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An Investigation of the Phonemic Articulation Errors Committed by Grade Three Regular Learners with Kikamba Reading Difficulties

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ABSTRACT

This research sought to investigate the phonemic mis-articulation errors committed by grade three regular learners with Kikamba reading difficulties. A grade three learner who is considered a typical reader should not commit major articulation errors while reading written work. Unfortunately, there are regular grade three learners who make serious articulation errors during reading of written materials, such learners require to be identified and aided so that they can advance with their studies. This paper was guided by the objective: to investigate the phonemic mis-articulation errors committed by grade three regular learners with Kikamba reading difficulties. The study employed the Phonological Awareness theory, was cross-sectional and utilized a descriptive research design. A sample of purposively selected 25 grade three learners was used in this research. The investigation employed purposive sampling method to select the sample. The data was collected by tape recording articulations of the participants and later analyzed to determine the phonemic articulation errors they were committing while reading Kikamba language. Descriptive statistics which entail measures of central tendency and correlation were used to describe and summarize the data.

Keywords: phonemic, articulation, errors, reading, difficulties, grade three and regular

INTRODUCTION

Reading is a decoding that requires translating the symbols of writing system into oral words which they represent (Cline et. al, 2006). It is an essential capability that is required in a person's daily activities and hence it is a literacy component that should be acquired by everyone. In school, in order to perform well in literacy tests learners have to read and comprehend. Also, in the present world full of various information that calls for effective reading anyone who undergoes challenge in reading will eventually face major social, personal and economic challenges. A grade three learner in Kenya is typically eight years old representing the normal primary third year education in the CBC curriculum. These learners are in the lower category of primary school concentrating on basic skills in writing and reading with the anticipation of having mastered foundation reading comprehension by the end of grade two. Grade three learners who were deemed to have reading difficulties were targeted in this study since at this level they have received Kikamba language instruction on phonological awareness for a minimum of five years this it should not be the case that learners at this grade undergo problems in reading.

Articulation is one of the crucial language skills since it makes communication possible. Dost (2017) opines that most language learners main problem is learning how to articulate. According to Ababneh (2018) learners generally consider articulation a main cause of their communication difficulties. This it can be noted that articulation is a crucial component in gaining success in any oral conversation because articulation contributes to communicating the right message in spoken conversation this it must be given a lot of attention.

According to the Kenya institute of curriculum development, literacy as a learning area was introduced in the CBC curriculum in a bid to actualize the national language policy in

education. At this level literacy addresses the capability of the learner to make meaning of graphemes and phonemes hence decoding written codes. It shall be taught in the first language of the learner. At this basic level literacy goal is equipping the learners with foundational skills in writing and reading to help in all other subjects (KICD ,2017). For learners to perform well in their studies, they are expected to read in order to progress through school. However, some learners face difficulties in reading and continually undergo frustration and failure in their education. Phonemic articulation is therefore important and required by the learners for the growth of their reading.

Components of Kikamba Phonemic Awareness

Kikamba language has a total of 19 consonant sounds (Kitavi,1992). Mathooko (2004) however observes that there are two additional consonants found in Kitui North variety. This study focused on the Kikamba of Machakos dialect which does not have the two additional phonemes. Like all other central Kenya Bantu languages namely; Kimeru, Kikuyu, Kimbeere and Kitharaka, Kikamba has seven vowel systems (cf. Kioko, 1994). The seven vowels of Kikamba are accompanied by vowel length such that each one has a long and a short distinction, this doubles the number of vowels.

Table 1: Kikamba consonants (Kitavi, 1992; Mathooko 2004)

Place / **Manner**	**Bilabial**	**Dental**	**Alveolar**	**Palato-Alveolar**	**Palatal**	**Velar**
S1tops			t			k
Prenasalised stops	mb		nd			ŋg
Affricates				tʃ		
Prenasalized Affricate				ndʒ		
Fricatives	φ	ɵ				
Prenasalized Fricatives		nɵ	nz			
Nasals	m		n		ɲ	ŋ
Laterals			l			
Glides	w				j	

Kikamba vowels

a) Short Vowels

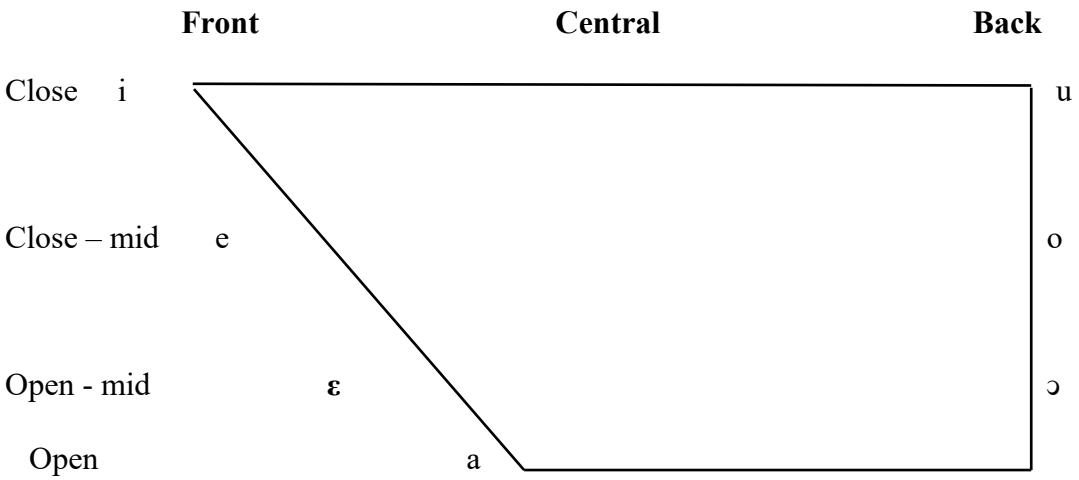


Figure 1: Vowel chart

	Front	Back
Close	ii	uu
Close - mid	ee	oo
	εε	oo
Open-mid	εε	ɔɔ
Open	aa	

Figure 2: Long Vowels

PHONOLOGICAL AWARENESS THEORY

The current research employed the Phonological Awareness theory in describing the phonemic awareness strategies used by grade three regular learners with Kikamba reading difficulties in reading Kikamba language. The Phonological Awareness theory came to view in the 1960's where Zhurova and Elkonin are regarded as the founders. The theory was expounded in the 1970's by Isabelle Lieberman and colleagues on its application to reading. In 1980's the theory was further expounded by researchers like Lynnette Bradley and Peter Bryant. In 1990's the theory was further improved by Marilyn Jager Adams on mainstream synthesis.

The processing ability mainly associated with reading and writing capability is known as phonological awareness. It includes basic phonological skills like judging whether two words rhyme and phoneme awareness which is the ability to manipulate single sounds. The crucial tenets of Phonological Awareness are; the capability to manipulate sounds by blending, segmenting, deleting and substituting them; the consciousness that spoken words are made up of smaller sound units (phonemes) and progression of skills beginning with larger components like syllables and rhymes before concentrating on individual sounds. This theory was instrumental in the analysis of the learners phonemic articulation errors since it informed the investigator on the importance of the learners having phonemic awareness so as to become proficient readers.

METHODOLOGY

The present research was cross-sectional and used a descriptive research design in the examination of the phonemic articulation errors committed by grade three regular learners with Kikamba reading difficulties in reading Kikamba language. Descriptive research is a method for analyzing and understanding the meanings of individuals or groups assigned to social or human problem (Cresswell & Cresswell,2018). In addition, according to Siedlecki (2020) it seeks to describe a phenomena, situations, facts or conditions within their natural setting without any scientific manipulation. The study was carried out in purposively selected public primary schools in Machakos county. The population of the study included 25 grade three regular learners, sixteen boys and nine girls ranging from the age of 8 years tob11 years old who were purposively selected Kikamba language learners whose first language was Kikamba and were regarded to have Kikamba reading difficulties. The 25 learners were selected from a cluster of 375 respondents by administering a reading test.

The research employed purposive sampling which is one of the main techniques in social sciences. The study in particular used extreme case sampling as stated by Cresswell (2014) which involves unusual outliers or cases, "this can involve notable successes or failures 'top of the class vs bottom of the class' scenarios or any manifestation of phenomenon of interest". The study used five sub tests in testing phonemic articulation errors adopted from work done by Levis et al. (2007) which include; phoneme blending test, non-word reading test, phonological segmentation test, phonological production test and phonological manipulation test. The data was tape recorded and later transcribed and summarized using descriptive statistics measures which included mean, frequency and percentages.

RESULTS AND DISCUSSION

Results on Phonemic Mis-Articulation Errors

The researcher observed the following phonemic errors made by the learners as they read words and non-words in the phonological awareness tests. The results are displayed in Table 2 below.

Table 2: Mispronunciation errors

Errors	Number of learners	Percentage
Atypical errors	19	76%
Mis-pronunciation errors	22	88%
Phoneme deletion errors	11	44%
Substitution errors	14	56%
Phoneme insertion errors	14	56%
Errors in multi-syllabic words	18	72%
Blending errors	16	64%

Atypical Errors

This observed to be the second most common error committed by learners during the investigation with 19 of the learners which translates to 76% of the total study population manifesting it. It was further noted that the respondents demonstrated difficulties in reading digraphs. For example, learners failed to recognize that "ky" = /tʃ/ despite the fact that they understood "k" = /k/ and "y" =/j/ like in reading the word “thokya" which was segmented as /th/ /o/ /k/ /y/ /a/.

Mis-Pronunciation Errors

This was the most frequent error committed by 22 respondents which translates to 88% of the total study population. This indicates that a huge number of the learners had not understood clearly the Kikamba phonemes. For instance, during the reading test many of the learners made pronunciation errors like articulating "w" as "v", "nd as "mb", "i" as "a" and "s" as "z". This could have been brought about by deficiency in grapheme-phoneme correspondence skills.

Phoneme Deletion Errors

It was observed that 11 learners which is 44% of the total study population committed this error by making consonant cluster reduction. For example, it was noted that many respondents omitted the consonant /l/ in the word "îkûlyo" and resulted to them pronouncing the word as "îkûyo". This could be due to phonemic manipulation and blending.

Substitution Errors

A total of 14 respondents were which is 56% of the study population made this error. In addition, it was noted that some learners substituted /nd/ phoneme with /t/ phoneme like in the word "kîndû" leading to mis-articulation and a completely different word with different meaning. This could be due to insufficient phonemic awareness strategies in learning.

Phoneme Insertion Errors

These errors were noted in 15 respondents which translates to 56% of the study population. These errors were also observed in the reading exercise during administration of the reading test. For example, learners added the sound /e/ between "nd" and "w" in the reading of the word "Mwendwa" and resulted to the word being read as "mwe-nde-wa". Additionally, when reading the word "nthûku" some respondents added the /o/ sound between "n" and "th" making the word sound like "nû-nthû-ku" leading to change in the meaning of the word. This could be as a result of insufficient segmentation and blending skills. Phoneme insertion errors can lead to challenges in decoding words correctly and mis-articulation specifically among early learners with reading difficulties because they might struggle with complexities of particular patterns (Mauti et al., 2023).

Errors in Multi-Syllabic Words

This type of error was observed in 18 participants which translated to 72% of the study population. Respondents struggled to read words and non-words with three or more syllables while they had the capability to read words and non-words with one or two syllables correctly. According to Cameron (2012) dealing with long and more complicated words learners face challenges like decoding difficulties, reversals, skipping syllables as well as blending the many phonemes that make a word.

Blending Errors

A relatively large number of respondents committed blending errors by a total of 16 learners which is 64% of the total population. This could be as a result of poor blending skills. Further, it was observed that learners committed blending errors such as sound elongation, stumbling and phoneme omission. Deficit in blending skills can lead to poor reading and pronunciation due to lack of capability to join sounds and letters effectively particularly a combination of consonant sounds (Massengill & Sundberg, 2006).

CONCLUSIONS

It was noticed that the most frequent error was mis-pronunciation errors, followed by atypical errors, after which came the multi-syllabic words, then blending errors, followed by substitution and phoneme insertion errors which were made by the same number of participants and the least frequent was phoneme deletion errors. The current research shows that learners with reading difficulties might as well be having deficits in phonemic awareness strategies. This is indicated by the varied pronunciation errors observed. This research is of help to curriculum developers in designing suitable educational strategies that will include teaching of reading using all measures of phonological awareness. For example, non-word reading, phoneme manipulation, phoneme blending and phoneme segmentation among others.

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