

EFFECT OF AURAL APPROACH ON READING PROFORMANCE OF SENIOR SECONDARY SCHOOL STUDENTS WITH LEARNING DISABILITIES IN OYO STATE

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Abstract

Comprehension or understanding is a basic skill required for effective communication in any society. In order to live successfully in his environment, modern man has to be able to read and understand what he reads. However, the use of reading strategies alone may not be enough to improve the reading comprehension of students with learning disabilities. Therefore, this paper reports an investigation of the effect of aural approach on reading performance of senior secondary school students with learning disabilities in Oyo State. In this study, a total of 175 Senior Secondary Students with learning disabilities of three purposively selected schools formed the sample frame. Two research questions raised and corresponding hypotheses were tested using t-test statistic. The results indicated significant difference in mean gain score obtain by the groups, that is experimental groups (t -value=1.8, p -value=.067 and $p>0.05$). This was in favour of the experimental group that is students taught using aural approach performed significantly better than students with conventional approach. It is hence recommendation that use of aural approach should be encourage and harness for an improved performance of students in English language.

Introduction

Reading difficulties are a major problem for both children and adults in developed and developing country in the world. Comprehension is the main goal when reading. For many students with disabilities, reading is a skill that eludes them for a variety of reasons. Cognitive processes such as working memory and phonological processing can account for some of the variability in reading comprehension. These processes allow the reader to not only

decode words but access memory “stores” to understand written text. Readers also rely on lexical knowledge and reading strategies to comprehend the specific words they have read. Reading is essential not only to school success but for post-secondary options (e.g., getting a job or going to college). According to the National Association of Adult Literacy (NAAL), 30 million adults, aged 16 and above, need help to complete a job application (U.S. Department of Education, 2003). Without strong literacy skills, post-secondary college and employment options are limited. Lack of reading skills limits options for adults with and without disabilities: 43% live in poverty, 50% have higher hospitalization rates due to an inability to understand health information, and one in five is unable to access or use the Internet for reading and comprehension (U.S. Department of Education, 2003).

The cause of adult literacy issues can be linked to below-grade level reading at the elementary and secondary school levels. National Assessment of Educational Progress (NAEP), 29% and 20% of fourth- and eighth-grade students without learning disabilities, respectively, scored below the basic reading level while 68% of fourth-grade and 62% of eighth-grade students with learning disabilities SWLD scored below the basic reading level (NCES, 2011). While reading difficulties are not isolated to SWLD, there is a significant gap in reading achievement between students with and students without disabilities. In high school, 39% of students scored at the proficient level or higher and 24% scored below basic on the NAEP (U.S. Department of Education, 2009).

Conversely, 64% of SWLD (that’s students who receive special education services) scored below the basic reading level while only 10% scored at or above the proficient level. Poor academic outcomes of SWLD are related to inconsistency in the application of teaching reading strategies. Reading comprehension is increased when strategies are explicitly taught and used by the student during reading (Duke & Pearson, 2002); however, the use of reading strategies alone may not be enough to improve the reading comprehension of SWLD. In a study over 30 years ago, teachers used a teaching model that included mentioning what skill they should use while reading, practice of the skill (through worksheets/workbooks), and assessment. Notably missing was direct instruction on how to use the skill.

Antoniou and Souvignier (2007) report that 80% of students with learning disabilities struggle to comprehend written text, which has been correlated with academic and post-secondary success. One goal for secondary SWLD is to garner skills needed to participate fully in society (e.g., live independently and become gainfully employed). At the secondary level,

reading instruction often provided focus on teaching reading strategies such as summarizing and finding the main or key ideas to improve student comprehension. Language proficiency which has been correlated to reading comprehension, is not typically taught at the secondary level as it is presumed that students have mastered this skill (Berkeley Mastropieri, & Scruggs, 2011; Faggella-Luby & Deshler, 2008; Watson, Gable, Gear, & Hughes, 2012).

Additionally, the instructional focus in high school is teaching standards-based curriculum, which is problematic for SWLD because they may not be able to access the curriculum content (that's read or understand). To facilitate student learning, adaption of the curriculum are needed, and a focus on word recognition and reading strategies is necessary so that students can read independently. In a study, conducted by Klingner, Urbach, Golos, Brownell & Menon (2019), noted very little has changed during the past 30 years in the amount of reading comprehension instruction provided to SWD. It is not known if teachers fail to provide this instruction because they do not know how or what to instruct, but it is known that students need to use reading strategies to help them understand what they read (Klingner et al., 2010). While there are numerous reading strategies (e.g., visualization, talking to the text), there are three reading strategies essential to reading comprehension: summarization, prediction, and inference.

These strategies are crucial when reading, and if they are lacking, comprehension is affected. Students with learning disabilities are not often strategic readers. Critical reading will be paramount through aural approach for students to make adequate academic progress in school and on standardized tests. A study conducted in 2003, surveys of students in grade 12 requested to describe their reading engagement. Notably, 93% of the respondents stated that they do not read for school on a daily basis, 69% stated they almost never read for enjoyment, and 66% stated that reading is not a favourite activity. An international study conducted in 2000, polled 15 year-old students who were asked to quantify how much time they spent reading for enjoyment, the types of materials they read, and their interest in reading. Of all the students polled, those from the United States were ranked 24 out of 28 countries on student's engagement and motivation-to-read indicating that students in the United States, on average, do not read for pleasure compared to other countries in the world. Since learning is a process that requires active engagement, without some interest in the topic, it is difficult for the learner to remain focused long enough to learn. The implication and assumption is that teaching a reading comprehension using aural approach provides wide scope for effective reading proficiency and further result in achieving the desired target of better students' performance in English Language being the foreign

language. Hence, the need to investigate the effect of aural approach on reading proficiency of students with learning disabilities

The following questions and hypothesis guided the study:

1. Will there be any difference in the performance of students with learning disabilities when taught using aural approach and students taught without aural approach?
2. What will be the difference in the performance of students with learning disabilities taught with aural approach based on gender?

The following null hypotheses which have corresponding research questions were tested:

There is no significant difference in the performance of students with learning disabilities taught using aural approach and students taught with conventional approach.

There is no significant difference in the students with learning disabilities performance on the basis of gender when taught using aural approach.

Method

A quasi-experimental design in the form of null-equivalent control group design was adopted for the study. The design resembles the pre-test post-test group design, except that the non-equivalent control group design does not involve random assignment of subject to group. The targeted audience for the study comprised all students with learning disabilities public secondary school in Atiba Local Government of Oyo State. Three schools were selected using purposive sampling techniques. Students drawn from an intact class of senior school (SS2) participated in the study. The selected schools have 97 students with learning disabilities. 0 experimental group 1 students with learning disabilities as experimental group 2 while 78 as a control group.

Table 1: Research Layout

| Group | Pre- test | Treatment | Post-test |
|--------------|------------------|------------------|------------------|
| Experimental | O ₁ | X | O ₂ |
| Control | O ₃ | | O ₄ |

Key:

O₁= represent pre-test of experimental group

O₂= represent post-test of the experimental group

X= represent treatment for experimental group

O₃= represent pre-test of the control group

O₄= represent post-test of the control group

Non treatment for control group

Table 1 shows the experimental group and the control group. Participants in two groups were pre-test and post-test on reading proficiency achievement test prepared by the researcher. The experimental group received the treatment using aural approach while the control group was taught without the use of aural approach (conventional). After the treatment all the group were tested using a parallel version of question used for pre-test and post post-test. The study used the following instruments to gather information from the sample. Reading Proficiency Test (RPT). The researcher made use of English language performance to determine the effect of aural approach on the student performance in reading proficiency. Reading Proficiency Test (RPT) is a multiple choice objective test which contain of 20 items within four options(A-D) constructed by the researcher to cover the aspect of English language. Teaching instrument for the two groups: aural approach and conventional approach. The study used teaching materials as applicable for the two groups. The researcher personally taught the experimental group students. Although the research used the normal English language teacher in the selected school for control group, he was retained to conform to the required skill needed to teach according to specification. Scheme of work and lesson notes prepared by the researcher, the scheme showed the area of English language curriculum, which the researcher selected for use in this study with assistance of experts in test construction, English language in the secondary schools were sought and split-half method, the reliability co-efficient of 0.67 of the instrument (RPT) was obtained using Pearson Product Moment Correlation Coefficient statistic.

In this study, a sample 175 senior secondary schools students with learning disabilities were drawn from three secondary schools in Atiba local government, Oyo State participated in the study. Three schools were selected using purposive sampling techniques. The selected schools have 97 students with learning disabilities for experimental group and 78 students with learning disabilities for control group using aural approach and conventional approach as well as male 89 and female 86 respectively. The researcher visited the schools used and sought permission for the use of the school from the appropriate authorities'. The study covered a period of three weeks. During the first week, the researcher personally administered the treatment on the experimental group. The control group teacher was given instruction to teach

following the conventional method as stipulated in teaching instrument for control group. During the week, first period, SLTSS was conducted to classify the student into group based on scoring ability. The RPT was administered on the subject as pre-test at the second period. Treatment commenced and lasted for four weeks. The students in treatment group were taught with aid of aural approach, while those in control group were taught with conventional method, after which both group were exposed to the same post-test. The data collected through RPT were classified into experimental and control group, as well as male and female. The data collected was analysed using t-test.

Result

Table 2: Mean Gain Score of Students Performance in Experimental Group and Control Group

| Group | Group Statistics | Pre-test | Post-test | Mean Gain Scores | Difference |
|------------------------------------|-------------------------|-----------------|------------------|-------------------------|-------------------|
| Control (Conventional approach) | N | 78 | 78 | 8.5 | 4.3 |
| | Mean | 9.92 | 31.6 | | |
| | Std Dev. | 2.65 | 2.56 | | |
| Experimental (Aural approach) | N | 97 | 97 | 12.8 | |
| | Mean | 9.61 | 18.5 | | |
| | Std Dev. | 2.98 | 2.56 | | |

Table 2 above show that the pre-test mean reading performance score of LD students exposed to aural approach strategies was 9.61 and their post-test mean score was 18.5, while those taught using conventional teaching method had pre-test mean score of 9.92 and post-test score of 31.6. MLD students in the experimental group had mean gain score of 12.8, while those in control group had mean gain score of 8.5 the difference in the mean gain scores for the two groups which favours the treatment groups indicated that students who were exposed to strategic aural approach instruction manifested enhanced achievement in reading performance as against their counterpart in the control group. To further, ascertain if the differences was statistically significant, hypothesis 1 was tested and reported in table 3.

Table 3: Independent sample t-test of the experimental group and control group

| t-test for Equality | | | | | | | |
|---------------------|--------|-----|-------------------|--------------|---------------|--|--------|
| | T | df | Sig (2-tailed) | Mean Diff | Std. Error | 95% Confidence Interval of the Difference Diff Lower Upper | |
| Pretest Score | 1.87 | 112 | .067 | 4.034 | 1.62 | -.199 | 7.323 |
| Posttest Score | -5.084 | 112 | .000 | -8.784 | 1.455 | -11.834 | -5.521 |

Table 3 shows that there was no significance difference in the performance of the students taught used aural approach and students taught with conventional approach in the pre-test (t-value=1.8,p-value=.067 and $p>0.05$).This implies that student in the group were academically equivalent before the treatment. Moreover, the t-test analysis indicates a significant difference in the performance of students taught use than students taught without aural approach in the post-test (t-value=5.084,p-value=000 and $p>0.05$).This implies that students in the experimental group performed better significantly than their counterpart in the control group.

Table 4: Mean Gain Score of Students Performance of Male and Female Students Taught using Aural Approach

| Group | Group Statistics | Pre- test | Post-test | Mean Gain Scores | Difference |
|---------------|---------------------|--------------|-----------|------------------------|------------|
| Male | N | 38 | 38 | | |
| | Mean | 32.2 | 65.6 | 21.5 | |
| | Std Dev. | 9.65 | 4.56 | | 1.3 |
| Female | N | 31 | 31 | | |
| | Mean | 29.6 | 58.5 | 22.8 | |
| | Std Dev. | 8.98 | 7.56 | | |

Data in table 4 above shows that male students with learning disabilities in the experimental group obtained a pre-test mean score of 29.6 and a post-test mean score of 58.5 with mean gain score 22.8. On the other hand, the females in the same group had pre-test of 32.2 and post-test of 65.6 yielding a gain score of 21.5 Males and females had a gain score difference of 1.3 in favour of the females. However the difference is very minimal. Further, analysis to test whether the difference in the mean was statistically significant is as shown in table 4 on hypothesis tested.

Table 4 Independent Sample t-test Experimental Group Based on Gender

| t-test for Equality | | | | | | | |
|---------------------|-----|----|-------------------|--------------|-----------------------|--|-------|
| | T | df | Sig (2-tailed) | Mean Diff | Std. Error Diff | 95% Confidence Interval of the Difference | |
| | | | | | | Lower | Upper |
| Pre-test Score. | 688 | 65 | .561 | 4.034 | 1.33 | -4.191 | 5.323 |
| Post-test Score. | 508 | 65 | .614 | -8.784 | 1.455 | -3.14 | 3.21 |

The t-test analysis shown in Table 4 reveals that there was no significant difference in the performance of male and female students taught using aural approach in the pretest (t-value=0.561, p-value=0.05). This implies that male and female students taught using aural approach have similar academic performance. Similarly, based on the t-test analysis of the post-test scores, male and female students taught using aural approach there was also no significant difference in the performance of male and female students taught using aural approach (t-value=508, p-value=0.614 and $p > 0.05$). This implies that male and female students taught using aural approach obtained similar post-test scores with no significant statistical differences.

Discussion

Data in table 2 reveal that aural approach significantly improved the reading performance of students with learning disabilities over their counterparts who were exposed to conventional approach. The finding affirms that of Klingner et al., 2010 whose studies showed that aural approach influence the reading comprehension of secondary with learning disabilities. This could be further explained by the facts that aural approach help students who struggle to read are unable to retain ordered information which is directly related to phonological retention processing. Retaining phonological information (i.e., blending sounds within words, or segmenting multi-syllabic words), a task performed through working memory, is essential to learning to read. Multi-sensory direct instruction in word recognition and vocabulary is one such method that has promise for secondary students with learning disabilities.

Data in table 2 further show that gender has no significant influence on the mean reading performance score of students with learning disabilities who are taught aural approach. This shows that the mean achievement scores of males and females in the experimental group did not vary significantly. This finding agrees with that Mellard & Patterson, (2008) which revealed the same result. It will also propel one to believe the idea of Adeleke (2007), that if there exist differences in reading performance between genders, it is as a result

of differences in teaching methods which are stereotyped. The non-significant gender difference in reading performance taught using aural approach therefore proves the approach efficacious in uniform improvement of performance of students with learning disabilities.

Conclusions

On the basis of the finding emanating from this study, it is important to note that the potency of aural approach as it relates to students' academic performance in reading has been established. It was evident that both male and female students with learning disabilities benefitted equally when exposed to the treatment. Therefore, it could be concluded that of all research based approach to teaching, reading, aural approach are impactful and if utilized, could serve as an effective approach to achieving desired learning outcome and improved students' ability in academic performances in English language and other subjects.

Recommendations

Having arrived at these conclusions, the following recommendations are made:

1. The use of aural approach should be encourage in the teaching of reading comprehension on English language to remove students with learning disabilities.
2. Intrinsic motivation is important to the reading comprehension of secondary students with learning disabilities who have an innate desire to read had higher reading comprehension scores.
3. There is a need to treat students equally, irrespective of their gender. This will provide the basis for all students with learning disabilities to harness equal level of inspiration, interest and positive attitude towards English language.
4. Books should be written in a student's instructional level is important such as stories and topics of interest to ensure they remain interested long enough to learn how to become proficient readers.

References

- Antoniou, F., & Souvignier, E. (2007). Strategy Instruction in Reading Comprehension: An Intervention Study for Students with Learning Disabilities. *Learning Disabilities: A Contemporary Journal*, 5(1), 41-57.
- Berkeley, S., Matropieri, M. A., & Scruggs, T. E. (2011). Reading comprehension strategy instruction and attribution retraining for

- secondary students with learning disabilities and other mild disabilities. *Journal of Learning Disabilities*, 44(1), 18-32.
- Deshler, D. D., & Hock, M. F. (2007). Adolescent literacy: Where we are, where we need to go. In M. Pressley, A. Billman, K. Perry, K. E. Reffitt, & J. Reynolds (Eds.), *Shaping literacy achievement: Research we have, research we need* (pp. 98-128). New York, NY: Guilford Press.
- Duke, N. K., & Pearson, P. D. (2002). Effective practices for developing reading comprehension. In A. E. Farstrup, & S. Samuels (Eds.), *What Research Has To Say about Reading Instruction, Third Edition* (pp. 205-242). Newark, DE: International Reading Association.
- Faggella-Luby, M. N., & Deshler, D. D. (2008). Reading comprehension in adolescents with LD: What we know; what we need to learn. *Learning Disabilities Research & Practice*, 23(2), 70-78. doi:10.1111/j.1540-5826.2008.00265.x#
- National Center for Education Statistics (2009). The Nation's Report Card: Reading 2009 (NCES 2010-458). Institute of Education Sciences, U.S. Department of Education, Washington, D.C.
- Klingner, J. K., Urbach, J., Golos, D., Brownell, M., & Menon, S. (2010). Teaching reading in the 21st century: A glimpse at how special education teachers promote reading comprehension. *Learning Disability Quarterly*, 33(2), 59-74.
- Mellard, D. F., & Patterson, M.B. (2008). Contrasting adult literacy learners with and without specific learning disabilities. *Remedial and Special Education*, 29(3), 133-144.
- U.S. Department of Education, National Center for Education Statistics (2003). The Condition of Education 2003, NCES 2003-067. Washington, DC
- Shanahan, T. (2013). Letting the text take center stage: How the Common Core State Standards will transform English language arts instruction. *American Educator*, 37(3), 4-11.
- Watson, S. M. R., Gable, R. A., Gear, S. B., & Hughes, K. C. (2012). Evidence-based strategies for improving the reading comprehension of secondary students: Implications for students with learning disabilities. *Learning Disabilities Research & Practice*, 27, 79-89.