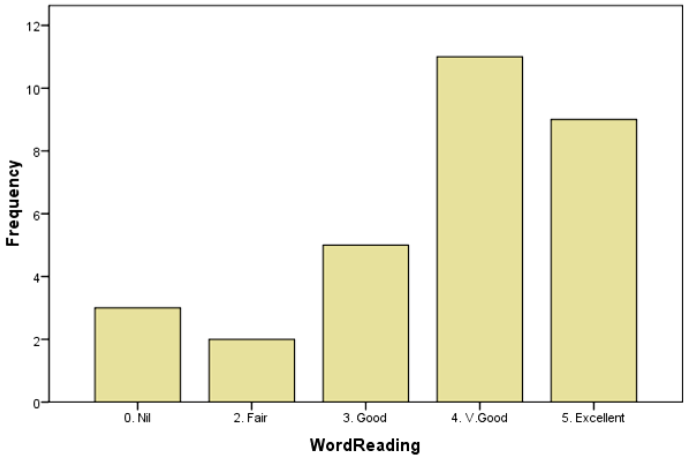

Figure 5.71: Teacher Word Reading Design

5.4.2 Channel Modes as a Possible Impediment in the Communication of Phonetic Skills

5.4.2.1 Channel Design by Curriculum Developers

The three curriculum developers responded to the following questions in an in-depth interview on channels (teaching methods, approaches and techniques) designed for the communication of phonetics to the learner by the class teachers:

Q1: From the CDC, how is the phonetic message transmitted to the Class Teacher?
Q2: Are there any challenges in this transmission to the Class Teacher?
Q3: Does the teacher design his/her own lesson plan with phonetic content?
Q4: What approaches do you recommend for phonetic communication to learners?
Q5: What techniques do you recommend for phonetic communication to learners?
Q6: How do you as CDC get feedback on phonetic communication from schools?
Q7: Do you revise the phonetic message if challenges are noted from schools?

Table 5.87: Sampled Curriculum Developers' Responses on Channel Design

		Response to Q1	Response to Q2	Response to Q3	Response to Q4	Response to Q5	Response to Q6	Response to Q7
1	English Specialist	Teacher education at college in linguistics then In-service courses at high levels and resource centres	Yes, for poorly educated ZATEC teachers who missed linguistic courses at college level	Teachers are given scripted lesson plans in teacher's guide books	Teacher exposition – question & answer – pair work / group work (4) in a group	Look and say it, work cards and use of chalk board	Lesson observations	Yes
2	Chinyanja Specialist	Through teacher training	Insufficient training by teachers and too many pupils in class	Given models of lesson plans can be modified	Question and answer, pair work and group work	Writing on the chalk board	Through monitoring	Yes
3	Ichibemba Specialist	Teacher education	Lack of enough training by teachers and too many pupils in a class	Given models of lesson plans can be modified	Question and answer, group work and pair work	Use of chalk board	Monitoring	Yes

5.4.2.2 Channel Design by Class Teacher

For the 30 sampled teachers, the enquiry made a further distinction in the channels used in communicating phonetic skills to the learners. Approaches and methods were distinguished from the techniques that the class teacher uses. Below are the set of questions specified for each enquiry. Tables 5:88 and 5:89 indicate the responses to questions on approaches and methods used while Tables 5:90 and 5:91 indicates the responses to questions on techniques.

(a) Approaches & methods in phonetic communication

Q1: Would you tell me what approach you used to teach this literacy class?
Q2: Do you find it to be effective?
Q3: In what ways is the approach effective for phonetic communication to the learner?
Q4: What percentage of your literacy lesson plan is on phonetic communication to the learner?
Q5: Do you find designing your literacy lesson plan with phonetic content challenging?
Q6: Highlight any challenges you encounter?
Q7: *[For Grade 2 teacher only]* Do you notice the challenge of communicating phonetic skills when a transition is made from Ichibemba (NBTL) to English (SITE)?
Q8: How do you handle these challenges?

(b) Techniques as channels of phonetic communication

Q1: What techniques do you use in communicating phonetic skills to the learners?
Q2: What reason would you give for their use in communicating phonetic skills?
Q3: How do learners respond to these techniques when learning phonetic skills?
Q4: Do these techniques give a positive impact of the learners in phonetic skills?
Q5: What challenges do you encounter in the use of these techniques?

Table 5.88: Sampled 15 Grade 1 Class Teachers Responses on Channel Design - ***Approaches & Methods***

	Teacher Code	Response to Q1	Response to Q2	Response to Q3	Response to Q4	Response to Q5	Response to Q6
1	01JAC01	Reading and writing	Yes	Learners can recall work	70%	Yes	Sounding letters e.g. /y/
2	02LIB01	Pupil centred	Yes	Yes	15/60 minutes	No	-
3	03MQP01	Letter Land Scheme	Yes	Gives guidance	30%	No	-
4	04VRC01	Look & Say	Yes	Memory retention is high	80%	Yes	Word mastering problematic
5	05WOD01	Language experience	Yes	Tackle word pronunciation	5/60 minutes	Sometimes	Consonant combination e.g. dz
6	01CHS01	Pupil-centred	Yes	Learners understand the work	10/60 minutes	No	-
7	02COS01	Look & Say	Yes	Enables picture/sound association	30%	Yes	Lack of reference books
8	03ILD01	Whole class approach	Yes	Easy grasp of sounds by learners	25 minutes	Not really	Lack of materials
9	04KLT01	Component Integration	Yes	Captures all components	60 minutes	Yes	Sounding of letters
10	05KNK01	Learner centred	Yes	Especially in groups	70%	Yes	Lack of materials
11	06KPW01	Learner centred	Yes	Full learner participation/attention	33.3% -20 minutes/hour	Yes	Lack of reference books
12	07LBW01	Learner centred	Yes	Enable learners to read & write new words	100%	Yes	Catering for repeaters
13	08MKP01	Phonetic approach	Yes	Manages time well	70%	Yes	Many activities in one lesson
14	09MWB01	Communicative	Yes	Motivates learners	60%	Yes	Over enrolment/materials lacking
15	10NKL01	Word attack	Yes	Enable new word reading	20 minutes	Yes	No reference materials

Table 5.89: Sampled 15 Grade 2 Class Teachers Responses on Channel Design - ***Approaches & Methods***

	Teacher Code	Response to Q1	Response to Q2	Response to Q3	Response Q4	Response Q5	Response to Q6	Response to Q7	Response Q8
1	01JAC02	Look-Say, known-unknown	Yes	Easy to recall work	40/60 minutes	Fair	Learners forget learnt previous work	Yes, some fail to make transfer	Repetition and emphasis
2	02LIB02	Pupil centred	Except slow learners	Pupil participation	Uncertain	No	None	Yes	Not resolved
3	03MQP02	Activity based	Very effective	Learner participation	35 minutes	No	None	-	-
4	04VRC02	Group work / syllabic	Partly	Read non-words	40%	Some times	Learners at are different levels	Reading English words in vernacular	Word emphasis
5	05WOD02	Pupil centred	Very effective	Enable pupils to read words	20/60 minutes	No	None	Yes, in Term 1	Show language differences
6	01CHS02	Known-unknown	Yes	New vocabulary acquisition	Uncertain	No	None	Yes	Use of simple words
7	02COS02	Discussion	Yes	Learning from teacher/peers	30%	Yes	Incorporating new work	Yes	Extra remedial time
8	03ILD02	Syllabic	Yes	Word & sentence building	75%	Yes	Learners inconsistency	Yes	Language association
9	04KLT02	Component Integration	Yes	Captures all components	60 minutes	Yes	Sounding of letters	Component Integration	Yes
10	05KNK02	Learner centred	Very effective	Learner participation	95%	Not much	Lack of reference materials	Fairly, learners without English skills	Remedial work
11	06KPW02	Teacher/learner	Yes	Learner Comprehension	20 minutes	Yes	Inadequate time	Yes	Phonetic drilling
12	07LBW02	Learner discussion	Yes	Enable new word reading	100%	No	Repairing for repeaters	Uncertain	Remedial work
13	08MKP02	Step Into English	Yes	Small group attention	68%	Yes	Inadequate time	Yes	Using alphabetic order
14	09MWB02	Communicative	Yes	Learner motivation	10 minutes	Yes	Over enrolment/lack of materials	Yes	Excessive use of chalk board
15	10NKL02	Syllabic	Yes	Learners comprehend words	10 minutes	No	Slow comprehension	Not using English yet	-

Table 5.90: Sampled 15 Grade 1 Class Teachers Responses on Channel Design - ***Techniques***

	Teacher Code	Response to Q1	Response to Q2	Response to Q3	Response to Q4	Response to Q5
1	01JAC01	Learning by imitation	Easy recalling the work	Good	Positive outcome on learners	Language barrier
2	02LIB01	Known – unknown	Easy to make association	Good	Yes	Over blotted enrolment in class
3	03MQP01	Uncertain	Uncertain	Very positive, child friendly	Yes	None
4	04VRC01	Word-picture matching/recognition	Increase rate of assimilation	Very good	Yes	Timidity of slow learners
5	05WOD01	Uncertain	Uncertain	Sometimes difficult	Not at all	Slow learners & new comers in class
6	01CHS01	Pupil-based activities	Learners understand	Very well	Yes	Over enrolment in the class
7	02COS01	Uncertain	Uncertain	Fairly	Fair	Lack of materials
8	03ILD01	Sound identification/ word attack	Easy to grasp sounds	Easy response	Yes	Lack of differentiation by some learners
9	04KLT01	Whole class / question & answer	Improves pronunciation	Fairly well	Yes	Grasping the concepts
10	05KNK01	Sounds for word attack	Helps learn in word building	Positively	Yes	Connecting individual letter sounds
11	06KPW01	Learner-centred, discovery	Individual attention to learners	Very well	Yes	Lack of parental involvement
12	07LBW01	Look & say, picture study	Identification of new sounds/words	Very well	Yes	Lack of materials
13	08MKP01	Word-picture matching	Enable learners read fluently	Fairly well	Yes	Lack of learner participation
14	09MWB01	Rhymes, stories, songs	Easy listening to new words	Positive	Yes	Long comprehension period by learners
15	10NKL01	Class/Group Discussion	Active participation	Good	Yes	Memory retention in individual learning

Table 5.91: Sampled 15 Grade 2 Class Teachers Responses on Channel Design - ***Techniques***

	Teacher Code	Response to Q1	Response to Q2	Response to Q3	Response to Q4	Response to Q5
1	01JAC02	Uncertain	Uncertain	60% respond well	Yes	Materials lacking
2	02LIB02	Uncertain	Uncertain	Average, only high performers	Uncertain	-
3	03MQP02	Peer teaching	Enjoy it	Good	Yes	None
4	04VRC02	Group work/Individual ass.	Learners become literate	Positive	Yes	Materials lacking
5	05WOD02	Uncertain	Uncertain	Good	-	Absenteeism, difficult sounds to pronounce
6	01CHS02	Object-sound association	Faster comprehension of sounds	Proper word pronunciation	Yes	Lack of continuity at home
7	02COS02	Making drills	Uncertain	Imitation of drill and easy retention	Yes	Learners' short memory span
8	03ILD02	Sound identification –old/new	Easy sound grasping	Easy response	Yes	Differentiation by slow learners
9	04KLT02	Whole class / question & answer	Improves pronunciation	Fairly well	Yes	Grasping the concepts
10	05KNK02	Word matching	Association of words and sounds	Fairly well	Yes	Lack of materials
11	06KPW02	Letter sounds blending	Enable reading & writing by learners	Good	Yes	Requires comprehension time
12	07LBW02	Look and say	Help learner see and say it	Responds effectively	Yes	None
13	08MKP02	Word to picture matching	Enable easy reading & writing	Fairly well	Yes	Inadequate participation
14	09MWB02	Games, rhymes, poems	Good memory retention by learners	Positive	Yes	Slow learners' comprehension
15	10NKL02	Uncertain	Uncertain	Fairly	Yes	uncertain

5.4.3 Teaching and Learning Duration as a Possible Impediment in the Communication of Phonetic Skills

5.4.3.1 Duration Design by Curriculum Developers

The three curriculum developers responded to the following questions in an in-depth interview on duration designed for the communication of phonetics to the learner by the class teachers:

Q1: What percentage of a day's learning is allocated to phonetic drilling?

Q2: In what does this percentage translate in hour and minute terms per day?

Q3: What reason can be given for this quantity of time allocated?

Q4: Do you get feedback from schools on the adequacy or inadequacy of this allocation of time for phonetic drilling?

Q5: If inadequacy is reported, would consideration be given for an increase of time?

Table 5.92: Sampled Curriculum Developers' Responses on Duration Design

		Response to Q1	Response to Q2	Response to Q3	Response to Q4	Response to Q5
1	English Specialist	Half period (60min) hence 30 minutes	At Grades 1 to 4, 30 minutes	To accord learners enough practice	Yes, positive	Not yet experienced
2	Chinyanja Specialist	60 minutes	-	To give more time for practice	Yes	No feedback yet
3	Ichibemba Specialist	60 minutes	-	To give more time for practicing	Yes	Not yet got feedback

5.4.3.2 Duration Design by Class Teacher

Through in-depth interviews, the 30 sampled teachers responded as follows to the 6 questions on duration design for phonetic communication to the learners by the class teacher:

Q1: What percentage of a day's learning is allocated to phonetic communication?

Q2: In what does this percentage translate in hour and minute terms per day?

Q3: What reason can be given for this quantity of time allocated?

Q4: Would you consider this time allocation as adequate?

Q5: If inadequate, what challenge does it poses for phonetic communication?

Q6: How do you handle this challenge?

Table 5.93: Sampled 15 Grade 1 Class Teachers Responses on Duration Design

	Teacher Code	Response to Q1	Response to Q2	Response to Q3	Response to Q4	Response to Q5	Response to Q6
1	01JAC01	50%	10 minutes	Rash for other work	No	Work can't finish	Push it to next period
2	02LIB01	Uncertain	Uncertain	Other activities to be done	Not adequate	Not good for slow learners	Uncertain
3	03MQP01	30%	40 minutes	Give time to the learners	Teacher determines weight and level of learners	Incomplete work in phonetics	Continue in next period
4	04VRC01	50%	1 hour	Good drilling in sounds	Adequate with good time management by teacher	-	-
5	05WOD01	uncertain	60 minutes	Accommodate other activities	No	Not learning sounds well	displace other periods
6	01CHS01	uncertain	60 minutes	Numerous activities at hand	No	Not completing prepared work	Push work to next lesson
7	02COS01	30%	20 minutes	Enable learners understand work	No	Work prepared unfinished	Use next period
8	03ILD01	uncertain	25 minutes	Learners allowed to master sounds	No	Disadvantages slow learners	Provision remedial work to slow learners
9	04KLT01	40%	35 minutes	Improve learner work	No	Work not completed	Give remedial work
10	05KNK01	60%		Enable learners to know how to read	Yes	Learners tend to get tired at times	Vary activities to keep interest
11	06KPW01	33.3%	20 minutes	Enable learners to read, write & pronounce words	No	Disadvantages slow learners	Remedial work for slow learners
12	07LBW01	uncertain	1 hour	Uncertain	Yes	-	-
13	08MKP01	40%	25 minutes	Uncertain	No	Phonetics are not learnt fully	Remedial and homework
14	09MWB01	10%	1 hour	Uncertain	No	Encroaching in other periods since work not completed on time	Encourage learners to complete activities on time
15	10NKL01	33%	20 minutes	To make emphasis on sounds	Yes		

Table 5.94: Sampled 15 Grade 2 Class Teachers Responses on Duration Design

	Teacher Code	Response to Q1	Response to Q2	Response to Q3	Response to Q4	Response to Q5	Response to Q6
1	01JAC02	80 minutes/day		More reading required	Adequate	Nil	Nil
2	02LIB02	Uncertain	35 minutes	Accommodate other subjects	No	Incomplete work	Improvise – use next period
3	03MQP02	Uncertain	35 minutes	Accommodate other subjects	No	Prepared materials not finished	Use other lesson
4	04VRC02	12%	1 hour	Develop reading culture	Yes	Attending to learners at different levels	Improvising activities to suit their level
5	05WOD02	Uncertain	20 minutes	Activities are numerous	No	Not completing work	Follow it up next day by reducing day's activities
6	01CHS02	8%	5 minutes	The planners understand its importance	No, needs 30 min	Difficult for acquiring phonetic skills	Create more time later
7	02COS02	Uncertain	15 minutes	Accommodate other activities in a literacy lesson such as reading	No	Not much phonetic drilling occurs in a day	Revising allocated time for the planned lesson
8	03ILD02	Uncertain	25 minutes	Learners mastering sounds	No	Disadvantages slow learners	Remedial work for slow learners
9	04KLT02	40%	35 minutes	Improve learner work	No	Work not completed	Give remedial work
10	05KNK02	75%	1 hour	Designed by educational planners	No	Difficult to handle complex phonetics	Giving of homework
11	06KPW02	Uncertain	20 minutes	Uncertain	No	Have many underperforming learners	Weekly personal attention to each learner
12	07LBW02	Uncertain	1 hour	Uncertain	Yes	-	-
13	08MKP02	40%	25 minutes	Uncertain	No	Phonetics not learnt fully	Offering remedial work
14	09MWB02	10%	1 hour	Uncertain	No	Encroaches on other lessons	Reduce activities & encourage learners to complete work on time
15	10NKL02	33%	10 minutes	Uncertain	No	Disadvantages slow learners	Remedial for slow learners

CHAPTER SIX

DISCUSSION OF FINDINGS

6.0 INTRODUCTION

This chapter discusses the findings of the study enquiring into the attribution of phonetic skills as an enabler of initial written and oral communication proficiency among Grade 1 and 2 learners in selected schools of Lusaka and Chinsali. The discussion is an analysis of the four progressive categories of enquiry as set out in the study objectives and as responses to the study questions. The four categories are:(a) estimation of the frequency and magnitude of communication lapses among sampled learners in Grades 1,2, 7 and 12, (b) phonetic awareness as a foundation in written and oral communication proficiency among sampled curriculum developers, teachers and learners, (c) attribution of phonetics as a reading skill enabling a learner to communicate proficiently in the sampled 490 learners, and (d) possible factors impeding the communication of phonetic skills from the teacher to the learner in Grades 1 and 2 in selected schools.

6.1 DISCUSSION OF FINDINGS ON FREQUENCY AND MAGNITUDE OF THE PROBLEM OF COMMUNICATION LAPSES AMONG SAMPLED LEARNERS IN GRADES 1, 2, 7 AND 12 IN THE SELECTED SCHOOLS

The research question the study enquired in this area and set out to respond to was: How frequent and at what magnitude is the problem of communication proficiency occasioned by inadequate reading skills among learners in grades 1,2,7 and 12 in Lusaka urban and Chinsali rural districts? The discussion analyses the four grades under study.

6.1.1 Discussion of Findings for the Sampled 578 Grade 1 Learners

The areas of enquiry for this sample were (a) alphabet letters recognition, (b) vowels recognition, and (c) word recognition. Since this is an initial stage of learning, the enquiry was limited and only assessed foundational knowledge on components that will later be imperative in communication proficiency. The performance of the 578 sampled learners was above the average threshold in their knowledge of these basic components. This can be attributed to the fact that, for this 2013 grade 1 class, the new literacy programme was being piloted in these selected schools through the *Read To Succeed Project* and therefore the class teachers were enthusiastic in attempting the new programme.

In the alphabet letters recognition assessment, of the 578 sampled learners, 69.0% (399) learners scored above average (6 -12) while only 31.0% (179) scored below average (5-0) with 5.2% (30) of these recording nil.

In the vowels recognition assessment, of the sampled 578 learners, 62.4% (361) learners scored above average (4-5) with 8.8% (51) scoring an average (3) while only 28.8% (166) scored below average (2-0) with 16.3% (94) of these recording nil. The nil recording here sets a tone at the difficulty of these learners in mastering the basics of phonetic skills. It is a substantial figure to warrant concern by educators for this group of learners will lag behind in their acquisition of communication proficiency in later schooling.

In the word recognition assessment, of the 578 sampled learners, 60.2% (348) learners scored above average (4-3) while 39.8% (230) scored below average (2-0) with 22.5% (130) of these recording nil.

Summation

Table 6.1: Summary - Frequency and Magnitude Grade 1

	Above Average (50% +)	Average	Below Average	
			Total	Nil
Alphabet Letter Recognition	69.0% (399)	-	31.0% (179)	5.2% (30)
Vowels Recognition	62.4% (361)	8.8% (51)	28.8% (166)	16.3% (94)
Word Recognition	60.2% (348)	-	39.8% (230)	22.5% (130)

As the assessment progressed into a complex operation of words, which require phonetic skills to decode them, the number of nil recordings increased indicating the downward trend that will be experienced in communication proficiency as complex operations develop. The assessment was conducted at the mid and close of the third term implying that at this time, the grade 1 learners should have all acquired the skill of reading (decoding) simple words. These 22.5% grade 1 learners thus progressed into grade 2 without the ability to read a single word (i.e. communication lapse).

6.1.2 Discussion of Findings for the sampled 560 Grade 2 Learners

The areas of enquiry for this sample were (a) alphabet letters recognition, (b) vowels recognition, and (c) comprehension. Here not only are the components of reading skills assessed as for the grade 1, the word assessment is in a complex context of a reading passage were the learner has not only to decode the meaning of printed individual words but also make association in a sentence and ultimately comprehend the story formed from these words.

In the alphabet letters recognition assessment, of the 560 sampled learners, 79.4% (445) learners scored above average (7 -12) while only 20.4% (115) scored below average (6-0) with 6.6% (37) of these recording nil. It is anticipated that at this stage of schooling, majority of grade 2 learners have mastered their alphabet.

In the vowels recognition assessment, of the sampled 560 learners, 62.2% (348) learners scored above average (4-5) with 7.3% (41) scoring an average (3) while 30.6% (171) scored below average (2-0) with 23.6% (132) of these recording nil. Again the expectation at this level is for the learner to have mastered the vowels for word building/reading and hence a higher recording score.

In the comprehension assessment, of the sampled 560 learners, only 32.9% (184) learners scored above average (2-3) while 67.1% (376) scored below average (1-0) with 55.0% (308) recording a nil in the standard scoring[4] of which 17.9% (100) were imitation scores.

Summation

Table 6.2: Summary – Frequency and Magnitude Grade 2

	Above Average (50% +)	Average	Below Average	
			Total	Nil
Alphabet Letter Recognition	79.4% (445)	-	20.4% (115)	6.6% (37)
Vowels Recognition	62.2% (348)	7.3% (41)	30.6% (171)	23.6% (132)
Comprehension	32.9% (184)	-	67.1% (376)	55.0% (308)
(Imitation score)				*17.9% (100)*

[4] A ***standard scoring*** refers to an outright score by the learner as contrasted to re-writing (copying) a sentence word for word from the read passage which in this study is being referred to as an ***imitation score***. Imitation scores are classified in the nil categories as no comprehension skills are displayed in them other than repeating what is already given. It lacks the intelligence of acquired knowledge being applied by a learner.

The pattern displayed by the sampled grade 2 learners is similar to their grade 1 counterparts. The first two assessments simply enquires into the grade 2's knowledge on the key components required for reading and at this stage of their schooling, the majority have mastered them well. However with the complex operation of decoding words into sentences and eventually into a story to be read, comprehended and responded to in writing, the score drops drastically with even 55.0% recording nil. The 17.9% imitation score included in this category does not at all show any comprehension knowledge and can be attributed to an extraneous variable of learners in over-crowded classrooms copying from each others' writing.

6.1.3 Discussion of Findings for the sampled 619 Grade 7 Learners

The enquiries for this sample were (a) recognition of consonants, (b) word spelling i.e. identifying the missing sounds in a word, and (c) comprehension. These three operations are complex and demanded a proficiency in reading skills.

In the consonant recognition assessment, of the 619 sampled learners, 44.4% (274) learners scored above average (12-21), 1.8% (11) had an average score (11) and 53.9% (334) scored below average (10-0) with 28.9% (179) of these recording nil. The scoring indicates a limited knowledge of the learners on the alphabet's two basic entities (vowels vs. consonants). It is a crucial omission of a very basic phonetic knowledge at this level in their schooling. This limitation has an effect on the later complex operation as can be noted in the subsequent assessment results.

In the word spelling assessment, of the 619 sampled learners, 25.0% (155) learners scored above average (2-3), 13.9% (86) had an average score (3) and 61.1% (378) scored below average (2-0) with 35.7% (221) of these recording nil. Here it begins to become clear that the learners do lack the communication proficiency expected of them at this level. The score of nil recordings (221) is even much higher than the score for others below average (157). Here a critical failure in word writing affects 61.1% of learners and will impede their comprehension skill and subsequent communication proficiency.

In the comprehension assessment, of the sampled 619 learners, only 14.7% (91) learners scored above average (2-3) while 85.31% (528) scored below average (1-0) with 62.0% (384) recording a nil in the standard scoring of which 30.5% (189) were imitation scores. There is a

staggering low performance in a simple comprehension the sampled learners were assessed on. This indicates a high failure in communication at the primary exit level of grade 7.

Summation

Table 6.3: Summary - Frequency and Magnitude Grade 7

	Above Average (50% +)	Average	Below Average	
			Total	Nil
Consonant Recognition	44.4% (274)	1.8% (11)	53.9% (334)	28.9% (179)
Word Spelling	25.0% (155)	13.9% (86)	61.1% (378)	35.7% (221)
Comprehension	14.7% (91)	-	85.3% (528)	62.0% (384)
(Imitation score)				*30.5% (189)*

The trend in the scoring for the sampled learners represents a downward spiral. From the basic phonetic component of consonant recognition to the complex comprehension operation, a larger proportion of the sampled learners failed to display competence in communication proficiency. The below average skills in communication are carried over to secondary level with resultant further communication lapses.

6.1.4 Discussion of Findings for the sampled 177 Grade 12 Learners

The enquiries for this sample were (a) syllable recognition, (b) the usage of vowels, and (c) an assessment in communication fluency. The sampled learners were thus being assessed for their phonetic skills ability as well as the fluency they have acquired at the end of a 12 year schooling period.

In the syllable recognition assessment, of the 177 sampled learners, only 0.6% (1) learner scored above average (4-6), while 99.5% (176) scored below average (3-0) with 31.1% (55) of these recording nil. This glaring low performance indicates that the sampled learners had missed out on a basic phonetic operation tool in their 12 year schooling. Since these assessments were conducted prior to the school leaving examinations, these sampled learner exit school with little knowledge on phonetic skills.

In the usage of vowels assessment, of the 177 sampled learners, 36.7% (65) learners scored above average (3-4), while 63.3% (112) scored below average (2-0) with 13.6% (24) of these

recording nil. Again the low scoring on a basic phonetic skill at this grade 12 exit level predicts the problematic reading among these sampled learners preparing for tertiary entry.

In the communication proficiency assessment, of the 177 sampled learners, only 14.1% (25) scored above average (6-9). None recorded a total score of 10 in this assessment. For the other sampled learners, 85.9% (152) scored below average (5-0) with 7.3% (13) of these recording nil. This assessment involved a learner striking out words that distorts the fluency of a given passage. The scoring indicates that the majority of the sampled learners had difficulty in recognizing the fluency of the story in the passage and this low performance would be more indicative in a composition assessment.

Summation

Table 6.4: Summary - Frequency and Magnitude Grade 12

	Above Average (50% +)	Average	Below Average	
			Total	Nil
Syllables Recognition	0.6% (1)	-	99.5% (176)	31.1% (55)
Usage of Vowels	36.7% (65)	-	63.3% (112)	13.6% (24)
Communication Proficiency	14.1% (25)	-	85.9% (152)	7.3% (13)

Even after a 12 year schooling period, the results for the sampled learners indicate a very low performance in their articulation of language as a communication tool. This generally low performance will affect their tertiary acquisition of complex skills. For the learners who recorded nil, their chances for tertiary education are low and would be categorised in the unskilled youths alluded to in the introduction of this study.

6.1.5 Consideration of Variables

The locations of the sampled learners were proportionately distributed and could not have an adverse bearing on the assessment results. Except for the grade 12 learners, the sex variable was equally proportionately distributed among the sampled learners. The disproportionate distribution for the grade 12 sampled learners (23.2% girls and 76.8% boys) was occasioned by the fact that Arakan secondary school is a boys' school while Kenneth Kaunda secondary school was initially a boys schools but currently admits a limited number of girls. The other two selected secondary schools, Lusaka and Chinsali, are co-educational. This disproportionate distribution in fact calls for more concern when the concept of boys being

higher performers than the girl child is factored in. If a presumption is made that a proportionate number of girls and boys was sampled, then the results would have indicated a further low performance than obtaining. For the age variable, it indicates the expected average for all the four sampled grades and would not have an adverse bearing on the assessment results.

Two extraneous variables could have had a bearing on the assessment. The proximity of learners in over-crowed classes resulted in some learners copying the work from each other and thus not reflecting their personal knowledge on the assessed work. Another extraneous variable was the competence of assistant researchers who could not give proper instructions especially to the grade 1 and 2 learners who could hardly read. The failure of understanding instructions has a serious distortion of the work produced by the learner. In both incidents, this researcher laboured to minimise these extraneous variable by seriously monitoring the process.

6.2 DISCUSSION OF FINDINGS ON PHONETIC AWARENESS AS A FOUNDATION IN WRITTEN COMMUNICATION PROFICIENCY AMONG SAMPLED CURRICULUM DEVELOPERS, TEACHERS AND LEARNERS IN SELECTED SCHOOLS

The research questions the study enquired in this area and set out to respond to were: (a) To what extent is the teacher as a message source aware of the imperativeness of reading skills for communication proficiency, and (b) to what extent is the pupil as a target audience aware of the imperativeness of reading skills for communication proficiency?

6.2.1 Discussion of Findings ofPhonetic Awareness Level of the sampled 3 Curriculum Developers

For the three sampled curriculum developers, their awareness level of the imperativeness of phonetic skills to reading and writing is high (Table 5.22). The apportioning of content with significant phonetic materials illustrates their understanding that these form the basis of later communication proficiency for the learner. The curriculum developers are also aware that language cannot be taught without a drilling in phonetic skills. They thus design the literacy content with a heavy leaning on phonetic skills. Equally, the curriculum developers recognise that without a drilling in phonetic skills, the learner encounters difficulties in their

communication proficiency such as low reading levels and poor word pronunciations. In summary, there is adequate knowledge among the developers on the imperativeness of phonetic skills in communication proficiency.

6.2.2 Discussion of Findings ofPhonetic Awareness Level of the sampled 30 Grades 1 and 2 Teachers

For this sample, enquiry focused on the following areas (a) the differentiation of letter names and sounds, (b) pronunciation of sounds, (c) use of syllables, (d) understanding of phonetics (e) possibility of teaching a language without phonetic drilling, (f) learning difficulties without phonetic drilling, and (g) awareness of the phonological difference in languages.

Differentiation of Letter Names and Sounds - of the 30 sampled teachers, 10.0% (3) scored above average (4-5), 10.0% (3) had an average score (3) and 79.9% (22) scored below average (2-0) with 73.3% (22) of these recording nil. There is clear indication that the educators themselves do not make the distinction to the learners between the name of a letter and its sound. This thus sets the premises of the difficulties the learners will encounter in developing phonetic skills which would enable them read and write proficiently. The confusion arises in the learner when attempting to decode (reading) a word using letter names. This is more so for learners in grade 1 who passed through a pre-school where the reciting of the alphabet (letter names) in song was a strong point. The learners fail to make a switch to sounds when the distinction is not pointed out to them.

Sound Pronunciation - of the 30 sampled teachers, 70.0% (21) scored above average (4-5), 6.7% (2) had an average score (3) and 23.4% (7) scored below average (2-0) with 10.0% (3) of these recording nil. It is evident here that the teacher presumes the learners are already aware of the distinction between letter names and sounds and straight away begin to emphasize the sounds judging by the high score in sound pronunciation. For the teachers scoring below average, this figure calls for concern since learners under them are not being drilled in phonetic skills and hence will not have the skills to enable them develop communication proficiency.

Use of Syllables -of the 30 sampled teachers, 56.7% (17) scored above average (4-5), 16.7 % (5) had an average score (3) and 26.7% (8) scored below average (2-0) with 13.3% (4) of these recording nil. Most teachers used syllables as they presented the words to the learners. This is

an effective technique termed ‘word attack’ in which the learner recognises the phonetic entities forming a word. There is still concern for the teachers who scored below average as their learners will tend to attempt reading words in ‘block’ form (as a whole) which proves difficult to decode and hence failure in reading.

Understanding of Phonetics - of the 30 sampled teachers, 60.0% (18) scored above average (4-5), 16.7 % (5) had an average score (3) and 23.3% (7) scored below average (2-1) with none recording nil. There is good understanding among teachers of the meaning of phonetics. They comprehend well what phonetics enable in a learner in relation to language skills. There is still need to reinforce the phonetic concept in those who scored below average if they are to effectively transmit this skill to their learners.

Possibility of Teaching a Language without Drilling in Phonetics -of the 30 sampled teachers, 80.0% (24) scored above average (4-5) while 20.0% (6) scored below average (2-1) with none recording nil. Though some teachers are not clear in their understanding of phonetics, nearly all the sampled teachers are certain of the imperativeness of phonetics as a language skill. This is a good indication and only requires a further training of the teachers in the operations of phonetics which they will then transmit to the learners.

Learning Difficulties without Phonetic Drilling -of the 30 sampled teachers, 86.7% (26) scored above average (4-5), 3.3% (1) had an average score (3) and 10.0% (3) scored below average (2) with none recording nil. And again here, nearly all the teachers are aware of the difficulties that learners encounter when they lack phonetic skills. The sampled teacher enumerated such difficulties which included poor pronunciation and word spelling and outright failure to decode (read) words.

Awareness of the Phonological Difference in Languages -of the 30 sampled teachers, 99.6% (29) scored above average (4-5), while 3.3 % (1) scored below average (1) with none recording nil. Since all the teachers are vernacular speakers, they have had experience with two languages and observed the phonetic and syntax difference in them. This is very useful for grade 2 teachers who bridge the learners from the vernacular to English.

Summation

Table 6.5: Phonetic Awareness Level of Grade 1 & 2 Teachers

	Above Average (50% +)	Average	Below Average	
			Total	Nil
Differentiation of Letter Names & Sounds	10.0% (3)	10% (3)	79.9% (24)	73.3% (22)
Sound Pronunciation	70.0% (21)	6.7% (2)	23.4% (7)	10.0% (3)
Use of Syllables	56.7% (17)	16.7% (5)	26.7% (8)	13.3% (4)
Understanding of Phonetics	60.0% (18)	16.7% (5)	23.3% (7)	-
Language Teaching without Phonetics	80.0% (24)	-	20.0% (6)	-
Language Learning Difficulties without Phonetics	86.7% (26)	3.3% (1)	10.0% (3)	-
Language Phonological Difference Awareness	99.6% (29)	-	3.3% (1)	-

The sampled teachers are knowledgeable on the imperativeness of phonetic skills in enabling a learner to communicate proficiently. The lacking is displayed in most of the sampled teachers' knowledge on the articulation of phonetic skills themselves. There seem to have been a lacking during their teacher training on this aspect and thus they tend to improvise or learn from others on the articulation of phonetic skills. This experimental teaching does have an adverse effect on the learners when the teacher is not conversant in the skill they are trying to impart. Learners usually get mixed messages and in the process become confused and fail to acquire phonetic skills that would enable them communicate proficiently.

6.2.3 Consideration of Variables of the Sampled Class Teachers

There was a bias in the distribution of the sex variable (females – 90.0% (27), males – 10.0% (3): Table 5.23) among the 30 sampled teachers. This however, considering the factor of equal educational training for both female and male teachers cannot be considered has having a bearing on the results. On teacher qualification, with the exception of one teacher (degree in counselling), the other sampled teachers are adequately qualified to handle grade 1 and 2 classes (Table 5.24). This therefore would not affect the results of the assessment. An extraneous variable that can be considered is the subjective judgement of the enthusiasm of individual teachers in handling their grade. Low performing grades tended to have less enthusiastic teachers which affected the learning of a language.

6.2.4 Discussion of Findings of Phonetic Awareness Level of 1,934 Sampled Learners

For this sample, enquiry focused on the following areas: for the 578 sampled grade 1 and 560 sampled grade 2 learners, assessment was in the recognition of vowels; for the sampled 619 grade 7 learners, assessment were in (a) recognition of the 21 alphabet consonants, and (b) word spelling (vowels identification); and for the 177 sampled grade 12 learners, assessments were in (a) recognition of syllables, and (b) usage of vowels.

(a) 578 Sampled Gr.1 Learners

Vowels Recognition - of the sampled 578 learners, 62.4% (361) learners scored above average (4-5) with 8.8% (51) scoring an average (3) while only 28.8% (166) scored below average (2-0) with 16.3% (94) of these recording nil. The results indicate that the majority of learners have begun to master phonetic skills. This is an awareness that would be built on in their continued learning.

(b) 560 Sampled Gr. 2 Learners

Vowels Recognition – of the sampled 560 learners, 62.2% (348) learners scored above average (4-5) with 7.3% (41) scoring an average (3) while 30.6% (171) scored below average (2-0) with 23.6% (132) of these recording nil. At this grade 2 level, the score was expected to be much higher than recorded since the learners have had a two year of language learning with an imperativeness of phonetic skills. The below average score and more especially the nil recording indicates a low awareness level if any among this group of learners. This will have an effect on their further language communication development.

(c) 619 Sampled Gr. 7 Learners

Recognition of the 21 Alphabet Consonants – of the 619 sampled learners, 44.4% (274) learners scored above average (12-21), 1.8% (11) had an average score (11) and 53.9% (334) scored below average (10-0) with 28.9% (179) of these recording nil. It is evident that the sampled learners have a limited phonetic awareness level which has compounded their difficulty in language fluency as can be judged from other assessment components.

Word Spelling (Vowels Identification) – of the 619 sampled learners, 25.0% (155) learners scored above average (2-3), 13.9% (86) had an average score (3) and 61.1% (378) scored below average (2-0) with 35.7% (221) of these recording nil. Again it is evident that the phonetic awareness level for this sampled learners is low judging by the below average score especially

the nil recordings. At this exit level into secondary schooling, this low awareness level will create an impediment for the majority of these learners in communication proficiency.

(d) 177 Sampled Gr. 12 Learners

Recognition of Syllables – of the 177 sampled learners, only 0.6% (1) learner scored above average (4-6), while 99.5% (176) scored below average (3-0) with 31.1% (55) of these recording nil. The awareness level for these sampled learners was very low and has had unfavourable effect on their communication proficiency as can be judged from other assessments.

Usage of Vowels - of the 177 sampled learners, 36.7% (65) learners scored above average (3-4), while 63.3% (112) scored below average (2-0) with 13.6% (24) of these recording nil. The indication here again is of a low phonetic awareness at this exit level.

Summation

Table 6.6: Phonetic Awareness Level of 1,934 Sampled Learners

		Above Average (50+)	Average	Below Average	
				Total	Nil
Grade 1	Vowels Recognition	62.4% (361)	8.8% (51)	28.8% (166)	16.3% (94)
Grade 2	Vowels Recognition	62.2% (348)	7.3% (41)	30.6% (171)	23.6% (132)
Grade 7	(a) Recognition of the 21 Alphabet Consonants	44.4% (274)	1.8% (11)	53.9% (334)	28.9% (179)
	(b) Word Spelling (Vowels Identification)	25.0% (155)	13.9% (86)	61.1% (378)	35.7% (221)
Grade 12	(a) Recognition of Syllables	0.6% (1)	-	99.5% (176)	31.1% (55)
	(b) Usage of Vowels	36.7% (65)	-	63.3% (112)	13.6% (24)

There is a progressive low phonetic awareness level among the sampled learners from one grade to the next. This dwindling phonetic awareness as the learners advance into complex language operations equally curtails their proficiency in language communication. The imperativeness in phonetic skills to enable proficient communication (reading and writing) thus becomes evident and a call for concern among educators. For variable bearing on these results, refer to the discussion provide above under consideration of frequency and magnitude (6.1.5 Consideration of Variables).

6.3 DISCUSSION OF FINDINGS ON ATTRIBUTION OF PHONETICS AS READING SKILLS ENABLING A LEARNER TO COMMUNICATE PROFICIENTLY IN THE SAMPLED 490 LEARNERS IN SELECTED SCHOOLS

The research question the study enquired in this area and set out to respond to was: To what extent do phonetic skills enable the learner communicate effectively through reading and writing? The results of the 150 learners each for grade 1, 2 and 7 and 40 grade 12 learners are discussed here.

6.3.1 Discussion of Findings for the Sampled 150 Grade 1 Learners

For this sample, the assessment focused on these areas (a) word recognition (matching), (b) phonetic (sound) identification, (c) syllable naming, (d) word reading and (e) oral communication.

Word Recognition (Matching)– of the 150 sampled learners, 54.0% (81) learners scored above average (3-4) while 46.0% (69) scored below average (2-0) with 29.3% (44) of these recording nil. Due to the subsequent low results, this score above average can be attributed to the phenomenon of sight words i.e. words are memorized as pictures are which do not need any articulation of separate entities to comprehend the whole picture. Therefore, learners would have memorized these sight words and were able to present correct matching with pictures. The subsequent results indicate that their reading skills are very low and the 54.0% attained in this assessment gives a distortion of the given reality of their abilities. The nil recording is of concern as this indicates a good proportion of learners progressing to grade 2 without the skill of reading a single word.

Phonetic (Sound) Identification - of the 150 sampled learners, 18.0% (27) learners scored above average (68-100) while 82.4% (123) scored below average (47-0) with 24.7% (37) of these recording nil. This low scoring in phonetic recognition indicates a lack of adequate skills for later reading and writing of words. When a comparison is made between the read sounds (figure 5.29) and the correct scoring (figure 5.30), a sharp decline is noted. The majority of the sampled learners could not correctly identify the sounds of the presented letters. Here observation will be made later of the compelling evidence of the imperativeness of phonetic skills in enabling a learner to read and write.

Syllable Naming -of the 150 sampled learners, 21.0%% (31) learners scored above average (54-100), 0.7% (1) had an average score (50) and 78.9 % (118) scored below average (49-0) with

36.7% (55) of these recording nil. Because the majority of the sampled learners had problematic recognition of phonetics, this translated in their failure to read *correctly* the syllables presented before them. And again comparing the two graphs for syllables read (figure 5.31) and syllables score (figure 5.32) the indication is that, even with a fair attempt to read as many presented syllables, the overall correct scores where low.

Word Reading - of the 150 sampled learners, only 2.0% (3) learners scored above average (100), 7.3% (11) had an average score (50), 90.7% (136) scored below average (49-0) with 36.0% (54) of these recording nil. The culmination of failure in sounds recognition and syllabic naming becomes very apparent in the staggering below average score. Only 3 learners of the 150 managed to read all 100 words presented before them. A comparison of the two graphs of words read (figure 5:33) and word score (figure 5:34) indicates the attempt made at reading the presented words and the failure to read them correctly which can be attributed to the sampled learner's in ability to master the phonetic skills that should have enabled them to read the words correctly.

Oral Communication -of the 150 sampled learners, 82.7% (124) learners scored above average (4-5), 12.0% (18) had an average score (3) and 5.3% (8) scored below average (2-1) with none recording nil. The oral assessment was conducted in a familiar language of the sampled learners (Nyanja, Bemba or English). It is very evident from these results that learners were able to articulation verbal communication effectively. Oral communication does not indeed require mastering of phonetic skills as it is learnt through mimicking of the speakers in contact with the child from birth. This oral communication assessment stands as a control to highlight the imperativeness of phonetics in reading and writing of words as contrasted with their verbal presentation.

Summation

Table 6.7: Phonetic Attribution – 150 Sampled Grade 1 Learners

	Above Average (50% +)	Average	Below Average	
			Total	Nil
Word Recognition (Matching)	54.0% (81)	-	46.0% (69)	29.3% (44)
Phonetic (Sound) Identification	18% (27)	-	82.4% (123)	24.7% (37)
Syllable Naming	21.0% (31)	0.7% (1)	78.9% (118)	36.7% (55)
Word Reading	2.0% (3)	7.3% (11)	90.7% (136)	36.0% (54)
Oral Communication	82.7% (124)	12.0% (18)	5.3% (8)	-

The assessment results indicate a low progression of the sampled learners from the simple to complex operations of word reading when the skill imperative for reading is lacking. Their failure to master phonetic skills resulted in a very low word reading score. This calls for concern as these learners will thus progress into grade 2 with these very low reading levels.

Consideration of Variables

The sex distribution for the sampled learners was quite even with girls being 54.0% (81) and boys being 46.0% (69) of the sample. This variable therefore could not have adverse bearing on the assessment results. The location of the sampled learners was proportionate as designed for the study (Lusaka -50, Chinsali 100) and could equally not have an adverse bearing. Age distribution was consistent with the grade with the majority averaging between 6-9 years old (figure 5:27). Two extraneous variables could be considered as having a bearing on the assessment results. The first being the assistant researchers engaged in conducting the assessments. These could not have maintained at times a strict observance of the assessment guidelines such as time limits. The second extraneous variable was the time itself allocated for completion of tasks in the assessment. Slow learners could not complete the tasks in the allocated time and even with extra added time. This does not imply they are not able to give correct responses but time lapse disadvantage them in relation to their pace of working.

6.3.2 Discussion of Findings for the Sampled 150 Grade 2Learners

For this sample, the assessment focused on these areas (a) comprehension, (b) Nyanja/Bemba phonetic (sound) identification, (c) syllable naming, (d) Nyanja/Bemba word reading, (e) English phonetic (sound) identification, (f) non-word reading, (g) English word reading, and (h) oral communication.

Comprehension - of the 150 sampled learners, 30.0% (45) learners scored above average (2-3) while 70.0% (105) scored below average (1-0) with 57.3% (86) of these recording nil. This initial assessment acted as a baseline to indicate the current level of reading and writing among the sampled learners. It is evident from the nil recording that the sampled learners could hardly read a word. Even the imitation score was quite low (14% -21) indicating that the majority of the sampled learners were at an absolute loss with the words before them. Inference can thus be drawn that they lacked the necessary reading and writing skills that would have enabled them to communicate effectively i.e. respond to the comprehension assessment positively.

Nyanja/Bemba Phonetic (Sound) Identification - of the 150 sampled learners, 19.5% (29) learners scored above average (52-100), 1.3% (2) had an average score (50), 79.0% (119) scored below average (49-0) with 32.0% (48) of these recording nil. From this assessment of a basic unit, it can be noted that the majority of the sampled learners scored low. Though the reading of the presented sounds was slightly higher (figure 5.40), the sounds they correctly said was low (figure 5.41). This lack of a basic phonetic skill calls for concern as these sampled learners were at the end of their second year in schooling and proceeding to the third grade with little or no phonetic skills that would enable them read and write effectively.

Syllable Naming -of the 150 sampled learners, 36.3% (54) learners scored above average (53-100), 0.7% (1) had an average score (50), 63.8% (95) scored below average (48-0) with 25.3% (38) of these recording nil. With an operation a step higher from the single sounds, the sampled learners continued showing the low scoring levels. As in the sound identification, the syllables read showed a slight higher reading (figure 5.42) but the actual scoring dropped (figure 5.43). The failure in syllabic mastering entails a subsequent failure in word reading and writing as indicated in the results below.

Nyanja/Bemba Word Reading -of the 150 sampled learners, 2.7% (4) learners scored above average (75-100), 15.3% (23) had an average score (50), 82.1% (123) scored below average (49-0) with 39.3% (59) of these recording nil. This very low scoring reflects the fact stated above that the sampled learners had not mastered the basic phonetic skills (sounds and syllables) and hence their inability to read. This reading was offered in their familiar language. Even the attempt to read the presented words was a challenge (figure 5.44) and does not show a significant difference with the correct scores recorded (figure 5.45).

English Phonetic (Sound) Identification -of the 150 sampled learners, 21.6% (32) learners scored above average (52-100), 1.3% (2) had an average score (50), 77.7% (116) scored below average (49-0) with 26.7% (40) of these recording nil. At this grade 2 level, the learners should have begun to distinguish the phonological difference between the vernacular and the English language. However there was still low scoring recorded. The reading attempt was slightly higher (figure 5.46) than the scoring (figure 5.47). This low scoring in English phonetic identification by the sampled learner adversely affects their ability to read English words as noted below.

Non-Word Reading -of the 150 sampled learners, 32.0% (48) learners scored above average (26-50), 0.7% (1) had an average score (25), 64.4% (101) scored below average (20-0) with 42.0% (63) of these recording nil. The purpose of this assessment was to determine the learner's ability to purely use phonetic skills to read the non-word thus avoiding the phenomena of sight-word memorization of familiar words. It tests the learner's ability to read any new word. As can be noted, the majority of the sampled learners had difficulty reading these non-word implying that they would equally have difficulty in reading ordinary new words in English as can be noted in the results below. The attempted read words (figure 5.48) and the correct score (figure 5.49) had a very minimal difference.

English Word Reading -of the 150 sampled learners, 0.7% (1) learners scored above average (100), 5.3% (8) had an average score (50), 94.1% (141) scored below average (48-0) with 38.7% (58) of these recording nil. Only 1 learner was able to read all the 100 words. The very low recording here reflects the above non-mastering of phonetic skills necessary for reading and writing.

Oral Communication -of the 150 sampled learners, 36.0% (54) learners scored above average (4-5), 12.7% (19) had an average score (3), 51.3% (77) scored below average (2-0) with 29.3% (44) of these recording nil. This oral communication (comprehension) was done both in the vernacular and in English according to the familiar language the learner opted for. Though the comprehension was in oral and in a familiar language, the score across the sampled learners indicates an average scoring. This indication cannot be attributed to a lack of phonetic skills but other learning difficulties such as a learner's cognitive capacity.

Summation

Table 6.8: Phonetic Attribution – 150 Sampled Grade 2 Learners

	Above Average (50% +)	Average	Below Average	
			Total	Nil
Comprehension	30.0% (45)	-	70.0% (105)	57.3% (86)
Nyanja/Bemba Phonetic (Sound) Identification	19.5% (29)	1.3% (2)	79.0% (119)	32.0% (48)
Syllable Naming	36.3% (54)	0.7% (1)	63.8% (95)	25.3% (38)
Nyanja/Bemba Word Reading	2.7% (4)	15.3% (23)	82.1% (123)	39.3% (59)
English Phonetic (Sound) Identification	21.6% (32)	1.3% (2)	77.7% (116)	26.7% (40)

Non-Word Reading	32.0% (48)	0.7% (1)	67.4% (101)	42% (63)
English Word Reading	0.7% (1)	5.3% (8)	94.1% (141)	38.7% (58)
Oral Communication	36.0% (54)	12.7% (19)	51.3% (77)	29.3% (44)

The majority of the sampled learners had scored below average in the assessments. The phonetic skills imperative for communication proficiency had not been mastered from their first grade through the second grade. Their inability to read words both in the vernacular and English is carried on over to the third grade and this trend is likely to continue through their schooling period.

Consideration of Variables

As noted for the grade 1, for the grade 2 as well, the sex, location and age variables (Tables 5.45 – 5.47 and Figure 5.37) are proportionately distributed and could not have adverse bearing on the assessment results. The extraneous variables of assistant researchers and time factor which were considered as having an effect on the grade 1 assessments would be considered as well for the sampled grade 2 learners.

6.3.3 Discussion of Findings for the Sampled 150 Grade 7 Learners

For this sample, the assessment focused on these areas(a) consonants identification, (b) vowels identification (word spelling), (c) written comprehension, and (d) oral comprehension. The discussion of the findings here are done very briefly since this sample was included to verify the impediment that arises if phonetic skills are not well mastered at foundational level.

Consonants Identification -of the 150 sampled learners, 38.7% (58) learners scored above average (12-21), 2.0% (3) had an average score (11), 59.4% (89) scored below average (10-0) with 25.3% (38) of these recording nil.

Vowels Identification (Word Spelling) -of the 150 sampled learners, 23.4% (35) learners scored above average (4-5), 12.7% (19) had an average score (3), 64.0% (96) scored below average (2-0) with 42.0% (63) of these recording nil.

There was low scoring in these two basic assessments of phonetic skills by the sampled learners. After a 7 year schooling period, the mastering of these skills has been problematic and this is reflected in the reading ability indicated below.

Written Comprehension -of the 150 sampled learners, 12.7% (19) learners scored above average (2-3), while 87.3% (131) scored below average (1-0) with 65.3% (98) of these recording nil. The nil recording of 65.3% clearly indicates the lack of reading and writing skills for these sampled learners. They are thus unable to communicate effectively even as they progress to secondary level.

Oral Comprehension -of the 150 sampled learners, 39.3% (59) learners scored above average (4-5), 16.7% (25) had an average score (3), 44.0% (66) scored below average (2-0) with 26.0% (39) of these recording nil. The oral assessment was done in English resulting in an average performance for the sampled learners. The reading of the passage was problematic for most learners and therefore its comprehension was not adequate. These low comprehension levels are carried over into secondary schooling perpetuating the problem of inadequate communication proficiency.

Summation

Table 6.9: Phonetic Attribution – 150 Sampled Grade 7 Learners

	Above Average (50% +)	Average	Below Average	
			Total	Nil
Consonants Identification	38.7% (58)	2.0% (3)	59.4% (89)	25.3% (38)
Vowels Identification (Word Spelling)	23.4% (35)	12.7% (19)	64.0% (96)	42.0% (63)
Written Comprehension	12.7% (19)	-	87.3% (131)	65.3% (98)
Oral Comprehension	39.3% (59)	16.7% (25)	44.0% (66)	26.0% (39)

Consideration of Variables

The sex, location and age variables (Tables 5.64 – 5.66 and Figure 5.54) are proportionate as for the grade 1 and 2 learners. The extraneous variable of assistant researchers and time factors could be considered has having a bearing on the assessment results.

6.3.4 Discussion of Findings for the Sampled 40 Grade 12 Learners

For this sample, the assessment focused on these areas (a) syllable identification, (b) vowels identification, (c) communication proficiency, and (d) oral comprehension. Equally here, the description of the findings are very brief since this is asample that was included to verify the impediment that arises if phonetic skills are not well mastered at foundational level.

Syllable Identification -of the 40 sampled learners, 32.5% (13) learners scored above average (2-3), while 67.5% (27) scored below average (1-0) with 40.0% (16) of these recording nil.

Vowels Identification -of the 40 sampled learners, 40.0% (16) learners scored above average (3-4), 22.5% (9) had an average score (2), 37.5% (15) scored below average (1-0) with 7.5% (3) of these recording nil.Even at the final exit level of schooling, the score in the basic phonetic skills is average after a 12 year period. The unfavourable effect is reflected in the low reading levels that are recorded below among these sampled learners.

Communication Proficiency -of the 40 sampled learners, 52.5% (21) learners scored above average (4-6), 15.0% (6) had an average score (3), 32.5% (13) scored below average (2-0) with 5.0% (2) of these recording nil. In this assessment, the fluency of a read passage was being assessed. This average performance indicates the level of communication proficiency that these school leavers will pursue their future careers with. The lack of basic reading skills at foundational level has resulted in a low communication proficiency at the final exit level of schooling.

Oral Comprehension -of the 40 sampled learners, 17.5% (7) learners scored above average (4-5), 27.5% (11) had an average score (3), 55.0% (22) scored below average (2-0) with 5.0% (2) of these recording nil. This oral assessment was conducted in English. It can be noted that there is a low performance among the sampled learners. Not only do they have problematic reading skills, their comprehension of the communicated (read) passage is problematic as well. A combination of low reading and comprehension levels at the final exit level of schooling disadvantages these school leavers in the training of complex career skills.

Summation

Table 6.10: Phonetic Attribution – 40 Sampled Grade 12 Learners

	Above Average (50% +)	Average	Below Average	
			Total	Nil
Syllable Identification	32.5% (13)	-	67.5% (27)	40.0% (16)
Vowels Identification	40.0% (16)	22.5% (9)	37.5% (15)	7.5% (3)
Communication Proficiency	52.5% (21)	15.0% (6)	32.5% (13)	5.0% (2)
Oral Comprehension	17.5% (7)	27.5% (11)	55.0% (22)	5.0% (2)

Variables Consideration

The sex, location and age variables (Tables 5.73 – 5.75 and Figure 5.61) are proportionate as for the grade 1, 2 and 7 learners. The extraneous variable of assistant researchers and time factors could be considered has having a bearing on the assessment results.

6.4 DISCUSSION OF FINDINGS ON POSSIBLE FACTORS IMPEDING THE COMMUNICATION OF PHONETIC SKILLS FROM TEACHER TO LEARNERS IN GRADES 1 AND 2 IN SELECTED PRIMARY SCHOOLS

The research questions the study enquired in this area and set out to respond to were: (a) what is the nature of *messages* used in teaching and learning of reading and writing as a basis of communication proficiency? (b) Does a *channel failure* occur in the existing approaches, methodologies and techniques among curricula developers and class teachers which cause an insufficient acquisition of reading skills and thus occasioning communication lapses in the learners as target *audience*? (c) Do the existing literacy programmes recognise and give adequate learning (50% of total learning) to the *communication* (learning) of phonetics as the basis of reading skill at grade 1 and 2?

6.4.1 Discussion of Findings of Message Design as a Possible Impediment in the Communication of Phonetic Skills

The enquiry here focused on how the education providers (i.e. curriculum developers and class teachers) design their content message regarding phonetic skills which is then transmitted to the learners.

(a) Message Design by Curriculum Developers

On the pre-condition of prescribing phonetics for learners (Table 5.81), the three sampled curriculum developers are in agreement on the consideration of the spoken language of the learner. By this they mean, the learner associates the sounds presented to her easily if they resonate with what she already speaks. For this reason therefore, the specialists develop specific content for each particular language i.e. Nyanja, Bemba and English. On the sequencing of the phonetic message, the three specialist outline a build up process from the basic phonetic entity to the complex operation of a language i.e. sounds – syllable – words – phrases – sentences – paragraphs - passages. This message sequencing when appropriately used in the communication of phonetic skills to learners has the clarity that would enable the learners acquire the desired communication proficiency.

On the phonological differences between the vernacular and English, the three sampled specialists stated that, in the message design, this is incorporated at the grade 2 level when the learners are introduced to the English language. The message on the phonological difference between the vernacular and English is crucial in the design which if omitted will create confusion in the learners and retard communication skills development. On the distinction of the phonological difference in the languages, the three sampled specialists stated that the message design outline several examples that class teachers can use to point out these distinctions. For example, the sound /o/ which in English can be used as /æ/ in 'out' is used as /o/ in 'onse' in Bemba. This distinction is critical to the learner in order to make the mental shift in language differences and thus avoid a communication lapse. On the effectiveness of the phonetic design for the grade 1 and 2 learners, the specialists affirmed the enabling factor it could have in the learner in communication proficiency but it remains with the class teacher to implement the design effectively.

From the presentation of the curriculum developers, it can be noted that at this level, the appropriate content of the phonetic message is put in place. The specialists clearly understand the components necessary to enable a learner communicate effectively from this foundation level of grade 1 and 2.

(b) Message Design by Class Teacher

For the class teacher, enquiry focused on the following areas (a) alphabet message design, (b) differentiation of letter names and letter sounds design, (c) sound pronunciation design, (d) syllable use design, and (e) word reading design.

(a) Alphabet Message Design – Because the emphasis is placed on letter sounds at this initial literacy level, the majority of the class teachers simply ignore the component of introducing the whole alphabet to the learners and opt to focus on specific sounds. This is indicated in the 70.0% (21) of the sampled 30 teachers (figure 5.67) who omitted this aspect in their message design. The other teachers who included it were being more systematic in their approach so as not to suddenly create confusion in the learner when aspects of the full alphabet feature in their future learning.

(b) Differentiation of Letter Names and Letter Sounds Design – critically here, the majority of the sampled teachers (70.0% -21) did not make the distinction to the learners between letter

names and letter sounds (figure 5.68). Here we note the discrepancy in message design between the curriculum developers and the class teacher. As mentioned above, the curriculum specialists indicated that it remains with the class teacher to implement the designed phonetic messages. This omission by the majority of the teachers does create a confusion in the learner for example the letter name 'u' cannot be used to read the word 'umbrella' and if the learner is not aware of this, it renders reading impossible.

(c*) Sound Pronunciation Design* – the majority of the teachers emphasised this aspect in the message design (figure 5.69). For the grade 1 and 2 learners, this is a major component in their literacy. For the teachers who score below average, especially the two who omitted it completely from their message design, this calls for concern as the learners will not be in a position to read words presented to them.

(d) Syllable Use Design – again here the majority of the sampled teachers did include syllabic usage in the phonetic message design (figure 5.70) though not as much as the individual sounds were being emphasised. This syllabic message design was usually one syllable per each literacy lesson designed subsequently making a build up to word formation.

(e) Word Reading Design – most of the teachers had their message design culminate into word formation (figure 5.7). For those who had a systematic build up from the individual letter sounds through the syllables in previous lessons, the learners had less difficulty in decoding the words presented to them. However, concern still arose for the three teachers who never had word formation in the message design at this end of year teaching. It calls into question the amount of vocabulary the learners have acquired in the year and will progress with in their next schooling level.

Summation

It can be observed that the content of the phonetic message design by the three sampled curriculum developers is appropriate to the expected standard that can enable a learner to read and write effectively from this grade 1 and 2 foundational levels. There is systematic thought and planning in the accumulative arrangement of the literacy content from the basic phonetic entities to the complex operation of passage build up. However as pointed out by the specialists, it remains for the class teacher to effectively implement this designed message. For the class teachers, it has been observed that though the majority maintains a consistent content development of phonetic skills, a proportion of the teachers are up hazard in their

message design by leaving out critical phonetic components that would enable a learner read and write. A lacking can thus be noted in message designs for some teachers which then create difficulty for the learner to acquire phonetic skills for reading and writing.

6.4.2 Discussion of Findings of Channel Modes as a Possible Impediment in the Communication of Phonetic Skills

The enquiry here focused on the teaching methods, approaches and techniques that curriculum developers stipulate and class teachers use in the transmission of the designed phonetic messages to the learners.

(a) Channel Modes Stipulated by Curriculum Developers

The three sampled curriculum specialists stipulated the following approaches and techniques for the communication of phonetic skill to the learner by the class teacher: teacher exposition, question & answer, pair/group work, look & say, work cards and use of chalk board. The approaches and techniques are said to be suitable for the foundational level of grade 1 and 2 for whom the learners still operate on a concrete thinking level and have not yet progressed into abstract thinking. The emphasis on sight and speech in communication is judged to reinforce the concrete operation of the mind and thus memory retention becomes higher. From the curriculum developers, teacher education in colleges and at university is used as a channel for transmitting the designed phonetic messages to the teachers under training. Teacher education is thus the main conduit of communicating the designed phonetic messages to the teachers for later communication to the learners. In-service training and resource centre inputs later act as channels of communicating revisions in the phonetic designs from the curriculum specialists to the teachers. No assessment was conducted in these teacher education colleges to observe the communication process of phonetic skills from the designed messages by curriculum developers to teachers under training. Therefore the responses of the curriculum specialists on the challenges faced in the transmission of phonetic skills to the teacher become problematic to verify. The curriculum specialists squarely put the challenge on poor training of teachers on these skills in education colleges.

The curriculum developers however have some control over what the class teacher eventually transmits to the learner through the pre-designed scripted lesson plans in teacher's guide books. These guide books provide for a structure that the curriculum developers judge

appropriate in the communication of phonetic skills to the learners. The teachers however have a liberty to modify the lesson plan models in the teachers guide. This then poses a problem since not all teachers are at the same level of competence and judging by the scoring in the message design assessment above, several teachers are unable to prepare appropriate phonetic messages for communication to their learners. Therefore this modification option coupled with the claimed poor teacher education does have adverse unfavourable impact on the eventual communication of phonetic skills to the learner which subsequently impede their communication proficiency.

The feedback on the curriculum developers' delivered phonetic designs does not appear to be very effective as the monitoring indicated in their responses is not feasible over a national scale. Equally it was not possible to determine the revisions that are done on the basis of feedback received from schools.

(b) Channel Modes Utilized by Class Teachers

Approaches & Methods - there was variation in the approaches and methods that the 30 sampled class teachers used in communicating phonetic skills to the learners (Tables 5.88 and 5.89). This can be partly attributed to the fact which the curriculum developers pointed out that class teachers have the liberty to modify the stipulated models of lesson plans in the teacher's guide books. Each class teacher thus utilized an approach and method that they found effective for their particular learners. The effectiveness of this varied form of communication is affirmed by all except two of the 30 sampled class teachers. The two class teachers (02LIB02 and 04VRC02) cite the problem of slow learners as having difficulty in adjusting to any particular approach. Again the sampled class teachers give varied ways in which the approaches and methods used are effective for phonetic communication to the learners. For some, this effectiveness is directly related to phonetic skills such as word pronunciation, sound association, reading and writing of new words, reading non-words, sentence building and comprehension of words. On the weight given to phonetic communication in a lesson design, there was again a varied response ranging from being uncertain to a 100% of the lesson. This variation can be attributed partly to the importance that a particular teacher attaches to phonetic skills which again begs the question on individual teacher's competence. Learners who have a limited exposure time in phonetic skills are most likely to have difficulties in mastering these skills. It even calls for more concern of the two class teachers (02LIB02

and01CHS02) who are not certain on how much learning time should be allocated in a lesson plan to phonetic skills communication.

Of the sampled 30 class teachers, 53.3% (16) stated that they find preparing lesson plans with phonetic content challenging while 30% (9) faced no challenge with 16.7% (5) indicating a fairly challenging experience. Varied reasons were cited for this challenge ranging from a lack of referencing materials to failure by the teachers themselves to pronounce certain sounds. The competence of the learners was another challenge. These challenges do create an impediment in the communication of phonetic skills to the learners and calls for concern.

Of the 15 grade 2 teachers, 10 indicated that there was a challenge in communicating phonetic skills when a transition is made from the vernacular to the English. This highlights the phonological differences that create difficulty for the learners to assimilate if the class teacher has not pointed out the difference to them. Class teacher 03MPQ02 teaches at a private school which does not use vernacular in their instruction. Concern is raised for class teacher 07LBW02 who was not certain of any challenges in this area. This indicates a lack of competence on the part of this particular teacher. It is gratifying to observe the varied efforts these sampled grade 2 teachers put in to mitigate this challenge. Remedial work is considered most useful.

Techniques – as for the approaches and methods, varied techniques were cited as being used by the 30 sampled teachers (Tables 5.90 and 5.91). This again can be attributed to the liberty provided for in the teacher's guide. And again, the effectiveness of the particular technique opted for by a class teacher depends on the competence of the teacher using it in communicating phonetic skills to the learners. Concern should be raised for the 7 class teachers who were not certain of the techniques to use or being used. This ignorance then sets a premise for impediment of communication of phonetics to the learner by these particular teachers. Various reasons were equally given for the use of particular techniques each class teacher had opted for. The majority alluded to the competencies that learners acquire directly in phonetic skills such as improving pronunciation, identification of new sounds/words, fluent reading, etc. Most of the sampled teachers indicated that their learners respond well to these techniques and a positive effect is recorded in the learners. Except for 3 of the 29 sampled class teachers who use techniques, they indicated varied challenges that they encounter in the

use of these techniques. These challenges impede the communication of phonetic skills to the learners.

Summation

Though the curriculum developers are specific in the channels to be used in the communication of phonetic skills to the learners by the class teacher, it is still left to the class teacher to choose a channel deemed suitable for a particular set of learners. The effectiveness of a channel mode thus becomes dependent on the competence of an individual teacher. Again though the majority of the sampled teachers indicated a positive outcome of their approaches, methods and techniques, the assessment results of their learners indicates a low recording and thus puts into question the effectiveness of these tools or the competence of the teachers using them in the communication of phonetic skills to the learners.

6.4.3 Discussion of Findings of Teaching and Learning Duration as a Possible Impediment in the Communication of Phonetic Skills

The final enquiry on possible impediments to the communication of phonetic skills to the learners focused on the duration allocated for the transmission of these skills by curriculum developers and class teachers.

(a) Duration Design by Curriculum Developers

The Nyanja and Bemba specialists allocates 60 minutes of the day's learning (approximately 4 hours) to phonetic communication to the learner by the class teacher while the English specialist allocates 30 minutes for the same (Table 5.92). They allude to repeated practice by the learner of the learnt phonetic skills as the reason for this time allocation. On feedback from schools on the adequacy or inadequacy of the duration for phonetic skills communication, the specialist unanimously affirmed recipient of this feedback but indicated that action has not yet been taken to revise the duration period. This inaction calls for concern as it holds back the improvement that is required in the effective communication of phonetic skills to the learners by the class teachers.

(b) Duration Design by Class Teacher

Of the 30 sampled class teachers, 60% (18) gave varied percentage allocation of time for phonetic skills communication to the learners while 40% (12) were uncertain of the time percentage but were able to give it in numerical value (Tables 5.93 and 5.94). The duration

ranged from 10 minutes to 60 minutes of an approximately 4 hour a day learning period. Except for 8 of the sampled teachers who were uncertain, the others indicated various reasons for this allocation of time for phonetic skills communication. The mastering of phonetic skills was a direct reason given by some while other indicated that the accommodation of other subject curtailed the required time for phonetic communication. For the 8 uncertain teachers, this calls for concern as mismanagement of teaching/learning time has unfavourable effect on the acquiring of phonetic skills by the learner.

Of the 30 sampled class teachers, 73.3% (22) indicated that the time allocated for phonetic skills communication was not adequate while 26.7% (8) affirmed the adequacy of allocated time. The challenges that this inadequacy of time indicated by the sampled teachers raise range from incomplete work on phonetic skills to the disadvantaging of slow learners. In circumventing this inadequate time, most teachers encroach on other subject periods appreciating the imperative role that phonetic skills play in communication in learning all other subjects. Others provide remedial work to compensate for this inadequate time.

Summation

The adequacy of the allocated time for the communication of phonetic skills to the learners is a challenge for most sampled class teachers. Even with this clearly indicated by the teachers in the feedback to the curriculum developers, there is inaction on the part of the developers to revise the allocated time. The unfavourable effect of this inadequate time allocation is observed in the incomplete mastering of phonetic skills by the learners and subsequently leading to an impediment in communication proficiency among these learners.

CHAPTER SEVEN

CONCLUSION AND RECOMMENDATIONS

7.0 INTRODUCTION

In this final chapter, a summation is made of the four progressive categories this study enquired into namely (a) estimation of the frequency and magnitude of communication lapses among sampled learners in Grades 1,2, 7 and 12, (b) phonetic awareness as a foundation in written and oral communication proficiency among sampled curriculum developers, teachers and learners, (c) attribution of phonetics as a reading skill enabling a learner to communicate proficiently in the sampled 490 learners, and (d) possible factors impeding the communication of phonetic skills from the teacher to the learner in Grades 1 and 2 in selected schools. In presenting a summation on each category, conclusions are drawn on the findings the enquiry made. The objectives of the study form the basis of the conclusions drawn in each category. Further, for each category, based on the findings and conclusions drawn, recommendations are presented for consideration by both communicators and educationists. Computation of aggregate percentages indicated in the conclusions below is indicated in Appendix 2. It was necessary to create these aggregates in order to have an overall view of the performance recordings at each level. Care was taken not to combine related elements of different grade levels, for example, combining the percentages of the grade 1 and 2 vowels recognition assessment. This would most certainly distort the computed values.

7.1 CONCLUSION AND RECOMMENDATION ON THE FREQUENCY AND MAGNITUDE OF THE PROBLEM OF COMMUNICATION LAPSES AMONG SAMPLED LEARNERS IN GRADES 1, 2, 7 AND 12 IN THE SELECTED SCHOOLS

In this first assessment, the objective of the investigation was to estimate the frequency and magnitude of the incidence of the problem of *communication lapses* due to inadequate reading skills among learners in grades 1, 2, 7 and 12 in Lusaka urban and Chinsali rural districts. In other words, the objective aimed at enquiring into how wide spread and at what scale is problematic communication present among primary and secondary school learners in targeted grades with the sampled learners acting as a benchmark.

7.1.1 Conclusion

Table 7.1: Summary - Frequency and Magnitude Overall Performance

Sampled Grade	Above Average	Average	Below Average	Total		*Nil*
Grade 1	63.9%	2.9%	33.2%	100%		*14.6%*
Grade 2	58.2%	2.4%	39.4%	100%		*28.4%*
Grade 7	28.0%	5.2%	66.8%	100%		*42.2%*
Grade 12	17.1%	-	82.9%	100%		*17.3%*

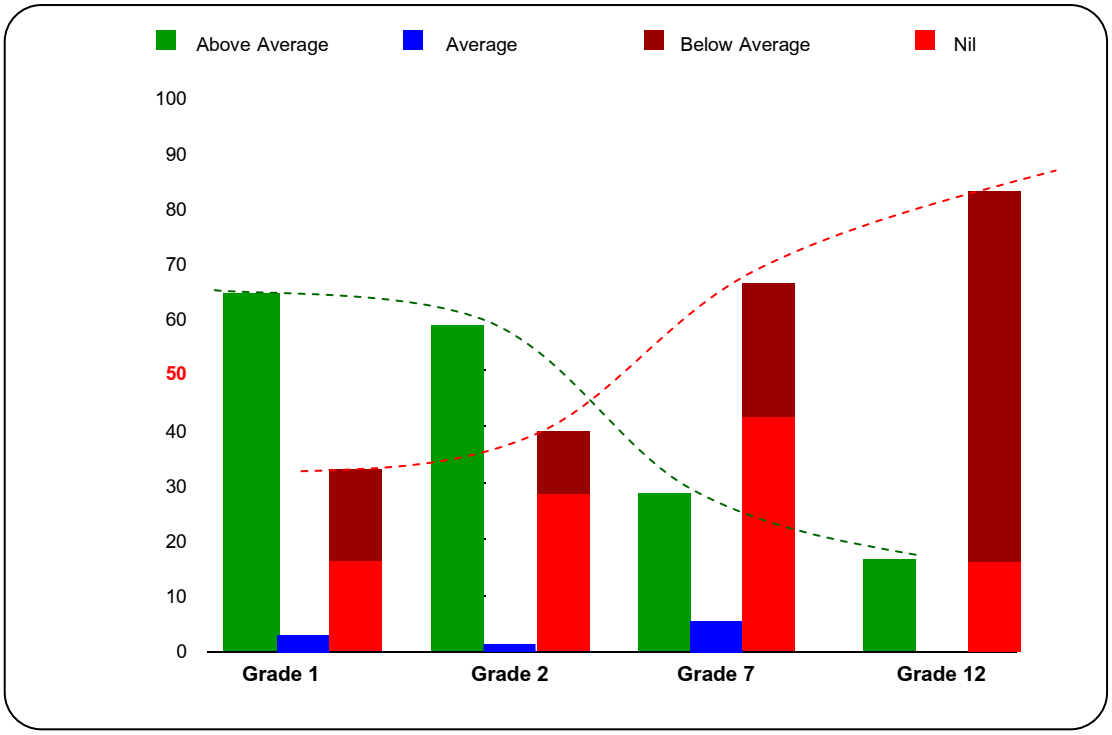

Figure 7.1: Summary - Frequency and Magnitude Overall Performance

The enquiry indicated that there is a progressive *communication lapse* among learners. The frequency and magnitude increases with each higher level of schooling as can be noted with the below average scoring bars. The drop in the acquisition of communication skills and therefore the increase in problematic reading and writing is very drastic culminating into an alarming low performance level at the school exit level of grade 12. The magnitude of nil scoring at the primary exit level (grade 7) is the highest of the four sampled grades implying that these learners progress into secondary education with very low communication proficiency. The consequence of this is what can be noted with the grade 12 scoring i.e. learners who had gone through a 5 year secondary education with very low communication proficiency.

7.1.2 Recommendation

The high frequency and magnitude levels recorded of low communication proficiency among learners in schools calls for a serious re-look at the literacy programme in the Zambian educational system. There has been several literacy programmes attempted in the past two decades which, as can be noted from the results, has not had much effective outcome. The recently introduced early education literacy programme is hoped to cub this downward spiral in communication proficiency among learners. However, educators must implement a vigorous implementation and monitoring mechanism to stem the tide of this low learners' acquisition of communication skills. More research and resources both human and financial must be allocated for improvement of literacy levels in Zambian schools. Examples include a vigorous library system in schools and reading instructors in each school. A relaxed approach towards this tragic state of affairs entails a continued low calibre of the majority of school leavers who cannot communicate proficiently and thus later unable to acquire complex skills at tertiary education.

7.2 CONCLUSION AND RECOMMENDATION ON THE PHONETIC AWARENESS AS A FOUNDATION IN WRITTEN COMMUNICATION PROFICIENCY AMONG SAMPLED CURRICULUM DEVELOPERS, TEACHERS AND LEARNERS IN SELECTED SCHOOLS

Having determined the frequency and magnitude of the problem of communication lapse due to inadequate reading skills, enquiry progressed into investigating if there was adequate awareness among the teachers and learners of the skills that enable communication through reading and writing. The two objectives of the investigation were thus, firstly, to examine the awareness level of the teacher as a *message source* of the imperativeness of phonetics in reading skills for communication proficiency. This objective centred on the 30 sampled grades 1 and 2 class teachers who acted as a benchmark for a general determination. Included in this assessment were three curriculum developers from where phonetic messaging designing originate in this education structure. The second objective was to examine the awareness level of the pupil as a *target audience* of the imperativeness of phonetics in reading skills for communication proficiency. Here the 1,934 sampled learners acted as a benchmark for a general determination.

7.2.1 Conclusion

Table 7.2: Summary – Phonetic Awareness Overall Performance

Sample	Above Average	Average	Below Average	Total		Nil
Class Teachers	65.7%	7.6%	26.7%	100%		13.8%
Grade 1	62.4%	8.8%	28.8%	100%		16.3%
Grade 2	62.2%	7.3%	30.6%	100%		23.6%
Grade 7	34.7%	7.8%	57.5%	100%		32.3%
Grade 12	18.6%	-	81.4%	100%		22.3%

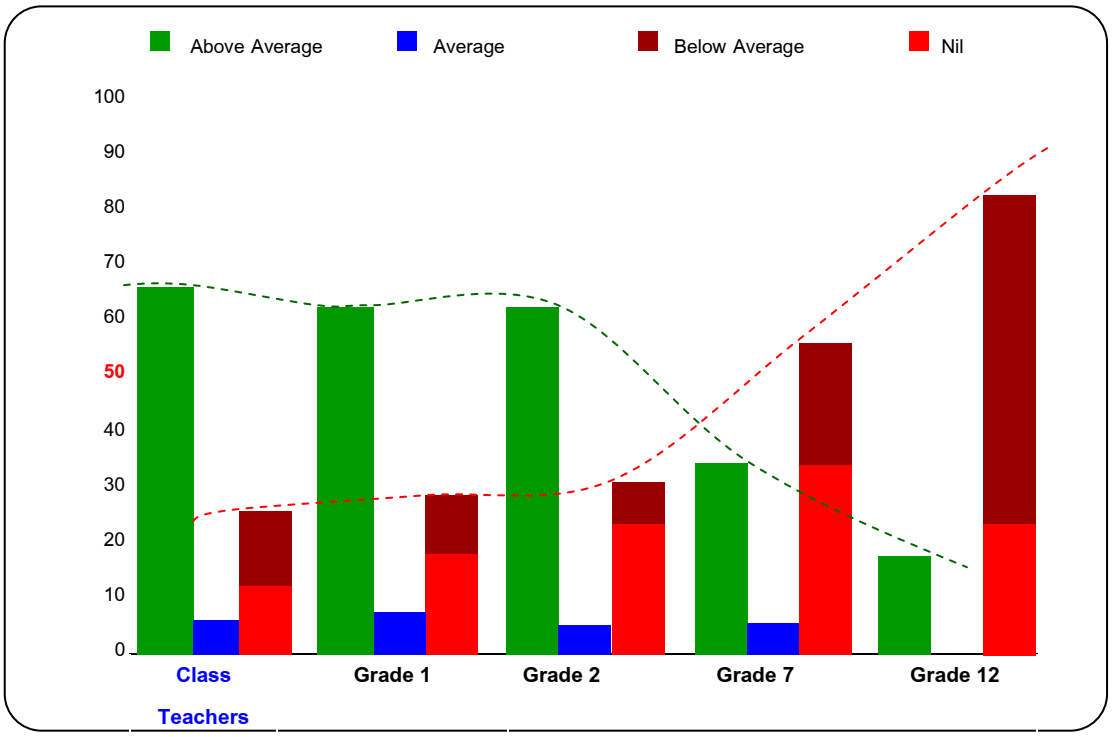

Figure 7.2: Summary – Phonetic Awareness Overall Performance

From the discussion of findings on the awareness level of the imperativeness of phonetic skills in communication proficiency among learners by the curriculum developers (6.2.1), it has been noted that these specialists have a high awareness level. They thus design message content for effective communication of phonetic skills to the learners. The class teacher's awareness levels are slightly above average which calls for concern as there should be a high level of awareness to warrant the effective communication of phonetic skills. The nil recording should not even occur at all for teachers as this in an indication that learners under these particular teachers are disadvantaged since their teacher is oblivious to the imperativeness of phonetics in communication proficiency. For the learners, the grade 1 and 2

recorded a higher scoring since the class teachers are just introducing phonology to them in their literacy lessons. With a vigorous drilling in phonetics, the learners will become more aware that communication through reading and writing can only be enabled with acquisition of phonetic skills. The awareness level suddenly drops drastically at the two exit levels of grades 7 and 12. Either the learners have lost the skills in phonology along the schooling period or it was not taught to them from the onset. This low awareness levels subsequently translates into low ability to articulate reading and writing at these high levels of schooling and consequently it negates communication. The very low recording at grade 12 levels is of serious concern. Their lack of phonological awareness entails their lack of effective reading and writing skills which are imperative in the acquisition of complex skills at tertiary level.

7.2.2 Recommendation

Phonological training should not be left at the early education level of grades 1 and 2. As one progresses into complex language operations, phonology equally enables one to decode new higher vocabulary. Therefore literacy programmes for the 12 year schooling period must have drilling in phonological components. For example, the sampled grade 12 learners had difficulty in identifying syllables that form a given word. This in turn impeded the spelling and reading of such words. For the teachers, in-service training must be offered on phonological skills for all primary and secondary school language teachers. The awareness levels for class teachers should be very high in order to appreciate and effectively communicate phonological skills.

7.3 CONCLUSION AND RECOMMENDATION ON THE ATTRIBUTION OF PHONETICS AS READING SKILLSENABLING A LEARNER TO COMMUNICATE PROFICIENTLY IN THE SAMPLED 490 LEARNERS IN SELECTED SCHOOLS

With the frequency and magnitude of the problem of communication lapse among the sampled learners determined and the awareness levels of the imperativeness of phonetic skills among educators and learners also determined, the study investigated the central matter with the objective of examining the attribution of phonetics as the reading skills enabling a learner to communicate effectively through reading and writing. A population sample of 490 learners in selected schools acted as a benchmark for a general determination.

7.3.1 Conclusion

Table 7.3: Summary – Attribution of Phonetics as Imperative Reading Skills Overall Performance

Sampled Grade	Above Average	Average	Below Average	Total		*Nil*
Grade 1	35.5%	4.0%	60.5%	100%		*25.3%*
Grade 2	22.3%	4.6%	73.1%	100%		*36.3%*
Grade 7	28.5%	7.8%	63.7%	100%		*39.7%*
Grade 12	35.6%	16.3%	48.1%	100%		*14.3%*

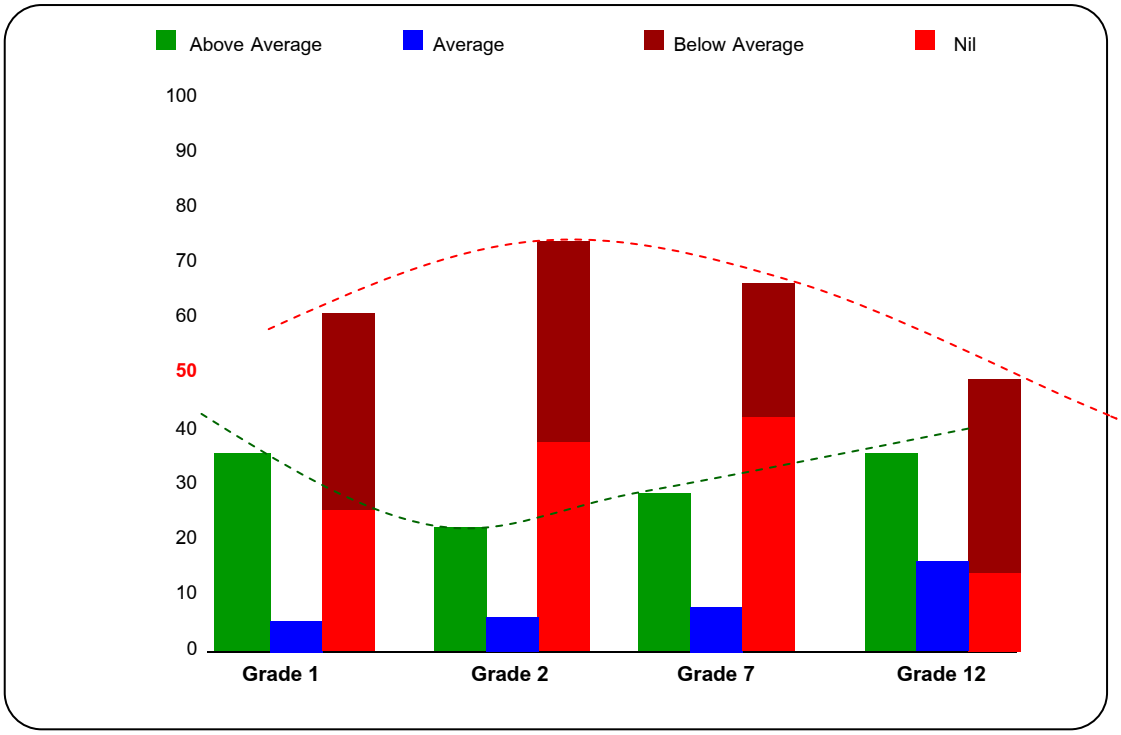

Figure 7.3: Summary – Attribution of Phonetics as Imperative Reading Skills Overall Performance

There is generally a very low performance for all the selected grades in the assessment on attribution of phonetic skills in enabling communication proficiency. These recording affirm that a lack of phonetic skills does impede learners in their oral and writing skills. At the grade 2 levels, indication for this sample is that they did not master adequate phonetic skills to enable them read and write effectively at the initial grade 1 level. And when this low communication performance is not addressed, its effect is seen in later schooling as can be noted with the grade 7 learners who, after a 7 year schooling period still recorded low reading and writing abilities. There is a struggle to improve at the exit level of grade 12 as the learners prepare for tertiary education and put in more effort to pass their examinations.

7.3.2 Recommendation

Communication proficiency through reading and writing cannot occur without an acquisition of phonetic skills has it has been observed in these assessment recordings. Educators must therefore allocate an average of 30% of literacy programmes at all schooling levels to a drilling in phonetics. The peculiarity of phonetic skills is that they can only be taught and learnt through *vocal speech* accompanying the symbols (letters). Therefore, in the absence of language laboratories in schools, provision of recorded materials on phonology must be made available in all schools to aid not only the learners but teachers who are not yet conversant with sounds. Literacy teachers' guide book must thus be accompanied by an audio guide as well (e.g. compact disc CD). Group work in practising phonetics must be part of a daily literacy lesson in which learners hear from each other how to 'sound' (pronounce) words. This aids their memory retention greatly.

7.4 CONCLUSION AND RECOMMENDATION ON THE POSSIBLE FACTORS IMPEDING THE COMMUNICATION OF PHONETIC SKILLS FROM TEACHER TO LEARNERS IN GRADES 1 AND 2 IN SELECTED PRIMARY SCHOOLS

With the conclusion that affirms the attribution of phonetics as reading skills enabling a learner to communicate proficiently, the study finally made enquiry into possible factors that impede the communication of these imperative reading skills from the teacher to the learner with a view of resolving any obstructions that prevent the learner from accessing critical skills for reading. Three objectives to this effect guided the investigation with the first objective being the determination of the nature of the *messages* designed in the teaching and learning of reading and writing as a basis of communication proficiency. A sample of 3 curriculum developers and 30 class teachers formed the perimeters of the enquiry. The second objective was the listing of possible *channel failures* in the existing approaches, methodologies and techniques among curricula developers and class teachers as a cause of insufficient acquisition of reading skills occasioning communication lapses in the learners as target audience. Again the 3 sampled curriculum developers and 30 class teachers were assessed for this enquiry. The third objective was to assess the adequacy of learning time i.e. *duration* allocated for the communication of phonetic skills to the learner in the existing literacy programmes.

7.4.1 Conclusion

Message Design – from this study, it can be concluded that phonetic message designing undergoes two phases, firstly by the curriculum developers and secondly by the class teacher who modifies the original designed messages. This two phased approach does have a bearing on the eventual nature of the phonetic message transmitted to the learners. As can be expected, the curriculum developers as specialists in language have adequate expert knowledge to design phonetic messages that will enable learners acquire the required competence in written and oral communication. However, a discrepancy occurs when individual class teachers modify these phonetic messages to suit their learners' capacity. The problem arises in the competencies of individual teachers. Those who lack the phonological knowledge equally distort the phonetic message which thus adversely affects the learner's ability to acquire the reading and writing skills. This had been a major problem this researcher discovered during the study especially in rural schools with little or no audio equipment (e.g. radio and television) to aid teachers hear word pronunciations from other persons in the media.

Channel of Communication – the communication of designed phonetic messages by curriculum developers to the learners is channelled through class teachers who themselves receive it from teacher education institutions. Curriculum developers have alluded to a poor education on phonology at teacher education institutes as occasioning poor message communication to the learners. For the class teacher, varied responses were made on the channels of communicating the phonetic message to the learner. It can be concluded that this diversity does have a bearing on the eventual quality of phonetic messages communicated to the learner considering the already mentioned aspect of individual teacher competence.

Duration Design – Though curriculum developers ascertain the adequacy of time allocated for each particular grade level, majority of sampled class teachers disagreed and demanded an increase in time allocation for communication of phonetic skills. This inadequacy becomes evident when part of the low performance recordings among learners is attributed to inadequate mastering of phonetic skills at each given level. The sampled grade 2 learners (Figure 7.3) can be a telling example in this case in which learners had failed to master adequate phonetic skills from grade 1.

7.4.2 Recommendation

Message Design – Though it is understandable that specification by curriculum developers are a guide and could be modified to suit a particular situation, a framework must be designed with imperatives that class teachers must adhere to. This will aid all teachers especially those who lack the competence in phonology. Accompanying these message designs should be the audio versions of the phonetic message since phonology can only be taught and learnt through vocal speech accompanying the letter symbols. Therefore teachers' guide books must have an enclosed audio CD or DVD that aids the teacher in preparing their message design.

Channel of Communication – if curriculum developers have put the blame squarely on teacher education institutes on poor communication of phonetic skills to the learners by the class teachers, then a study must be conducted to verify the kind of approaches and techniques these educational institutions use. It was outside the scope of this study to investigate this field of teacher education. To aid teachers lacking competence, standardized approaches and techniques of communicating phonetic skills to learners must be encouraged. This will reduce the disparity that occurs between high performing teachers and those who perform below average.

Duration Design – appreciating that in an average four (4) hour learning period per day several subjects must be taught to the learners, consideration must be made thus to increase this daily learning period to six (6) hours. This can be done by an increase in learning space (classrooms) at schools and thus abolish the double stream system. Teachers and learners can thus have adequate time the whole morning to accommodate a larger quantity of time to the drilling in phonetic skills which would include use of audio recordings and group work oral reading. It would also create time for remedial exercises in the afternoon that would include special library time for learners to return to school to read library books and thus improve on their communication proficiency.

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APPENDIX I: RESEARCH INSTRUMENTS

List of Research Instruments:

Research Instrument 1
Curriculum Developer Questionnaire

Language Specialization:_____ **CODE:**

	Language Specialist Information
1	What is your job title?
2	Your Responsibility in Language Dept.
3	Length of service at CDC:

(a) PHONEMIC IMPERATIVENESS

1. What percentage of grade 1 and 2 language content is allocated for phonetic skills?

   _____

2. Can language be taught without a drilling in phonetics?

   _____

3. What difficulties would arise if phonetics is not taught to grade 1 and 2 learners?

   _____

   _____

(b) PHONEMIC MESSAGE DESIGN

Q6: What aspects do you consider when prescribing phonetic drilling for grade 1 and 2?

_____

_____

Q7: What sequence does phonetic build up follow in the curriculum design?

_____

_____

_____

Q8: Are phonological differences between the vernacular and English pointed out in the design?

_____

_____

Q9: What distinction is made between the two languages' phonology for grade 2?

_____

_____

Q10: Does the current phonetic design for grade 1 and 2 produce positive impact?

(c) CHANNEL OF PHONETIC COMMUNICATION

1. From the CDC, how is the phonetic message transmitted to the Class Teacher?

   _____

2. Are there any challenges in this transmission to the Class Teacher?

   _____

3. Does the teacher design his/her own lesson plan with phonetic content?

   _____

4. What approaches do you recommend for phonetic communication to learners?

   _____

5. What techniques do you recommend for phonetic communication to learners?

   _____

6. How do you as CDC get feedback on phonetic communication from schools?

   _____

7. Do you revise the phonetic message if challenges are noted from schools?

   _____

(d) DURATION OF PHONETIC COMMUNICATION TO LEARNERS

1. What percentage of a day's learning is allocated to phonetic drilling?

   _____

2. In what does this percentage translate in hour and minute terms per day?

   _____

3. What reason can be given for this quantity of time allocated?

   _____

   _____

4. Do you get feedback from schools on the adequacy or inadequacy of this allocation of time for phonetic drilling?

   _____

5. If inadequacy is reported, would consideration be given for an increase of time?

   _____

   _____

Research Instrument 2

Class Observation Sheet

School Name: Term: **CODE:**

Grade Observed: School Location:

Teacher Gender: Teacher Qualification:

No. of Learners:

	OBSERVATION COMPONENT	DONE	COMMUNICATIVE LEVEL					
			1	2	3	4	5	Grading
1	**Class Teacher**							
	(a) Approach Used							
	(b) Techniques Used							
	(c) Language of Instruction							
2	**Message Design (Content)**							
	(a) Alphabetic knowledge							
	(b) Differentiation of letter name & letter sound							
	(c) Sound pronunciation							
	(d) Syllable use							
	(e) Word reading							
3	**Learners' Audio Activitie32s**							
	(a) Alphabet recognition							
	(b) Letter naming							
	(c) Letter sounding							
	(d) Sound pronunciation							
	(e) Syllabic reading							
	(f) Word reading							
	(g) Sentence reading							
4	**Learners' Writing Activities**							
	(a) Letter tracing							
	(b) Syllable writing							
	(c) Word writing							
	(d) Sentence writing							
	Comments:							

Research Instrument 3

Class Teacher Interview Questionnaire

Date of Interview:

Grade Observed: Term: **CODE:**

School Name: School Location:

	Class Teacher Information
1	Teacher Gender: ☐ Female ☐ Male
2	Teacher Qualification:
3	Grade Teaching:

N.B: Responses should be expanded on a separate sheet to accommodate as much information.

(c) PHONEMIC AWARENESS

1. What do you understand by the term 'Phonetic skills"?
   _____
2. Can language be taught without a drilling in phonetics?
   _____
3. What difficulties would arise if phonetics is not taught to grade 1 and 2 learners?
   _____
4. Are you aware of the phonological differences between Ichibemba and English?
   _____

(d) APPROACHES & METHODS IN PHONETIC COMMUNICATION

1. Would tell me what approach you used to teach this literacy class?
   _____
2. Do you find it to be effective?
   _____
3. In what ways is the approach effective for phonetic communication to the learner?
   _____
4. What percentage of your literacy lesson plan is on phonetic communication to the learner?
   _____
5. Do you find designing your literacy lesson plan with phonetic content challenging?
   _____
6. Highlight any challenges you encounter?
   _____
7. *[For Grade 2 teacher only]* Do you notice the challenge of communicating phonetic skills when a transition is made from Ichibemba (NBTL) to English (SITE)?

_____

8. How do you handle these challenges?

_____

(e) TECHNIQUES AS CHANNELS OF PHONETIC COMMUNICATION

1. What techniques do you use in communicating phonetic skills to the learners?
_____
2. What reason would you give for their use in communicating phonetic skills?
_____
3. How do learners respond to these techniques when learning phonetic skills?
_____
4. Do these techniques give a positive impact of the learners in phonetic skills?
_____
5. What challenges do you encounter in the use of these techniques?
_____

(f) DURATION OF PHONETIC COMMUNICATION TO LEARNERS

1. What percentage of a day's learning is allocated to phonetic communication?
_____
2. In what does this percentage translate in hour and minute terms per day?
_____
3. What reason can be given for this quantity of time allocated?
_____
4. Would you consider this time allocation as adequate?
_____
5. If in adequate, what challenge does it poses for phonetic communication?
_____
6. How do you handle this challenge?
_____

Research Instrument 4

Frequency & Magnitude Assessment Sheet – Grade 1

CODE:

Date:	Term:
School Name:	Location:
Learner Gender: Girl ☐ Boy ☐	Age:

(a) PHONOLOGY AWARENESS

1. **Put a circle around a LETTER of the alphabet**

p	Ω	S	a	B	Ж
ش	ع	K	r	Q	h
b	x	ψ	L	G	ʂ

Total Letter Score - ☐

2. **Put a circle around the VOWELS**

d	w	a	p	x	y
e	z	k	i	s	c
w	o	q	h	u	r

Total Letter Score – ☐

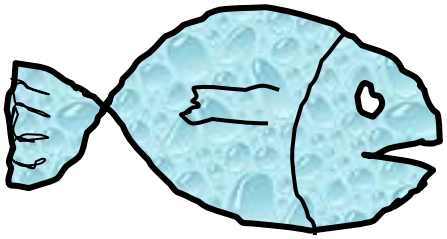
(In Nyanja)

(b) SYLLABIC & WORD RECONITION

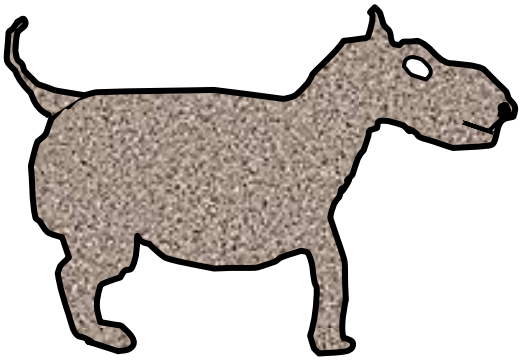
Match the WORD with the PICTURE

galu

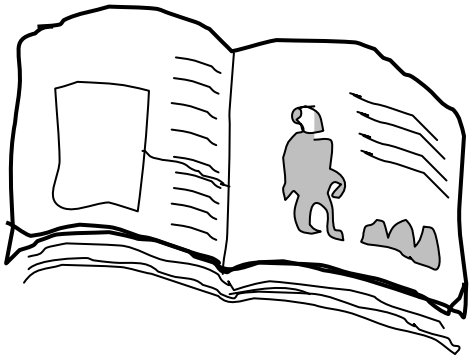
buku



mwala



nsomba



Total Word Score -

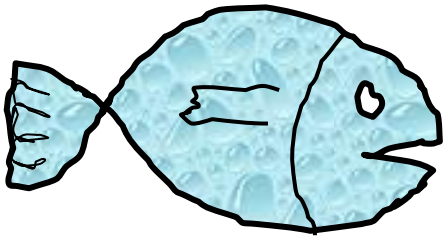
(In Ichibemba)

(c) SYLLABIC & WORD RECONITION

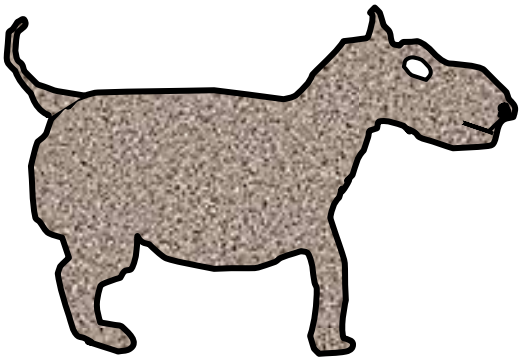
Match the WORD with the PICTURE

imbwa

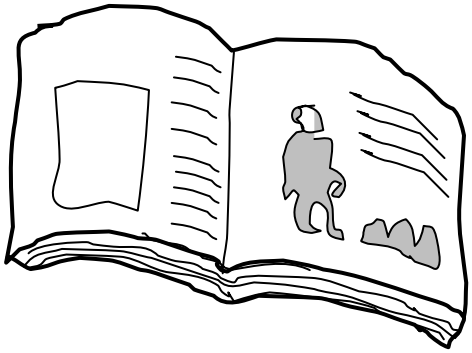
ibuku



ilibwe



isabi



Total Word Score - ☐

Research Instrument 4

Frequency & Magnitude Assessment Sheet – Grade 2

CODE:

Date:	Term:
School Name:	Location:
Learner Gender: Girl ☐ Boy ☐	Age:

(a) PHONOLOGY AWARENESS

1. **Put a circle around a LETTER of the alphabet**

p	Ω	S	a	B	Ж
ش	ع	K	r	Q	h
b	x	ψ	L	G	ʂ

Total Letter Score - ☐

2. **Put a circle around the VOWELS**

d	w	a	p	x	y
e	z	k	i	s	c
w	o	q	h	u	r

Total Letter Score – ☐

(b) COMMUNICATION PROFICIENCY

Read the story and answer the three questions

Luka is going to school. He sees his mother at the market.

His mother gives him sweets to take to school. Luka is happy.

1. Where was Luka going?

_____

2. Who did he see at the market?

_____

3. What did his mother give him?

_____

Total Score – ☐

Research Instrument 4

Frequency & Magnitude Assessment Sheet – Grade 7

CODE:

Date:	Term:
School Name:	Location:
Learner Gender: Girl ☐ Boy ☐	Age:

(a) PHONOLOGY AWARENESS

1. **Circle all the CONSONANTS**

a b c d e f g h i j

k l m n o p q r

s t u v w x y z

Total Letter Score – ☐

2. **Re-write the following <u>UNDERLINED</u> words correctly**

The **<u>fon</u>**was ringing and Peter answered it.

Re-write: _____

Sara cut her hand with a**<u>nife</u>**.

Re-write: _____

The**<u>piramds</u>** in Egypt are beautiful.

Re-write: _____

You should **<u>com</u>** your hair every morning John.

*Re-write:*_____

There was no **<u>eletricty</u>** in the house.

Re-write: _____

Total Word Score – ☐

(b) COMMUNICATION PROFICIENCY

Read the story and answer the three questions

Sloths are peculiar creatures. They spend nearly 22 hours of the day sleeping. They get their name from their slow pace. They are dominant in the Amazon region.

1. What do you think sloths are?

   Answer: _____

2. What is the meaning of their name 'sloth'?

   Answer: _____

3. What is their habitat?

   Answer:_____

Total Score - ☐

Research Instrument 4

Frequency & Magnitude Assessment Sheet – Grade 12

Date:	Term: **CODE:**
School Name:	Location:
Learner Gender: Girl ☐ Boy ☐	Age:

(a) PHONOLOGY AWARENESS

1. **Separate the following words into SYLLABLES using slashes**

   Example: 'Strategy' has 3 syllables – Stra/te/gy

   Operation *syllables:* _____

   Language *syllables:* _____

   System *syllables:* _____

   Theoretical *syllables:* _____

   Produce *syllables:* _____

   Together *syllables:*_____

   Total Word Score - ☐

2. **Put in the missing VOWELS in the following words. The meaning in brackets will help you recognise the word.**

   tchnqus(special methods used) _____

   dscrpton(to explain how something looks like) _____

   seprted(to put things apart which are joined) _____

   apprchs(to be getting near to something) _____

   Total Letter Score – ☐

(b) COMMUNICATION PROFICIENCY

Read the story and CROSS OUT WORDS that do NOT make the story flow properly

When I was growing up in the 1970s during the liberation war struggle of Rhodesia now Zimbabwe, a lot of legends about freedom fighting fighters abounded. One in particular mystified us as children surprisingly. It was nevertheless about a Zambian jet fighter pilot called Captain Peter Suze. It was told that he flew his jet into Rhodesia from Livingstone to dismantle attack the enemies. Surprisingly inevitable his jet was intercepted when he entered Rhodesia by two other jet fighters who aimed to shoot him down abundantly. Being fiercely pursued, Captain Suze, we were told, stooped downwards his jet down and entered the Victoria Falls gorge tilting the plane wings to be parallel with the falling waterfalls. He emerged outside on the other Zambian side of the falls to which the enemy jets could not follow chasing. It was a feat of bravery that tantalized our hearing.

Total Letter Score – ☐

Research Instrument 5

Oral Communication Assessment Sheet – Grade 1

(In English) **CODE:**

Date:	Term:
School Name:	Location:
Learner Gender: Girl ☐ Boy ☐	Age:

Objective: To assess the learner's reading fluency and comprehension which is key to communication competence and proficiency.

I will read a short story to you and you should listen to it very carefully. When I finish, I will ask you some questions about the story. You should answer the questions as best as you can. Do you understand what you are supposed to do? I will read the story twice.

Peter is going to school. He sees his friend Mary. Mary has two bananas. She gives Peter one banana. When Peter and Mary reach school, the teacher gives them a book. It is a red book.

Now I am going to ask you a few questions about the story I just read. Try to answer the questions as best as you can.

Where was Peter going? Correct ☐ Incorrect ☐ No response ☐

What was the name of Peter's friend? ☐ Correct ☐ Incorrect ☐ No response

How many bananas did Mary have? ☐ Correct ☐ Incorrect ☐ No response

What did the teacher give Peter and Mary at school? ☐ Correct ☐ Incorrect ☐ No response

What colour was the book? ☐ Correct ☐ Incorrect ☐ No response

Total correct responses ☐

Time left on stopwatch if learner completes in LESS than 60 seconds ☐

☐ Exercise was discontinued as learner did not read a single word correctly in the first line.

Research Instrument 5

Oral Communication Assessment Sheet – Grade 1

(In Ichibemba)

CODE:

Date:	Term:
School Name:	Location:
Learner Gender: Girl ☐ Boy ☐	Age:

Objective: To assess the learner's reading fluency and comprehension which is key to communication competence and proficiency.

I will read a short story to you in Chibemba and you should listen to it very carefully. When I finish, I will ask you some questions about the story. You should answer the questions as best as you can. Do you understand what you are supposed to do? I will read the story twice.

Bwalya aleya ku sukulu.Amona umunankwe Kalaba. Kalaba ali ne nkonde shibili. Apako Bwalya imo inkonde. Elyo Bwalya na Kalaba bafika ku sukulu, ba teacher ba bapa ibuku. Ili buku lyali ilya kashika.

Now I am going to ask you a few questions about the story I just read. Try to answer the questions as best as you can.

Bushe Bwalya aleya kwi?	☐Correct	☐ Incorrect	☐ No response
Bushe niani mu nankwe wa kwa Bwalya?	☐Correct	☐ Incorrect	☐ No response
Nishinga inkonde Kalaba akwete?	☐Correct	☐ Incorrect	☐ No response
Bushe finshi ba teacher ba pele Bwalya na Kalaba ku sukulu?	☐ Correct	☐ Incorrect	☐ No response
Bushe ilya ibuku lya lemoneka ilya musango ngashi?	☐Correct	☐ Incorrect	☐ No response

Total correct responses ☐

Time left on stopwatch if learner completes in LESS than 60 seconds ☐

☐ Exercise was discontinued as learner did not read a single word correctly in the first line.

Research Instrument 5

Oral Communication Assessment Sheet – Grade 2

Date:	Term:	CODE:
School Name:	Location:	
Learner Gender: Girl ☐ Boy ☐	Age:	

Objective: To assess the learner's reading fluency and comprehension which is key to communication competence and proficiency.

Here is a short story. I want you to read this aloud. When you finish, I will ask you some questions about what you have read. Do you understand what you are supposed to do? When I say 'begin,' read the story as best as you can. I will keep quiet and listen to you, unless you need help. Ready? Begin.

(The learner should read this story in 60 seconds.)

Bwalya likes to play. One day he and his friend Kalaba ran into the bush to play. Bwalya hid and then Kalaba saw his head. The boys had a lot of fun with this game. Kalaba ran but Bwalya did not find him. Kalaba and Bwalya smiled. Soon it became too dark to play. Both boys went home to eat.

Now I am going to ask you a few questions about the story you just read. Try to answer the questions as best as you can.

Who did Bwalya play with?	☐ Correct	☐ Incorrect	☐ No response
Where did the boys like to play?	☐ Correct	☐ Incorrect	☐ No response
What did Kalaba see after Bwalya hid in the Bush?	☐ Correct	☐ Incorrect	☐ No response
Why did the boys have to stop playing?	☐ Correct	☐ Incorrect	☐ No response
What did the boys do at the end of the story?	☐ Correct	☐ Incorrect	☐ No response

Total correct responses ☐

Time left on stopwatch if learner completes in LESS than 60 seconds ☐

☐ Exercise was discontinued as learner did not read a single word correctly in the first line.

LANGUAGE USED:

English ☐

Bemba ☐

(In Ichibemba)

Bwalya alitemwa ukwangala.Bushiku bumo ena nomubiye Kalaba ba butukila mumpanga ku kwangala.Bwalya abelama elyo Kalaba amona umutwe wakwe.Kalaba abutuka lelo Bwalaya tekuti amumone. Kalaba na Bwalya ba seka. Nombaline caba icungulo naka fifi kaisa tekuti bangale.Bonse babili baya ku ŋanda ku kulya.

Now I am going to ask you a few questions about the story you just read. Try to answer the questions as best as you can.

Niani wale angala na Bwalya?	☐ Correct	☐ Incorrect	☐ No response
Nikwisa abalumendo batemwene ukwangalila?	☐ Correct	☐ Incorrect	☐ No response
Finshi Kalaba amwene lintu Bwalya abeleme mumpanga?	☐ Correct	☐ Incorrect	☐ No response
Ninshi abalumendo balekele ukwangala?	☐ Correct	☐ Incorrect	☐ No response
Finshi abalumendo bacitile ku kulekelesha?	☐ Correct	☐ Incorrect	☐No response

Total correct responses ☐

Time left on stopwatch if learner completes in LESS than 60 seconds ☐

☐ Exercise was discontinued as learner did not read a single word correctly in the first line.

Bwalya likes to play. One day he and his friend Kalaba ran into the bush to play. Bwalya hid and then Kalaba saw his head. The boys had a lot of fun with this game. Kalaba ran but Bwalya did not find him. Kalaba and Bwalya smiled. Soon it became too dark to play. Both boys went home to eat.

Oral Communication Learner's Stimulus Sheet- Grade 2

(In Ichibemba)

Bwalya alitemwa ukwangala.Bushiku bumo ena nomubiye Kalaba ba butukila mumpanga ku kwangala.Bwalya abelama elyo Kalaba amona umutwe wakwe.Kalaba abutuka lelo Bwalaya tekuti amumone. Kalaba na Bwalya ba seka. Nombaline caba icungulo naka fifi kaisa tekuti bangale.Bonse babili baya ku ŋanda ku kulya.

Research Instrument 5

Oral Communication Assessment Sheet – Grade 7

CODE:

Date:	Term:
School Name:	Location:
Learner Gender: Girl ☐ Boy ☐	Age:

Objective: To assess the learner's reading fluency and comprehension which is key to communication competence and proficiency.

Here is a short story. I want you to read this aloud. When you finish, I will ask you some questions about what you have read. Do you understand what you are supposed to do? When I say 'begin,' read the story as best as you can. I will keep quiet and listen to you, unless you need help. Ready? Begin.

(The learner should read this story in 60 seconds.)

It was a very surprising day in the village of Lundi. No one had ever seen a set of four twins being born from two women on the same day in one village. What made it more amazing was that all the twins were born with their front teeth already grown. Babies are not born with teeth or are they? The elders in the village did not know what to make of this happening. A meeting of the elders was called. Headman Putu expressed sadness that this was a sign of bad things to come in the village. This cannot be allowed. Some elders suggested that the twins be killed but others believed they are a gift from God. In the end, they decided to take the twins to the hospital and see what the doctors would say about these teeth.

Now I am going to ask you a few questions about the story you just read. Try to answer the questions as best as you can.

What was very surprising about the day?	☐ Correct	☐ Incorrect	☐ No response
How many women gave birth to the four twins?	☐ Correct	☐ Incorrect	☐ No response
Who came to the meeting that was called?	☐ Correct	☐ Incorrect	☐ No response
What did some elders want done to the twins?	☐ Correct	☐ Incorrect	☐ No response
Where did they decide to take the twins in the end?	☐ Correct	☐ Incorrect	☐ No response

Total correct responses ☐

Time left on stopwatch if learner completes in LESS than 60 seconds ☐

☐ Exercise was discontinued as learner did not read a single word correctly in the first line.

It was a very surprising day in the village of Lundi. No one had ever seen a set of four twins being born from two women on the same day in one village. What made it more amazing was that all the twins were born with their front teeth already grown. Babies are not born with teeth or are they? The elders in the village did not know what to make of this happening. A meeting of the elders was called. Headman Putu expressed sadness that this was a sign of bad things to come in the village. This cannot be allowed. Some elders suggested that the twins be killed but others believed they are a gift from God. In the end, they decided to take the twins to the hospital and see what the doctors would say about these teeth.

Research Instrument 5

Oral Communication Assessment Sheet – Grade 12

CODE:

Date:	Term:
School Name:	Location:
Learner Gender: Girl ☐ Boy ☐	Age:

Objective: To assess the learner's reading fluency and comprehension which is key to communication competence and proficiency.

Here is a short story. I want you to read this aloud. When you finish, I will ask you some questions about what you have read. Do you understand what you are supposed to do? When I say 'begin,' read the story as best as you can. I will keep quiet and listen to you, unless you need help. Ready? Begin.

(The learner should read this story in 60 seconds.)

He was hungry and went to a clearing where he suddenly saw a pair of young duikers without their mother. The youth unslung his axe from his shoulder, spat into his palms and went in pursuit of the pair. As soon as they separated, he ran after the youngest. He ran with long strides, following the animal easily as it zigzagged this way and that way. The distance between them narrowed and he threw his axe with one swift, fluid motion. The duiker fell to the ground, tried to rise and collapsed. With a few strokes of the axe, the youth put the animal out of its misery and, his mind preoccupied with the scene back in the village after the discovery of the woman's body, begun to skin the animal.

Now I am going to ask you a few questions about the story you just read. Try to answer the questions as best as you can.

Why did the youth venture into the clearing?	☐ Correct	☐ Incorrect	☐ No response
What was slung on the youth's shoulder?	☐ Correct	☐ Incorrect	☐ No response
Which of the two duikers did the youth ran after?	☐ Correct	☐ Incorrect	☐ No response
How did the youth kill the animal?	☐ Correct	☐ Incorrect	☐ No response
What was on the youth's mind as he skinned the animal?	☐ Correct	☐ Incorrect	☐ No response

Total correct responses ☐

Time left on stopwatch if learner completes in LESS than 60 seconds ☐

☐ Exercise was discontinued as learner did not read a single word correctly in the first line.

He was hungry and went to a clearing where he suddenly saw a pair of young duikers without their mother. The youth un slung his axe from his shoulder, spat into his palms and went in pursuit of the pair. As soon as they separated, he ran after the youngest. He ran with long strides, following the animal easily as it zigzagged this way and that way. The distance between them narrowed and he threw his axe with one swift, fluid motion. The duiker fell to the ground, tried to rise and collapsed. With a few strokes of the axe, the youth put the animal out of its misery and, his mind preoccupied with the scene back in the village after the discovery of the woman's body, begun to skin the animal.

Research Instrument 6

Alphabet Skills Assessment Sheet – Grade 1 Only

CODE:

Date:	Term:
School Name:	Location:
Learner Gender: Girl ☐ Boy ☐	Age:

Objective: To assess the learner on their letter name knowledge. This is key to note how communication will be achieved by the class teacher in having the learner make a transition from *letter name* to *letter sound*.

Instructions:

Here is a page full of letters of the alphabet. Please tell me the NAMES of as many letters as you can – not the SOUNDS of the letters, but the names. For example, the name of this letter [point to O] is 'OH.' Now you try: tell me the name of this letter [point at V]. [If correct] Good, the name of this letter is 'VEE.' [If incorrect] The name of the letter is 'VEE.' [Give one more example]. Do you understand what you are supposed to do? When I say 'begin,' name the letters as best as you can. I will keep quiet and listen to you, unless you need help. Ready? Begin (NB: the learner should say the letters in 2 minutes).

L	**i**	**h**	**R**	**S**	**y**	**E**	**O**	**n**	**T**	**10**
i	**e**	**T**	**D**	**A**	**t**	**a**	**d**	**e**	**w**	**20**
h	**O**	**e**	**m**	**U**	**r**	**L**	**G**	**R**	**u**	**30**
g	**R**	**B**	**E**	**i**	**f**	**m**	**t**	**s**	**r**	**40**
S	**T**	**C**	**N**	**P**	**A**	**F**	**c**	**a**	**E**	**50**
y	**s**	**Q**	**A**	**M**	**C**	**O**	**t**	**n**	**P**	**60**
e	**A**	**e**	**s**	**O**	**F**	**h**	**u**	**A**	**t**	**70**
R	**G**	**H**	**b**	**S**	**I**	**g**	**m**	**I**	**L**	**80**
L	**I**	**N**	**O**	**e**	**o**	**E**	**r**	**p**	**X**	**90**
N	**A**	**c**	**D**	**d**	**I**	**O**	**j**	**e**	**n**	**100**

Total correct responses ☐

Time left on stopwatch if learner completes in LESS than 120 seconds ☐

☐ Exercise was discontinued as learner could not give a correct response in the first line.

Alphabet Skills Learner's Stimulus Sheet – Grade 1Ony

L i h R S y E O n T

i e T D A t a d e w

h O e m U r L G R u

g R B E i f m t s r

S T C N P A F c a E

y s Q A M C O t n P

e A e s O F h u A t

R G H b S I g m I L

L I N O e o E r p X

N A c D d I O j e n

Research Instrument 7

Nyanja Phonemic Skill Assessment Sheet – Grade 1

CODE:

Date:	Term:
School Name:	Location:
Learner Gender: Girl ☐ Boy ☐	Age:

Objective: To assess the learner on their letter sound knowledge and eventual word reading. This assessment gives data on successful or unsuccessful communication of letter sounds from letter names. It also assesses the acquisition of phonemic skill is word construction elementary to communication proficiency.

(a) SOUNDS IDENTIFICATION

Instructions:

Here is a page full of letters of the alphabet. Please tell me the SOUNDS of as many letters as you can – not the NAMES of the letters, but the sounds. For example, the sound of this letter [point to A] is 'AH' as in 'APPLE' or 'AAA' as in 'AGE.' Now you try: tell me the sound of this letter [point at V]. [If correct] Good, the name of this letter is 'VVV.' [If incorrect] The name of the letter is 'VVV.' [Give one more example]. Do you understand what you are supposed to do? When I say 'begin,' sound out the letters as best as you can. I will keep quiet and listen to you, unless you need help. Ready? Begin (NB: the learner should say the letters in 2 minutes).

L	**i**	**h**	**R**	**S**	**y**	**E**	**O**	**n**	**T**	**10**
i	**e**	**T**	**D**	**A**	**t**	**a**	**d**	**e**	**w**	**20**
h	**O**	**e**	**m**	**U**	**r**	**L**	**G**	**R**	**u**	**30**
g	**R**	**B**	**E**	**i**	**f**	**m**	**t**	**s**	**r**	**40**
S	**T**	**C**	**N**	**P**	**A**	**F**	**c**	**a**	**E**	**50**
y	**s**	**V**	**A**	**M**	**C**	**O**	**t**	**n**	**P**	**60**
e	**A**	**e**	**s**	**O**	**F**	**h**	**u**	**A**	**t**	**70**
R	**G**	**H**	**b**	**S**	**I**	**g**	**m**	**I**	**L**	**80**
L	**I**	**N**	**O**	**e**	**o**	**E**	**r**	**p**	**Z**	**90**
N	**A**	**c**	**D**	**d**	**I**	**O**	**j**	**e**	**n**	**100**

Total correct responses ☐

Time left on stopwatch if learner completes in LESS than 120 seconds ☐

☐ Exercise was discontinued as learner could not give a correct response in the first line.

(b) SYLLABLE NAMING

Instructions:

This page has two sounds put together to make a special sound. When two sounds are put together like this to make a special sound it is called a *syllable*. In Nyanja, when sound 'M' and sound 'U' is put together [point at 'mu'], they make 'MU' syllable like in the word 'munyumba.' Let us try another syllable [point at 'ku'], 'KU' like in the word 'kufuna.' [Give one more example]. Do you understand what you are supposed to do? When I say 'begin,' sound out the syllables as best as you can. I will keep quiet and listen to you, unless you need help. Ready? Begin (NB: the learner should say the letters in 2 minutes).

te	ya	la	ko	fa	ci	ma	go	fu	mu	(10)
na	hu	me	ri	ra	cu	wa	he	wa	su	(20)
bi	tu	sa	so	vu	fi	le	gu	wa	ru	(30)
na	ju	ji	fo	hi	za	ri	co	mu	si	(40)
bu	be	mo	ka	su	nu	ca	ti	mi	ma	(50)
sa	ma	du	ha	ve	ja	sa	wa	si	de	(60)
yo	ji	ka	gi	ze	va	ye	we	po	ge	(70)
wu	gu	re	do	na	tu	li	gu	ca	jo	(80)
fi	ta	lo	ho	ta	di	yu	no	ra	bo	(90)
je	zi	vo	bi	ro	wo	bi	ko	zo	fe	(100)

Total correct responses ☐

Time left on stopwatch if learner completes in LESS than 120 seconds ☐

☐ Exercise was discontinued as learner could not give a correct response in the first line.

(c) WORD READING

Instructions:

Here are some words. Please read as many as you can (do not spell the words, but read them). For example, this word is 'cat' [Give two more examples].

Example: kuti	galu	awa			
1	2	3	4	5	
ku	mwana	konda	nsomba	anali	(5)
kwa	malume	sewera	ici	ai	(10)
mwa	zobvala	tsikana	awa	zina	(15)
ali	capa	sukulu	za	mtengo	(20)
li	tiyi	mu	wa	tate	(25)
mai	kudya	ca	pensulo	njobvu	(30)
ndi	madzi	ake	kuti	koma	(35)
buku	lira	ya	phika	waka	(40)
Zo	a	nyumba	mbale	uja	(45)
pa	mphasa	galu	lake	zolima	(50)

Total correct responses ☐

Time left on stopwatch if learner completes in LESS than 120 seconds ☐

☐ Exercise was discontinued as learner could not give a correct response in the first line.

(a) Sounds Identification Learner's Stimulus Sheet – Grade 1

(Nyanja)

L i h R S y E O n T

i e T D A t a d e w

h O e m U r L G R u

g R B E i f m t s r

S T C N P A F c a E

y s V A M C O t n P

e A e s O F h u A t

R G H b S I g m I L

L I N O e o E r p Z

N A c D d I O j e n

(b) Syllable Naming Learner's Stimulus Sheet – Grade 1

(Nyanja)

te	**ya**	**la**	**ko**	**fa**	**ci**	**ma**	**go**	**fu**	**mu**
na	**hu**	**me**	**ri**	**ra**	**cu**	**wa**	**he**	**wa**	**su**
bi	**tu**	**sa**	**so**	**vu**	**fi**	**le**	**gu**	**wa**	**ru**
na	**ju**	**ji**	**fo**	**hi**	**za**	**ri**	**co**	**mu**	**si**
bu	**be**	**mo**	**ka**	**su**	**nu**	**ca**	**ti**	**mi**	**ma**
sa	**ma**	**du**	**ha**	**ve**	**ja**	**sa**	**wa**	**si**	**de**
yo	**ji**	**ka**	**gi**	**ze**	**va**	**ye**	**we**	**po**	**ge**
wu	**gu**	**re**	**do**	**na**	**tu**	**li**	**gu**	**ca**	**jo**
fi	**ta**	**lo**	**ho**	**ta**	**di**	**yu**	**no**	**ra**	**bo**
je	**zi**	**vo**	**bi**	**ro**	**wo**	**bi**	**ko**	**zo**	**fe**

Example: **kuti** **galu** **awa**

1	2	3	4	5
ku	mwana	konda	nsomba	anali
kwa	malume	sewera	ici	ai
mwa	zobvala	tsikana	awa	zina
ali	capa	sukulu	za	mtengo
li	tiyi	mu	wa	tate
mai	kudya	ca	pensulo	njobvu
ndi	madzi	ake	kuti	koma
buku	lira	ya	phika	waka
Zo	a	nyumba	mbale	uja
pa	mphasa	galu	lake	zolima

Research Instrument 8

Bemba Phonemic Skill Assessment Sheet – Grade 1

CODE:

Date:	Term:
School Name:	Location:
Learner Gender: Girl ☐ Boy ☐	Age:

Objective: To assess the learner on their letter sound knowledge and eventual word reading. This assessment gives data on successful or unsuccessful communication of letter sounds from letter names. It also assesses the acquisition of phonemic skill is word construction elementary to communication proficiency.

(a) SOUNDS IDENTIFICATION
Instructions:

Here is a page full of letters of the alphabet. Please tell me the SOUNDS of as many letters as you can – not the NAMES of the letters, but the sounds. For example, the sound of this letter [point to A] is 'AH' as in 'AWE' or 'AAA' as in 'MPAAPA.' Now you try: tell me the sound of this letter [point at F]. [If correct] Good, the sound of this letter is 'FFF.' [If incorrect] The sound of the letter is 'FFF.' [Give one more example]. Do you understand what you are supposed to do? When I say 'begin,' sound out the letters as best as you can. I will keep quiet and listen to you, unless you need help. Ready? Begin (NB: the learner should say the letters in 2 minutes).

L	**i**	**h**	**P**	**S**	**y**	**E**	**O**	**n**	**T**	**10**
i	**e**	**T**	**D**	**A**	**t**	**ŋ**	**d**	**e**	**w**	**20**
h	**O**	**k**	**m**	**U**	**d**	**L**	**G**	**ŋ**	**u**	**30**
g	**c**	**B**	**E**	**i**	**f**	**m**	**t**	**s**	**b**	**40**
S	**T**	**C**	**N**	**P**	**A**	**F**	**c**	**a**	**K**	**50**
y	**s**	**w**	**A**	**M**	**C**	**O**	**t**	**n**	**P**	**60**
e	**A**	**p**	**s**	**O**	**F**	**h**	**u**	**A**	**t**	**70**
ŋ	**G**	**H**	**b**	**S**	**I**	**g**	**m**	**I**	**L**	**80**
L	**I**	**N**	**O**	**e**	**o**	**E**	**u**	**p**	**y**	**90**
N	**A**	**c**	**D**	**d**	**I**	**O**	**j**	**e**	**n**	**100**

Total correct responses ☐

Time left on stopwatch if learner completes in LESS than 120 seconds ☐

☐ Exercise was discontinued as learner could not give a correct response in the first line.

(b) SYLLABLE NAMING

Instructions:

This page has two sounds put together to make a special sound. When two sounds are put together like this to make a special sound it is called a *syllable*. In Ichibemba, when sound 'M' and sound 'U' is put together [point at 'mu'], they make 'MU' syllable like in the word 'musukulu.' Let us try another syllable [point at 'ku'], 'KU' like in the word 'kunuma.' [Give one more example]. Do you understand what you are supposed to do? When I say 'begin,' sound out the syllables as best as you can. I will keep quiet and listen to you, unless you need help. Ready? Begin (NB: the learner should say the letters in 2 minutes).

te	ya	la	ko	fa	ci	ma	go	fu	mu	(10)
na	hu	me	mi	ma	cu	wa	po	wa	su	(20)
bi	tu	sa	so	gu	fi	le	lu	wa	pu	(30)
ŋa	so	ji	fo	hi	ba	di	co	mu	si	(40)
bu	be	mo	ka	su	nu	ca	ti	mi	ma	(50)
sa	ma	du	ha	ye	pa	sa	wa	si	de	(60)
yo	ji	ka	gi	pe	ta	ye	we	po	ge	(70)
wu	gu	me	do	na	tu	li	gu	ca	ku	(80)
fi	ta	lo	ho	ta	di	yu	no	ce	bo	(90)
su	ti	ko	bi	do	wo	bi	lo	to	fe	(100)

Total correct responses ☐

Time left on stopwatch if learner completes in LESS than 120 seconds ☐

☐ Exercise was discontinued as learner could not give a correct response in the first line.

(c) WORD READING

Instructions:

Here are some words. Please read as many as you can (do not spell the words, but read them). For example, this word is 'kuti' [Give two more examples].

Example: kuti	imbwa	mayo			
1	2	3	4	5	
uku	umwana	tata	isabi	fuma	(5)
kwa	yama	sonta	ici	iwe	(10)
mwa	fiseni	ifyani	awa	ibuku	(15)
ali	capa	isukulu	tala	umuti	(20)
lintu	tiye	mu	wa	isabi	(25)
mune	ukulya	ca	pensulo	insofu	(30)
niwe	amenshi	aka	kuti	koma	(35)
motoka	lila	ya	ipika	wakwe	(40)
tota	pepa	iŋanda	imbale	fisa	(45)
pa	impasa	panse	lekeni	lima	(50)

Total correct responses ☐

Time left on stopwatch if learner completes in LESS than 120 seconds ☐

☐ Exercise was discontinued as learner could not give a correct response in the first line.

(a) Sounds Identification Learner's Stimulus Sheet – Grade 1

(Bemba)

L i h P S y E O n T

i e T D A t ŋ d e w

h O k m U d L G ŋ u

g c B E i f m t s b

S T C N P A F c a K

y s w A M C O t n P

e A p s O F h u A t

ŋ G H b S I g m I L

L I N O e o E u p y

N A c D d I O j e n

(b) Syllable Naming Learner's Stimulus Sheet – Grade 1

(Bemba)

te	**ya**	**la**	**ko**	**fa**	**ci**	**ma**	**go**	**fu**	**mu**
na	**hu**	**me**	**mi**	**ma**	**cu**	**wa**	**po**	**wa**	**su**
bi	**tu**	**sa**	**so**	**gu**	**fi**	**le**	**lu**	**wa**	**pu**
ŋa	**so**	**ji**	**fo**	**hi**	**ba**	**di**	**co**	**mu**	**si**
bu	**be**	**mo**	**ka**	**su**	**nu**	**ca**	**ti**	**mi**	**ma**
sa	**ma**	**du**	**ha**	**ye**	**pa**	**sa**	**wa**	**si**	**de**
yo	**ji**	**ka**	**gi**	**pe**	**ta**	**ye**	**we**	**po**	**ge**
wu	**gu**	**me**	**do**	**na**	**tu**	**li**	**gu**	**ca**	**ku**
fi	**ta**	**lo**	**ho**	**ta**	**di**	**yu**	**no**	**ce**	**bo**
su	**ti**	**ko**	**bi**	**do**	**wo**	**bi**	**lo**	**to**	**fe**

(c) Word Reading Learner's Stimulus Sheet – Grade 1 (Bemba)

Example:	kuti		imbwa	mayo	
1	2	3	4	5	
uku	umwana	tata	isabi	fuma	
kwa	yama	sonta	ici	iwe	
mwa	fiseni	ifyani	awa	ibuku	
ali	capa	isukulu	tala	umuti	
lintu	tiye	mu	wa	isabi	
mune	ukulya	ca	pensulo	insofu	
niwe	amenshi	aka	kuti	koma	
motoka	lila	ya	ipika	wakwe	
tota	pepa	inanda	imbale	fisa	
pa	impasa	panse	lekeni	lima	

Research Instrument 9

Nyanja Phonemic Skill Assessment Sheet – Grade 2

CODE:

Date:	Term:
School Name:	Location:
Learner Gender: Girl ☐ Boy ☐	Age:

Objective: To assess the learner on their letter sound knowledge and eventual word reading. This assessment gives data on successful or unsuccessful communication of letter sounds from letter names. It also assesses the acquisition of phonemic skill is word construction elementary to communication proficiency.

(a) SOUNDS IDENTIFICATION

Instructions:

Here is a page full of letters of the alphabet. Please tell me the SOUNDS of as many letters as you can – not the NAMES of the letters, but the sounds. For example, the sound of this letter [point to A] is 'AH' as in 'APPLE' or 'AAA' as in 'AGE.' Now you try: tell me the sound of this letter [point at V]. [If correct] Good, the name of this letter is 'VVV.' [If incorrect] The name of the letter is 'VVV.' [Give one more example]. Do you understand what you are supposed to do? When I say 'begin,' sound out the letters as best as you can. I will keep quiet and listen to you, unless you need help. Ready? Begin (NB: the learner should say the letters in 2 minutes).

L	**i**	**h**	**R**	**S**	**y**	**E**	**O**	**n**	**T**	**10**
i	**e**	**T**	**D**	**A**	**t**	**a**	**d**	**e**	**w**	**20**
h	**O**	**e**	**m**	**U**	**r**	**L**	**G**	**R**	**u**	**30**
g	**R**	**B**	**E**	**i**	**f**	**m**	**t**	**s**	**r**	**40**
S	**T**	**C**	**N**	**P**	**A**	**F**	**c**	**a**	**E**	**50**
y	**s**	**V**	**A**	**M**	**C**	**O**	**t**	**n**	**P**	**60**
e	**A**	**e**	**s**	**O**	**F**	**h**	**u**	**A**	**t**	**70**
R	**G**	**H**	**b**	**S**	**I**	**g**	**m**	**I**	**L**	**80**
L	**I**	**N**	**O**	**e**	**o**	**E**	**r**	**p**	**Z**	**90**
N	**A**	**c**	**D**	**d**	**I**	**O**	**j**	**e**	**n**	**100**

Total correct responses ☐

Time left on stopwatch if learner completes in LESS than 120 seconds ☐

☐ Exercise was discontinued as learner could not give a correct response in the first line.

(b) SYLLABLE NAMING

Instructions:

This page has two sounds put together to make a special sound. When two sounds are put together like this to make a special sound it is called a *syllable*. In Nyanja, when sound 'M' and sound 'U' is put together [point at 'mu'], they make 'MU' syllable like in the word 'munyumba.' Let us try another syllable [point at 'ku'], 'KU' like in the word 'kufuna.' [Give one more example]. Do you understand what you are supposed to do? When I say 'begin,' sound out the syllables as best as you can. I will keep quiet and listen to you, unless you need help. Ready? Begin (NB: the learner should say the letters in 2 minutes).

te	ya	la	ko	fa	ci	ma	go	fu	mu	(10)
na	hu	me	ri	ra	cu	wa	he	wa	su	(20)
bi	tu	sa	so	vu	fi	le	gu	wa	ru	(30)
na	ju	ji	fo	hi	za	ri	co	mu	si	(40)
bu	be	mo	ka	su	nu	ca	ti	mi	ma	(50)
sa	ma	du	ha	ve	ja	sa	wa	si	de	(60)
yo	ji	ka	gi	ze	va	ye	we	po	ge	(70)
wu	gu	re	do	na	tu	li	gu	ca	jo	(80)
fi	ta	lo	ho	ta	di	yu	no	ra	bo	(90)
je	zi	vo	bi	ro	wo	bi	ko	zo	fe	(100)

Total correct responses ☐

Time left on stopwatch if learner completes in LESS than 120 seconds ☐

☐ Exercise was discontinued as learner could not give a correct response in the first line.

(c) WORD READING

Instructions:

Here are some words. Please read as many as you can (do not spell the words, but read them). For example, this word is 'cat' [Give two more examples].

Example: kuti	galu	awa			
1	2	3	4	5	
amai	bvala	kuphika	nchito	sewera	(5)
atate	tiyi	mudzi	ali	sukulu	(10)
ndi	dya	onse	koma	ca	(15)
lira	kuti	manja	wa	madzi	(20)
nyumba	amalume	zinali	tsikana	zonse	(25)
galu	akanda	kuti	maina	zolima	(30)
zo	phika	capa	uyu	pensulo	(35)
buku	za	mbale	mtengo	monga	(40)
zina	mau	zolima	njobvu	ziri	(45)
ona	nsomba	manja	iya	pafupi	(50)

Total correct responses ☐

Time left on stopwatch if learner completes in LESS than 120 seconds ☐

☐ Exercise was discontinued as learner could not give a correct response in the first line.

(a) Sounds Identification Learner's Stimulus Sheet – Grade 2

(Nyanja)

L i h R S y E O n T

i e T D A t a d e w

h O e m U r L G R u

g R B E i f m t s r

S T C N P A F c a E

y s Q A M C O t n P

e A e s O F h u A t

R G H b S I g m I L

L I N O e o E r p X

N A c D d I O j e n

(b) Syllable Naming Learner's Stimulus Sheet – Grade 2

(Nyanja)

te	**ya**	**la**	**ko**	**fa**	**ci**	**ma**	**go**	**fu**	**mu**
na	**hu**	**me**	**ri**	**ra**	**cu**	**wa**	**he**	**wa**	**su**
bi	**tu**	**sa**	**so**	**vu**	**fi**	**le**	**gu**	**wa**	**ru**
na	**ju**	**ji**	**fo**	**hi**	**za**	**ri**	**co**	**mu**	**si**
bu	**be**	**mo**	**ka**	**su**	**nu**	**ca**	**ti**	**mi**	**ma**
sa	**ma**	**du**	**ha**	**ve**	**ja**	**sa**	**wa**	**si**	**de**
yo	**ji**	**ka**	**gi**	**ze**	**va**	**ye**	**we**	**po**	**ge**
wu	**gu**	**re**	**do**	**na**	**tu**	**li**	**gu**	**ca**	**jo**
fi	**ta**	**lo**	**ho**	**ta**	**di**	**yu**	**no**	**ra**	**bo**
je	**zi**	**vo**	**bi**	**ro**	**wo**	**bi**	**ko**	**zo**	**fe**

(c) Word Reading Learner's Stimulus Sheet – Grade 2 (Nyanja)

Example:	kuti	galu	awa	
1	2	3	4	5
amai	bvala	kuphika	nchito	sewera
atate	tiyi	mudzi	ali	sukulu
ndi	dya	onse	koma	ca
lira	kuti	manja	wa	madzi
nyumba	amalume	zinali	tsikana	zonse
galu	akanda	kuti	maina	zolima
zo	phika	capa	uyu	pensulo
buku	za	mbale	mtengo	monga
zina	mau	zolima	njobvu	ziri
ona	nsomba	manja	iya	pafupi

Research Instrument 10

Bemba Phonemic Skill Assessment Sheet – Grade 2

CODE:

Date:	Term:
School Name:	Location:
Learner Gender: Girl ☐ Boy ☐	Age:

Objective: To assess the learner on their letter sound knowledge and eventual word reading. This assessment gives data on successful or unsuccessful communication of letter sounds from letter names. It also assesses the acquisition of phonemic skill is word construction elementary to communication proficiency.

(a) SOUNDS IDENTIFICATION

Instructions:

Here is a page full of letters of the alphabet. Please tell me the SOUNDS of as many letters as you can – not the NAMES of the letters, but the sounds. For example, the sound of this letter [point to A] is 'AH' as in 'AWE' or 'AAA' as in 'MPAAPA.' Now you try: tell me the sound of this letter [point at F]. [If correct] Good, the sound of the letter is 'FFF.' [If incorrect] The sound of the letter is 'FFF.' [Give one more example]. Do you understand what you are supposed to do? When I say 'begin,' sound out the letters as best as you can. I will keep quiet and listen to you, unless you need help. Ready? Begin (NB: the learner should say the letters in 2 minutes).

L	**i**	**h**	**P**	**S**	**y**	**E**	**O**	**n**	**T**	**10**
i	**e**	**T**	**D**	**A**	**t**	**ŋ**	**d**	**e**	**w**	**20**
h	**O**	**k**	**m**	**U**	**d**	**L**	**G**	**ŋ**	**u**	**30**
g	**c**	**B**	**E**	**i**	**f**	**m**	**t**	**s**	**b**	**40**
S	**T**	**C**	**N**	**P**	**A**	**F**	**c**	**a**	**K**	**50**
y	**s**	**w**	**A**	**M**	**C**	**O**	**t**	**n**	**P**	**60**
e	**A**	**p**	**s**	**O**	**F**	**h**	**u**	**A**	**t**	**70**
ŋ	**G**	**H**	**b**	**S**	**I**	**g**	**m**	**I**	**L**	**80**
L	**I**	**N**	**O**	**e**	**o**	**E**	**u**	**p**	**y**	**90**
N	**A**	**c**	**D**	**d**	**I**	**O**	**j**	**e**	**n**	**100**

Total correct responses ☐

Time left on stopwatch if learner completes in LESS than 120 seconds ☐

☐ Exercise was discontinued as learner could not give a correct response in the first line.

(b) SYLLABLE NAMING

Instructions:

This page has two sounds put together to make a special sound. When two sounds are put together like this to make a special sound it is called a *syllable*. In Ichibemba, when sound 'M' and sound 'U' is put together [point at 'mu'], they make 'MU' syllable like in the word 'musukulu.' Let us try another syllable [point at 'ku'], 'KU' like in the word 'kunuma.' [Give one more example]. Do you understand what you are supposed to do? When I say 'begin,' sound out the syllables as best as you can. I will keep quiet and listen to you, unless you need help. Ready? Begin (NB: the learner should say the letters in 2 minutes).

te	ya	la	ko	fa	ci	ma	go	fu	mu	(10)
na	hu	me	mi	ma	cu	wa	po	wa	su	(20)
bi	tu	sa	so	gu	fi	le	lu	wa	pu	(30)
ŋa	so	ji	fo	hi	ba	di	co	mu	si	(40)
bu	be	mo	ka	su	nu	ca	ti	mi	ma	(50)
sa	ma	du	ha	ye	pa	sa	wa	si	de	(60)
yo	ji	ka	gi	pe	ta	ye	we	po	ge	(70)
wu	gu	me	do	na	tu	li	gu	ca	ku	(80)
fi	ta	lo	ho	ta	di	yu	no	ce	bo	(90)
su	ti	ko	bi	do	wo	bi	lo	to	fe	(100)

Total correct responses ☐

Time left on stopwatch if learner completes in LESS than 120 seconds ☐

☐ Exercise was discontinued as learner could not give a correct response in the first line.

(c) WORD READING

Instructions:

Here are some words. Please read as many as you can (do not spell the words, but read them). For example, this word is 'panse' [Give two more examples].

Example:	panse	imbwa	mona		
1	2	3	4	5	
isa	mayo	isukulu	butuka	pepa	(5)
ukutwa	ibala	amayanda	ifipushi	koswe	(10)
batata	ulupiya	ukuseka	umuti	toloka	(15)
umuntu	impanga	ikala	motoka	ilibwe	(20)
ubwali	fisa	akoni	amenshi	ulukasa	(25)
lembeni	ibuku	akasuba	icibi	panshi	(30)
umushi	ilinso	kabiye	talala	umukoshi	(35)
lyonse	kabili	ifishimu	ulupwa	akamana	(40)
tandala	lolesha	umulu	icibumba	umunwe	(45)
lekeni	tekuti	ukulwa	bwela	umulilo	(50)

Total correct responses ☐

Time left on stopwatch if learner completes in LESS than 120 seconds ☐

☐ Exercise was discontinued as learner could not give a correct response in the first line.

(a) Sounds Identification Learner's Stimulus Sheet – Grade 2

(Bemba)

L i h P S y E O n T

i e T D A t ŋ d e w

h O k m U d L G ŋ u

g c B E i f m t s b

S T C N P A F c a K

y s w A M C O t n P

e A p s O F h u A t

ŋ G H b S I g m I L

L I N O e o E u p y

N A c D d I O j e n

(b) Syllable Naming Learner's Stimulus Sheet – Grade 2

(Bemba)

te	**ya**	**la**	**ko**	**fa**	**ci**	**ma**	**go**	**fu**	**mu**
na	**hu**	**me**	**mi**	**ma**	**cu**	**wa**	**po**	**wa**	**su**
bi	**tu**	**sa**	**so**	**gu**	**fi**	**le**	**lu**	**wa**	**pu**
ŋa	**so**	**ji**	**fo**	**hi**	**ba**	**di**	**co**	**mu**	**si**
bu	**be**	**mo**	**ka**	**su**	**nu**	**ca**	**ti**	**mi**	**ma**
sa	**ma**	**du**	**ha**	**ye**	**pa**	**sa**	**wa**	**si**	**de**
yo	**ji**	**ka**	**gi**	**pe**	**ta**	**ye**	**we**	**po**	**ge**
wu	**gu**	**me**	**do**	**na**	**tu**	**li**	**gu**	**ca**	**ku**
fi	**ta**	**lo**	**ho**	**ta**	**di**	**yu**	**no**	**ce**	**bo**
su	**ti**	**ko**	**bi**	**do**	**wo**	**bi**	**lo**	**to**	**fe**

(c) Word Reading Learner's Stimulus Sheet – Grade 2 (Bemba)

Example:	panse	imbwa	mona	
1	2	3	4	5
isa	mayo	isukulu	butuka	pepa
ukutwa	ibala	amayanda	ifipushi	koswe
batata	ulupiya	ukuseka	umuti	toloka
umuntu	impanga	ikala	motoka	ilibwe
ubwali	fisa	akoni	amenshi	ulukasa
lembeni	ibuku	akasuba	icibi	panshi
umushi	ilinso	kabiye	talala	umukoshi
lyonse	kabili	ifishimu	ulupwa	akamana
tandala	lolesha	umulu	icibumba	umunwe
lekeni	tekuti	ukulwa	bwela	umulilo

Research Instrument 11

English Phonemic Skill Assessment Sheet – Grade 2 Only

CODE:

Date:	Term:
School Name:	Location:
Learner Gender: Girl ☐ Boy ☐	Age:

Objective: To assess the learner on their letter sound knowledge and eventual word reading. This assessment gives data on successful or unsuccessful communication of letter sounds from letter names. It also assesses the acquisition of phonemic skill is word construction elementary to communication proficiency.

(a) SOUNDS IDENTIFICATION

Instructions:

Here is a page full of letters of the alphabet. Please tell me the SOUNDS of as many letters as you can – not the NAMES of the letters, but the sounds. For example, the sound of this letter [point to A] is 'AH' as in 'APPLE' or 'AAA' as in 'AGE.' Now you try: tell me the sound of this letter [point at V]. [If correct] Good, the name of this letter is 'VVV.' [If incorrect] The name of the letter is 'VVV.' [Give one more example]. Do you understand what you are supposed to do? When I say 'begin,' sound out the letters as best as you can. I will keep quiet and listen to you, unless you need help. Ready? Begin (NB: the learner should say the letters in 2 minutes).

L	**i**	**h**	**R**	**S**	**y**	**E**	**O**	**n**	**T**	**10**
i	**e**	**T**	**D**	**A**	**t**	**a**	**d**	**V**	**w**	**20**
h	**O**	**e**	**m**	**U**	**r**	**L**	**G**	**R**	**u**	**30**
g	**R**	**B**	**E**	**i**	**f**	**m**	**t**	**s**	**r**	**40**
S	**T**	**C**	**N**	**P**	**A**	**F**	**c**	**a**	**E**	**50**
y	**s**	**Q**	**z**	**M**	**C**	**O**	**t**	**n**	**P**	**60**
K	**A**	**e**	**s**	**O**	**F**	**h**	**u**	**A**	**t**	**70**
R	**G**	**H**	**b**	**S**	**I**	**g**	**m**	**I**	**L**	**80**
L	**I**	**N**	**O**	**e**	**o**	**E**	**r**	**p**	**X**	**90**
N	**A**	**c**	**D**	**d**	**I**	**O**	**j**	**e**	**n**	**100**

Total correct responses ☐

Time left on stopwatch if learner completes in LESS than 120 seconds ☐

☐ Exercise was discontinued as learner could not give a correct response in the first line.

(b) NONWORD READING

The Objective of this exercise is to assess decoding ability of the learner of phonetic usage. Non-words serve this purpose well as the learner will solely depend on their phonetic knowledge to decode the non-words and not on memory.

Instructions:

Here are some made up words. I would like you to read me as many made-up words as you can (do not spell the words, but read them). for example, this made-up word is 'ut' [Give two more examples]. Do you understand what you are supposed to do? When I say 'begin,' sound out the syllables as best as you can. I will keep quiet and listen to you, unless you need help. Ready? Begin (NB: the learner should say the letters in 2 minutes).

Example:	uto	difu	mabe		
lozu	epo	yate	zame	tobi	5
zome	rasu	monu	jafu	duzo	10
tamo	afu	kedo	igo	elu	15
tigi	peke	dopo	zace	iko	20
ufe	ralu	dosu	babi	vifu	25
lutu	sigo	zopa	zare	jafe	30
ruzi	hufo	wabi	aki	jepi	35
wubo	dodo	iki	vuso	nuxe	40
peki	zelu	befo	wabe	hizo	45
wofo	ibo	deku	zeku	voxe	50

Total correct responses ☐

Time left on stopwatch if learner completes in LESS than 120 seconds ☐

☐ Exercise was discontinued as learner could not give a correct response in the first line.

(c) WORD READING

Instructions:

Here are some words. Please read as many as you can (do not spell the words, but read them). For example, this word is 'cat' [Give two more examples].

Example: cat	sick	made			
1	2	3	4	5	
Go	sad	up	find	come	(5)
Help	two	run	see	down	(10)
Red	and	play	at	you	(15)
Chair	man	when	now	under	(20)
Please	soon	like	they	good	(25)
Thank	going	are	know	him	(30)
Jump	once	ask	fly	want	(35)
Must	green	sing	those	always	(40)
Many	which	some	sit	clean	(45)
Stop	big	me	house	for	(50)

Total correct responses ☐

Time left on stopwatch if learner completes in LESS than 120 seconds ☐

☐ Exercise was discontinued as learner could not give a correct response in the first line.

(a) Sounds Identification Learner's Stimulus Sheet – Grade 2

(English)

L i h R S y E O n T

i e T D A t a d V w

h O e m U r L G R u

g R B E i f m t s r

S T C N P A F c a E

y s Q z M C O t n P

K A e s O F h u A t

R G H b S I g m I L

L I N O e o E r p X

N A c D d I O j e n

(b) Nonword Reading Learner's Stimulus Sheet – Grade 2

Example:	uto	difu	maba
lozu	ufe	ruzi	wofo
epo	ralu	hufo	ibo
yate	dosu	wabi	deku
zame	babi	aki	zeku
tobi	vifu	jepi	voxe
	jafe	zare	zopa
	iko	zace	dopo
	elu	igo	kedo
	duzo	jafu	monu
	tigi	peke	afu
	lutu	sigo	tamo
	wubo	dodo	iki
	peki	zelu	befo
	nuxe	vuso	wabe
	hizo		
	zome	rasu	

Example: cat sick made

1	2	3	4	5
Go	sad	up	find	come
Help	two	run	see	down
Red	and	play	at	you
Chair	man	when	now	under
Please	soon	like	they	good
Thank	going	are	know	him
Jump	once	ask	fly	want
Must	green	sing	those	always
Many	which	some	sit	clean
Stop	big	me	house	for

APPENDIX II: COMPUTATION OF PERCENTAGE AGGREGATES

In computing percentage aggregates for Chapter 7: Conclusion and Recommendations, an averaging formula was used as indicated in the example below:-

Frequency and Magnitude for the Sampled 578 Grade 1 Learners

Table 6.1: Summary - Frequency and Magnitude Grade 1

	Above Average (50% +)	Average	Below Average	
			Total	Nil
Alphabet Letter Recognition	69.0% (399)	-	31.0% (179)	5.2% (30)
Vowels Recognition	62.4% (361)	8.8% (51)	28.8% (166)	16.3% (94)
Word Recognition	60.2% (348)	-	39.8% (230)	22.5% (130)

- Three (3) assessments were done. To obtain an overall percentage of the 3 obtaining results in each column, create a common denominator

  578 x 3 = 1,734

  Then use this denominator to compute the overall percentage:-

  (a) Above Average – Add the three values (399 + 361 + 348) = 1,108

  $$\frac{1,108}{1,734} \times 100 = 63.9\%$$

  (b) Average $\frac{51}{1,734} \times 100 = 2.9\%$

  (c) Below Average (179 + 166 + 230) = 575

  $$\frac{575}{1,734} \times 100 = 33.2\%$$

  The computed percentage add up to 100%

  (d) Nil (30 + 94 + 130) = 254

  $$\frac{254}{1,734} \times 100 = 14.6\%$$

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