Effects of Interactive Read-Aloud and Sustained Silent Reading Strategies on Achievement and Interest in Reading in Gambian Secondary Schools

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Abstract
Reading is an indispensable tool for academic success globally and access to good quality of life in the 21st century. As an aspect of English language instruction in Gambian schools, reading is not being properly taught and it is evident that students are losing interest in reading as the culture of reading is gradually fading away from schools. These problems have been identified as some of the factors responsible for the perennial mass failure in English language examinations. Therefore, this study examined the effect of Interactive Read-Aloud and Sustained Silent Reading Instructional Strategies on students’ achievement and interest in reading. Also, the moderating effect of vocabulary knowledge on students’ achievement and attitude was investigated. The study employed a pretest, posttest quasi-experimental design to test three null hypotheses using two treatment groups and a control. Results showed that Interactive Read-Aloud and Sustained Silent Reading had significant main effect on students’ learning outcomes while vocabulary knowledge had no significant effect. Also, there was no interaction effect of treatment and vocabulary knowledge on learning outcomes in reading. Recommendations were made on how to improve the quality of instruction, students’ achievement and interest in English language.

Key words: Interactive read-aloud; Sustained silent reading; Interest; Achievement; Reading

1. INTRODUCTION
The English language doubles as the official language and language of instruction in the Gambia. It is undoubtedly a widely recognized tool for communication, transaction, diplomatic ties and social cohesion between the Gambia and the rest of the world. Although English language is not indigenous to the Gambia, it has become the prestige language and proficiency in the skills of the language is one of the hallmarks of an educated Gambian. In the Gambian educational system, English is the language of instruction and a strong prerequisite for admission into any of the tertiary institutions in the country. The minimum requirements for admission to first degree programmes in the Gambia for West African Senior Secondary School Certificate Examination (WASSCE) candidates are five credit passes in English language and other relevant subjects (Republic of The Gambia, NAQAA, 2019).

Considering the importance of English language to students’ academic advancement in the Gambia, pedagogical procedures in the subject covers the four language skills of speaking, listening, reading and writing. These skills are taught and examined as part of English language curriculum in schools (WAEC Regulations and Syllabuses for WASSCE, 2013 - 2018). Paper 1 is the most important of the three WASSCE English language exams because it has the highest allocation of marks. A breakdown of the 100 marks allotted to the paper shows the following distributions: Essays or Letter writing (50 marks), reading comprehension passages (20 marks), and summary passage (30 marks). By implication, all the skills of the language are taught as aspects of English language curriculum in Gambian senior secondary schools.

The reading skill, particularly, has been described as one of the most important language skills taught in schools because the skill is both a cerebral and linguistic activity that is essential in formal education. Without the knowledge of reading skills, success will be impossible in formal education because learners need to be able to read...
and comprehend printed or written materials to answer examination questions. It is not uncommon to equate sound education with literacy (ability to read and write). Muhammad, Mehmood, and Hafizoah (2019) describe reading as an important aspect of English language teaching in ESL/EFL classroom. Reading is the ability to extract information from a written text and it has always been a learning tool to aid people decipher information presented in form of written codes in books, online or any other written material. The goal of reading is to recover as much meaning from written words as possible and this is only possible after a thorough comprehension of the text. The purpose of any process of reading is to comprehend the text as the readers create mental pictures during the process of reading. Comprehension is often integrated into reading instruction in second language classroom.

Comprehension is an unconscious cognitive activity that requires deep processing of the text. Grabe (2009) describes reading comprehension as the ability to read and understand the content of a text to make meaning out of it. In spite of the importance of reading to students' scholarly achievement, the quality of instruction in reading has been very poor. Most people the teaching of reading as a language skill requires no strategic interventions in the classroom. Based on the belief that instruction in reading is very simple, the teaching of reading in schools has become teacher-centered, too mechanical, predictable and boring. It is not uncommon to see most language teachers limiting instruction in reading to simple exercises like answering a set of questions on the passage, providing likely synonyms for selected or underlined vocabularies and identifying grammatical names and functions.

The continuous use of teacher-centered strategies in the teaching of reading in Gambian schools has contributed to poor achievement, interest and reading culture among students. Scholars have found that teacher-centered reading strategies are not beneficial at improving students' learning outcomes and proficiency in reading (Hidi, 2001; Amuseghan, 2007; Adebisi, 2012). Poor students' achievement and interest in reading have been attributed to text and instructional or process-related problems such as text genre, text length, poor knowledge of vocabulary, grammar, and punctuation marks, teachers' incompetence and wrong choice of instructional strategies in teaching the reading skill. Of all these problems, vocabulary knowledge is perhaps a factor that often affects students' learning outcomes in reading.

Vocabulary acquisition process is an important part of the second language learning process. Reading cannot take place except the reader can effectively identify and pronounce the words of the language. Also, literature has shown that vocabulary knowledge can influence achievement in language learning, particularly, reading comprehension. For example, Oya, Manalo, and Greenwood (2009) aver that vocabulary knowledge is important in language learning processes. Also, Laufer (1989) conducted a study to investigate the difficulties encountered in vocabulary learning and found significant correlations between measures of vocabulary knowledge and reading comprehension assessments of undergraduate students.

Also, Saville-Troike (1984) found that vocabulary knowledge was a predictor of academic achievement of non-native-English-speaking children, aged 6 to 12 years old, mainstreamed in classes where English was the medium of instruction. It is rational that vocabulary knowledge contributes significantly to success in second language learning or acquisition processes irrespective of the teachers' choice of instructional strategy. It is evident that previous studies on the influence of vocabulary knowledge on achievement in second/foreign language learning are mostly outside the Gambia. Therefore, the study investigated the moderating effect of vocabulary knowledge on students’ achievement and interest in reading comprehension when teacher-supported read-aloud and sustained silent reading instructional strategies are used.

In second language learning situations, there can be different learning outcomes. However, students’ achievement and interest in the skills of the target language are important pointers to the effectiveness and quality of teacher’s instruction. Achievement deals with students’ academic ability which is measurable by their performance in a test. The development of students’ interest has been categorized into four phases by Hidi and Renninger (2006). Interest has been found to play very important roles in an individual’s disposition to current and future language learning tasks or opportunities.

In most second language classrooms, textual reading is done in the classroom during the process of instruction and when such happens, teachers are often confronted by two options: to allow the students do the reading silently or read-aloud in the classroom. According to Harmer (2007) and Hadfield and Hadfield (2008), fostering students’ comprehension in reading exercises and ameliorating the problems associated with reading instruction in ESL/EFL classrooms require language teachers to perform activities that develop students’ reading skills in the classroom. Such activities include offering support, providing corrective feedback, offering pre-reading review or overview of the text and so on. Chaudron (1998) posits that when teachers provide corrective feedbacks during the process of instruction, learners tend to benefit from it in no small measure.

Read-aloud and Sustained Silent Reading Strategies have been found to offer some of the activities listed above when used in reading instruction. Gibson (2008) cited in Muhammad, Mehmood, and Hafizoah (2019) describe the read-aloud teaching strategy as an old technique that has been used over the years to teach reading across the different levels of education with huge success. Morrison and Wheeler (2009) categorize the reading skill as a
transactional process which calls for an engagement between the reader and the text or object of learning. To obtain meaning, a reader must transact or interact with the text through the read-aloud strategy which facilitates active or conscious reading. McCormick (1977) describes the Read-aloud strategy as an instructional practice where teachers read texts aloud to students and incorporates non-verbal cues to produce a fluent reading experience.

Alshehri (2014) posits that the use of read-aloud strategy can be used to actively involve students during development of knowledge, increase comprehension skills, and foster critical thinking. The strategy aids the students in building basic language skills of recognizing and understanding new vocabulary in the course of reading. Read-aloud instruction allows the teacher to verbally read the text out loud to the learners during the process of instruction. Researches have shown that Read-aloud strategy has been more helpful for poor readers as compared to silent reading. For example, Morrison and Wheeler (2009), Krashen (2011) and Muhammad, Mehmood, and Hafizoa (2019) found that Read-aloud strategy actively engaged the students in the instructional process and the students in the read-aloud treatment group performed significantly better than those in the silent reading group.

Sierra-Perry (1996) posits that it is not uncommon for some teachers to allow their students to spend significant amounts of classroom time to read silently up to 30 minutes a day, plus an additional 15 minutes in writing personal reflections on what was read. Sustained silent reading (SSR) is a form of school-based recreational reading, or free voluntary reading, where students read silently in a designated time period every day in school. An underlying assumption of the sustained silent reading (SSR) is that students learn to read by reading constantly (www.en.wikipedia.org/wiki/Sustained_silent_reading). Hasbrouck (2006) argues that the use of silent reading strategy for students who are still struggling with basic reading skills could be deceitful or time-wasting experience for teachers because little or no reading taking place in class. Mork (2018) posits that teachers’ use of silent reading strategies gives students an opportunity to assess their skills independently and builds self-confidence at all levels of education.

Sustained Silent Reading (SSR) is not traditionally meant for the purpose of instruction, this is because the activities involved do not require an assessment of readers’ comprehension or writing book reports (Hasbrouck, 2006). However, SSR has been used in language instruction in different studies. For example, Yoon (2002) investigated the effectiveness of sustained silent reading on the attitude and reading comprehension of fourth graders in Korean schools and found that the SSR group had a higher mean score in attitude to reading, but there was no significant effect of SSR on reading comprehension. A study by McCallum (2004) found that there was no statistical difference found between the learning outcomes of the groups exposed to silent and oral reading strategies. In view of the numerous conflicts in research findings, this study investigated the effects of teacher-supported read-aloud and sustained silent reading strategies on students’ interest and achievement in reading comprehension. The study also investigated the moderating effect of vocabulary knowledge.

2. STATEMENT OF THE PROBLEM
Reading is taught as part of the curriculum for English studies in Gambian schools and the ability to read and comprehend has been described as a tool for academic success. In spite of the importance of the reading skills, the quality of instruction and students’ learning outcomes in schools has been very poor. Studies have shown that read-aloud and silent reading instructional strategies improved learning outcomes in reading especially among ESL/EFL students. The study investigated the effects of teacher-supported read-aloud and sustained silent reading instructional strategies on students; achievement and interest in reading in the Gambia. The study investigated the moderating effect of vocabulary knowledge when students are exposed to Interactive Read-aloud and sustained Silent reading Strategies.

Hypotheses
The following null hypotheses will be tested at 0.05 level of significance:

- H01: There is no significant main effect of treatment on students’
  a. achievement in reading
  b. interest in reading
- H02: There is no significant main effect of vocabulary knowledge on students’
  a. achievement in reading
  b. interest in reading
- H03: There is no significant interaction effect of treatment and vocabulary knowledge on students’
  a. achievement in reading
  b. interest in reading

Theoretical Framework: Vygotsky Social Learning Theory
Vygotsky’s Social Learning theory is the work of a Russian Psychologist and teacher, Lev Vygotsky, which was initially published in 1962, (Vygotsky, 1978). The basis of this theory is that learning takes place through social interaction and knowledge can be constructed either independently of through the support of a skilled adult or individual which Vygotsky referred to as the Zone of Proximal Development (ZPD). Vygotsky’s theory suggests that students should be assigned specific and active roles in instruction while the teacher supports them to discover the object of learning by themselves through prompts and supports. This is in line with the procedures of interactive
read-aloud and sustained silent reading strategies when students are allowed to read and discuss the context of the text until they are able to arrive at comprehension.

**Problems of Teaching and Learning Reading**

The primarily objective of teaching reading is comprehension, but as simple as it sounds, there are several problems that confront both the teacher and students in a reading classroom. Reading is an aspect that is covered in English studies curriculum in schools and it is meant to teach the reading skill, test students’ comprehension and knowledge of the writing skill in English language. Problems associated with the teaching of reading are largely human and instructional strategy-related. These problems include poor knowledge of the subject matter, wrong choice methodology by language teachers, poor knowledge of reading skills, vocabulary, and grammar. Several factors are responsible for the problem areas in reading comprehension and these include the inability to read and understand the comprehension passage effectively, correctly answer questions in construct grammatically correct sentences and punctuate them well.

Similarly, some scholars consider language teachers as one of the factors responsible for problems encountered in reading by students. Other problems associated with reading comprehension have been attributed to teacher-related factors such as teacher’s poor attitude, lack of knowledge and skills necessary for the effective teaching of English studies. According to Hidi and Anderson (1986), reading is a complex aspect of English language learning which requires a deeper processing of the text and teachers need to allow students to focus on the spellings, vocabulary, sentence structure and other text-related factors while teaching reading comprehension.

In addition, Barrs (2002) describes reading as a highly complex and demanding process of decoding the intents, mood and message of a writer. Hirvela (2004) suggests that reading is best taught when the teacher takes cognizance of the connection between reading and writing skills to create a synergy in building the comprehension of a text. The connection between the reading and writing skills can be effectively used in the teaching and learning of reading comprehension. Adapting this view, however, changes the focus of the teachers’ instruction from helping students to answer comprehension questions to encouraging students’ interaction with the text and construct their own meanings. Often, the students’ inability to understand the form or structure of the text constitutes a problem in reading instruction. Elements such as vocabulary, theme and length may well influence text comprehension (Hazenberg & Hulstijn, 1996).

In addition, the process of reading instruction is a form of composing meanings from the text. Students are expected to demonstrate a set of abilities that include recognizing, eliminating irrelevant information and presenting the answers. Reading requires the reader’s active participation in the discovery of meaning from the text. Skills in reading include the use of a variety of comprehension strategies such as predicting, summarizing, questioning and visualizing the text (Beers, 2003). Effective reading is strongly linked to the ability to draw inferences from the text by using schema and vocabulary knowledge to build fluency, improve reading rate, and enhance text comprehension.

**Previous Studies in Interactive Read-aloud and Sustained Silent Reading Strategies**

The quality of instruction in second language learning has been of great concern to scholars and other stakeholders in education. The primary goal of reading instruction is to facilitate effective comprehension of any given text. Reading is certainly one of the skills that defines a literate person and teachers are saddled with the responsibility to impart reading skills through the use of effective strategies and numerous pre-planned activities during the process of instruction. Recently, there has been intense campaign for a shift from teacher-centered to learner-centered procedures in second language instruction. This has led to studies on the effectiveness of learner-centered strategies such as Explicit (Van Keer, 2004; Adebiyi, 2012) Read-aloud (McCormick, 1977; Sierra-Perry, 1996), Guided-reading (Fountas & Pinnell, 2001; 2009), Sustained Silent Reading (SSR) (Yoon, 2002; Zamanian, 2014; Mork, 2018) and Generative instruction (Adebiyi, 2012).

The Read-aloud strategy is a course of instruction where the teacher reads the text to be learned out loud through oral presentation in the classroom. Some of the features of read-aloud strategy presented by Kailani (1998) are as follows: selection of the text should be done by the teacher based on students’ interest, pre-reading of the text to highlight words that are key to understanding the text by the teacher, relating the text to the students’ prior knowledge, first reading in class should be without interruption, the teacher should read the text more than once to help the students comprehend, from the second reading, the reader can pause the rereading to explain, questions to assess the students’ comprehension and corrective feedback should be provided, reflective discussions about the text should take place after the class, assessment of the students’ understanding of the new words should be done. Gibson (2008) described read-aloud strategy as a helping tool in learning because it reinforces comprehension during the process of reading.

This study examined the effects of interactive read-aloud and sustained silent reading strategies on students' achievement and interest in reading comprehension. Bridges (2014) describes interactive read-aloud strategy as truly interactive. The processes in interactive read-aloud allows the teacher to read aloud to children and at the same time, he invites the children to participate: make comments, extend the ideas of the author, ask and
respond to questions till the children are able to build more intricate networks of meaning than they could have accomplished on their own (Fountas & Pinnell, 2012). Zamanian (2014) describes sustained silent reading as an independent and advanced form of continuous reading. The learners are allowed to read quietly while the teacher provides individual help to students. In both cases, the atmosphere for reading is highly structured in such a way that all forms of interaction between the teacher and the children are fused around the text and the reading activities are planned and deliberate.

Bridges (2014) describes the interactive read-aloud strategy as student-centered and participatory because it helps students to focus on the text, use suitable words when talking about a text, listen actively and respect others’ ideas, build on others’ comments and support their opinions with evidence from the text. Muhammad, Mehmood & Hafizoa (2019) compare the effectiveness of Read-aloud and Sustained Silent Reading strategies on students’ learning outcomes in reading. The study reported that Read aloud strategy allowed the teacher to actively engage students during development of knowledge, increase comprehension skills, and foster critical thinking. Read-aloud strategy also aided students’ capacity to build foundational skills and understand new vocabulary. It was concluded that the result showed that read-aloud was significant to students’ achievement in reading comprehension.

Also, McCormick (1977) found that primary school pupils exposed to read aloud regularly over a period of time, achieved significant gains in reading comprehension, decoding skills, and vocabulary. Results by Hazzard (2016) showed that read-aloud strategy improved student’s comprehension significantly among average and weak students. Read-aloud strategy was also found to be helpful for both primary school and college level students. Similarly, Trelease (1994) reported that reading comprehension improves in meaningful ways when read-aloud strategy is used regularly in the classroom. Al-Mansour and Al-Shorman (2011) reported that results from over seventy-five years of research have demonstrated the importance of reading aloud to students. The implication of these findings is that teachers need to expose students to read-aloud strategy during the process of instruction.

Language teachers can read aloud to their students or delegate someone to read-aloud in class. Studies (Al-Mansour & Al-Shorman, 2011; Zamanian, 2014; Muhammad, Mehmood & Hafizoa, 2019) have found that in classrooms where teachers read-aloud to their students, such students develop a strong interest in reading as well as get a better feel for the language and its structure. Other studies compared the effect of both read-aloud and silent strategies on students’ learning outcomes. Schimmel and Ness (2017) found that silent reading influenced students’ comprehension in reading more than oral reading. The result showed that the students in the silent reading strategy performed better in a narrative passage than their colleagues in Read-aloud strategy. Also, McCallum (2004) compared the effects of oral and silent reading strategies on students’ comprehension. A sample size of 74 students was selected, among them 39 students were selected to read silently while rest of 35 were for reading orally. Results showed that there was no statistical difference found between silent and oral reading strategies. Although these studies have contributed immensely to the pool of knowledge, students’ achievement and interest in reading has not improved significantly.

**Vocabulary Knowledge and Students’ Learning Outcomes**

The importance of vocabulary knowledge in language teaching and learning has been stressed by different scholars and language teachers and at different times. This is because words are largely considered as the basis of any language. Words recognition, pronunciation and combination form an integral part of language learning in most classrooms. The emphasis in ESL classrooms especially is on improving students’ vocabulary repertoire either by actively teaching vocabulary development or exposing the students to opportunities to communicate in the target language. In language teaching, vocabulary learning strategy (VLS) is an approach which facilitates vocabulary learning and has attracted considerable attention. Vocabulary learning strategies has evolved to become a significant aspect of strategies in first or second language teaching and learning.

Vocabulary knowledge plays a very important function in the process of language learning. The knowledge of vocabulary possessed by an individual has a strong relationship with students’ learning outcome in reading. Logically, knowledge of the meanings of words and their different collocations have direct implications for fluency and reading comprehension and thus vocabulary signifies a significant element to increasing reading achievement. The relationship between reading and vocabulary is very deep and complex in ESL/EFL situations. Numerous researchers suppose that vocabulary learning is a significant aspect of second-language learning. Students’ fluency, proficiency and achievement in reading can be influenced by vocabulary knowledge. Vocabulary knowledge plays a very crucial role in reading comprehension (Saville-Trioke, 1984; Hazenberg & Hulstijn, 1996).

Oya, Manalo and Greenwood (2009) stress the importance of vocabulary knowledge in oral performance. They argue that more advanced levels of vocabulary knowledge contribute to both clause and verb accuracy when speaking. Considering what more advanced vocabulary knowledge might entail (e.g., knowing more words and their variations) and be associated with (e.g., better understanding of the grammar
that applies to the use of the known words), its possible contribution to the ability to utter more accurate clauses and verbs is understandable. Vocabulary knowledge is influential in a language learner’s use the different skills of the target language. From the foregoing, it is evident that all forms of language instruction must include vocabulary learning to increase the volume of the knowledge.

3. RESEARCH METHODOLOGY

3.1 Research Design
The pretest, posttest, control group, quasi-experimental research design was adopted for this study. The study made use of three instructional groups comprising two experimental groups were exposed to treatment in Interactive Read-Aloud (IRA) and Sustained Silent Reading (SSR) while the control group was exposed to the Conventional method of teaching reading.

3.2 Variables in the Study
The following are the variables in the study:
  Independent Variable: It was manipulated at three levels namely:
  i. Interactive Read-Aloud Instructional Strategy
  ii. Sustained Silent Reading Instructional Strategy
  iii. Conventional teaching method
  Moderator Variable: It was Vocabulary Knowledge at three levels:
  (a) High (71 – 100%)
  (b) Average (41- 70%)
  (c) Low (0 - 40%)
  Dependent Variable: This was the learning outcome at two levels:
  i. Achievement in Reading
  ii. Interest in Reading

3.3 Selection of Participants
Two regions were randomly selected from the six educational regions in the Gambia. The participants were made up of Grade 11 students in intact classes from six purposively selected senior secondary schools in the randomly selected regions. Three schools were randomly selected and assigned to treatment groups from each of the two randomly selected educational regions.

3.4 Selection of Content and Research Instrument
The content of the instructional package for this study comprised passages taken from the participants’ recommended textbooks and it covered four passages on different topics. Three instruments were used for this study; they include:
  (i) Students’ Achievement Test in Reading (SATR)
  (ii) Vocabulary Knowledge Achievement Test (VKAT)
  (iii) Students’ Interest in Reading Questionnaire (SIRQ)

3.4.1 Students’ Achievement Test in Reading (SATR)
The instrument was a passage adapted from the students’ recommended textbook. SWAT was used as both the pretest and posttest to measure students’ achievement in reading. The questions set on the passage were made parallel to those obtainable in WASSCE examinations and scored over 20. The reliability of the instrument was determined by using test-retest method. A reliability coefficient of 0.78 was obtained.

3.4.2 Vocabulary Knowledge Achievement Test (VKAT)
Vocabulary Knowledge Achievement Test was a 20-item instrument to assess the level of vocabulary knowledge that the students possess. The instrument has two parts. Part A covers demographic information of the participants such as class, age, sex, tribe/first language and so on. Part B comprises 15 multiple choice questions with options lettered A to D to test students’ vocabulary knowledge. Each correct answer was scored 5 and the maximum score obtainable in VKAT was 100%. Students were categorized into three ability groups based on their performance in the test as follows: High (70 – 100%), Average (40-65%) and (0 - 35%). In order to ensure the reliability of the instrument, test-retest method was used on a group of 30 students that were not part of the main study and reliability co-efficient of 0.74 was obtained.

3.4.3 Students’ Interest in Reading Questionnaire (SIRQ)
The SIRQ was self-designed and made up of two sections. Section A was meant to elicit demographic data of the respondents like school, sex, class, age, and section B consisted of 15 items to assess interest in reading. It contained information on students’ interest in reading classroom. Students’ response was a closed response mode of three-point scale of Always, Sometimes and Never. Scoring for the positively stated items was based on 3, 2, 1 and reversed for the negatively worded items. The first ten items were positively stated while items 11 to 15 were negatively stated. To validate the SIRQ, the instrument was administered to 30 Grade 11 students from a school that was not part of the main study and reliability co-efficient of 0.74 was obtained.

3.5 Procedure for Data Collection
The experiment lasted for a period of eight weeks. The training of the research assistants was done during the first two weeks. The instruments for pretest (SATR, VKAT, & SIRQ) were administered in the third week and the eighth and final week was used for the administration of the posttest (SATR & SIRQ). Treatment was from week 3 to 7 across the two experimental groups and the control group. The training of the research assistants covered three stages:
  Explanation: the researcher explained the processes involved in the use of the Interactive Read-aloud and Sustained Silent Reading Instructional Strategies.
Illustration: the researcher presented a demo-teaching using the English language teachers as learners, this was necessary in order to emphasize the important aspects in the instructional process.

Practice: the practice session involved the participating teachers who were tasked to practically demonstrate the mastery of the strategy by teaching students who were not part of the population for this study.

3.6 Treatment Stage
Treatment involved three groups - the experimental group one was taught using the Interactive Read-aloud Strategy; the experimental group two was exposed to Sustained Silent Reading Strategy while the control group was exposed to the Conventional teaching method. The groups had one contact session per week. The treatment stage covered a period of four weeks.

3.7 Method of Data Analysis
Data collected were analyzed using inferential statistics of Analysis of Covariance (ANCOVA) with the pretest scores as covariates. The Estimated Marginal Mean (EMM) was computed to show how the groups performed, while Bonferroni Post-hoc analysis was used to detect the source of significant difference among the three groups where they existed. All the hypotheses were tested at 0.05 level of significance.

RESULTS AND DISCUSSION
H01a: There is no significant main effect of treatment on students’ achievement in reading

Table 1
ANCOVA of post-achievement by treatment and vocabulary knowledge

<table>
<thead>
<tr>
<th>Source</th>
<th>Type III sum of squares</th>
<th>df</th>
<th>Mean square</th>
<th>F</th>
<th>Sig.</th>
<th>Partial eta squared</th>
</tr>
</thead>
<tbody>
<tr>
<td>Corrected model</td>
<td>1468.373a</td>
<td>8</td>
<td>183.547</td>
<td>22.764</td>
<td>.000</td>
<td>.294</td>
</tr>
<tr>
<td>Intercept</td>
<td>2643.796</td>
<td>1</td>
<td>2643.796</td>
<td>327.898</td>
<td>.000</td>
<td>.429</td>
</tr>
<tr>
<td>Pre-achievement</td>
<td>17.270</td>
<td>1</td>
<td>17.270</td>
<td>2.142</td>
<td>.144</td>
<td>.005</td>
</tr>
<tr>
<td>Treatment</td>
<td>847.861</td>
<td>2</td>
<td>423.931</td>
<td>52.578</td>
<td>.000</td>
<td>.194</td>
</tr>
<tr>
<td>Vocabulary knowledge</td>
<td>4.292</td>
<td>2</td>
<td>2.146</td>
<td>.266</td>
<td>.766</td>
<td>.001</td>
</tr>
<tr>
<td>Treatment * vocabulary knowledge</td>
<td>24.908</td>
<td>3</td>
<td>8.303</td>
<td>1.030</td>
<td>.379</td>
<td>.007</td>
</tr>
<tr>
<td>Error</td>
<td>3523.475</td>
<td>437</td>
<td>8.063</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>28384.000</td>
<td>446</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Corrected total</td>
<td>4991.848</td>
<td>445</td>
<td></td>
<td></td>
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<td></td>
</tr>
</tbody>
</table>

Table 1 shows that there was significant main effect of treatment on students’ achievement in English reading ($F_{(2, 427)} = 52.578; p<.05; partial η² = .194). The effect size is 19.4%. This means that 19.4% difference in the post-achievement of students’ in English reading is accounted for by treatment, hence, there is a significant difference in the post-achievement of students. Thus, the null hypothesis 1a was rejected. In order to determine the magnitude of the significant main effect across treatment groups, the estimated marginal means of the treatment groups was carried out and the result is presented in Table 2.

Table 2
Estimated marginal mean for post-achievement by treatment

<table>
<thead>
<tr>
<th>Treatment</th>
<th>Mean</th>
<th>Std. error</th>
<th>95% confidence interval</th>
<th>95% confidence interval for difference</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>Lower bound</td>
<td>Upper bound</td>
</tr>
<tr>
<td>Interactive Read-Aloud</td>
<td>9.619a</td>
<td>.470</td>
<td>8.695</td>
<td>10.543</td>
</tr>
<tr>
<td>Sustained Silent Reading</td>
<td>6.547a</td>
<td>.510</td>
<td>5.544</td>
<td>7.550</td>
</tr>
<tr>
<td>Conventional Strategy</td>
<td>5.100a,b</td>
<td>.265</td>
<td>4.578</td>
<td>5.621</td>
</tr>
</tbody>
</table>

Table 2 shows that the students taught using Interactive Read-Aloud had the highest adjusted post-achievement mean score (9.619), followed by the students taught using Sustained Silent Reading (6.547) while the students taught using the conventional strategy had the least mean score (5.100). The order is represented as IRA>SSR>CS.

Table 3
Bonferroni post-hoc analysis of post-achievement by treatment

<table>
<thead>
<tr>
<th>(I) Treatment</th>
<th>(J) Treatment</th>
<th>Mean difference (I-J)</th>
<th>Std. error</th>
<th>Sig.b</th>
<th>95% confidence interval for differenceb</th>
</tr>
</thead>
<tbody>
<tr>
<td>Interactive read-aloud</td>
<td>Sustained silent reading</td>
<td>3.072*</td>
<td>.696</td>
<td>.000</td>
<td>1.400</td>
</tr>
<tr>
<td>Conventional strategy</td>
<td></td>
<td>4.519*,b</td>
<td>.539</td>
<td>.000</td>
<td>3.224</td>
</tr>
<tr>
<td>Sustained silent reading</td>
<td>Interactive read-aloud</td>
<td>-3.072*</td>
<td>.696</td>
<td>.000</td>
<td>-4.743</td>
</tr>
<tr>
<td>Conventional strategy</td>
<td></td>
<td>1.448*,b</td>
<td>.576</td>
<td>.037</td>
<td>.064</td>
</tr>
<tr>
<td>Conventional strategy</td>
<td>Interactive read-aloud</td>
<td>-4.519*,c</td>
<td>.539</td>
<td>.000</td>
<td>-5.815</td>
</tr>
<tr>
<td>Sustained silent reading</td>
<td></td>
<td>-1.448*,c</td>
<td>.576</td>
<td>.037</td>
<td>-2.831</td>
</tr>
</tbody>
</table>
Table 3 shows that the post-achievement of students exposed to interactive read-aloud strategy was significantly different from the post-achievement of their counterparts taught with Sustained Silent Reading (Mean Difference = 3.072; p < 0.05) and conventional strategy (Mean Difference = 4.519; p < 0.05). Also, the table shows that the post-achievement of students exposed to Sustained Silent Reading strategy was significantly different from that of their counterparts taught with conventional strategy (Mean Difference = 1.448; p < 0.05).

H01b: There is no significant main effect of treatment on students’ interest in reading

Table 4
ANCOVA of post-interest by treatment and vocabulary knowledge

<table>
<thead>
<tr>
<th>Source</th>
<th>Type III sum of squares</th>
<th>df</th>
<th>Mean square</th>
<th>F</th>
<th>Sig.</th>
<th>Partial eta squared</th>
</tr>
</thead>
<tbody>
<tr>
<td>Corrected Model</td>
<td>12601.845a</td>
<td>8</td>
<td>1575.231</td>
<td>32.918</td>
<td>.000</td>
<td>.376</td>
</tr>
<tr>
<td>Intercept</td>
<td>18398.433</td>
<td>1</td>
<td>18398.433</td>
<td>384.480</td>
<td>.000</td>
<td>.468</td>
</tr>
<tr>
<td>Pre-Interest</td>
<td>77.735</td>
<td>1</td>
<td>77.735</td>
<td>1.624</td>
<td>.203</td>
<td>.004</td>
</tr>
<tr>
<td>Treatment</td>
<td>8291.044</td>
<td>2</td>
<td>4145.522</td>
<td>86.631</td>
<td>.000</td>
<td>.284</td>
</tr>
<tr>
<td>Vocabulary Knowledge</td>
<td>176.086</td>
<td>2</td>
<td>88.043</td>
<td>1.840</td>
<td>.160</td>
<td>.008</td>
</tr>
<tr>
<td>Treatment* Vocabulary Knowledge</td>
<td>86.077</td>
<td>3</td>
<td>28.692</td>
<td>.600</td>
<td>.616</td>
<td>.004</td>
</tr>
<tr>
<td>Error</td>
<td>20911.662</td>
<td>437</td>
<td>47.853</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>319510.000</td>
<td>445</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Corrected Total</td>
<td>33513.507</td>
<td>445</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table 4 shows that there was significant main effect of treatment on students’ interest in reading ($F$ (2; 427) = 86.631; p < .05; partial $\eta^2$ = .284). The effect size is 28.4%. This means that 28.4% difference in the post-interest of students’ in reading is accounted for by treatment, hence, there is a significant difference in the interest of students. Thus, the null hypothesis 2a was rejected. In order to determine the magnitude of the significant main effect across treatment groups, the estimated marginal means of the treatment groups was carried out and the result is presented in Table 5.

Table 5
Estimated marginal means for post-achievement by treatment

<table>
<thead>
<tr>
<th>Treatment</th>
<th>Mean</th>
<th>Std. error</th>
<th>95% confidence interval</th>
<th>Lower bound</th>
<th>Upper bound</th>
</tr>
</thead>
<tbody>
<tr>
<td>Interactive Read-Aloud</td>
<td>29.455a</td>
<td>1.142</td>
<td>27.210</td>
<td>31.700</td>
<td></td>
</tr>
<tr>
<td>Sustained Silent Reading</td>
<td>25.453a</td>
<td>1.246</td>
<td>23.004</td>
<td>27.901</td>
<td></td>
</tr>
<tr>
<td>Conventional Strategy</td>
<td>18.029a,b</td>
<td>0.647</td>
<td>16.758</td>
<td>19.300</td>
<td></td>
</tr>
</tbody>
</table>

Table 2 shows that the students taught using Interactive Read-Aloud had the highest adjusted post-interest mean score (29.455), followed by the students taught using Sustained Silent Reading (25.453) while the students taught using the conventional strategy had the least mean score (18.029). The order is represented as IRA>SSR>CS.

Table 6
Bonferroni post-hoc analysis of post-achievement by treatment

<table>
<thead>
<tr>
<th>(I) Treatment</th>
<th>(J) Treatment</th>
<th>Mean difference (I-J)</th>
<th>Std. error</th>
<th>Sig.</th>
<th>95% confidence interval</th>
<th>Lower bound</th>
<th>Upper bound</th>
</tr>
</thead>
<tbody>
<tr>
<td>Interactive read-aloud</td>
<td>Sustained silent reading</td>
<td>-4.002</td>
<td>1.690</td>
<td>.055</td>
<td>-0.059</td>
<td>8.063</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Conventional strategy</td>
<td>11.426* b</td>
<td>1.313</td>
<td>.000</td>
<td>8.271</td>
<td>14.581</td>
<td></td>
</tr>
<tr>
<td>Sustained silent reading</td>
<td>Interactive read-aloud</td>
<td>-4.002</td>
<td>1.690</td>
<td>.055</td>
<td>-8.063</td>
<td>.059</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Conventional strategy</td>
<td>7.424* b</td>
<td>1.407</td>
<td>.000</td>
<td>4.043</td>
<td>10.804</td>
<td></td>
</tr>
<tr>
<td>Conventional strategy</td>
<td>Interactive read-aloud</td>
<td>-11.426* c</td>
<td>1.313</td>
<td>.000</td>
<td>-14.581</td>
<td>-8.271</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Sustained silent reading</td>
<td>-7.424* c</td>
<td>1.407</td>
<td>.000</td>
<td>-10.804</td>
<td>-4.043</td>
<td></td>
</tr>
</tbody>
</table>

Table 6 shows that the post-interest of students exposed to interactive read-aloud strategy was not significantly different from that of their counterparts taught with Sustained Silent Reading (Mean Difference = 4.002; p > 0.05) but significantly different from that of the students taught using conventional strategy (Mean Difference = 11.426; p < 0.05). Also, the table shows that the post-interest of students exposed to Sustained Silent Reading strategy was significantly different from that of their counterparts taught with conventional strategy (Mean Difference = 7.424; p < 0.05).

H02a: There is no significant main effect of vocabulary knowledge on students’ achievement in reading
Table 1 shows that there was no significant main effect of vocabulary knowledge on students’ achievement in reading ($F_{(2, 427)} = .266; p>.05; \eta^2 = .001$). Thus, the null hypothesis 2a was not rejected.

H02b: There is no significant main effect of vocabulary knowledge on students’ interest in reading

Table 4 shows that there was no significant main effect of vocabulary knowledge on students’ interest in reading ($F_{(2, 427)} = .1.840; p>.05; \eta^2 = .008$). Thus, the null hypothesis 2b was not rejected.

H03a: There is no significant interaction effect of treatment and vocabulary knowledge on students’ achievement in reading

Table 1 shows that there was no significant interaction effect of vocabulary knowledge on students’ achievement in reading ($F_{(2, 427)} = 8.303; p>.05; \eta^2 = .007$). Thus, the null hypothesis 3a was not rejected.

H03b: There is no significant interaction effect of treatment and vocabulary knowledge on students’ interest in reading

Table 4 shows that there was no significant interaction effect of vocabulary knowledge on students’ interest in reading ($F_{(2, 427)} = .600; p>.05; \eta^2 = .004$). Thus, the null hypothesis 3b was not rejected.

Findings of the study revealed that the Interactive Read-Aloud Instructional Strategy was most effective at improving students’ achievement and interest in reading followed by the Sustained Silent Reading Instructional Strategy while the Control was the least effective. Effectiveness of the Interactive Read-Aloud Strategy over the Sustained Silent Reading and Conventional method was as a result of the fact that Interactive Read-Aloud Instructional Strategy is teacher-directed, engaging and allows learner-teacher or learner-learner interaction during the process of instruction. Interactive Read-Aloud Instructional Strategy created a classroom where ESL students have opportunities to ask questions and receive support as they read. This result agrees with the findings of similar studies (McCormick, 1977; Al-Mansour & Al-Shorman, 2011; Bridge, 2014) that students record significant improvements in their grades when exposed to read-aloud instructional strategy. The result also supports the findings of Fountas and Pinnell (2012) and Hazzard (2016) that students exposed to the read-aloud strategy recorded significant improvements in their ability to read and comprehend. The result, however, disagrees with the findings of Schimmel and Ness (2017) which found students exposed to the Sustained Silent Reading (SSR) to perform significantly better than their counterparts in the read-aloud instruction.

Furthermore, Sustained Silent Reading (SSR) was found to be more effective than the conventional method (control group). The effectiveness of the SSR Instructional Strategy was because the strategy allowed the learners ample time to be engaged with the text with little or no disruption during the process of instruction. The learners were fully involved and concentrated on the task of reading the passage and they were able to work independently and arrive at their own answers through self-initiated and self-directed activities. The result is supported by several other studies (Yoon, 2002; Zamanian, 2014; Mork, 2018) that Sustained Silent Reading Instructional Strategy had a significant effect on students’ achievement in reading comprehension. The result also agrees with the findings of Schimmel and Ness (2017) that students exposed to the SSR recorded significantly higher achievement mean scores than their counterparts in the Read-aloud treatment group. The conventional method was found to be the least effective perhaps because the strategy is teacher-centred. The implication of this finding is that the continued dependence on teacher-centred instructional strategies cannot guarantee students’ achievement.

Also, there was a significant main effect of treatment on students’ interest in reading comprehension. Students in the Interactive Read-Aloud group had the highest mean score, followed by the Sustained Silent Reading and then the control groups. Instruction in the Interactive Read-Aloud group was interactive, participatory, and engaging which allowed students the opportunity to ask questions and receive support thereby developing interest in reading. Also, students in Sustained Silent Reading (SSR) group recorded higher interest mean score than their counterparts in the control group because they were highly involved and performed the activities by themselves. This result supports the findings of Zamanian (2014) and Muhammad, Mehmood and Hafizoh (2019) that both Read-Aloud and Sustained Silent Reading instructional strategies can improve students’ interest because the strategies encouraged learners’ active participation. The result disagrees with the findings of McCallum (2004) that there is no significant difference between students’ interest in the Interactive Read-Aloud and Sustained Silent Reading group. The conventional method was the least effective on students’ interest in reading comprehension.

The findings of this study revealed that there was no significant main effect of vocabulary knowledge on students’ achievement and interest in reading comprehension. This result disagrees with the findings of Saville-Trioke (1984) and Oya, Manalo and Greenwood (2009) that students’ vocabulary knowledge contributes significantly to achievement and interest in reading comprehension. Also, Hazenburg and Hulstijn (1996) reported that vocabulary knowledge contributes significantly to achievement and attitude in ESL/EFL classroom. On the interactive effect of treatment and vocabulary knowledge on students’ achievement and interest in reading comprehension, the study revealed that there was no significant interaction effect of treatment and vocabulary knowledge on students’ achievement and interest in reading. Although students with high vocabulary knowledge had a higher significant mean achievement and
interest score than their counterparts with medium and low vocabulary knowledge, the effect was not significant. From the foregoing, there is need for a paradigm shift from the conventional teaching strategy to Interactive Read-Aloud and Sustained Silent Reading instructional strategies that have been found to have significant effect on students’ achievement and interest in reading.

**CONCLUSION AND RECOMMENDATIONS**

Based on the findings of this study, it could be concluded that the Interactive Read-Aloud and Sustained Silent Reading instructional strategies have great potentials at improving both achievement and interest in reading comprehension among secondary school students. These strategies allowed students to participate actively, interact with teacher/peers or the text and in some cases, receive support in the process of instruction. The use of the Interactive Read-Aloud strategy in particular built better teacher-student and student-student interaction during lessons as well as developed greater confidence in the students. The strategies are capable of eradicating the problem of mass failure in English language and equip students with the requisite skills needed for reading, studying and note-taking. Based on the findings of this study, the following recommendations were made:

i. Teaching should be interactive and not monopolized by the teacher.

ii. The process of reading instruction should be an exchange between the teacher and students or peers to arrive at or construct an elusive meaning from the text.

iii. Vocabulary teaching or awareness should be a part of reading instruction.

iv. Students should also be allowed to participate in classroom reading and alternate both the read-aloud and sustained silent reading approaches for maximum result.

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**REFERENCES**


