

# Teacher Content Knowledge and Use of Instructional Materials as Catalysts for English Reading Comprehension Instruction in Secondary Schools

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## Abstract

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*This study investigated teacher pedagogical content knowledge and use of instructional materials as correlates of achievement in English reading comprehension. The correlational design was adopted. The simple random sampling technique was used to select 10 public secondary schools and 500 students (50 per school) in Ibadan North Local Government Area. The instruments used were English language achievement test ( $r=0.78$ ), Teacher Use of Instructional Materials ( $r=0.75$ ), and Teacher Content Knowledge ( $r=0.82$ ) rating scales. Data were analyzed using Pearson product moment correlation and multiple regression at 0.05 level of significance. There was a negative relationship between students' achievement in English reading comprehension and teacher content knowledge but it has positive moderate relationship with instructional materials. The joint contribution of the three independent variables to achievement in English reading comprehension was not significant. The relative contribution of the independent variables to student achievement in English reading comprehension was not significant. These variables should be taken into consideration to improve learning outcomes in English language.*

## Key words:

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### Introduction

Reading is an interactive process in which the reader's prior knowledge of the world interacts with the message conveyed directly or indirectly by the text. Reading is a process that involves recognizing words, leading to the development of comprehension. Reading is a process of communication involving the writer and the reader, the encoder and the decoder. It is a process of extracting meaning from written texts. This implies that a student cannot claim to have read until he/she is able to comprehend and bring out meaning from what he/she has read. Simply put, reading is not just for school, it is for life! It is affirmed that humans are capable of transmitting knowledge to succeeding generations through reading

According to Adediran (2019), reading is the interpretation based on the ability of the reader to understand the purpose of the author as well as what the author is saying. Reading is one of the fundamental skills which students are expected to acquire through the process of schooling without

which there would possibly be no other means of achieving academic success (Oyewole, 2017). Reading is an active process of constructing meanings of words. Reading with a purpose helps the reader to direct information towards a goal and focuses their attention. . This confirms the assertion that success in school or any life endeavor is dependent on a good foundation in reading competence (Oriogu, 2013).

Although the reasons for reading may vary, the primary purpose of reading is to understand the text. The place of reading in education is when learner's reading skills are important to their success in school as they will allow them to access the breadth of the curriculum and improve their communication and language skills. In addition, reading can be a fun and imaginative time for learners, which opens doors to all kinds of new worlds for them. Adetulu (2016) revealed that the dearth of reading culture and the absence of equipped libraries have been identified as the two causative agents in the 80 % failure rate recorded among Nigerian youth.

The ability to read and understand written texts is associated with reading comprehension which is an intentional, active and interactive process that occurs before, during and after a person reads a particular piece of writing. The ability to read and write is so crucial in the current world that is no longer considered an option. Timothy (2010) revealed that although reading comprehension is just an aspect of the English Language syllabus, problems with comprehension are likely to affect candidate's performance not only in English Language, but also in other content subjects. Moreover, a reader must generate the essential meaning among sentences reading is not only a rapid recognition of verbal symbols but also an understanding of the thought and idea for which they stand. In a sense, reading comprehension has not taken place unless the reader is able to interpret what has been read. The main purpose for reading is to comprehend the ideas in a text. Comprehension is the ultimate outcome of the act of reading. Reading comprehension is among the most critical academic skills to be attained in school (Awolere, 2016). However, most teachers take reading comprehension for granted while they forgot that until students are capable of giving meaning to what they claimed to have read, they have not read in the real sense of it.

Furthermore, as central to academic achievement as reading is, Nigerian students have not fared well in reading comprehension. (Awolere, 2016) expressed that studies have shown that Nigerian secondary school students cannot read with adequate comprehension and are rated third poorest readers in the world. According to Fakeye (2018) reading is an inherent part of the writing process. Failure in any of these aspects (writing, summary and reading comprehension) is synonymous to failure in English Language. Therefore, any candidate who wishes to do well in English Language must do well in Paper 1 which involves reading comprehension. The WAEC Chief Examiner Reports of 2017 identify some factors for poor performance of students in English language as lack of textbooks on comprehension; complete lifting of sentences from texts to present their responses; failure to construct meaning from a text; lack of imagination and failure to critically read and answer questions on comprehension passages correctly. Approaches to comprehension

instruction cannot ignore basic word-reading skills for struggling readers but can usefully promote active engagement with varied texts in both oral and literate model and in pursuit of authentic learning goals. Reading comprehension is the ability to integrate information within or across texts using background knowledge to fill in information and explicitly stated.

To overcome the problems associated with reading comprehension, researchers such as Awolere (2016) and Bateye (2017) suggested the use of instructional strategies that could be of help to students in reading comprehension. These strategies include: evoker strategy, forced retrieval and questioning strategy and text-previewing, among others. It can be said that reading comprehension is the capability to understand or grasp it ideas of one passage. It is an activity aimed to understand the message of a particular text. Reading comprehension requires the reader's active extraction and construction of meaning from text. Many factors can influence the reader's active comprehension of the text including the other components of proficient reading and the instruction they receive. Students spoken language skills provide a foundation for proficient reading comprehension but in the absence of effective, are not sufficient for developing proficient literacy.

However, there are certain impediments that prevent effective teaching and learning to take place in the classroom. They are inadequate facilities, lack of conducive environment including teacher factors. Teacher factors such as teacher's use of instructional materials, content knowledge and teaching methods contribute to the change in a learner. Instructional materials make learning more interesting, practical, realistic and appealing. It also enables both the teachers and students to participate actively and effectively in lesson sessions. Instructional materials give room for acquisition of skills, knowledge and development of self- confidence and self- actualization. Instructional materials are considered important in all levels of education because absence or inadequacy makes teacher handle the subjects in an abstract manner, portraying it as dry and non-exciting. Abdu-Raheem and Oluwagbohunmi (2015) also supported the idea that resourceful and skillful teachers should improvise necessary instructional materials to promote academic standard in Nigerian schools.

Instructional materials are print and non-print items that are designed to impact information to students in the educational process. Textbooks, charts, maps, audio-visual and electronic instructional materials such as radio, tape recorder, television and video tape recorder contribute much in making learning more interesting. Graphics include charts, posters, sketches, cartoons, graphs and drawings. Graphics communicate facts and ideas clearly through combination of drawings, words and pictures. Instructional materials are considered important in teaching and learning in all levels of education because textbooks and other resource materials are basic tools. Instructional material can be used to develop higher learning abilities to the learners through self-teaching or guided learning.

Kemenanaebi (2017) suggested that the usefulness of instructional materials lie in their potential to facilitate students learning. These instructional materials bring life to learning by stimulating students to learn. The use of instructional materials in the classroom has the potential to help the teacher explain new concepts clearly resulting in better student understanding of the concepts being taught. It is important that the school consider the use of instructional materials and made them available for both teacher and learners. It is a strategy that promotes effective teaching and learning, influences quality teaching and helps students for easy assimilation of the topic being taught in the classroom. Modern teaching-learning demand that the necessary facilities, well qualified teachers, suitable texts and instructional materials are needed to achieve the aims and objectives of teaching at all levels. Provision or presence of these facilities and materials is of great importance to enhance better and effective learning in schools. The teacher quality and adequate use of instructional materials has an impact in students' achievement in reading comprehension.

Content knowledge is another teacher factor that refers to the body of knowledge and information that teachers teach and that students are expected to learn in a given subject or content area, such as English language, Mathematics and any other subject. In addition to content knowledge, teachers need strong pedagogical knowledge. (Brownell, Sindelar, Kiely, and

Danielson, 2010), revealed that pedagogical content knowledge encompasses about how students learn and about the difficulties they may experience with specific content as well as knowledge about effective teaching practices for specific content. Content knowledge allows teachers to know how to organize and present the content in a way that makes it accessible for increasingly diverse groups of learners. It is crucially important to the improvement of teaching and learning because it affects how teacher interpret the content goals they are expected to reach with their students, It also affects the way the teacher hear and respond to students and their questions and lastly it affects teachers ability to explain clearly and to ask good questions. To ensure quality education, teachers must master the 'content knowledge' body of knowledge composed by facts, theories, principles, ideas, vocabulary they teach, as well as the appropriate pedagogy for teaching it (pedagogical content knowledge).

In elementary schools, teachers have traditionally taught multiple content areas to a class of students and most elementary schools continue to use this model. Some schools however assign teachers to subject-specific courses or lessons based on their particular expertise with training and students are moved from class to class or from one teacher to another throughout the day. When used with younger students, this approach can be controversial since some educators and parents believe that moving students from one teacher to another can inhibit the development of strong relationships with adults and adversely affect learning.

Teaching methods is a teacher factor that refers to the general principles, pedagogy and management strategies used for classroom instruction. It is a systematic way in which a teacher uses to transfer, receive or share information. According to Ayeni (2011), teaching is a continuous process that involves bringing about desirable changes in learners through use of appropriate methods. Adunola (2011) indicated that in order to bring desirable changes in students, teaching methods used by educators should be best for the subject matter. Teaching method is also the process of imparting knowledge and skills which is used by a teacher in the classroom. It implies the use of principles and theories of instructions; it can

include class participation, demonstrations, recitation.

Teaching methods comprises of the principles and methods used for instruction. Commonly used teaching methods may include class participation, demonstration, recitation, memorization or combination of the two. The choice of teaching method or methods to be used depends largely on the information or skill that is being taught and it may also be influenced by the aptitude and enthusiasm of the students. Teaching methods are the broader techniques used to help students achieve learning outcome while activities are the different ways of implementing these methods. In general, there are many teaching and learning methods that can strengthen the students' understanding and mastery of the subjects that have been taught. There are different types of teaching methods which can be categorized into four broad types.

These are teacher-centered methods, learner-centered methods, content-focused methods and interactive/participative methods. (Hoque, 2016), if the method is applied correctly it will help to attract students to the subjects that are perceived to be very boring considering the writer's purpose and motives in writing the texts (Graeser, 2015).

The presence of instructional materials coupled with other teacher factors has a great influence on students' English reading comprehension. Lack of adequate teaching aids and low quality of teacher's ability can result to poor academic performance of the students. Learning can occur through one's interaction with one's environment. Environment here refers to instructional facilities that are available to facilitate students learning outcome Learning is the process of change which occurs as a result of experience and increases the potential for improved performance and future learning” (Ambrose, Bridges, Dipietro, Lovett, and Norman 2010)

Teacher use of instructional materials teaching methods and content knowledge and contribute to the achievement of the students. These factors can have profound impacts on various outcome measures. For instance, when a teacher has a sound knowledge of the content of a given subject, the teacher will be able to teach the

students better thereby having a great impact on the students. Also, [Duruji, Azuh, and Oviasogie 2014] illustrated students' assimilation while using teaching method in tertiary institution using Covenant University as a case study. It was recommended that the teachers should allow students to contribute effectively in the classroom. Adequate teaching methods and good use of instructional materials goes a long way to help learners. When the right teaching methods are adopted, it will become easy for students to grasp the message the teaching is passing across. Also, instructional materials aid easy understanding of a topic and it will help the teacher's work to be less complex.

## 1.2. Statement of Problem

Reading comprehension is a skill that is critical in educational success of all individuals. However, without adequate comprehension skills, students can struggle in many subject areas especially if teachers lack the appropriate use of teacher factors such as teacher use of instructional materials, content knowledge and teaching methods. Comprehension relies on mastery of decoding, students who struggle to decode find it difficult to understand and remember what has been read. Because their efforts to grasp individual words are so exhausting, they have no resources left for understanding. Students with learning disabilities often experience poor comprehension due to their failure to read strategically and to spontaneously monitor their understanding while reading. Student's ability to read and comprehend is influenced by teacher factors necessary to facilitate learning. When there is insufficient instructional materials coupled with challenges facing teacher factors, students' achievement in reading comprehension will not be actualized.

Previous studies on reading comprehension focus on students' academic achievement with little emphasis on students' attitude and behavior to English reading comprehension. Moreover, students who can read but unable to comprehend is a source of concern for the society, teachers and parents.

Hence, teacher use of instructional materials, content knowledge and teaching methods were found relevant in this study. Therefore this research investigate teacher factors

as it influence students learning outcomes in English reading comprehension.

#### 1.4. Research Questions

This following research questions were raised for the study.

1. What is the relationship between the independent variables (teacher content knowledge and Instructional materials) and students' achievement in English reading comprehension?
2. What is the joint contribution of the independent variables (teacher content knowledge and Instructional materials) to students' achievement in English reading comprehension?
3. What is the relative contribution of the independent variables (teacher content knowledge and use of instructional materials) to students' achievement in English reading comprehension?

#### Scope of the Study

The focus of the study is on teacher factors as correlates to students' achievement in English reading comprehension in secondary schools in Ibadan North local government. The scope covered 10 selected secondary schools in Ibadan North local government and five hundred (500) SS two students and twenty (20) teachers. The reading comprehension achievement text was adapted from SS two text book.

#### Significance of the Study

This study provides vital information on the impact of teacher's use of instructional materials and content knowledge on students' achievement in English reading comprehension. The study underscored the importance of teacher content knowledge and instructional materials in English reading comprehension instruction.

#### Methodology

The study adopted the survey research design of correlational type as it determines the relationship between the independent and dependent variables. The study adopted simple random sampling technique to select ten schools from Ibadan North local government area of Oyo state. Ibadan North was picked as a preferred choice of study through the use of purposive sampling technique. A total of 500 SS II students and 10 teachers from 10 schools were randomly selected from the sampled schools to participate in the study.

#### Results

RQ1: What relationship exists between the independent variables (Teaching methods, Teachers content knowledge and Instructional Materials) and students' achievement in English reading comprehension?

**Table 1:** Teachers content knowledge and Instructional Materials, and students' achievement in English reading comprehension?

Variables	Achievement	Teaching Methods	Teacher Content Knowledge	Instructional Materials
Achievement	1			
Teacher Content Knowledge	.203 (.574)	.123 (.734)	1	
Instructional Materials	.480 (.161)	-.353 (.318)	.284 (.427)	1
N	500	10	10	10
Mean	2.71	44.80	54.10	34.80
Standard Deviation	.848	4.39	9.88	2.89

Table 1 shows the relationship that exists between the independent variables (Teachers content knowledge and Instructional Materials) and students' achievement in English reading

comprehension using the Pearson's Product Moment Correlation. The result indicates that achievement in English reading comprehension had a positive moderate relationship with instructional materials ( $r = .48$ ) and content knowledge.

Rq2: What is joint contribution of the independent variables (Teacher content knowledge and Instructional Materials) to students' achievement in English reading comprehension?

**Table 2:** Multiple Regression of the joint contribution of the independent variables (Teachers content knowledge and Instructional Materials) to students' achievement in English reading comprehension?

Model 1; R = .597; R Square = .357; Adjusted R Square = .035; Std. Error of the Estimate = .76971						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	1.970	3	.657	1.109	.416 <sup>b</sup>
	Residual	3.555	6	.592		
	Total	5.525	9			

Table 4.5 shows that the joint contribution of the independent variables (Teaching methods, Teachers content knowledge and Instructional Materials) to students' achievement in English reading comprehension was not significant ( $F_{(3,6)} = 1.109$ ; Adj.  $R^2 = .035$ ;  $p > 0.05$ ). This implies that the three independent variables, when pulled together did not significantly contribute to

students' achievement in English reading comprehension.

Rq3: What is relative contribution of the independent variables (Teachers content knowledge and Instructional Materials) to students' achievement in English reading comprehension?

**Table 3:** Multiple Regression of the relative contribution of the independent variables (Teachers content knowledge and Instructional Materials) to students' achievement in English reading comprehension?

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	-1.733	5.041		-.344	.743
	Teacher Content Knowledge	-.030	.028	-.379	-1.076	.323
	Instructional Materials	.163	.101	.602	1.611	.158

Table 4.7 shows that the relative contribution of Teachers content knowledge (Beta =  $-.379$ ;  $p > 0.05$ ) and Instructional Materials (Beta =  $.602$ ;  $p > 0.05$ ) to students' achievement in English reading comprehension were not significant. However, the beta weight values indicate that instructional materials (.60) had a higher relative contribution followed by teacher content knowledge ( $-.38$ ), though the contributions were not statistically significant.

relationship with teacher content knowledge. This shows that an increase in the two variables did not result to an increase in the achievement of students in English reading comprehension. On the other hand, there was a positive relationship between Instructional materials and achievement in English reading comprehension. This implies that an increase in the instructional materials resulted to the increase in the achievement of students in English reading comprehension meaning that the teacher rarely use Instructional materials to teach reading comprehension. The findings agrees with Tomlinson (2012) and Wales (2015) who reported negative and positive relationship between independent variables and dependent.

**Discussion of Findings**

***The relationship between the independent variables and students' achievement in English reading comprehension.***

The result revealed that achievement in English reading comprehension has a negative

### **Joint contribution of the independent variables to students' achievement in English reading comprehension.**

The finding from the qualitative analysis shows that the joint contributions of the independent variables to students' attitude to English reading comprehension were not significant. The findings support Kamenaebi (2017) who suggested that the usefulness of Instructional materials alone lies in the potential to facilitate students learning.

### **Relative contribution of the independent variables to students' achievement in English reading comprehension.**

The result shows that the relative contributions of the independent variables to students' achievement in English reading comprehension were not significant. However, it was indicated that instructional materials had the highest relative contribution followed by teacher content knowledge though the contributions were not statistically significant. The findings agree with Oluwagbohunmi (2015) who believes the idea that resourceful and skillful teachers should create necessary instructional materials to promote academic standard in Nigeria schools. Develop into effective readers, they must possess both the skill and the will to read.

### **Conclusion**

As a result of these findings, it has been found that teacher factors has separate roles to play in students' achievement and attitude to English reading comprehension. These teacher factors do not function together but function distinctively. This indicates that each teacher factor has a crucial role to play in students' achievement and attitude to English reading comprehension. Moreover, the study revealed that Instructional materials is important in students' achievement in English reading comprehension. It can be concluded that using the right materials helps the students in that area. Appropriate use of teacher factors promotes the achievement of students in English reading comprehension. Attitude of students can be influenced positively by any of the factors used by the teacher in the classroom. Teacher factors increase the quality of teaching and learning in English reading comprehension in schools.

### **Recommendations**

Based on the findings of this study, the following recommendations are made:

1. Teacher should use appropriate Instructional materials to teach. This is crucial because it has an impact on students. The use of instructional materials helps students to have deep understanding of a particular topic.
2. Conferences and workshops should be attended by teachers in order to increase their content knowledge of the subject.

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