Top Linguistic and Language Journal (TLLJ)
Volume.9, Number 1; January - March, 2024;
ISSN: 2836-9564| Impact Factor: 6.23
https://zapjournals.com/Journals/index.php/tllj
Published By: Zendo Academic Publishing

IDENTIFYING EFFECTIVE APPROACHES FOR TEACHING ENGLISH VOWEL PHONEMES IN TANZANIAN PRIMARY SCHOOLS: ANALYTICAL VERSUS HOLISTIC METHODS

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Article Info

Keywords: determiner phrase, Kɨbhwanji, Bantu languages, Minimalism, functional categories.

DOI
10.5281/zenodo.10563033

Abstract

Abstract: This paper explores the structure of the determiner phrase (DP) in Kɨbhwanji, a Bantu language spoken in the southern highlands of Tanzania, using the Minimalist Approach. The study identifies the functional categories that head the DP and examines the order of modifiers in Kɨbhwanji DP. Data were obtained from vocabulary tests, document review, and focus group discussions. The findings reveal that the functional categories that head the DP in Kɨbhwanji are augments, prenominal possessive formative -nya, and prenominal demonstratives. Modifiers may range from one to six in different orders. The study employs the Minimalist Program (MP) and Abney's DP Hypothesis. The MP explains the correspondence between the DP and IP while the DP Hypothesis proposes that the determiner heads the noun phrase. The research contributes to the literature on DP studies in Bantu languages.

Introduction:

While the postulation that a noun phrase is headed by a determiner is a widely accepted approach to the analysis of languages across the world, there is a need to determine the exact elements that stand as functional categories, especially in Bantu languages, which display individual idiosyncrasies in this area of enquiry. This paper examines the Structure of the Determiner Phrase in Kɨbhwanji, using the Minimalist Approach. Specifically, the paper aims to establish the functional categories that head the DP and examine the order of modifiers in the Kɨbhwanji DP. The DP is analyzed within the framework of Minimalist Program (MP) and Abney's DP Hypothesis. A detailed account of the functional categories that head the DP and the order of modifiers in Kɨbhwanji DP is provided, using data from acceptability judgments, document review, and focus group discussion. The study contributes to the literature on DP studies in Bantu languages, revealing that despite being an article-less language, Kɨbhwanji is amenable to projecting a D functional category above nP. The findings demonstrate the importance of analyzing the DP in individual languages to determine the exact configuration of functional categories that underlie the language.

Methodology

A case study design was adopted, involving two primary schools for indepth assessment of the effectiveness of the use of analytical and holistic approaches based on predetermined performance indicators. Quantitative

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approach was mostly employed as the researcher was interested in pupils' performance on specific abilities based on an achievement test. This allowed a cross-sectional collection of data once at a single point in time (Robson, 2002; Yin, 2002). The advantage was that quantitative data could also be used in a descriptive analysis and for determination of relationships between the variables under investigation (Gall, et al., 1996).

Study Area and Population

This study targeted Standard Two pupils in two primary schools in Temeke Municipality, Dar es Salaam Region. The selected schools happened to be complementarily using English and Kiswahili as media of instruction. Moreover, the Kiswahili medium primary school (henceforth KP) used holistic approaches dominantly while the English medium primary school (EP) combined both analytical and holistic approaches. Dar es Salaam Region and Temeke Municipality were preferred since the researcher not only resided in the city but was also involved in teaching activities around Temeke Municipality. The choice was thus ideal as it saved him time and resources that could be otherwise spent away from the selected locality.

Sample and Sampling Procedure

Sampling involved both schools and individual pupils; whereas schools were purposely chosen on the basis of the media of instruction and dominant approaches to literacy instruction, pupils were selected based on their pre-schooling; they had attended Kiswahili medium pre-schools prior to enrolling in either the selected KP or EP. This screening mechanism eventually generated a total of 60 pupils who qualified for the assessment; 30 of them were recruited from the KP and another 30 were from the EP. The KP also represented government primary schools while the EP was a private mission facility. The screening of pupils was achieved through a questionnaire which sought to obtain their preschool profiles. The questionnaire was meant for parents or guardians, and the whole exercise was overseen by class teachers. Questionnaires were supplied to teachers; and parents/guardians received them from their children. Then the researcher received back the questionnaire through the same delivery chain. Parents were solicited in the introduction to cooperate and ensure credibility of the supplied information. To that end, the introductory section of the questionnaire stated plainly that the information would be useful for subsequent interventions to enhance pupils' learning of the English language skills. As part of reinforcement and assurance of validity of the supplied information, the questionnaire was administered twice at the interval between the beginning of Standard One, and before the oral test administration in the mid of Standard Two. Fair gender representation was achieved through systematic sampling, which applied separately to boys and girls. Finally, the sample comprised (15 boys x 2 schools) + (15 girls x 2 schools) = 60 pupils.

Data Collection Instruments

The main data collection instrument was an Achievement Test.

Achievement Test

An oral achievement test was used to measure pupils' abilities in recognizing and articulating the selected familiar English vowels as well as recognizing and articulating the selected English vowel phonemes consistently. To make the instrument effective, validity and reliability were to be guaranteed. To achieve that, a seven-step procedure of developing a test as proposed by Gall, et al. (1996) was adopted.

The first step involved definition of the construct to be measured whereby, a careful thought was made about specific English phonemes the test would measure. The choice of the phonemes was informed by classroom observations and documentary reviews, from which the researcher could judge the competence which pupils should have obtained, and the areas in which the competence could be practically demonstrated. This means that, although some included phonemes could not be exactly those treated in the classroom, pupils could still recognize and articulate them, given the learning experiences they had gone through.

In the second step, the researcher defined the target population; the researcher ensured that the pupils to be tested were more or less the same in terms of exposure to English phonemes and orthography, and that they all had undergone instructions on the phonemes to be tested. In view of this, the items included in the achievement test were those which had been learnt, or otherwise could be predicted on the basis of the observed learning strategies.

Eventually, only vowel phonemes were tested since they were the ones concentrated on for the most period of observation.

In the third step, related tests were reviewed; and they included internal school examinations and tests. This was done for the purpose of generating ideas about format and methods for establishing the validity of the achievement test.

The fourth step involved development of a prototype; the researcher developed a preliminary version of the test. The test combined the English phonemes treated in the classroom and those assumed based on the learning approaches and strategies and learners' experiences. For example, some test items were included on the assumptions that pupils encounter them regularly in speech but not in their graphical forms, and therefore, learning strategies should enable them to read the familiar words.

The fifth step involved evaluation of the prototype; the developed prototype test was given to experts in test development, including colleagues, for review. After the review, the prototype was administered to a small group of individuals from the target population. The test was then revised in the sixth step whereby, reviews by experts in test construction, opinions from colleagues, and item analysis results provided the researcher with a basis for revising the prototype test. After the revision, another field-test was made to a sample different from that involved in the study, before a final version of the test was developed.

For the purpose of ensuring reliability of the test, the test-retest method was used in the seventh step. This is a measure of the consistency of a test or assessment across time (Nunnally, 1978). The final version of the achievement test was then administered twice to a sample of 60 students with the interval of two months between the first and the second test. After marking the two tests, the scores were correlated using the Pearson's Product Moment Correlation Coefficient and gave the coefficient of r=0.81. Any coefficient above 0.7 between the two test scores is acceptable as a quantitative measure of the test-retest reliability (Gall et al. (1996), as it happened to be the case.

Data Management and Analysis

The collected data was purely quantitative in nature. The data was analyzed using the Statistical Package for Social Sciences (SPSS), Version 18, to compute frequencies and percentages of pupils' performance on the selected abilities. In order to determine pupils' abilities in articulating English phonemes, item analysis of the difficult index of each of the test items was carried out. The results were expressed in terms of the percentage of the pupils with the targeted abilities. Performance was judged as below average (if less than 50% of the pupils performed a given task correctly), average (if 50% of the pupils were able to attempt a task) and above average (if more than 50% of the pupils could perform a task correctly). Apart from this convenient division, the performance was also considered as a continuum such that qualifiers like 'slightly below or above average etc. could also be applied. In addition, pupils' recorded productions were subjected to content analysis to locate specific areas of strengths and weaknesses.

Findings

This section divides conveniently into three main sections to capture the information relevant to the set objectives. The first section presents the results of item analysis of the achievement test. Qualitative analysis of the achievement test is attempted in the second section, and the third section is a discussion of the findings of the achievement test.

Item ~~An~~alysis ~~R~~esults of the ~~A~~chievement Test

The data required to achieve the first objective was intended to demonstrate pupils' performance on the ability to recognize and articulate the selected English vowels, and the second objective captured the ability of pupils to recognize and articulate the selected English vowels consistently. The test comprised 70 items; and the analysis of results was done at two levels; the first level involved quantitative information to determine individual pupils' ability to identify and articulate the selected English vowel phonemes. The second level pertained to qualitative aspects of the test to locate specific aspects of the tested abilities.

~~P~~upils'

Ability to Recognize and Articulate Selected English Vowel Phonemes

The pupils' ability to recognize and articulate the selected English vowel phonemes was established as a measure of the effectiveness of the approaches and strategies used to learn English phonemes. The selected vowels were those presumed to occur in words that surrounded pupils in their immediate environment and interactions and, therefore, pupils knew what the words meant, and this knowledge reinforced their memory of the shapes of graphemes and associated phonemes. Twenty items were included in the achievement test to determine the pupils' ability to recognize and articulate target phonemes in the selected words. The first ten words tested the pupils' ability to recognize the grapheme 'u' as realized as /ʊ/ or /ʌ/. The results are summarized in Table 1 below.

Table 1: Pupils' Ability to Recognize and Articulate the Grapheme 'u' as /ʊ/ or /ʌ/ (N=60)

Item	Difficulty Index	Difficulty Index Expressed as Percentage	Average Difficulty Index for each 10 Items
1	0.700	70.0	0.67
2	1.000	100.0	
3	0.800	80.0	
4	0.600	60.0	
5	0.483	48.3	
6	0.767	76.7	
7	0.533	53.3	
8	0.800	80.0	
9	0.467	46.7	
10	0.550	55.0	

Source: Field data, 2017

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The results in Table 1 above suggest that pupils had different abilities in recognizing and articulating familiar English phonemes. The average difficulty index for the ten items was 0.67, which implies that 67% of the pupils could correctly identify and articulate the phoneme /ʊ/ or /ʌ/ as represented by the grapheme 'u' in the presented words. On the other hand, the results mean that 33% of the pupils were unable to identify and articulate the target phonemes in the supplied words.

The difficulty index for item One was 0.700, which means that 70% of the pupils could identify and articulate the test item. On the other hand, the results imply that only 30% of the pupils failed to recognize and identify the test item. As for item Two, the pupils demonstrated quite impressive mastery of the grapheme and phoneme as indicated by the calculated difficulty index, which was 1.00. This suggests that all of the pupils (100%) were able

to identify and articulate the item. The pupils also did well for item Three and item Eight in which case the computed difficulty index read 0.800 for each case, suggesting that 80% of the pupils could identify and articulate the phonemes in the items correctly. The results also suggest that 20% of the pupils could not identify and articulate phonemes in the items correctly. The results show also that the difficulty index for item Six was 0.767, and this implies that 76.7% of the pupils could identify and articulate the phoneme in the item while another 23.3% of the pupils failed to identify and articulate the phoneme in the item correctly.

Other items in which pupils performed above 50% were item Four, item Ten and item Seven for which computed difficulty indices were 0.600, 0.550 and 0.533 respectively, also corresponding to 60%, 55% and 53.3% of the pupils who were able to identify and articulate English phonemes in the items. On the other hand, the results suggest that 40%, 45% and 44.7% of the pupils failed to correctly identify and articulate phonemes in items Four, Ten and Seven respectively. As the results depict, pupils performed below 50% for items Five and Nine. The computed index for item Five was 0.483, which means that only 48.3% of the pupils could identify and articulate the phoneme in the item, while 51.7% of the pupils failed. As for item Nine, only 46.7% of the pupils did well as indicated by 0.467 difficulty index, which also suggests that 53.3% of the pupils failed.

Due to the observed differences in terms of the approaches and strategies that pupils used to learn English phonemes between KP and EP, it was worth examining pupils' performance in the two schools with a view to giving a comparative view of the effectiveness of the approaches and strategies used in the schools. The results of the comparative analysis are summarized in Table 2.

Table 2: Comparative Analysis for 'u' as /ʊ/ or /ʌ/ (N=60)

Item	Difficulty Index		Difficulty Index Expressed as Percentage		Average Difficulty Index for each 10 Items	
	KP	EP	KP	EP	KP	EP
1	0.300	0.400	30.0	40.0	0.293	0.377
2	0.500	0.500	50.0	50.0		
3	0.400	0.400	40.0	40.0		
4	0.300	0.300	30.0	30.0		
5	0.200	0.283	20.0	28.3		
6	0.300	0.467	30.0	46.7		
7	0.250	0.283	25.0	28.3		
8	0.320	0.480	32.0	48.0		
9	0.200	0.267	20.0	26.7		
10	0.156	0.394	15.6	39.4		

Source: Field data, 2017

As the comparative statistics in Table 2 depict, pupils in the EP performed better than those in the KP in most of the tested items. Specifically, the pupils in the two schools performed equally only for items Two (50% each), Three and four (40% each). For the rest of the items, pupils in the EP significantly outshone pupils in the KP as the difference ranged between 3.3% and 23.8%. The differential performance is also attested by the general performance on the tested ability such that the computed difficulty indices were 0.293 and 0.377 for KP and EP respectively; and this implies that only 29.3% of the pupils in KP and 37.7% in EP were able to recognize grapheme 'u' as phoneme /ʊ/ or /ʌ/. The findings suggest that combination of analytical and holistic approaches and strategies mostly used by pupils in the EP were effective especially in enabling pupils to recognize grapheme 'u' as phoneme /ʊ/ or /ʌ/.

The last ten of the twenty items that tested pupils' ability to identify and articulate English phonemes aimed at establishing the pupils' ability to recognize grapheme 'o' as realized as /ɒ/ or /ʌ/. The results of the item analysis are presented in Table 3.

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Table 3: Pupils' Ability to Recognize and Articulate Grapheme 'o' as /ɒ/ or /ʌ/ (N=60)

Item	Difficulty Index	Difficulty Index Expressed as Percentage	Average Difficulty Index for Ten (10) Items
11	0.850	85.0	0.65
12	0.367	36.7	
13	0.900	90.0	
14	0.933	93.3	
15	0.700	70.0	
16	0.733	73.3	
17	0.767	76.7	
18	0.617	61.7	
19	0.417	41.7	
20	0.200	20.0	

Source: Field data, 2017

The findings in Table 3 above show that the average item difficulty was 0.65, which means 65% of the pupils were able to articulate grapheme 'o' as /ɒ/ or /ʌ/. The results suggest further that 35% of the pupils were unable to identify and articulate the phonemes correctly

As the findings also reveal, most pupils were able to identify and articulate item Fourteen as indicated by the computed difficulty index, which read 0.933 implying that 93.3% of the pupils articulated the item correctly. The results suggest further that only 6.7% of the pupils failed to recognize and articulate the phonemes correctly. The pupils also did well for item Thirteen whereby, the computed difficulty index was 0.900, and this means that 90% of the pupils could correctly recognize and articulate the phoneme in the item while another 10% failed to recognize and articulate the item correctly. Pupils also did well in recognizing and articulating item Eleven as indicated by the computed difficulty index, which read 0.850. This means that 85% of the pupils could correctly recognize and articulate the item; and that only 15% of the pupils could not correctly recognize and articulate the phoneme in the item.

The results also show that more than 50% of the pupils were able to correctly identify and articulate items Fifteen, Sixteen, Seventeen and Eighteen. The calculated difficulty indices were 0.700, 0.733, 0.767 and 0.617 respectively, corresponding to 70%, 73.3%, 76.7% and 61.7% respectively. On the other hand, the computed indices suggest that 30%, 26.7%, 25.3% and 38.3% respectively were not able to recognize and articulate the phonemes in the items correctly. On the other hand, pupils performed poorly in recognizing and articulating the phonemes in items Twelve and Nineteen. As the results show, the difficulty indices for the items were recorded as 0.367 and 0.417 respectively, suggesting then than only 36.7% and 41.7% respectively could correctly recognize and articulate the phonemes in the items. On the other hand, the results show that 63.7% and 58.3% of the pupils respectively were not able to correctly recognize and articulate the phonemes in the items in question.

For comparison purposes, a comparative analysis of pupils' performance for KP and EP is attempted in Table 4

Table 4: Comparative Analysis for 'o' as /ɒ/ or /□/ (N=60)

Item	Difficulty Index		Difficulty Index Expressed as Percentage		Difficulty Index for each	Average Difficulty as Percentage 10 Items
	KP	EP	KP	EP	KP	EP
11	0.430	0.420	43.0	42.0	0.328	
12	0.084	0.283	8.4	28.3		

13	0.420	0.480	42.0	48.0	
14	0.480	0.453	48.0	45.3	0.322
15	0.383	0.317	38.3	31.7	
16	0.372	0.361	37.2	36.1	
17	0.425	0.342	42.5	34.2	
18	0.315	0.302	31.5	30.2	
19	0.117	0.300	11.7	30.0	
20	0.072	0.128	7.2	12.8	

Source: Field data, 2017

The data in Table 4 depicts a strong competition between pupils in KP and in EP with regard to their ability to recognize the grapheme 'o' as the phoneme /ɒ/ or /ʌ/. For example, pupils in the KP did better for items Eleven (43.0% vs. 42.0%) as well as for items Fourteen (48.0% vs. 45.3%) through Eighteen (31.5% vs. 30.2); the most significant difference being for item Seventeen (42.5% vs. 34.2%). On the other hand, pupils in the EP did better for items Twelve (28.3% vs. 8.4%), Thirteen (48.0% vs. 42.0%), Nineteen (30.0% vs. 11.7%) and Twenty (12.8% vs. 7.2%); the most significant difference being for item Twelve (28.3% vs. 8.4%). The overall performance gave advantage to the approaches and strategies used in the KP in that the computed difficulty indices were 0.328 (32.8%) for KP and 0.322 (32.2%) for EP, suggesting that a wellbalanced combination of analytical and holistic approaches could be the

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most effective approach to learning English phonemes in Tanzanian primary schools.

Pupils' Ability to Recognize and Articulate English Phonemes Consistently

The achievement test was also meant to measure pupils' ability to recognize and articulate the selected English phonemes consistently. This ability was then taken as a yardstick to determine the effectiveness of the approaches that primary school pupils used to learn English phonemes. Ten items were included in the test, and the same items repeated once at some intervals. In other words, pupils were to read each item twice, and the performance for each turn was recorded, quantified and compared. Results for the attempted item analysis are shown in Table 5 below.

Table 5: Pupils' Ability to Recognize and Articulate English Phonemes Consistently (N=60)

Item	Difficulty Index		Average Difficulty Index for Ten (10) Repeated Items
	First round	Second round	0.560
51	0.850 (70)	0.800	
52	0.900 (69)	0.933	
53	0.450 (67)	0.400	
54	0.600 (66)	0.533	
55	0.250 (64)	0.283	
56	0.533 (63)	0.467	
57	0.767 (62)	0.833	
58	0.617 (61)	0.583	
59	0.417 (65)	0.350	
60	0.300 (68)	0.233	

Source: Field data, 2017

The results as shown in Table 5 above indicate that only some pupils could identify and articulate the selected English phonemes consistently. This is justified by the computed average difficulty index (0.560), which suggests

that only 56% of the pupils could identify and articulate the phonemes consistently. This implies further that 44% of the pupils could not recognize and articulate the phonemes consistently.

Most pupils were more able to identify phonemes in item Fifty-Two for which the computed difficulty index was 0.90, which means 90% of the pupils were able to identify the target phoneme in the item. The index also implies that only 10% of the pupils were unable to identify the phoneme in the item in the first round. However, in the second round, the difficulty index for the same item, which repeated as item SixtyNine, was 0.933, implying that the number of pupils who could identify the phonemes in the item rose to 93.3%, suggesting an increase of 3.3%. In other words, the increased percentages of pupils were able to identify phonemes in the item correctly in the second round. On the contrary, while the difficulty index for item Fifty-One was 0.85 in the first round, the index for the same item dropped to 0.80 in the second round. These statistics imply that 85% of the pupils were able to identify the phonemes in the item in the first round, whereas the number dropped to 80% in the second round; implying that 5% of the pupils could not consistently recognize and articulate English phonemes in the item in question.

The computed difficulty index for item Fifty-Seven was 0.767 in the first round, and 0.833 in the second round in which the item repeated as item Sixty-Two. This implies that 76.7% of the pupils could identify phonemes in the item in the first round while the number rose to 83.3% in the second round. This suggests an increase of 6.6%; which means that 76.7% of the pupils could recognize and articulate the phonemes consistently.

Another discrepancy is noted in item Fifty-Four which recorded a difficulty index of 0.600 in the first round, only to drop to 0.533 in the second round in which the item repeats as item Sixty-Six. The two indices imply that 60% of the pupils were able to identify phonemes in the item in the first round while the number dropped to 53.3% in the second round, which means that 6.7% of the pupils were unable to recognize and articulate English phonemes in the item consistently. A similar trend is noted in item Fifty-Eight for which the computed difficulty index was 0.617 in the first round and 0.583 in the second round where the item repeats as item Sixty-One. This means that 61.7% of the pupils were able to identify and articulate the phoneme in the item in the first round, and the number dropped to 58.3% in the second round, which means that 3.4% of the pupils were not able to recognize and articulate the English phoneme in the item consistently. The trend also recurs in item Fifty-Six, for which the computed difficulty index was 0.533 in the first round and 0.467 in the second round in which the item reappears as item Sixty-Three. This implies that 53.3% of the pupils were able to recognize and articulate the English phoneme in the item in the first round while the number went down to 46.7% in the second round, suggesting that 6.6% of the pupils were unable to recognize and articulate the phoneme consistently.

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The difficulty index for item Fifty-Three was 0.450 in the first round, and 0.400 in the second round, in which case the item reappears as item Sixty-Seven. This means that 45% of the pupils were able to identify the phoneme in the item in the first round, and 40% in the second round, which also means that 5% of the pupils were not able to recognize and articulate the English phoneme in the item consistently. A similar trend is also seen in item Fifty-Nine, whose difficulty index was 0.417 in the first round, and 0.350 in the second round, where the item repeats as item Sixty-Five, which means that 41.7% of the pupils were able to recognize and articulate the phoneme in the item in the first round while the number dropped to 35% in the second round. This implies that 6.7% of the pupils could not recognize and articulate the English phoneme in the item consistently.

The computed difficulty index for item Sixty was 0.300 in the first round, and 0.233 in the second round, where the item reappears as item Sixty-Eight. This means that 30% of the pupils were able to identify the phoneme in the item in the first round, while the number dropped to 23.3% in the second round. This also implies that 6.7% of the pupils were not able to identify and articulate the phoneme in the item consistently.

Bearing in mind the differences observed in the approaches used to learn English phonemes in the two schools, a comparative analysis of the pupils' performance was carried out to unveil school-specific pupils' performance as depicted in Table 6 below.

Table 6: Comparative Analysis for Recognition and Articulation of

English Phonemes Consistently (N=60)

Item	Difficulty Index KP	Difficulty Index EP		Average Difficulty First Round KP	Average Difficulty First Round EP	Second Round Index for Ten (10) Repeated Items KP	Second Round Index for Ten (10) Repeated Items EP
51	0.475	0.375	70	0.483	0.317		
52	0.460	0.440	69	0.531	0.402		
53	0.186	0.264	67	0.145	0.255		
54	0.205	0.395	66	0.126	0.407		
55	0.091	0.159	64	0.090	0.192		
						0.247	0.313
56	0.200	0.333	63	0.155	0.312		
57	0.425	0.342	62	0.308	0.525		
58	0.214	0.403	61	0.321	0.262		
59	0.208	0.209	65	0.165	0.185		
60	0.090	0.327	68	0.072	0.161		

Source: Field data, 2017

The comparative data in Table 6 depicts mixed effectiveness of analytical and holistic approaches and combined strategies in terms of enabling pupils to recognize and articulate English phonemes consistently. Specifically, pupils in the PK demonstrated more ability than those in the EP for items Fifty-one (47.5% vs. 37.5%), Fifty-seven (42.5% vs. 34.2), Sixty-one (32.1% vs. 26.2%), Sixty-nine (53.1% vs. 40.2%) and Seventy (48.3% vs. 31.7%). In contrast, pupils in the EP did well for the rest of the items; the highest difference is 19.1% (43.4% vs. 21.4%). The difference is also significant for items Fifty-four (39.5% vs. 20.5%), Sixty-two (52.5% vs. 30.8%), Sixty-six (40.7% vs. 12.6%) and Sixty-eight (16.1% vs. 7.2%). The observed trend is further justified by the computed average difficulty indices, which are 0.313 and 0.247 for the EP and the KP respectively, suggesting that more pupils in the EP (31.3%) than in the KP (24.7%) were able to recognize and articulate the selected English phonemes consistently. The findings suggest, therefore, that combination of analytical and holistic approaches is the most effective approach to learning the selected English phonemes in Tanzanian primary schools.

Conclusions on Item Analysis

With reference to the item analysis attempted above, it can be generally concluded that most of the pupils performed above average in all of the four tested abilities. This is justified by the fact that the average level of difficulty index was between 0.56 and 0.67, and this suggests that more than 50% of the pupils had the tested abilities. In particular, between 65% and 67% of the pupils were able to recognize and articulate familiar English phonemes, and 62% could predict English monophthongs and diphthongs using morphological criterion. Moreover, between 62.6% and 66.6% could distinguish English phonemes in monographs and digraphs whereas 56% were able to recognize and articulate English phonemes consistently. On the contrary, the computation implies also that, between 33% and 44% of the pupils were not able to correctly identify and articulate English phonemes in the presented items.

As regards the attempted comparative analysis, the school-specific pupils' performance on the tested abilities indicates that more pupils in the EP than in the PK were able to identify and articulate English phonemes in most items. Specifically, 37.7% of the pupils in the EP were able to recognize and articulate the grapheme 'u' as phoneme /ʊ/ or /ʌ/ whereas 29.3% of the pupils in the KP attempted the task successfully. However, for the ability to predict grapheme 'o' as /ɒ/ or /ʌ/, more pupils in the KP (32.8%) than in the EP (32.2%) performed the task successfully

upils in the EP (32.0%) also outsmarted those in the PK (30.0%) in terms of the ability to predict English monophthongs and diphthongs based on morphology. As for the ability to distinguish English phonemes in monographs and digraphs, 33.7% of the pupils in the EP were able to distinguish English phonemes in the graphemes o/oo and another 34.9% were able to distinguish English phonemes in the graphemes e/ee successfully. However, the performance of the pupils in the KP on the same items was 28.9% and 31.7% respectively. With regard to the ability to recognize and articulate English phonemes consistently, the performance was 31.3% for the EP and 24.7% for the KP. Based on the performance indicators examined above, the approaches and strategies used to learn the selected English phonemes in the EP school (which involve combination of analytical and holistic approaches) are the most effective in learning English phonemes in Tanzanian primary schools.

Qualitative Analysis of Achievement Test Items

This section is devoted to qualitative analysis of the recorded performance of pupils on individual test items. The performance was subjected to content analysis and the results are as shown in Table 7.

Table 7. Overall Pupils' Performance on Tested Abilities (N=60)

S/N	Abilities	Were Able	Somewhat*	Were Unable
1.	Ability to recognize and Articulate familiar English phonemes	40(67%)	5(8.3%)	15(25%)
2.	Ability to recognize and Articulate English phonemes Consistently	33(55%)	-	27(45%)

Source: Field data, 2015

Key: Somewhat*= English phonemes could be deciphered

Table 7 shows pupils' performance on the specified abilities.

Interpretation of the results is attempted in the subsequent subsections.

Ability to Recognize and Articulate Familiar English Phonemes Based on the observed learning approaches and strategies, pupils were expected to be able to recognize and articulate familiar English phonemes. As shown in Table 7 above, some 66.7% of the pupils could correctly recognize and articulate phonemes in the presented words, 8.3% could do it to some comprehensible degree and another 25% could not recognize and articulate the phonemes to any discernible degree. For example, some children had difficulty recognizing phonemes /ʊ/ and /ʌ/ as represented by grapheme 'u' as shown in the following cases;

(1) Uncle /usile/ Shut /ʃʊt/

Bull /bɔ:l/

The productions above are an indication that pupils failed to recognize and articulate the English phonemes although they were quite familiar with the words particularly the first and second items (uncle and shut respectively). This suggests that pupils were more familiar with spoken forms of the items as they used them regularly in school and home as well. As for the last item (bull), it is probable that some children could not have sufficient familiarity with the item, but since the item is approximately close to the item they were familiar with (ball), it was logical for them to resort to its pronunciation. This implies that pupils may also fail to write down the two items (bull and ball) correctly in some situations.

Some pupils also failed to recognize and articulate phonemes /ɒ/ and /ʌ/ as represented by grapheme 'o'. This is exemplified in the data below.

(2) Song /sɒŋ/ Son /sʌn/

Some /sʌm/

The data above shows that pupils could not differentiate the phonemes in the presented items, which were thought to be familiar to them. As seen in the data, the pupils treated all items as if they had the same pronunciation in the items. Again, it could be claimed that pupils had oral competence on the items but lacked knowledge of the written forms. This is justified by the fact that the items were quite familiar to them and were among the most frequently used terms in classrooms and outside the school environment.

Ability to Recognize and Articulate English Phonemes Consistently The second component of the achievement test measured pupils' ability to recognize and articulate English phonemes consistently. Ten items were included in the test to test their abilities to recognize and articulate specific English phonemes consistently, and these included /ʊ/, /ɪ/, /u÷/, /ʌ/, /o/, /aɪ/, /i:/ and /3÷/. To check for consistence, pupils were required to read each item twice at some intervals. To keep the interval, the items were administered in two different rounds. As the results in Table 7 indicate, 55% of the pupils were able to correctly recognize and articulate English phonemes consistently, whereas 45% of the pupils were not able to recognize and articulate the phonemes consistently.

Specific cases of performance are presented below:

(3) Sea /sə/ vs. /si:/ Sun /sʊn/ vs. /sʌn/ Bull /bɔ÷l/ vs. /bʊl/

Bill /bɪlɪl/ vs. /bɪl/

Son /sɒn/ vs. /sʌn/

The data above suggests that some pupils were not able to correctly recognize and articulate English phonemes consistently. This is justified by such cases as 'sea' and 'sun' whereby, pupils missed phonemes in the first round, only to get them correct in the second round. A different case is seen in 'bull' as pupils could recognize the phoneme in the first round but failed in the second round. However, some pupils could maintain consistence with some phonemes but the problem was that they did not get the phonemes correctly. This behaviour is attested in 'bill' and 'sun'. Indeed, the question was not consistence but rather correct consistence.

Discussion of the Findings

This section attempts a discussion on the effectiveness of the approaches that pupils use to learn English phonemes in Tanzanian primary schools. The discussion, which is based on the item analysis and qualitative analysis of pupils' oral productions, focuses on two thematic areas which subsume;

(i) Pupils' ability to recognize and articulate familiar English phonemes and

(ii) Pupils' ability to recognize and articulate English phonemes consistently

The assumption was that pupils could develop sufficient mastery of English phonemes when certain practices are taken into consideration in relation to learning the phonemes. That is to say pupils' knowledge of English phonemes was an outcome variable. It was envisaged that after one and a half years of learning English phonemes and general language skills, pupils would be able to perform convincingly in the tested abilities. The findings of this study have revealed that pupils could perform above average in the tested abilities. However, performance on some abilities reveals some gaps which could be attributed to the approaches and strategies that pupils use to learn English phonemes in the classroom. For example, the highest performance was on the pupils' ability to recognize and articulate familiar English phonemes, in which case 67% of the pupils did well, whereas the lowest performance was on the pupils' ability to recognize and articulate English phonemes consistently, whereby 56% of the pupils attempted the task successfully. This performance is an indication that between 33% and 44% of the pupils failed to correctly attempt the given tasks.

The observation that some pupils in this investigation could not perform quite well in the tested abilities involving English phonemes is echoed in other studies in Tanzania and outside. For instance, this investigation was mostly inspired by Uwezo's (2011) report that pupils in primary schools in Tanzania experience difficulties in the English language skills, particularly reading, which subsumes pupils' knowledge of English phonemes. Specifically, the Uwezo's study suggested that less than 50% of Standard Seven pupils could not read English story books meant for Standard Two, which also means, in the context of this paper, that pupils experienced significant problems with English phonemes. In view of these findings and the previous, two major issues emerge; that more than 50% of pupils at Standard Two have good knowledge of English phonemes, meaning that they can read a good number

of English words; and at the same time less than 50% of Standard Seven pupils can read story books meant for Standard Two. It should be recalled that development of reading skills takes place over time; for example, the process begins with phonemic awareness, followed by word recognition, comprehension, vocabulary and fluency. Therefore, the present investigation was limited to mainly phonemic awareness and some degree of word recognition skills; which means that it cannot be claimed that the pupils who excelled in this study can fluently read English texts, nor can it be claimed that the pupils have relevant English proficiency. On the other hand, the Uwezo's study tested pupils on fluency as the test instrument used involved continuous texts, as opposed to the present investigation, which comprised isolated words. In view of the aforesaid, the present investigation and the one undertaken by Uwezo are two different studies since they targeted different stages of literacy development as reflected in the employed test instruments.

The effectiveness of the approaches and strategies that pupils in primary schools use to learn English words is well illustrated in the attempted comparative analysis. Pupils' performance has shown that the use of both analytical and holistic approaches and strategies is the most effective approach as far as learning English phonemes is concerned. It has been evident that pupils in the English medium primary school did better than those in the Kiswahili medium in virtually all tested abilities. This implies that a good number of pupils in the English medium school benefited from the merits obtaining in the two approaches used, while also minimizing the limitations associated with each of the approaches. For instance, analytical approaches have been found to be complex in that they involve a lot of instructions, explanations and exceptions, and this proves difficult for pupils to follow since the input becomes almost incomprehensible (Krashen, 1987; Smith, 2005; Liu, 2009). It is, therefore, difficult for pupils to learn all phonemes of English in different distribution, especially bearing in mind that the phonemes are not systematically predictable. On the other hand, holistic approaches have been found to impose some demands and conditions which the Tanzanian learning situation may not satisfy. These include access to good and rich literature, sufficient reading opportunities, motivation for reading and availability of reading materials (Liu, 2009; Adams, 1994). Similarly, some other variables which cannot be captured by learning approaches and strategies have been found to influence pupils' performance on different English language abilities, including mastery of its phonemic system (Krashen, 1987; Chonjo, 1994; Baker, 2001; Rugemalira, 2005). For example, success in different language abilities has been attributed to socioeconomic variables and policy-related issues.

Most previous studies in Tanzania have confirmed that the pupils' low English proficiency is a function of instructional practices, which also implies learning approaches and strategies (Ministry of National Education, 1982; Criper and Dodd, 1984; Allen, 2008; Komba, 2012). For example, the Report on the Teaching and Learning of English in Tanzania Mainland, released by the Ministry of National Education as far back as 1982, noted with concern that 'the teaching and learning of the English language in Tanzania's primary schools is very bad.' The observation is further justified by Criper and Dodd's 1984 national survey which concluded:

At the end of primary education after five years of English, the average score of the pupils tested was only 4.0 i.e. barely capable of reading even a picture story book simplified down to the level of using 300 headwords and the present tense. Put another way 68% of Standard VII pupils are unable to read and understand any connected text at this level…. Little progress can take place at the primary level until the proficiency of those teaching English in the classroom has been substantially upgraded (p. 15).

The previous findings are related to the present investigation in that the pupils' inability to read simplified story books at the end of primary school blocks the possibility of using holistic approaches and strategies to learn English phonemes in low levels as well. It should be recalled that the present investigation has revealed that pupils in the studied Kiswahili medium school use holistic approaches and strategies to learn English phonemes, while the previous studies also involved the government run Kiswahili medium schools. Consequently, the performance of pupils in the Kiswahili medium school was poorer than the performance of pupils in the English medium school, who used a variety of approaches and strategies to learn English phonemes. Given the poor

English language skills among Kiswahili medium school pupils, it is evident that they could not sufficiently exploit their schemata and literature necessary for holistic learning.

As Criper and Dod (1984) recommend, little can be expected unless teachers' proficiency is substantially upgraded as well, suggesting further that teachers do not offer good models either. It has been argued earlier that some English medium primary schools in Tanzania tend to import teachers and other staff from outside the country especially from Uganda, Kenya and Zimbabwe at the expense of locally trained teachers, whose English is considered poor (Rugemalira, 2005). The issue of poor English skills could also be said to be cyclic as it involves learners and teachers at different levels of education. This is confirmed by different post-primary studies (Vuzo, 2002; Qorro, 2006; Komba, 2012). The study by Vuzo (2002) reports low levels of proficiency in the English language, particularly with regard to secondary school students. The study focused on writing skills and the findings indicated that majority of the students lacked writing skills. The same findings of low levels of English language skills among school pupils have also been revealed by Said (2003), whose study was done in Zanzibar. Another study by Qorro (2006) found that students who were entering Form I in Tanzanian secondary schools were not sufficiently competent in English to handle the language of the curriculum. Qorro's findings agree with the present in that the observed low levels of proficiency in English among primary school pupils cannot be expected to favour the use of holistic approaches to learning English phonemes as found in the present investigation. As the findings suggest, pupils' performance favoured a combination of approaches and strategies as the most effective approach.

Allen (2008) predicts that there may have been some improvements in instructional practices since the appalling observations in the 1980s, but she is worried that the improvements have proved non- significant, and that in the intervening period, many of the teachers with good English have retired. To justify her predictions, she quotes The Daily Mail and The Citizen of 20th December 2007, responding to the Standard VII national examination results, whereby the then Honourable Minister for Education and Vocational Training, Mrs. Sitta, was quoted as saying,

'The ministry has noticed with great concern the poor performance in
the three subjects (English, maths and science)…'. Mrs. Sitta also noted the lack of competent teachers in those key subjects and said that poor performance posed a major challenge to the government's drive to improve both primary and secondary education. In particular, only 31.3% of pupils passed the Standard VII English paper in the national exams.

Allen's (2008) predictions were perfect as supported by recent findings from different sources regarding reading performance and general education quality, despite the efforts done through the Primary Education Development Plan (PEDP). Specifically, there have been claims that even after PEDP, a good proportion of Standard Seven leavers cannot read and write[1], even though some even make it to Secondary school (Uwezo Tanzania, 2011). However, Uwezo does not make it clear as to the sources of these results. It is evident that factors like learning approaches and strategies and quality of teachers cannot be left out

Pupils' literacy performance has also been linked with dominance of some learning approaches and strategies. For example, Williams (1993b) found that the teacher training syllabuses in Malawi give too much prominence to analytical approaches, which stress accuracy of reading aloud, rather than promoting reading as a process of acquiring meaning from text. He adds that although some attention to comprehension appears in the training syllabuses, it does not appear to work through to classroom teaching, where teachers seem overwhelmingly concerned with accurate reading aloud, and largely ignore the presentation of meaning and checking of understanding. The conceived discrepancy between curriculum specification and actual classroom practices demands an investigation which involves classroom observations. As a consequence of the practices in Malawi, Williams (1993b) finds that there are pupils who seem to read adequately at their level, and suggests subsequently

that more teachers should see reading as a process of meaning making, and not as a process of 'barking at print'. He concludes that the approach in most classes that he observed appeared to be a barrier to pupils' progress. Similar findings have also been noted in Zambia (Williams, 1993a), Mozambique (MacDonald, 1990; Hoadley, 1999, Desai, 2006), South Africa (Taylor and Vinjevold, 1999; MacDonald, 2009; Pretorius and Machet, 2004) and Hong Kong (Li and Chun, 2012). The weaknesses associated with the use of a single approach, as it is the case for analytical approach in Malawi and for holistic approach for Tanzanian Kiswahili medium schools, can be checked by using a variety of approaches and strategies as confirmed by better performance of pupils in the studied English medium primary school.

Conclusion

It has been shown in this paper that primary schools in Tanzania use different approaches to literacy, particularly as far as learning of English vowel phonemes is concerned. Specifically, holistic and analytical approaches are used either in isolation or in combination. In particular, holistic approach is dominantly used in Kiswahili medium primary schools whereas English medium tend to use both approaches in combination. But as evidenced in the literature, the effectiveness of approaches to literacy and language learning in general depends on circumstances; for example, holistic approaches demand exposure to literature and supportive surrounding where language is used in actual situations. Consequently, phonemic awareness is left to develop naturally; and thus, this may not hold enough in the context of Tanzanian sociolinguistic situation and related practices. This is apparently supported by the findings presented in this paper, which show that the use of holistic approach to learning English vowel phonemes has not much helped pupils to acquire the phonemic awareness necessary for them to develop higher skills in the language. As the findings also seem to suggest, it could be of use to combine learning approaches to maximize the merits associated with the combination while minimizing the demerits of isolation. This is substantiated by the fact that pupils in the studied English medium school demonstrated better performance in most of the tested abilities than their counterparts in Kiswahili medium school. However, performance on any aspect of learning may be affected by factors other than the adopted learning approaches as outlined in the literature consulted in the discussion. This calls for the need to consider most if not all factors surrounding success in learning English vowel phonemes and other language skills in their entirety.

Declaration of conflicting interests

The author(s) declared no conflict of interest(s) with respect to the research, authorship and/or publication of this paper.

Funding

The author(s) declared that he received financial support for the research from Dar es Salaam University College of Education.

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