



Comparative Effects of Advance Organizer and SQ3R Models on Secondary School Students' Reading Achievement in Osun State, Nigeria

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Abstract: *The study examined the awareness and use of the Advance Organizer Model (visual and verbal forms) and the SQ3R model among senior secondary school English Language teachers. It also determined the relative effects of the models on senior secondary school students' reading achievement in English Language and compared the effects of AOM and SQ3R models on the students' reading achievement in English Language on the basis of school type and school location. The study employed the non-equivalent pre-test-post-test control group and descriptive survey research designs. The research involved intact SS1 classes from eight stratified public and private schools (urban and rural). These classes were randomly assigned to two experimental groups: Group A used the AOM, while Group B applied the SQ3R model. Over six weeks, students were taught reading comprehension using these models, and data were collected through a teacher questionnaire and English Language Reading Achievement Tests (ELRAT). Findings revealed that only 40% of teachers were aware of reading models, with just 18% actively using them. Statistically significant differences were found in students' reading performance between the two instructional approaches, favouring the AOM. Additionally, a significant difference was observed between public and private school students' outcomes, though no difference was found between students in urban*

and rural settings. The study concluded that the AOM is more effective in improving reading achievement across different school types and locations. It is recommended that teacher awareness and implementation of this model be promoted and supported through curriculum development. Instructional materials such as visuals, glossaries, and diagrams should be incorporated into textbooks to facilitate the use of AOM. Ultimately, the research offers valuable insights into the practical application of reading strategies and highlights the potential of the AOM to enhance comprehension skills among secondary school students in diverse educational contexts.

Keywords: Contemporary Approach, Conventional Method, School Type, Second Language, SQ3R Models, English Language Reading Achievement Tests (ELRAT).

1. Introduction

Language is a crucial element of human society, providing structure and facilitating communication. It enables people to share ideas, express emotions, and engage in learning. According to Ayoola (2007), language is the key to enlightenment and education, making it an indispensable tool for acquiring knowledge. Without language, societal interactions and advancements would be significantly hindered. This underscores its role in both individual and collective progress.

English plays a significant role in Nigeria as both an international language and a second language for many citizens. It serves as a medium of instruction, of political, economic, and social engagement, shaping Nigeria's global image. The language is extensively used in education and public discourse, making its mastery essential for academic and professional success. Discussions about the role of English in Nigeria often focus on its impact on education and national development.

Reading is a fundamental skill within language learning, aiding comprehension and knowledge acquisition. Ayoola (2007) emphasizes that reading enhances understanding and broadens intellectual horizons. However, reading requires multiple cognitive processes, such as reasoning, recalling, and problem-solving. Okeogu and Efika (2002) assert that reading also fosters literacy and analytical thinking, making it essential for students aiming to excel academically.

Despite its importance, reading proficiency among Nigerian students remains low, contributing to poor performance in examinations. Olajuyigbe (2004) notes that annual reports from the West African Examinations Council (WAEC) indicate a continuous decline in students' performance in English. Ajayi (2011) attributes this to a dwindling reading culture among students, which hinders comprehension and academic success. This suggests that inadequate reading skills are a major barrier to students' academic achievements.



The methods used in teaching reading significantly affect students' comprehension levels. Isiugo-Abanihe (2002) argues that conventional methods, which focus on pronunciation correction and rote memorization, do not encourage critical thinking. Contemporary approaches, such as reading models, emphasize explicit instruction and strategic reading. Research by Asowata (2009) and Wolters (2009) highlight the effectiveness of models like the SQ3R and Advance Organizer in improving reading comprehension. However, Fatuase (1995) notes that Nigerian teachers rarely implement these models despite their proven benefits.

Educational variables such as school type and location influence students' reading achievement. Studies by the Federal Ministry of Education (2008) and Okebukola (2007) reveal that private school students generally perform better in reading than their public school counterparts. Additionally, research by Goh and Fraser (1998) and Igwebuiké (2011) show that urban schools tend to have higher reading proficiency rates than rural schools due to better resources and learning environments. Given these disparities, further research is necessary to determine which reading models would be most effective in the Nigerian context.

Various reading models have been proposed to address the challenges faced in teaching reading. These models, when effectively designed and implemented, can help overcome the barriers that students often encounter while learning to read. In many developed countries, reading models have been successful in improving students' comprehension and literacy skills. However, their application in the Nigerian context remains a subject of investigation. It is important to determine which reading models are most suitable for Nigerian students, particularly considering factors such as school type (public versus private) and location (urban versus rural). Tailoring these models to the local context could enhance reading achievement and overall educational outcomes in Nigeria.

There has been a trend of low achievement in reading and consequently in English Language examinations in senior secondary schools as shown in West African Examination Council (WAEC) chief examiners' reports over the last five years (2020-2024). Despite the importance of reading in language development, research has shown that Nigerian secondary school students have problems with the reading skill. Studies abound on the relative benefits of employing different models of teaching reading, particularly the Advance Organizer Model (using visual and verbal forms) and the Survey, Question, Read, Recite and Review (SQ3R) model. However, little emphasis has been placed on the role of such models in research and actual classroom practice in Nigeria. Also, not much has been done on the comparison of such models in Nigeria which could help maximize benefits of the use of models in reading including students' reading achievement. There is



therefore the need to find out which of these models is more suitable in the Nigerian context irrespective of school type and school location; hence, this study.

The study aimed at comparing the effects of Advance Organizer Model (using visual and verbal forms) and SQ3R model in Osun State. Specifically, the objectives of the study were to:

- investigate senior secondary school English Language teachers' awareness and use of Advance Organizer Model (using visual and verbal forms) and SQ3R model in Osun State;
- examine the relative effects of the models on senior secondary school students' reading achievement in English Language and;
- compare the effects of Advance Organizer Model (using visual and verbal forms) and SQ3R model on the students' reading achievement in English Language on the basis of school type and school location.

The following research questions were raised to guide the study:

- What is the level of English Language teachers' awareness of reading models in secondary schools in Osun State?
- What is the level of use of reading models in teaching reading by English Language teachers?

The following hypotheses were generated and tested at 0.05 percent level of significance:

- There is no significant difference in the relative effects of Advance Organizer Model (using visual and verbal forms) and SQ3R model on senior secondary school students' reading achievement in English Language in Osun State.
- There is no significant difference in the effects of Advance Organizer Model (using visual and verbal forms) and SQ3R model on the students' reading achievement in English Language in the State on the basis of school type.

The study aims to assist English Language teachers in improving reading instruction by exploring the awareness and application of the Advance Organizer and SQ3R models. It addresses declining reading achievement in Nigeria by showing how these strategies can enhance students' performance across different school types and locations. The findings also guide the selection of effective reading models, support textbook development, and inform curriculum planning for better reading diagnosis, development, and remediation.



2. Literature Review

2.1 An Overview of Reading Models

The SQ3R model, introduced by Robinson, involves five steps: surveying the text, formulating questions, reading actively, reciting key information, and reviewing content to enhance retention (Akorede & Ogunwale, 2001). Similarly, the OK4R model guides learners through a structured reading process by emphasizing the identification of key points, the recall of information, reflection on meaning, and comprehensive review (Asowata, 2009). Both models promote active reading habits, supporting the development of critical thinking and memory skills, thus making reading a more engaging and effective learning experience.

Another instructional approach is the Advance Organizer Model (AOM), which helps learners integrate new information with their existing knowledge. This model serves three main purposes: focusing learners' attention on key concepts, illustrating relationships among ideas, and reinforcing prior knowledge as a scaffold for new learning. By employing both visual and verbal advance organizers, teachers can improve comprehension and retention (Holandyah, 2012).

Similarly, the Know, Want, and Learned (KWL) model fosters learner engagement by prompting students to identify what they already know, what they wish to learn, and what they have learned post-reading. The PQRS (Preview, Question, Read, Summarize, Test) method also supports active engagement, leveraging prior knowledge and reinforcing understanding through structured repetition (Holandyah, 2012). Empirical studies, such as that by Syafitri (2010), have demonstrated the effectiveness of the PQRS strategy in enhancing reading comprehension.

Unlike conventional reading instruction, these models emphasize active learning and critical engagement with texts, offering valuable frameworks for improving students' reading achievement and overall language competence.

2.2 The SQ3R Model and Students' Reading Achievement

The SQ3R model—Survey, Question, Read, Recite, and Review offers a structured approach to reading comprehension, encouraging active engagement with texts (Akorede & Ogunwale, 2001; Kuther, 2006; Asowata, 2009; Holes, 2004). While some studies question its overall effectiveness, suggesting that individual components may be more impactful than the full model (McCormick & Cooper, 1991; Bakken, Mastropieri & Scruggs, 1997), others highlight its potential to promote independent learning (Spor & Schneider, 1999).

Despite its benefits, implementation challenges persist. Many teachers are familiar with SQ3R but rarely use it due to its demanding nature and the need for explicit instruction and modeling (Feldt, Byrne & Bral, 1996; Mastropieri & Scruggs, 1997). Ultimately, the model's success depends on proper integration into lessons, adequate teacher preparation, and student engagement.



2.3 The Advance Organizer Model and Students' Reading Achievement

Ausubel's theory of meaningful learning suggests that advance organizers enhance comprehension by linking new information to prior knowledge, thereby strengthening memory and improving recall (Relan, 1991; Glatthorn & Jallal, 2000). These organizers, aligned with academic rationalism, help students build cognitive structures through various symbolic or verbal formats, such as charts, visuals, or digital tools (Kirkman & Shaw, 1997; Wolters, 2009). They include expository organizers, which introduce new ideas, and comparative organizers, which clarify differences between known concepts (Kenny, 1993).

Teachers play a key role in designing effective advance organizers by identifying core concepts and relationships (McEneaney, 1990). Their adaptability across subjects and student needs has been well-documented (Downing, 1994). Studies confirm their particular effectiveness for learners with lower verbal abilities and their impact on reading comprehension and academic performance (Adebile, 1999; Idogo, 2003; Lawal & Adebileje, 2005). Pre-reading strategies using advance organizers and visual aids, such as Schema Reading Strategy, also reduce reading challenges (Fatuase, 1995; Alfred, 1995).

2.4 Influence of School Type on Students' Reading Achievement

In Nigeria, schools fall into two categories: private and public. Private schools, funded and managed autonomously by individuals or organizations, have greater control over their administration, including staff recruitment and curriculum planning (Okebukola, 2012). Public schools, on the other hand, are government-funded and managed through the Ministry of Education. These two school types differ in governance, finance, teaching quality, and openness to change (Okebukola, 2012).

Comparative studies indicate that students in private schools consistently outperform their public-school counterparts in reading achievement tests (FME, 2008; Okebukola, 2007; Torahi, 2000). This disparity is further influenced by socioeconomic status, race, and initial reading ability. Private school students generally score higher due to factors such as better funding, accountability, and teacher quality (Hallinan & Kubitschek, 2012). Boerema (2009) highlights that despite efforts to improve public schools, private school students still achieve significantly higher scores. Moreover, the reading achievement gap appears as early as kindergarten (Dagli & Jones, 2012). Given these disparities, this study seeks to compare the effects of two reading models on students' reading achievement in English based on school type.



2.5 Effects of School Location on Students' Reading Achievement

Schools are instrumental in promoting cognitive development, with access to reading materials playing a critical role. However, a child's home environment—shaped by whether they live in an urban or rural area—significantly influences reading development and academic success (Ogunleye, 2002). Urban students often outperform their rural peers due to greater exposure to learning resources and enriching experiences (Adepoju, 2002; Ogbuaja, 1997). Studies have consistently shown that school location affects access to educational materials and facilities, with urban schools enjoying better infrastructure and support (Warwick, 1992; Ogunleye, 2002). Yet, poor reading comprehension remains a major concern in both settings (Ezeokoli, 1998; Ofodu, 2009).

A key factor in this disparity is the availability of resources. Many rural Nigerian schools lack libraries and teaching materials, hindering students' reading development (Christopher, 2007; Etuk, 1997). Additionally, financial constraints and limited parental involvement further weaken children's literacy skills (Oduolowu & Lawani, 2005). Since reading proficiency directly impacts academic achievement, the persistent underperformance of students, especially in rural areas, underscores the need for urgent intervention. Research confirms that learning environments strongly influence intellectual growth, and urban schools often benefit from better teachers and more motivated students (Odaga & Heneveld, 1995; Ariyo, 2007; Ndukwu, 2002; Adelabu, 1998). Improving rural school environments could help bridge the performance gap (Orji, 1998).

2.6 Appraisal of Literature

The literature review examines reading as a core language skill, addressing challenges in reading instruction and exploring traditional teaching methods. It discusses various reading models, with a focus on the SQ3R model and its structured approach to enhancing comprehension and retention. The review also introduces the Advance Organizer Model (AOM), which uses visual and verbal tools to connect new information to prior knowledge.

Additionally, the review explores how reading models affect students' academic performance, considering the roles of school type and location. Empirical studies indicate that effective reading models can improve comprehension and reduce reading difficulties, particularly in secondary education. However, there is a need to identify the most suitable model for the Nigerian context, given its unique educational conditions.



3. Methodology

3.1 Research Design

The study employed the non-equivalent pretest-posttest control group research design to compare the effects of advance organizer and SQ3R reading models on senior secondary school students' reading achievement in Osun State. The study population comprised Senior Secondary School Class One (SS1) students in Osun State. The sample consisted of SS1 students in intact classes. Four public schools (two of which were urban and two rural) and four private schools (with two urban and two rural) were selected from the State using stratified random sampling technique with school location and school type as indices for stratification. From each of the eight schools, one intact SS1 class was selected using simple random sampling technique. The eight schools selected were assigned to experimental group A or B also using simple random sampling technique. There were two experimental groups each per location (urban and rural) and school type (public and private) making eight experimental groups.

3.2 Research Instrument(s)

Two instruments were used to collect data for the study namely: Teachers' Questionnaire on Awareness and Use of Reading Models (TQAURM) and English Language Reading Achievement Tests 1-1V (ELRAT 1-1V). The ELRAT with 40 questions in all was used for the pre-test and the post-test. The test items were generated from the passages read. The test used as pre-test measured learners' entry level on the specific passage to be read prior to any intervention. It also measured the extent of growth in achievement and served as a source of comparison between the groups of interest after exposure to treatment. Throughout the entire teaching process, the students did not know that the pre-test questions were still coming up again. The instruments underwent content and face validity checks. To assess their difficulty level, they were administered to 40 non-participating students from the same cultural background as the study sample. The difficulty range of the items was $0.38 < p < 0.42$, indicating a moderate difficulty level. Reliability was tested using the test-retest method on the same group of students, with Pearson Product Moment Correlation analysis yielding a coefficient of 0.78, confirming the instrument's reliability.

3.3 Data collection and Analysis

The data collected on the study were subjected to appropriate statistical analysis. Data for Research Questions 1 and 2 were analysed using percentages. The



Analysis of Covariance was used in testing Hypotheses 1, 2 and 3 at 5% probability level of significance, that is $p=0.05$.

4. Results and Discussion

4.1. Results

Scores generated from pre-test were analysed to determine the entry level of the students before the experiment with a view to finding out whether the students assigned to the two groups in the study had comparable ability before the experiment actually stated. The result showed no significant difference in the entry knowledge of the students used in both the public and private schools, and the rural and urban areas in the Local Government Area.

Q1 : What is the level of English Language teachers' awareness of reading models in secondary schools in Osun State?

In answering this research question generated for the study, the opinions of senior secondary school English Language teachers were sought on what they perceived as the level of their awareness of reading models.

Table 1.

Teachers' awareness of reading models

Teachers' Response	Frequency	Percentage
Yes	20	40
No	30	60
Total	50	100

Table 1 shows that 40% of senior secondary school English Language teachers were aware of reading models while 60% of the respondents were not aware.

Q2 : What is the level of use of the reading models in teaching reading by English Language teachers?

To answer this research question, the opinions of senior secondary school English Language teachers were sought on their level of use of reading models.



Table 2.

Teachers' use of reading models in teaching reading

Teachers' Response	Frequency	Percentage	
Yes	9		
No	41	18	82
Total	50		100

Table 2 shows that 18% of senior secondary school English Language teachers were using reading models in teaching reading while 82% of the respondents claimed that they were not using reading models.

H1 : There is no significant difference in the relative effects of Advance Organizer Model (using visual and verbal forms) and SQ3R model on senior secondary school students' reading achievement in English Language in Osun State.

In order to test this hypothesis, the Analysis of Covariance (ANCOVA) was used so as to take cognisance of possible differences that exist in the pre-test scores of the students. The results obtained are presented in Tables 4 and 5.

Table 3.

2x2x2 Factorial Analysis of Variance of the Effects of Treatment, School Type and School Location on Secondary School Students' Reading Achievement

Between-Subjects Factors

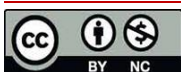
		Value Label	N
School Type	1	Government	198
	2	Private Owned	107
Location of School	1	Rural	138
	2	Urban	167
Experimental Group	1	Advance Organizer	158
	2	SQ3R	147

Descriptive Statistics

Dependent Variable: Post-test Scores of Candidate



School Type	Location of School	Experimental Group	Mean	Std. Deviation	N
Government	Rural	Advance Organizer	41.47	4.943	47
		SQ3R	35.43	8.751	44
		Total	38.55	7.634	91
	Urban	Advance Organizer	40.09	5.213	56
		SQ3R	33.69	7.257	51
		Total	37.04	7.019	107
	Total	Advance Organizer	40.72	5.113	103
		SQ3R	34.49	7.988	95
		Total	37.73	7.328	198
Private Owned	Rural	Advance Organizer	40.79	4.433	24
		SQ3R	37.43	8.184	23
		Total	39.15	6.689	47
	Urban	Advance Organizer	41.90	5.394	31
		SQ3R	36.31	7.649	29
		Total	39.20	7.106	60
	Total	Advance Organizer	41.42	4.984	55
		SQ3R	36.81	7.832	52
		Total	39.18	6.894	107
Total	Rural	Advance Organizer	41.24	4.755	71
		SQ3R	36.12	8.552	67
		Total	38.75	7.306	138
	Urban	Advance Organizer	40.74	5.319	87
		SQ3R	34.64	7.462	80
		Total	37.81	7.106	167
	Total	Advance Organizer	40.96	5.064	158
		SQ3R	35.31	7.984	147
		Total	38.24	7.200	305



Test of Between-Subjects Effects

Dependent Variable: Posttest Scores of Students

Source	Type II Sum of Squares	Df	Mean Square	F	Sig.	Partial Eta Squared
Corrected Model	10420.423 ^a	8	1302.553	72.186	.000	.661
Intercept	10200.802	1	10200.802	565.321	.000	.656
Pretest Scores	7639.454	1	7639.454	423.373	.000	.589
School Type	70.991	1	70.991	3.934	.048	.013
School Location	24.226	1	24.226	1.343	.248	.005
Treatment	2963.362	1	2963.362	164.227	.000	.357
School Type * School Location	68.694	1	68.694	3.807	.052	.013
School Type * Treatment	97.198	1	97.198	5.387	.021	.018
School Location * Treatment	31.141	1	31.141	1.726	.190	.006
School Type * School Location * Treatment	21.511	1	21.511	1.192	.276	.004
Error	5341.105	296	18.044			
Total	461747.000	305				
Corrected Total	15761.528	304				

a. R Squared = .661 (Adjusted R Squared = .652)

The sixth line of Table 4 tests for the main effect of treatments (Advance Organizer and SQ3R experimental groups). This main effect is statistical ($F_{1,296}=164.337$, $p=.000$, partial eta-squared=.357). The descriptive statistics in

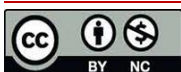


Table 4 show that those taught using Advance Organizer Model (visual and verbal forms) had a higher mean score (mean=41.185) than those taught using the SQ3R model (mean=35.375). The effect size shows that this factor (Treatment) accounted for 35.7% of the variance in the achievement of the students in reading, which is a moderate effect size. The null hypothesis which states that there is no significant difference in the relative effects of the Advance Organizer Model (using visual and verbal forms) and SQ3R model on senior secondary school students' reading achievement in English Language is therefore rejected.

Table 5.

Descriptive Statistics of the Mean Scores of the Experimental Groups Estimates

Dependent Variable: Posttest Scores of Candidate

Experimental Group	Mean	Std. Error	95% Confidence Interval	
			Lower Bound	Upper Bound
Advance Organizer	41.185 ^a	.357	40.482	41.888
SQ3R	35.375 ^a	.369	34.649	36.101

a. Covariates appearing in the model are evaluated at the following values: Pretest Scores of Candidates = 31.03.

Table 6.

Pairwise Comparison of Differences in the Means of the Advance Organizer and SQ3R models Groups

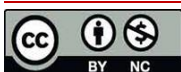
Pairwise Comparisons

Dependent Variable: Posttest Scores of Students

(I) Treatment Group	(J) Treatment Group	Mean Difference (I-J)	Std. Error	Sig. ^b	95% Confidence Interval for Difference ^b	
					Lower Bound	Upper Bound
Advance Organizer	SQ3R	5.810*	.513	.000	4.799	6.820
SQ3R	Advance Organizer	-5.810*	.513	.000	-6.820	-4.799

Based on estimated marginal means

*. The mean difference is significant at the .05 level.



b. Adjustment for multiple comparisons: Least Significant Difference (equivalent to no adjustments).

H2: There is no significant difference in the effects of Advance Organizer Model (using visual and verbal forms) and SQ3R model on the students' reading achievement in English Language in the State on the basis of school type.

In order to test this hypothesis, the interactions of the treatments and school type on the post-test reading achievement of the students as depicted by eighth line of the Analysis of Covariance (ANCOVA) (Table 4) was used.

Results indicated that there is significant interaction between the treatment the students received and the school type they attend. This interaction is significant ($F_{(1,296)}=5.387, p=.021, \text{partial eta-squared}=.018$). Hence, significant difference exists in the effects of Advance Organizer and SQ3R on the reading achievement of the students based on their school type. The descriptive statistics and the interaction plot are as shown in Table 7 and Figure 1.

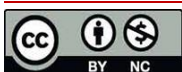
Table 7: Descriptive Statistics of the Interaction of School Type and Treatment on the Reading Achievement of Secondary School Students

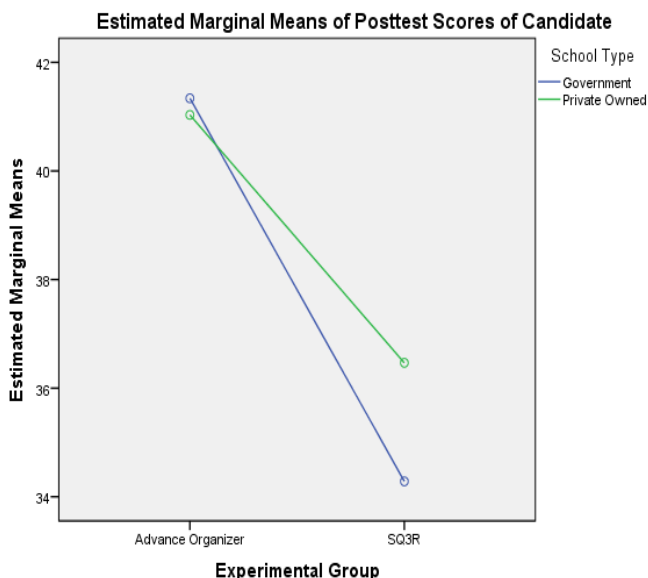
School Type * Treatment

Dependent Variable: Posttest Scores of Candidate

School Type	Treatment	Mean	Std. Error	95% Confidence Interval	
				Lower Bound	Upper Bound
Government	Advance Organizer	41.338 ^a	.421	40.509	42.166
	SQ3R	34.283 ^a	.437	33.423	35.144
Private Owned	Advance Organizer	41.032 ^a	.578	39.895	42.169
	SQ3R	36.466 ^a	.593	35.299	37.634

a. Covariates appearing in the model are evaluated at the following values: Pretest Scores of Candidates = 31.03.





Covariates appearing in the model are evaluated at the following values: Pretest Scores of Candidates = 31.03

Figure 1. Interaction plot of the School Type and Treatment on the Reading Achievement of Students in Secondary Schools

Table 7 shows that irrespective of the school type, those in the Advance Organizer group performed better than those in the SQ3R group. Moreover, only a marginal difference exists between the achievement of students in government-owned schools and privately owned schools assigned to the Advance Organizer group (mean difference=0.306) in favour of the government-owned schools. The difference between the achievement of students in government owned schools and privately owned schools assigned to the SQ3R group is however larger than that reported for the Advance Organizer group (mean difference= 2.183) in favour of the privately owned schools. This is as depicted in Figure 1.

H3: There is no significant difference in the effects of Advance Organizer Model (using visual and verbal forms) and SQ3R model on the students' reading achievement in English Language in the State on the basis of school location.

In order to test this hypothesis, the interactions of the treatments and school location on the post-test reading achievement of the students as depicted by ninth line of the Analysis of Covariance (ANCOVA) (Table 4) was used.



Results indicated that there is no significant interaction between the treatment the students received and the location of their school ($F_{(1,296)}=1.726$, $p=.190$, partial eta-squared=.006). Hence, no significant difference exists in the effects of Advance Organizer and SQ3R on the reading achievement of the students based on their school location. The descriptive statistics is as shown in Table 8 and Figure 2.

Table 8.

*Descriptive Statistics of the Interaction of School Location and Treatment on the Reading Achievement of Secondary School Student Location of School * Treatment*

Dependent Variable: Posttest Scores of Candidate

Location of School	Experimental Group	Mean	Std. Error	95% Confidence Interval	
				Lower Bound	Upper Bound
Rural	Advance Organizer	40.923 ^a	.533	39.874	41.972
	SQ3R	35.924 ^a	.547	34.848	37.001
Urban	Advance Organizer	41.447 ^a	.476	40.510	42.384
	SQ3R	34.825 ^a	.494	33.853	35.798

a. Covariates appearing in the model are evaluated at the following values: Pretest Scores of Candidates = 31.03.

Table 8 shows that irrespective of the school location, those in the Advance Organizer group (Mean scores of 40.923 and 41.447 for the Advance Organizer group for both rural and urban school location respectively) performed better than those in the SQ3R group (Mean scores of 35.924 and 34.825 for the SQ3R group for both rural and urban school locations respectively). Only a marginal difference exists between the achievement of students in rural and urban schools assigned to the Advance Organizer group (mean difference=0.524) in favour of the schools in the urban area. The difference between the achievement of students in urban and rural schools assigned to the SQ3R group is also minimal (mean difference= 1.099) albeit there is more than one unit gain in scores in favour of the rural schools. Figure 2 depicts a visual interaction but this not significant at 0.05 level of significance as also revealed in Table 4.



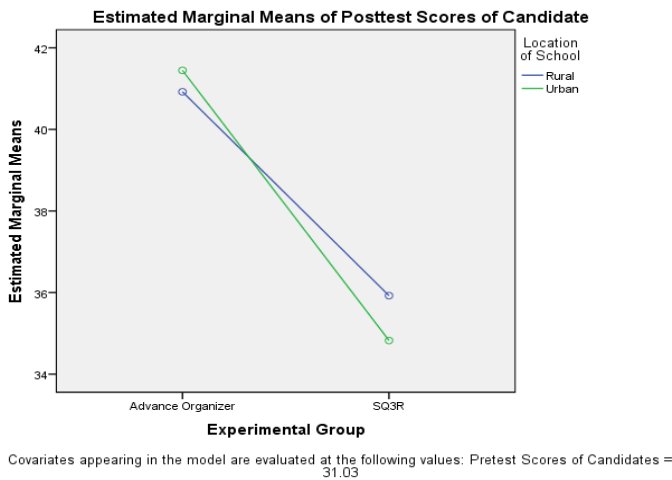


Figure 2. Interaction plot of the School Location and Treatment on the Reading Achievement of Students in Secondary Schools

4.2. Discussion

The study revealed that 60% of English Language teachers in Osun State, were unaware of reading models, and only 18% used them in teaching, supporting Nonye and Ugbede’s (2014) view that awareness and application of reading models are low among Nigerian teachers. Song (2007) attributes this to limited training in using reading models in ESL contexts. Despite this, the study found that students taught using both the Advance Organizer Model (AOM) and the SQ3R model performed better than those not taught with any model, with AOM showing superior outcomes. This supports findings by Ajaja (2006), Adejumo and Ehindero (1980), and Alfred (1995), who emphasize the positive impact of advance organizers on comprehension, especially for students with poor verbal skills.

Further results showed that AOM (visual and verbal forms) was more effective than SQ3R across public and private schools (Fatuase, 1995; Aldridge, 2005). Although a difference in performance was observed between urban and rural students, it was not statistically significant, yet AOM remained more effective in both settings. Woolfolk (2001) and Adebile (1999) affirm the model’s ability to enhance meaningful learning, especially when structured properly. However, contrasting studies by Laoye (1992) and Salmon (2000) report no significant benefit from organizers, highlighting the importance of proper implementation and context.



5. Conclusion and Recommendations

Based on the findings of the study, it was concluded that the Advance Organizer Model (using visual and verbal forms) was more suitable in enhancing students' reading achievement in English Language than the Survey, Question, Read, Recite and Review (SQ3R) model irrespective of school type or school location.

English is a compulsory subject and reading is important in language development; models used in teaching it play an important role in students' achievement. In order to enhance reading achievement of the students in English Language based on the findings of this study, the following recommendations are made:

- The “cramming” habit which is very common among students would be systematically discouraged if the prevailing conventional method of teaching reading skill is substituted with the use of reading models such as the Advance Organizer.
- Curriculum planners and authors should ensure that enough supportive aids in form of pictures, diagrams, explanations, interpretations, footnotes, glossaries etc. are provided especially in textbooks meant for students in the formative year that could be presented as activities for the Advance Organizer Model.
- Teachers of English Language awareness and appropriate use of Advance Organizer Model should be encouraged at all levels of secondary schools.
- Teachers should be able to improvise as many instructional materials as possible and use them as Advance Organizers in the reading lesson.
- Ministries of Education Officials, Principals and others concerned should adjust academic priorities to make room at the secondary level for the teaching of reading in separate developmental and remedial programmes that would teach reading skills using different reading models so as to create interest in students for reading activities.

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Authors' Contribution

Olagoke Rafiu Olorunnisola and *Olagoke Omowunmi Mojisola* jointly conceptualised the study and contributed to the design of the methodology. *Olagoke R. O.* supervised the research process, while *Olagoke O. M.* led the literature review and data collection. Both authors contributed to drafting the manuscript and reviewing the final version for submission.

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This research did not require any ethical approval.

Informed consent

This article does not contain any studies with human participants performed by any of the authors.

