

Morphological Instructional Packages as Determinants of Inferring Word Meanings in Reading Comprehension among Secondary School Students

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ARTICLE INFO

Article history

Received: September 06, 2016

Accepted: April 29, 2017

Published: July 31, 2017

Volume: 5 Issue: 3

Conflicts of interest: None

Funding: None

ABSTRACT

This study investigated the effects of morphological instructional packages as determinants of inferring word meanings in reading comprehension among secondary school students in Ekiti State. The study adopted pre-test, post-test and control quasi-experimental research using two experimental groups and one control group with a sample of 270 Senior Secondary II students selected from nine public senior secondary schools using multi-stage sampling procedure, stratified random sampling and purposive sampling. The selected schools were assigned into three major groups, with each group made up of three schools of 30 students per school (two experimental groups and one control group). Three instruments were adapted, validated and used for data collection for the study namely: Morphological Production Task on Students' Academic Ability ($r = 0.74$), Morphological Analysis Task of Students' Academic Ability ($r = 0.83$) and Achievement Test in Comprehension (0.75). Data collected were analysed using Mean, Standard Deviation, Analysis of Covariance, Scheffe post-hoc and Multiple Classification Analysis (MCA). The study showed that there was significant difference in the achievement mean score of students in reading English language comprehension between the experimental and control groups. It showed that students exposed to a combination of morphological instructional packages with Eclectic and Problem-Solving methods achieved more in inferring word meanings. It was recommended that teachers of English language should be encouraged to use morphological instructional packages combined with Problem-Solving and Eclectic methods should be given enough orientation through seminars and workshop on the importance of morphological instructional packages combined with eclectic and Problem-Solving methods towards the teaching of languages and reading comprehension in particular.

Key words: Morphological Instructional Packages, Inferring Word Meanings, Reading Comprehension

INTRODUCTION

Reading is an indispensable language skill at all levels of education. Reading involves the ability to interact with the printed material. Reading has been defined as a complex system of deriving meaning from print that requires the skills and knowledge to understand how speech sounds are connected to print. It is the ability to decode unfamiliar words and appropriate active strategies or skills to construct meaning from print. Sufficient background information and vocabulary aid reading comprehension (Dada and Ofodu, 2006).

Karlin cited by Oyinloye (2001) asserted that "the relationship of reading ability to scholastic success is not open to dispute; teachers and students alike are aware of it" the resultant effect of this quotation for teaching reading comprehension is that the teaching of reading is necessary to achievement in school and when no provision is made for achievement by the poor reader, that student eventually is

frustrated into miserable state of failure. So students who cannot read and understand simple instructions, apply ideas or infer ideas or opinions from what they read are not likely to benefit from the wealth of experience offered by the school.

In summary, reading comprehension is an exercise that involves a writer or encoder the one who communicates meaning through the medium of writing, a meaning (content) to be communicated, and a reader or decoder- the one who attempts to reconstruct and retrieve the meaning which the writer has encoded in the text (Arua, 2009). The essence of reading is for the reader to enjoy reading the text and should, therefore, be able to answer literal, inferential and critical questions on it.

Ofuani and Danner (2014) are of the view that secondary school students are required to interpret a wide range of reference materials; journals, articles, memoranda and other documents that may contain technical information including intricate charts and graphs. They are also expected to judge

the credibility of sources, evaluate agreements, develop and defend their own conclusions and convey complex information in ways that will either advance scholarship in a discipline or contribute to work place productivity skills well beyond the reach of poor readers. This means that the changing needs of the society have placed enormous responsibilities on the learners and the educational system.

Therefore, reading skills are very needed to achieve this high level of scholarship expected of secondary school students. In order to assist the secondary school students, the problems of reading comprehension have to be confronted headlong with the teaching of morphology.

Boison cited by Ogenyi (2014) quoted various reports from across the African continent: Kenya, Uganda, South Africa, Zimbabwe, and Ghana just to mention but a few bemoan the fact that many children in school today cannot and are not reading. Such children, the report indicated, perform poorly in their academic subjects, get frustrated and eventually drop out of school. Boison cited by Ogenyi (2014) supported this fact by citing the following report:

The West African Examinations Council...reported that many of the children who apply to the senior secondary school cannot write their names, read, or understand the questions on the application. A study by Avoke and Donani in 1996 reveals that 142 of 147 students in junior secondary school in Winneba, Ghana, could not read primary grade 6 English reader... (p.85)

This is similar to Udeson's statement, quoting Abe, that Nigerian students "cannot read with adequate comprehension, or cannot complete application forms for employment" (Ogenyi, 2014). The essence of reading is comprehension and the ability to interpret the printed material (Dada & Ofofodu, 2006). There is the need for the teaching of morphology in secondary schools in order to assist students to pass English language at credit level. Oyebade (1992) defined morphology as the branch of Linguistics which studies the word-formation rules of language. According to him, the mental compartment where all words are stored is known as lexicon, or dictionary.

From this background, it is quite obvious that teaching of morphology is necessary in order to increase the students' ability to do well and pass English language examinations. In teaching and learning, teachers and students engage in the use of language as a means of instruction and learning, either in speech or written form. Thus, Balogun (1995) asserted that teaching is a communicative process between the teacher and his students. In the same vein, Nacino cited by Ayodele (2007) posited that, teaching is the act of helping someone to acquire or change some skills, attitude, knowledge, idea or appreciation. Adeosun (2002) opined that instruction is the deliberate arrangement of experience to lead a learner to a desirable change in performance. In teaching, we seek to induce learning and behavioural change. The main aim of teaching is to impart knowledge and the major factor in teaching is the teacher. However, as important as teaching is to learning, the manner in which a teacher communicates to students determines to a great extent the effectiveness of such instruction.

The researcher observed that reading comprehension in secondary schools in Ekiti State is at the lowest ebb. For example, a report on the examinations conducted in May/June by the West African Examinations Council between 2004 and 2012, the data from Ekiti State Ministry of Education Science and Technology, Planning Statistics and Research Department showed that the performance of secondary school students in English language is seriously deteriorating. The failure rate fluctuated between 15% and 51% except in 2011 when the State recorded 73% distinction or credit in SSCE.

The implication of the above data revealed that, most of the candidates who sat for the Senior Secondary Certificate Examinations (SSCE) would not be able to gain admission to tertiary institutions because of their failure in English language. A credit pass in English language is a requirement for post-secondary school education. Oyinloye in a survey carried out in 2005, reported that the percentages of candidates that had distinction or credit in SSCE from 1996-2003 fluctuated between 3% and 15%. This report showed that the problem of consistent failure of students in English language is not a problem of current origin. Therefore, the students need to be helped in reading comprehension owing to the huge marks allotted to reading comprehension and summary.

These poor results could be traced to students' inability to "read with adequate comprehension" (Ogenyi, 2014). It is therefore necessary to revive the appalling state of reading comprehension skills and to improve the skills of secondary school students. Thus, public examinations bodies like the WAEC and NECO evaluate candidates receptive and productive abilities, through speech and writing that cover different basic skills of communication. All these abilities are to be demonstrated in listening, speaking, reading, writing, comprehension, summary, vocabulary, lexis and structure, and recognition of different aspects of English language speech. The demonstration of these abilities covers three papers and the marks allotted to Paper A: Essay writing, Comprehension, and Summary, Paper B: Multiple choices (Lexis and Structure), Paper C: Oral. The marks allotted to English Language paper 1 are as follows: Essay writing, 50marks, Comprehension, 40marks, and Summary, 30marks.

From the analysis above, it is noted that high marks are allotted to reading comprehension and summary because reading can be regarded as the bedrock or foundation for academic excellence. Reading entails an active process of identifying important ideas and comparing, evaluating, and applying them (Ogenyi, 2014).

Statement of the Problem

Reading Comprehension is seen as bedrock for learning in schools and for anyone to be relevant in the wider world of work, such a person should be able to read and comprehend what he has read. However, it was observed that secondary school students performed poorly in reading comprehension yearly as evidenced in WAEC results statistics received from Ekiti State Ministry of Education Science and Technology

2004-2012. Worried by this observation, the researcher is set to present findings on the effect of morphological instructional packages on the achievement of secondary school students in inferring word meanings in reading comprehension in Ekiti State. This, therefore, calls for immediate attention of a thorough investigation into the use of eclectic and Problem-Solving methods of teaching English language reading comprehension which have been a major concern to the government, parents and the students.

The inclusion of reading comprehension in the school curriculum may be linked to it benefit in learning in schools, work in industries, factories and general work places. Reading comprehension determined one's horizon in academic ladder. Therefore, learners who cannot read and decipher what they had read were not likely to benefit from what reading offered by the school. Thus, morphological awareness has been found to be related to reading skills including comprehension, vocabulary, and word-reading.

Considering the indispensability of English language especially reading comprehension in Nigerian educational system, it is pertinent to look for appropriate methods and materials for the teaching of it with a view to assisting the students to gather, analyse and create that knowledge which English language comprehension tries to offer. This study therefore, was geared to investigate the effect of morphological instructional packages in inferring word meanings in reading comprehension among secondary school students in Ekiti State.

Purpose of the Study

The purpose of this paper was to investigate the effect of morphological instructional packages in inferring word meanings in reading comprehension among secondary school students in Ekiti State. The study determined whether two methods of instructions namely: Eclectic and Problem-Solving methods influenced students' performance in reading comprehension in English language.

Research Questions

1. Is there any difference in the achievement mean scores of students in reading English language comprehension between the experimental and control groups?
2. Will there be any difference in the achievement of students in inferring word meanings between the experimental and control groups?

Null Hypotheses

The following null hypotheses were formulated and tested at 0.05 level of significance:

1. There is no significant difference in the achievement mean scores of students in reading English language comprehension between the experimental and control groups.
2. There is no significant difference in the achievement of students in inferring word meanings between the experimental and control groups.

METHOD

The design used for the study was quasi-experimental of pre-test, post-test control group design carried out in secondary schools in 184 public schools in Ekiti State,

Nigeria. The population consisted of all the Senior Secondary School students in Ekiti State. The sample consisted of 270 Senior Secondary class two (SSSII)

Students were selected using multi-stage, purposive, stratified and simple random sampling procedure. Participants in each school, 30 students each from selected school constituted the sample for the study. The adapted instruments for the study were: Morphological Production Task on Students' Academic Ability (MPTSAA), Morphological Analysis Task of Students' Academic Ability (MATSAA) and Achievement Test in Comprehension (ATC). These instruments were used for data collection.

The instruments were validated by experts in Language Education, English Language, Psychology and Tests and Measurement departments, Ekiti State University, Ado-Ekiti. Test re-test method of reliability was used and reliability co-efficient of 0.74, 0.83 and 0.75 were obtained using Pearson Product Moment Correlation Analysis for MPTSAA, MATSAA and ATC, respectively. The instruments were administered to students each in the sampled schools with the help of the research assistants. Data collected were analysed using mean, standard deviation, Analysis of Covariance, Scheffé post-hoc and Multiple Classification Analysis.

RESULTS

Null Hypothesis 1

There is no significant difference in the achievement mean scores of students' in reading English language comprehension between the experimental and control groups.

Achievement mean score of students in reading English language comprehension were computed and subsequently subjected to statistical analysis involving Analysis of Covariance (ANCOVA) at 0.05 level of significance. The result is presented in Table 1.

Table 1 revealed that there was a significant difference in the achievement mean scores of students in reading English language comprehension between the experimental and control groups ($F = 168.180, p < 0.05$). The null hypothesis was rejected.

The result of Scheffé post-hoc analysis of pairwise comparison of means among the groups is presented in Table 2.

Table 2 revealed that there was a significant difference between the achievement mean scores of students in the Problem-Solving and Eclectic groups at 0.05 level of significance. Similarly, the mean difference between Problem-Solving and Control, Eclectic and Control was statistically significant at 0.05 level in each case.

In order to determine the effect of treatment on the adjusted mean scores of subjects in reading English language comprehension, Multiple Classification Analysis (MCA) was used. The result is presented in Table 3.

The result in Table 3 showed that students exposed to Eclectic instructional packages had the highest adjusted

means score of 39.71 (33.70 + 6.01). This was closely followed by those in the Problem-Solving group, 36.38 (33.70 + 2.68) while the Control group recorded the least adjusted mean score of 25.01 (33.70 + (-8.69). This implied that the use of morphological instructional packages involving Problem-Solving and Eclectic methods would enhance students' achievement in reading English language comprehension.

Null Hypothesis 2

There is no significant difference in the achievement of students in inferring word meanings between the experimental and control groups.

Achievement mean scores of inferring word meanings in experimental and control groups were computed and compared for statistical significance using Analysis of Covariance (ANCOVA) at 0.05 level of significance. The result is presented in Table 4.

Table 4 showed that the F value, (F = 116.539) with a p value < 0.05 alpha level, obtained for experimental and control groups is significant. The null hypothesis was rejected. This implied that there was a significant difference in the achievement of students in inferring word meanings between the experimental and control groups.

The result of Scheffe post-hoc test is presented in Table 5.

Table 5 showed that there was a significant difference in each of the groups in students' achievement in (1) inferring word meanings between Problem-Solving and Eclectic, (2) Control and Eclectic, Problem-Solving and Control groups on at 0.05 level.

The result of Multiple Classification Analysis is presented in Table 6.

The result in Table 6 revealed that, with a ground mean of 14.27 students in the Eclectic group had the highest adjusted mean score of 16.23 (14.27 + 1.96). This was closely followed by Problem-Solving; 14.37 (14.27 + 0.10); while

Table 1. ANCOVA of Students' achievement in reading English language comprehension by treatment

| Sources | SS | df | MS | F | p |
|---------------------|------------|-----|----------|-----------|-------|
| Corrected model | 14817.533 | 3 | 4939.178 | 154.6488* | 0.000 |
| Covariate (pretest) | 3288.193 | 1 | 3288.193 | 102.955* | 0.000 |
| Groups | 10742.738 | 2 | 5371.369 | 168.180* | 0.000 |
| Error | 8495.563 | 266 | 31.938 | | |
| Corrected total | 23313.096 | 269 | | | |
| Total | 329882.000 | 270 | | | |

*p<0.05

Table 2. Scheffee post-hoc analysis of students' achievement in reading English language comprehension by treatment

| Group | Problem-Solving | Eclectic | Control | Mean | N |
|-----------------|-----------------|----------|---------|-------|----|
| Problem-Solving | | * | * | 36.10 | 90 |
| Eclectic | | | * | 40.22 | 90 |
| Control | | | | 24.77 | 90 |

*p<0.05

Table 3. Multiple classification analysis (MCA) of students' achievement in English language comprehension by treatment

| Grand mean=33.70 | | | | | |
|-------------------------|----|------------------|--------|------------------------------------|------|
| Variable | N | Unadjusted Devn' | Eta2 | Adjusted for independent+Covariate | Beta |
| Problem-Solving | 90 | 2.40 | 0.2025 | 2.68 | 0.42 |
| Eclectic | 90 | 6.52 | | 6.01 | |
| Control | 90 | -8.93 | | -8.69 | |
| Multiple R ² | | | | 0.175 | |
| Multiple R | | | | 0.418 | |

Table 4. ANCOVA on achievement of students in inferring word meanings by treatment

| Sources | SS | df | MS | F | p |
|---------------------|-----------|-----|---------|-----------|-------|
| Corrected model | 1248.267 | 3 | 416.089 | 106.1640* | 0.000 |
| Covariate (pretest) | 262.200 | 1 | 262.200 | 66.900* | 0.000 |
| Groups | 913.506 | 2 | 456.753 | 116.539* | 0.000 |
| Error | 1042.533 | 266 | 3.919 | | |
| Corrected Total | 2290.800 | 269 | | | |
| Total | 57246.000 | 270 | | | |

*p<0.05

Table 5. Scheffe post-hoca analysis of students’ achievement in inferring word meanings in the experimental and control groups

| Group | Problem-Solving | Eclectic | Control | Mean | N |
|-----------------|-----------------|----------|---------|-------|----|
| Problem-Solving | | * | * | 15.01 | 90 |
| Eclectic | | | * | 16.14 | 90 |
| Control | | | | 11.64 | 90 |

*p<0.05

Table 6. Multiple classification analysis (MCA) of students’ achievement in inferring word meanings by treatment

| Grand mean=14.27 | | | | | |
|-------------------------|----|-----------------|------------------|------------------------------------|------|
| Variable+category | N | Unadjusted Devn | Eta ² | Adjusted for independent+Covariate | Beta |
| Problem-Solving | 90 | 0.74 | 0.1089 | 0.10 | 0.38 |
| Eclectic | 90 | 1.87 | | 1.96 | |
| Control | 90 | -4.46 | | -4.45 | |
| Multiple R ² | | | | 0.146 | |
| Multiple R | | | | 0.382 | |

the subjects in the control group had the least adjusted mean score of 9.82 (14.27 -4.45). This implied that both Problem-Solving and Eclectic instructional packages constitute veritable instructional methods for enhancing students’ achievement in inferring word meanings in English language comprehension.

DISCUSSION

The findings of this study revealed that there was a significant difference in the achievement mean scores of students in the Problem-Solving, Eclectic and Control groups. It was established that morphological instructional packages and Problem-Solving and Eclectic methods were more instrumental to effective learning and achievement in reading English language comprehension. The result of the analysis showed that there was significant difference in the performance mean score of students who used morphological instructional packages in the learning reading comprehension. However, Eclectic method showed to be more effective in inferring word meanings in reading comprehension.

The above findings corroborated the findings of Lasisi (2000) and Oyinloye (2005) on the effectiveness of teaching with the aids of packages as the most effective means of teaching any aspect of English language. Oyinloye (2005) study showed the accuracy in model-like situation, which the student can see, read and learn. The reports of Odubunmi (1983) and Osho (1986) corroborated the relative superiority of innovative teaching methods like Eclectic and Problem-Solving over Conventional ones. The findings, therefore, suggested the potency of Eclectic and Problem-Solving methods at improving students’ achievement in reading comprehension in English language. However, the finding of this study was contrary to that of Oduro-Mensah (1987) who reported that students exposed to inquiry or discovery (innovative approaches) did not perform better in cognitive areas of Biology, nevertheless, they did in the process skill.

The study further showed that there was a significant difference in the achievement of the students in inferring word meanings between the experimental and the control groups.

The result showed the significant difference between all the pairwise groups. It revealed that experimental group two (Eclectic E2) had the highest adjusted mean score followed by experimental group one (Problem-Solving E1); while the control group had the least. The reason for this result was not far-fetched from the submission of Ojo (2002), Billah (2015) that a clearly defined method of instruction is very crucial to the teaching of second or foreign language as it can single handedly determine success or failure in successful language instruction. The highest adjusted mean score recorded in Eclectic method was not unconnected with the use of many methods as possible in teaching the subjects which is what Eclectic method stands for.

CONCLUSION AND RECOMMENDATIONS

The study concluded that eclectic and Problem-Solving methods are veritable methods at improving students’ performance in English language reading comprehension. Based on the findings of this study, the following recommendations were made:

1. Teachers of English language should be encouraged to use the morphological instructional packages employed in this study to teach their students in order to be able to comprehend and write good English language.
2. Teachers should be encouraged to use Eclectic and Problem-Solving methods to teach their students because it would enhance students’ active participation during reading comprehension lesson and assist them to pass English language at credit level in WASSCE.

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