

**EFFECTS OF INTEGRATED INSTRUCTIONAL METHODS ON  
WRITING ACHIEVEMENT OF UNDERGRADUATES IN  
FEDERAL UNIVERSITY OF TECHNOLOGY OWERRI, NIGERIA**

**BY**

**Adaeze REGIS-ONUOHA  
(Matriculation Number: 108630)  
B.A. (HONS) English & Literature (Benin);  
M.A. Language Arts (Ibadan)**

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## ABSTRACT

Writing skills are taught to equip students with reading and literacy skills to solve communication problems. However, reports have shown that undergraduates' achievement in writing is poor in Federal University of Technology Owerri, Nigeria, particularly in their general course in English language. This has been attributed to General Studies lecturers' methods of instruction. Previous studies focused largely on improving primary and secondary school students' achievement in writing, neglecting interventions towards improving such among undergraduates. This study, therefore, was carried out to determine the effects of integrated instructional methods (Response to text (RT), Activation of background knowledge (ABK) and Response to text + Activation of background knowledge (RTABK)) on undergraduates' achievement in writing in Federal University of Technology Owerri, Nigeria. The moderating effects of gender and verbal ability were also examined.

Jerome Bruner's Constructivist theory of learning, which assumes that personal experience and previous knowledge are important in the creation of meaning was adopted. The pretest-posttest control group quasi-experimental design with 4x2x3 matrix was used. Four faculties (School of Health Technology, School of Biological Sciences, School of Science and School of Engineering) in Federal University of Technology Owerri were purposively selected based on the failure rate in the use of English course compared to other faculties. Also, these faculties were distant from one another. Four hundred and twenty-five Part One undergraduates were enumerated across the four faculties. Faculties were randomly assigned to RT (123), ABK (94), RTABK (83) and control (125) groups. The instruments used were Writing Achievement Test ( $r=0.83$ ), Verbal Ability Scale ( $\alpha=0.78$ ), and instructional guides. Focus group discussions were held with four course representatives. The treatment lasted 5 weeks. Quantitative data were analysed using descriptive statistics, Analysis of covariance and Bonferroni post-hoc test at 0.05 level of significance, while qualitative data were content analysed.

Undergraduates' age was  $18.30 \pm 2.60$  years and 59.5% were males. The undergraduates' verbal ability (76.2%) was low. There was a significant main effect of treatment on writing achievement ( $F_{(3,421)} = 41.79$ ; partial  $\eta^2 = 0.24$ ). Undergraduates exposed to RTABK had the highest post mean achievement score (76.52), followed by RT (72.34), ABK (70.57), and control (59.54) groups. There were no significant main effects of gender and verbal ability on writing achievement. The two-way and three-way interaction effects were not significant on writing achievement. The undergraduates were enthusiastic with the methods and wished their Use of English course lecturers should continually use the methods.

Response to text, activation of background knowledge, and response to text + activation of background knowledge methods enhanced undergraduates' writing achievement in Federal University of Technology Owerri, Nigeria. Use of English course lecturers should adopt these methods to improve undergraduate achievement in writing.

**Keywords:** Integrated instructional methods, Undergraduates' writing achievement, Federal University of Technology Owerri, Verbal ability

**Word count:** 443

## **DEDICATION**

This work is dedicated to the Only True God  
Who alone is the greatest navigator in this world of confusion,  
the greatest anchor to those who flounder helplessly,  
and the sure protection and success of those who depend on Him.

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To all others too innumerable to mention here, I say thank you for yourr prayers.

## **CERTIFICATION**

I attest that this research was executed by Adaeze Regis-Onuoha under my supervision for the conferment of Doctor of Philosophy in Communication and Language Arts, University of Ibadan.

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Signature

**Prof. N. M. Christopher**  
Communication and Language Arts  
University of Ibadan

## TABLE OF CONTENTS

	<b>Pages</b>
Title page	i
Abstract	ii
Dedication	iii
Acknowledgements	iv
Certification	v
Table of Contents	vi
List of Tables	ix
List of Figures	xi
Abbreviations	xi
<b>Chapter One: Introduction</b>	
1.1 Background to the study	1
1.2 Statement of the problem	7
1.3 Research Questions/Hypotheses	8
1.4 Purpose of the study	9
1.5 Scope of the study	10
1.6 Significance of the study	11
1.7 Limitations of the study	12
1.8 Operational definition of terms	12
<b>Chapter Two: Literature Review</b>	
2.1 Conceptual review	16
2.1.1 Perspectives on writing	16
2.1.2 Perspectives on reading	18
2.1.3 Reading-writing relations	21
2.1.4 Integrated reading and writing instruction	22
2.1.5 Academic achievement, writing and reading	25
2.1.6 Reading/writing strategies and academic achievement	26
2.1.7 Gender, writing and reading	26
2.1.8 Response to text, writing and reading	28
2.1.9 Activation of background knowledge, writing and reading	29
2.1.10 Verbal ability, reading and writing	29

2.1.11	Conceptual framework	31
2.2	Empirical review	32
2.2.1	Empirical studies on the effects of Integrated Reading and Writing instruction on writing	32
2.2.2	Previous studies on response to text, reading and writing	38
2.2.3	Previous studies on activation of background knowledge, writing and reading	41
2.2.4	Empirical studies on gender, writing and reading	44
2.2.5	Empirical studies on verbal ability, writing and reading	47
2.3	Theoretical Framework	48
2.3.1	Theories that have influenced reading and writing instruction	48
2.3.2	Constructivism	51
2.3.3	The reader response perspective	52
2.3.4	The schema perspective	54
<b>Chapter Three: Research Methodology</b>		
3.0	Chapter introduction	57
3.1	Research design	57
3.2	Variables of the study	63
3.3	Population of the study	66
3.4	Sampling technique	67
3.5	Sample size	68
3.6	Research instruments	70
3.6.1	Texts or reading materials	70
3.6.2	Instructional guides for the experimental groups	75
3.6.3	Students' writing achievement prompt	76
3.6.4	Verbal Ability test	77
3.6.5	Focus Group Discussion	77
3.7	Control of extraneous Variables	78
3.8	The pilot study	79
3.8.1	Participants	79
3.8.2	Teaching methodology	80
3.8.3	Data analysis of the pilot study	82
3.8.4	Implications for the main study	83
3.9	Research procedure for the substantive study	83

3.9.1	Appointing and training lecturers and research assistants	85
3.9.2	Conduct of the verbal ability and pre tests	85
3.9.3	Treatment of the experimental groups	87
3.9.4	Conduct of the post test	90
3.10	Procedure for data analysis	90
<b>Chapter Four: Results and Discussion</b>		
4.0	Chapter introduction	91
4.1	Presentation of findings	91
<b>Chapter Five: Summary, Conclusions and Recommendations</b>		150
5.1	Summary of findings	147
5.2	Conclusions	148
5.3	Recommendations	149
5.4	Suggestions for future research	149
5.5	Contributions to knowledge	150
<b>References</b>		151
<b>Appendices</b>		160
Appendix 1:	Course synopsis of the Use of English course for first year students of the Federal University of Technology Owerri	
Appendix 2:	Verbal Ability Test	
Appendix 3:	Text 1-The risk of cigarette smoke Text 2- Lagos Text 3- A close encounter Text 4- Mortuary stylistics Text 5- FESTAC Text 6- Television and violence Text 7- Science, technology and human existence	
Appendix 4:	Rubric/marking guide for scoring writing	
Appendix 5:	Focus Group Discussion question guide.	
Appendix 6:	Focus Group Discussion Guide	
Appendix 7:	Lesson Notes	



## LIST OF TABLES

<b>Table</b>	<b>Title</b>	<b>Pages</b>
Table 3.1:	Factorial matrix of the study	60
Table 3.2:	Variables interaction	62
Table 3.3:	Research variables	65
Table 3.4:	Schools and number of students in each group	69
Table 3.5:	Selected texts for the study	71
Table 3.6:	Texts, their sources and results of readability tests	74
Table 3.7:	Schedule of activities during the study	84
Table 3.8:	Teaching plan for the experimental groups	86
Table 4.1:	Pre-treatment mean scores of students in different verbal ability levels within the various groups	93
Table 4.2:	Pre test results of students in narrative and expository writing	95
Table 4.3:	Post test results of students in narrative and expository writing	97
Table 4.4:	Pre test results of the effect of IRW instructional methods on writing achievement of students	99
Table 4.5:	Pre and posttest results of the effect of IRW instructional methods on the writing achievement of students	101
Table 4.6:	Disaggregated pre and post test results of writing achievement of students based on four writing elements	103
Table 4.7:	Analysis of covariance (ANCOVA) of post achievement by treatment, gender and verbal ability	112
Table 4.8:	Estimated marginal means for post achievement by treatment and control groups	114
Table 4.9:	Bonferroni post-hoc analysis of post achievement by treatment and control groups	116
Table 4.10:	Paired T-test analysis of pre and posttest scores of the different groups	119
Table 4.11:	Analysis showing the difference between achievements of high, average and low ability students	122
Table 4.12:	Difference between the means of participants in various verbal ability groups	125
Table 4.13:	Pretest and posttest results of the writing achievement of male and female students	127

Table 4.14:	T-test analysis of the difference between the writing achievements of male and female students in the pre and posttests	129
Table 4.15:	Analysis of effect of gender on writing achievement of participants	133
Table 4.16:	Analysis of the interaction effect of treatment and gender on students' achievement in writing	135
Table 4.17:	Analysis of interaction effect of treatment and verbal ability on students' achievement in writing	137
Table 4.18:	Interaction effect of gender and verbal ability on students' achievement in writing	139
Table 4.19:	Interaction effect of treatment, gender and verbal ability on students' achievement in writing	141

## LIST OF FIGURES

<b>Figure</b>	<b>Title</b>	<b>Pages</b>
Fig. 2.1:	Conceptual framework for the study	31
Fig. 4.1:	Pre and post writing scores of students in RT group	105
Fig. 4.2:	Pre and post test writing scores of students in ABK group	107
Fig. 4.3:	Pre and post test writing scores of students in RTABK group	108
Fig. 4.4:	Pre and post test writing scores of students in CG	110
Fig. 4.5:	Pre and post test mean scores by gender for treatment groups	131

## **ABBREVIATIONS**

IRW	-	Integrated Reading and Writing (instruction)
CI	-	Conventional Instruction
TI	-	Traditional Instruction
RT	-	Response to Text
ABK	-	Activation of Background Knowledge
JAMB	-	Joint Admission Matriculations Board
WAEC	-	West African Examinations Council
FUTO	-	Federal University of Technology Owerri
NCE	-	National Certificate in Education

# CHAPTER ONE

## INTRODUCTION

### 1.1 Background to the study

Literacy skills constitute the major instruments by which men and women navigate through life and the world. The degree of success attained by an individual is determined by the level of competence in the use of these skills. Fundamental in the different views on the explanation of literacy is the capacity to read and write or communicate information through reading and writing (Onukaogu, Abiodun-Ekus and Enemoh, 2012; Alokun, Ayodeji and Babalola, 2012). Literacy at the outset was initially associated with reading and writing print materials only, but the evolution of technology has broadened its meaning to include reading and writing of text and non-text materials in traditional and digital formats. In all, the application of literacy has broadened to take into account the ability to use reading and writing in every area of interest in life by all manners of people and not just in the classroom.

The capacity to read and write with competence constitutes a major key to success in academics, the workplace and life in general. For example, Koster, Tribushinina, de Jong, Van den Bergh (2015) see proficiency in writing as mandatory and a necessity for students because it is a basic requirement for achieving educational goals as well as social and economic positioning in life. This is because reading and writing are the vital tools by which students connect with, get hold of and demonstrate the knowledge they have come to acquire in the academic setting. Graham and Hebert (2011) explain that for students to be successful educationally, occupationally and socially, reading and writing are two key skills they must master. Students need to read and extract information from books and other materials which they encounter in their studies, and then reproduce the knowledge they gain from reading through writing; as such, those who are handicapped in reading and writing will be at a disadvantage even before they have begun their studies. Etim (2019) comments on the inability of junior and senior secondary school students in Nigeria to perform well in local and international examinations. This is evidenced by the performance of candidates in the 2011 exit

examinations for senior secondary schools in West Africa of which the West African Examinations Council (WAEC) chief examiner reports that the main challenge candidates faced included that they lacked a reasonable grasp of the English language that would enable them to understand questions and answer them correctly as well as avoid spelling and grammatical mistakes (WAEC 2011, 2017, 2018).

Therefore, the significance of these two skills (writing and reading) as catalysts to academic success of students cannot be over-emphasised. Reading is the means through which students obtain information or meaning from the written texts which they encounter in their studies, especially in the university. If the undergraduates lack expertise in the language in which they are being tutored, (in our case, English), they will be unable to make meaning or obtain the required knowledge which will contribute to their success in achieving set academic goals. Reading at the tertiary level is not just on the literal level but requires students to decipher and appraise the information which they come across during their studies. Therefore, competence in reading and writing the English language becomes a fundamental requirement if they are to make a success of their academic pursuits and aspirations (Olanipekun and Zaku, 2013; Aina and Olanipekun, 2013).

Similarly, proficiency in writing the English language is also essential if university students are to succeed in their academic life. This is because writing enables them to gain knowledge of the subjects which they encounter in school, to dissolve doubts, and to communicate this knowledge back to their instructors and other audiences. Through writing, the learners deliberate on the subject matter of interest, and as a result obtain new insights about it (Nathan and Abernathy 2012). Writing enables the students to succeed in their academic work and in other areas of endeavour and results in the development and progress of the individual (Gallaher, 2017). For these reasons, reading and writing proficiency among students cannot be treated lightly.

But despite the fundamental importance of these skills, students still fall short of the expected levels of competence in reading and writing the English language. Carlson (2011), Haynes (2011) and Heller (2021) report that large numbers of students in United States of America drop out of school because of this handicap while those who leave secondary school are hardly equipped to meet the demands of university reading or writing requirements. It is therefore to be taken for granted that higher numbers of

students in Nigeria are bound to be affected by these reading and writing challenges. Commenting on this, Olajide (2010) and Imoh (2013) point out that a great percentage of students who pass out of the secondary schools into the universities in Nigeria are found wanting in effective communication in the English language and as such perform below expected levels in their subject areas. Ojaide (2015) bemoans the poor quality of writing by Nigerian graduate and undergraduate students which the writer says lags far behind that of their counterparts from India, Malaysia, and South Africa.

Deficient performance and weak grades in English Language and content area courses (in which the students have to demonstrate their knowledge through writing in English language) have become a feature of some students' performance in both informal tests and semester examinations (Otagburuagu and Nnamani, 2014). The universities themselves try to address these challenges by designing and requiring fresh students to take some compulsory courses in the English Language. But the level of competence exhibited by the students at the conclusion of the courses still leaves much to be desired. Consequently, many graduates leave the university without acquiring the requisite literacy expertise that would help them excel in their endeavours (Adebiyi, 2012). This has constituted a basis for anxiety to parents, teachers, education authorities, the government, as well as employers of labour.

Studies have proffered several relevant explanations for the converse correlation observed between schooling and proficiency in literacy skills. Among these reasons are the modes or manner of instruction used to impart the knowledge of these skills to learners in schools and colleges (Egbe, 2012; Mabekoje, 2011, Okotie, 2010), lack of interest and low level motivation amongst students and teachers, students' reluctance to read and write (Udosen, 2012), non-availability of books (Edem, Mbaba, Udosen and Isioma 2011) and lack of professional development on the part of teachers (Njemanze, 2012). Further reasons include non-use of the library; available libraries being filled with outdated books and antiquated equipment, as well as negative attitudes toward reading and writing among students and teachers (Popoola, Ajibade, Etim, Oloyede), amongst other factors. Students confronted with such challenges will, no doubt, need an intensive remedy to become adept in the use of these language skills in order to cope with their new courses.

Amongst all the reasons enumerated above for the lack of proficiency of students in reading and writing, the methods of teaching adopted by instructors stand out as the most crucial. The conventional system of teaching in which a teacher is a repository of all knowledge and in which model texts are to be emulated by the learners is the most favoured in the Nigerian school system (Achuonye, 2015; Ogwu, 2019). Emphasis is laid on students reading and writing accurately, with memorization being the key instrument of learning. Udosen (2012) notes that the conventional method of instruction, in which all knowledge and information is in the custody of the teacher who gives it out to the learners while they sit and listen without any contribution on their own part, is the style most favoured in English language classrooms in Nigeria, from the kindergarten to the tertiary level. But unfortunately, writing cannot be learned through commitment to memory, regurgitation or simulation of model texts since it requires the combination of different skills during the writing process (Muodumogu and Unwaha, 2013). This presupposes that a learner would acquire the knowledge of different language skills in order to handle the new academic responsibilities of a tertiary environment.

Therefore, it seems that in order to address the poor level of erudition by fresh students in the tertiary institutions, scrupulous consideration must be directed towards the problem of methods and strategies of instruction of these literacy skills, especially that of writing. This is because instructional methods are fundamental to the discharge of the duty of imparting knowledge to the new student by the teacher (Ogwu, 2019). In Nigeria, there is no significant direct instruction given in reading and writing except perhaps where students are studying English and/or literary studies as their core courses (Enighe and Afangideh, 2018). Where writing is taught at all, emphasis is laid on the product of writing. This type of instruction focuses on the mechanics of spelling, punctuation, and correctness of the learner's writing rather than on the personal thoughts, experiences and techniques which will enable the learner to produce quality writing. This type is the conventional form of instruction used in the secondary schools (Muodumogu and Unwaha, 2013) which has affected the proficiency of the students as they enter the university. Consequently, the majority of new entrants to the universities are admitted with inadequate competency which thus makes them ill-prepared for the advanced reading and writing requirements of tertiary academic work



(Springer, Wilson and Dole, 2014; Komba, Kafambo, Njabili and Kira, 2012, Ayodele, Akinkulore, Ariyo, Mahmud and Abuya, 2017).

Existing literature indicates that combining reading oriented and writing oriented tasks as a method of instruction can improve literacy proficiency in learners (Shanahan, 2020), especially during the tertiary phase. The Integrated Reading and Writing (IRW) method incorporates reading-oriented as well as writing-oriented tasks during particular lessons. Since each one affects the learning of the other, they cannot be divorced from one another (Ojaide, 2015). Therefore, integrating reading and writing activities during instruction enhances learning and makes learners to become better readers and writers (Institute for Writing and Rhetoric, 2021). Besides, the IRW instructional methods of using activation of background knowledge, response to text, and response to text plus activation of background knowledge may facilitate fresh university undergraduates' development of their dexterity and competence in reading and writing. Each method aims to help the students activate what they are conversant with in the topics to be read or written about and to exploit everything in their experience so as to enhance comprehension and writing efficiency. Background knowledge, also called prior knowledge, schema or experience, is used by learners to link what they are reading to what they are familiar with in order to enhance comprehension (Agwu, 2011) and aid writing (Strangman and Hall, 2009); while the response to text method is one in which readers use their unique personality and experience to interact with the text so as to construct their meaning from a text, interpret and respond to the text in their own way through writing (Shanahan, 2016).

Perhaps if the instruction is based on an approach in which the two skills are taught together (or at least one is incorporated into the teaching of the other) using the IRW methods, especially with different text types such as narrative, expository, argumentative, amongst others, the students may improve in their proficiency at the end of their courses. Researchers high-light the need to amalgamate reading-based and writing-based activities during lessons when they point out that the inability of students to make meaning of texts they read may be a contributory factor to their inability to write texts that are meaningful. Holschuh and Paulson (2013) affirm that incorporating reading as well as writing tasks during teaching is an activity which should always be applied in the courses, assignments and texts throughout the duration of students' stay in school so as to enable them develop proficiency in both skills.

Thus, the Integrated Reading and Writing instructional methods were used as independent variables and treatment for the experimental groups in this study. It is hoped that the IRW methods employed in this study will positively affect the writing proficiency of the study participants who will also have the opportunity to assess the usefulness or otherwise of the study through a focus group discussion at the end of the exercise.

Another factor which may influence students' acquisition of writing capability is their level of aptitude with words. The capacity to use words in various ways to give different shades of meaning may enable students perform well in their academic endeavours. According to Andrew, Cobb and Giampietro (2005), verbal ability offers a demonstration of the ability to speak and write well, as well as a measure of intelligence. Adegbite and Alabi (2007) point out that since verbal ability shows the level of linguistic expertise of a learner, it will therefore determine the learner's ability to write well. Nathan and Abernathy (2012) confirm that there is a relationship between verbal ability and attainment in writing of primary school pupils with learning disability. Thus the facility with words may become a device to gauge the literacy competence of students and to classify them into ability groups. Since verbal ability level can affect the academic performance of students in literacy tasks, tests of verbal aptitude are used to evaluate educational capability across curriculum. Verbal ability was used in this study to describe and classify students into ability groups and to ascertain whether the writing achievement of students in the various ability levels differed.

An additional important factor that may influence the achievement of learners in reading and writing is gender. Studies have shown that gender inequality in admission into tertiary institutions in Nigeria is in favour of males (Mukoro, 2014; Oludayo, Popoola, Akanbi and Atayero, 2019). They are the dominant gender in science, technology and mathematics disciplines while the humanities and social sciences have a more feminine inclination (Eraikhuemen and Oteze, 2015). While some researchers claim that there is no evidence to suggest the overall academic achievement of one gender over the other (Klinger, Shulha and Wade-Woolley, 2009; Ezeokoli and Igubor, 2016), others have said that males are better readers and writers (Okonkwo, 2015) while yet others suggest that females read and write better than males (Al Khamisi, Al Barwani, Al Mekhafi and Osman, 2016). This debate has led to a labelling of the

different genders, but research (Eurydice, 2010) points out that gender is just one out of the many issues that can influence the success of students in literacy tasks. Therefore, in this study, gender was a moderator variable because it can confound the study if not properly taken into consideration.

## **1.2 Statement of the Problem**

Students' unsatisfactory level of competence in reading and writing Nigeria's official language has been a cause for concern to stakeholders in education. As a case in point, Sotiloye, Bodunde, Akeredolu-Ale, Adebisi and Anduradolu (2016) quoting Owolabi (2005) indicate that the Use of English course has not succeeded in inculcating communicative competence in students of Nigerian tertiary institutions. This is corroborated by Balogun (2017) who states that the Use of English course in Auchi Polytechnic does not address the needs that are prevalent among the learners, and points to the fact that those of the students who graduate and go into the market place are described by employers as incapable of writing reports, letters or other communication in English in the work place. This is because the main tool which enables the students to communicate in the academic setting is writing, and as such, the capacity to read and write will influence their level of academic achievement in the university and performance on the job in real life situations. This ability is determined by the learners' level of comprehension and written communication. Thus integration of instruction may become necessary for students who are unable to read and comprehend the various texts and materials that they encounter in the course of their study. It may, therefore, also become necessary for those who because of their inability to read and write competently are incapable of communicating effectively in writing the knowledge which they have gained.

The general malaise of poor proficiency in literacy skills of undergraduates may also be traced to the fact that in practically most of the public schools in the country, reading and writing are neither taught explicitly nor as subjects. Writing and reading are not planned and taught systematically and the conventional instructional method in which the teacher uses the lecture method is what is in use. The students from these schools constitute a great proportion of the new students admitted in to the universities every year and are mandated to register for the General Studies Use of English course in the belief that they have learnt to write and read when actually they have not

(Ayodele, Akinkurolere, Ariyo, Mahmud and Abuya, 2017). For those who come from the privately owned and run primary and secondary schools, the case is not too different since the problem of unqualified resource persons and lack of retraining of teachers is very glaring in a large number of the low cadre schools, especially those at the very low socio-economic levels. As a result of this foundation, the capacity of Nigerian undergraduates to read, write and communicate cannot but be ineffective and their writing itself full of grammatical errors and cliché (Ojaide, 2015).

Thus amongst the plethora of problems generating the non proficiency in reading and writing among students, poor teaching methods/strategies employed in teaching writing and reading in elementary schools and colleges, and which continually persist even at the universities, are very germane (Gambari, Kutigi and Fagbemi, 2014). Egbe (2012) recommends a reconsideration of the methods and strategies used to teach reading and writing to Nigerian students since these may prove to be the major culprits accountable for the level of written English of students in the different institutions of learning in Nigeria. Supporting this position, Sotiloye, Bodunde, Akeredolu-Ale, Adebisi and Anduradolu (2016) also aver that the poor foundation of English language built in students in the secondary school continues to affect them in the university. Therefore it may become needful to re-evaluate the methods and techniques used in teaching these skills even in the university so as to enable students develop writing as well as reading skills at the same time.

Against the background of the issues discussed above, this inquiry, therefore, was designed to fill this gap by means of exploring whether application of IRW instructional methods of activation of background knowledge, response to text, and response to text + activation of background knowledge, would make a difference in fresh university students' achievement in writing.

### **1.3 Research Questions/Hypotheses**

Listed below are the research questions and hypotheses used to address the concerns of this inquiry. The hypotheses were tested at 0.05 level of significance.

1. What effect did the IRW instructional methods have on the writing achievement of students?

2. What level of difference exists between the writing achievement of the experimental and control students?
3. To what extent did the writing achievement of high, average and low verbal ability students differ after exposure the IRW methods of instruction?
4. What level of difference exists between the writing achievement of male and female students using IRW methods?

### **Hypotheses**

1. **H<sub>01</sub>**: There is no significant main effect of IRW treatment on the writing achievement of students
2. **H<sub>02</sub>**: There is no significant main effect of verbal ability on writing achievement of students exposed to IRW.
3. **H<sub>03</sub>**: There is no significant main effect of gender on writing achievement of students exposed to IRW.
4. **H<sub>04</sub>**: There is no significant interaction effect of treatment and gender on the writing achievement of students.
5. **H<sub>05</sub>**: There is no significant interaction effect of treatment and verbal ability on writing achievement of students.
6. **H<sub>06</sub>**: There is no significant interaction effect of gender and verbal ability on the writing achievement of students.
7. **H<sub>07</sub>**: There is no significant interaction effect of treatment, gender and verbal ability on the writing achievement of students.

### **1.4 Purpose of the study**

This study examined the extent to which Integrated (Reading and Writing) instructional methods of response to text, activation of background knowledge, and response to text + activation of background knowledge would facilitate the development of writing skills proficiency of first year science and technology undergraduates in comparison with the conventional instruction (CI). In other words, the study examined the link, if any, between the treatments given to the different groups of participants and their achievement in (narrative and expository) writing. The study also looked to see if there would be any similarities in the accomplishment in writing of the treatment groups as well as between them and the non-treatment group.

The study also investigated if gender and verbal ability would have any major outcome on participants' writing achievement. It also examined the relationship between verbal ability, gender and achievement in writing, in addition to observing whether the moderator variables would interface with the treatments to impact on the outcome of students' writing

### **1.5 Scope of the study**

This investigation specifically sought to discover if the IRW instructional methods of response to text, activation of background knowledge, and response to text + activation of background knowledge, would be effective in improving performance in writing of newly admitted undergraduates in Federal University of Technology Owerri (FUTO). It also contemplated any notable variations in the writing achievement of both treatment and non-treatment categories after teaching; if there was a sizeable or major outcome of verbal ability on the writing achievements of students; as well as if there was any progress made by students in their writing based on gender. There are many approaches to the integration of instructional methods, but this study only applied the use of response to text, activation of background knowledge, and response to text + activation of background knowledge methods (using tasks that required students to read and write) to teach writing. This inquiry paid attention to writing problems relating to the learner in a classroom setting. The investigation focused on ensuring that participants improve their writing in the English language which is the crucial means of teaching and learning in the university.

Furthermore, the study was carried out at FUTO, South East Nigeria, since some similar studies have been carried out in federally owned technology universities in the western and northern Nigeria (Fola-Adebayo, 2014), but to the knowledge of this researcher, no comparable investigation had been carried out in a university of technology in the east of Nigeria. So this would serve as an opportunity to study writing of students in this part of the country (of whom students native to this target area, amongst others, are more likely to be represented). In addition, many of the students admitted into the university every session come from public schools and at 100 level, they still have problems in writing, in addition to reading, because these are scarcely properly taught as subjects or skills within public schools in Nigeria. This

work was therefore conceived to find ways and means to stem the problems of this group of undergraduates. It was assumed that the study sample would have adequate knowledge of the English language to participate in the research having passed the qualifying examinations conducted for candidates seeking admission into Nigerian universities.

The focus of this study, which was limited to undergraduates of FUTO, may limit generalization of the study results to all universities in Nigeria but the study also sought to provide a platform for further research in writing in Nigerian tertiary institutions. Subjects of the study were 100 level regular freshly admitted candidates. They were all registered for the Use of English course which exposed them to writing.

### **1.6 Significance of the study**

This investigation is noteworthy for the reason that it will draw attention to the need for educational systems to incorporate reading and writing as key areas of study in the language syllabus in order to prepare students in various echelons of educational attainment for tasks and challenges ahead of them. The results of the research will, therefore, be of advantage to the educational policy makers at both levels of government, private and public sector educational establishments when the findings are communicated through presentation of papers on it in workshops, seminars, and conferences for language teachers at all levels. Policy makers in the state and federal education sectors invited to attend these conferences and seminars will also get to implement research driven changes in the English language curriculum of schools under their jurisdiction based on the results of this research communicated to them. Nigerian undergraduates and other students on whom the investigation was centred will also benefit from it when their teachers now implement the knowledge they have gathered from the study. Their communication skills in writing would improve above what is presently obtainable.

This study will also be relevant because outside the classroom, individuals need to acquire expertise in writing skills which are indispensable for survival in the world of career and business. In the larger world of business, science and technology, effective utilization of writing and other related language skills is a must for accomplishment in a technology driven world. The undergraduates of today, who will be the captains of

industry, catalysts and drivers of technology and development in the very near future need to be proficient in these all essential acquisitions. Therefore the business, financial, scientific and technological subsectors of the Nigerian society will be prime beneficiaries of this study as graduates come to the job market fully equipped through the IRW language methods that would have increased their proficiency in reading and writing. For Nigeria to be a leader in global activities, its citizens must be vastly skillful to handle reading and writing of the world's most used language in business, science and technology.

### **1.7 Limitations to the study**

Generally, results from quasi experimental studies are not generalisable but because this study used the pre-test, post test, control group quasi-experimental design, the results can be generalized to any similar group of undergraduates in a Nigerian university.

Secondly, the study was reduced from 10 weeks to eight weeks because students of the university went on a demonstration and were sent home for two months. This affected the university schedule which was revised on resumption. The treatment was planned to last for six weeks but had to be reduced to five weeks. Students were given more writing tasks which they did at home to compensate for the one week that was lost.

### **1.8 Operational definition of terms**

**Achievement** – This is the difference between students' scores in the pre and post tests. In this study, the disparity between the pre and post test results of experimental and control students were ascertained through achievement test. Any significant difference or otherwise between the mean scores of the two sets was attributed to effects of IRW instruction.

**Activation of background knowledge method** – This entails the recall of previous knowledge and experiences regarding a particular topic which a learner wants to read or write about in order to enhance comprehension or writing.



**Gender** – This refers to the social construct of being male or female and the characteristics attached to it which may affect the behaviour and roles of students in the classroom.

**IRW instruction** – This constitutes the method of instruction in which reading skills plus writing skills are taught at the same time within a single lesson. For this study, it is operationalised as two 60-minute classes a week in which the response to text, activation of background knowledge and response to text + activation of background knowledge instructional methods constitute the mode of instruction for students in the treatment groups.

**Response to text** – This means the interaction that takes place between the readers and a given text so as to generate meaning from the material. This enables the readers to unravel the message in the passage in their own unique ways because of the manner in which they personally experience that text, and then writing their interpretations and reactions down. The students reaffirm and answer the questions at the end of the text by referring to facts or ideas from the text and explaining how they connect their own experiences.

**Conventional instruction** – This is a method of teaching whereby the instructor presents the subject matter, asks questions and answers students' questions. However, for this study, it is operationalised as two 60-minute classes a week in which the control group class was taught only writing (without reading) using the above method.

**Verbal Ability** – This is students' grammatical and word knowledge of English language, coupled with logical thinking skills as measured by their results in the verbal ability test.

**Writing skills** - These are skills which students are taught during their Use of English classes. These included content (presentation of key ideas and facts in writing), organization (logical organization of sentences and paragraphs), expression (proper use of grammar, tenses, cohesive devices and fluency in writing) and mechanical accuracy (proper use of punctuation, capital letters and spelling).

## **CHAPTER TWO**

### **LITERATURE REVIEW**

To situate this study in the on-going conversation among scholars in the area of incorporating reading instruction with writing instruction, related literature on the IRW instructional methods, current theories of reading, theories of writing, as well as empirical studies regarding contributions of IRW instruction to undergraduates' achievement in literacy skills development are reviewed in this chapter. The discussion focuses on the following areas:

#### **2.1 Conceptual review**

This section gives the basic definition and clarification of major concepts and issues contained in the study. These are given below:

##### 2.1 Conceptual review

##### 2.1.1 Perspectives on writing

##### 2.1.2 Perspectives on reading

##### 2.1.3 Reading-Writing relations

##### 2.1.4 Integrated reading and writing instruction

##### 2.1.5 Academic achievement, writing and reading

##### 2.1.6 Reading/writing strategies and academic achievement

##### 2.1.7 Gender, writing and reading

##### 2.1.8 Response to text, writing and reading

##### 2.1.9 Activation of background knowledge, writing and reading

##### 2.1.10 Verbal ability, writing and reading

##### 2.1.11 Conceptual framework

## **2.2 Empirical review**

This section examines previous empirical investigations carried out by scholars in the field of current study under the following headings:

2.2.1 Empirical studies on the effects of IRW instruction on writing

2.2.2 Previous studies on response to text, reading and writing

2.2.3 Previous studies on activation of background knowledge, reading and writing

2.2.4 Empirical studies on gender, reading and writing

2.2.5 Empirical studies on verbal ability, reading and writing

## **2.3 Theoretical framework**

This section examines learning theories that have influenced the teaching of how to read and to write, plus the specific theory that undergirds this study, which is constructivism, under the following headings:

2.3.1 Theories that have influenced reading and writing instruction

2.3.2 Constructivism

2.3.3 The reader response perspective

2.3.4 The reader response perspective and writing

2.3.5 The schema perspective

2.3.6 The schema perspective and writing

## **2.1 Conceptual review**

This section explains the basic notions in the study. It also gives the different viewpoints on major concepts and issues.

### **2.1.1 Perspectives on writing**

Writing is the encoding of information in the form of marks on paper (or hypertext in digital formats) which an individual may decode based on agreed symbols so as to get the import of the message. It is the setting down of language for reading with the eyes or touching with the hands (Coulmas, 1999). The National Institute for Literacy (2007) characterizes it to be the capacity to create a text for different situations and readers. Most knowledge is stored in texts through writing and learners read what is written in order to gain knowledge and also write to display what knowledge they have acquired in a particular subject area. Therefore, without writing there can be no reading. Writing forces the learners to be focused and attentive to their learning since it encourages them to think (Institute for Writing and Rhetoric, IWR, 2013) and helps them improve their communication skills. Writing is used as a tool for judging the academic progress of learners and poor writers invariably will perform poorly. Therefore the imperative for tertiary learners to imbibe effective writing cannot be over-emphasised. Academic instruction in writing is very important because writing performs a fundamental assignment in formal education, from pre-nursery to tertiary level, since it is used as a tool for the impartation and acquisition of knowledge. Through writing, the learner is able to demonstrate explicitly his/her internalization of the language skills which he/she has acquired as reflected in the content, organization, expression and mechanical accuracy of his/her written language. Therefore, proficiency in writing is very critical for the learner because any one who cannot write well will be at a disadvantage both in academic achievement and performance (Matsumura, Correnti and Wang, 2015; Graham, 2019). Writing instruction was initially examined from two perspectives – the product and the process.

The product perspective, also called the traditional method of writing instruction, was the approach used up to the 1960s in the literate communities of Britain and America (Harl, 2013). In this approach, writing was considered a transmission of information from the writer to the text as writing instruction was influenced by behaviourist beliefs and emphasized spoken language and knowledge of grammar. Russel (2006) indicates

that repeated practice of the grammatical conventions of latin, spelling, and good handwriting were emphasized; and that writing was usually limited to replication or simulation of ideal texts. Learners were taught the language rules and sentence structure of particular types of writing using model texts and were then expected to produce their own writings based on the features taught them from the model texts. Hassan and Akhand (2010) outline four stages of the product approach to writing: learners' consideration of an ideal text; the supervised rehearsal of certain elements singly and disjointedly; the ordering of concepts; and the final result of the study procedure, all of which do not take the context and audience of writing into consideration. Focus is on the product, not on the process of writing. Gordon (2008) also emphasizes that the product approach does not reckon with how meaning is constructed but concentrates on form. Thus scholars looked for alternative ways to address these shortcomings, and the process approach to writing instruction came into being.

According to Harl (2013), the writing process approach fully came into effect in the 1970s from an amalgamation of the works of scholars like Emig, Flower and Hayes and Hairston who investigated it as a cyclical process and described it as non-linear. The process approach sees writing as a series of steps (made up of preparation, write-up and modifications) which a writer takes in the course of writing, and which learners also need to take (Gordon, 2008). Hassan & Akhand, (2010) explain that this process is cyclical or recursive because the writer can go from one stage to the other and back again. Peha (2003) encapsulates the writing process as the answer to questions of how writers carry out their task, the stages they go through in doing this and how they distill their writing to get rid of unwanted or inappropriate elements. Instructional practices include encouraging students to brainstorm/generate ideas, write drafts, edit and revise their drafts, proof read and finally publish or submit their texts.

But even with improvements in the product/process approaches in writing instruction, educationists (Agustiana, 2016, Hassan and Akhand, 2010) have advocated a combination of aspects of the two approaches, depending on the learner, the context, amongst additional dynamics.

Other approaches, for instance, the Writing Across Curriculum movement, emphasize the use of writing in all subject areas to enhance learner's thinking and writing skills

(Dalporto, 2015). The comprehensive literacy instruction emphasizes the combination of aspects of instruction in teaching of reading and/or writing for effective learning.

Hence there is the necessity for students to be instructed with appropriate methods and strategies in order to improve their efficiency in writing.

### **2.1.2 Perspectives on reading**

Scholars have tried to define reading for several decades. Goodman, Watson and Burke (1996) consider reading from the standpoint of the making of meaning. Thus reading is seen as the process through which a reader decodes the symbols on a written page or any other medium, attaches meaning to them and thereby extracts the message which the writer has embedded in those symbols.

The reading as transmission perspective was influenced by the work of modernists (Serafini, 2003) which saw reading as the diffusion of meaning from the author/text to the one who reads. The meaning of a passage is said to be contained in the page before the reader. The person who reads contributes nothing to the generation of meaning and his understanding of the material depends on his ability to recognise how letters are combined to form words, sentences and paragraphs; and how these are used to communicate meaning. This perspective emphasizes the learning of such skills as decoding and word attack by the reader. Instruction in reading is pivoted on the teacher who is seen as an expert reader who teaches the students while the learners passively listen without anything to contribute (Onukaogu, 2003). The learner's previous knowledge and experiences are not considered. This view of reading is called the bottom (text)-Up (brain) viewpoint because it is text and teacher focused. It is also called the traditional approach.

The second view sees reading as an inter-relationship which exists between the one who is reading and the material being read (Rosenblatt, 1978). The person who is reading is seen as the focal point of the reading event because he brings to the text background experiences which are acquired from birth in his home and community (Onukaogu, 2003) and which enable him to extract meaning from the text. Meaning comes into being as the reader comes into a transaction with the text. Instruction in the transactional perspective is child/learner centred and his/her mistakes are seen as necessary stepping stones in learning to read. This is also called the Top (brain)-

Bottom (text) perspective because the emphasis is on the reader and what he brings to the reading event. Because different readers have different and peculiar experiences, personality and background knowledge, a text may have as many interpretations as the number of people who read it since the meaning each creates from the text is an amalgam of their unique experiences, personality and the text.

Smith (2004) believes that reading relates to knowledge because there are two types of information contained in the text to be read. These are the visual information which is contained in the text as marks on the page, and the internal mental information within the reader which cannot be seen with the physical eyes but which the reader has before s/he reads the passage. The internal mental information which is made up of the personal social history, experience, personality, etc. of the reader, combines with the marks on the page to release to the reader the meaning in the page. Therefore, the reader, the passage, and the import of the passage are all interconnected if there is to be a successful reading event. Smith (2004) notes that since reading and knowledge are interconnected, reading must also inevitably be connected with memory. This is because the previous experience or knowledge which a reader has is stored in the memory and this shapes how the reader generates understanding from what he is reading. This association among the reader, the passage or material he is reading and the message he gets from the passage has given rise to different perspectives by scholars in trying to define reading and the appropriate methods to teach it.

The third view on the meaning of reading is the communal or interactive perspective posited by Rumelhart (1977). This emphasizes the equal importance of the previous experience of the learner, what stimulates him to read, what appeals to him and the configuration of the text (Wedman and Robinson, 1989, Ngabut, 2015). The learner brings his previous experiences which he gathers from his community to the reading situation and this and the other factors bear on the text as well as on the environment of the reading event to produce his understanding of the text. The instructor is needed to assist the learner but must acknowledge the experiences and abilities of the learner as important in the making of meaning.

From the above, it is obvious that different learners will be at diverse stages of expertise depending upon type of instruction which they have received in the course of learning to read and depending on the perspective which has fuelled their instruction,

as well as the level of difficulty of the texts. Some could be reading at the frustration level where they are unable to decode the text either because it is too unfamiliar or difficult and so they cannot comprehend it. Some fresh university students read at this level. Others could be reading at the instruction level where they may read the text but are unable to fully comprehend it without the help and encouragement of a teacher. Some university students also read at this level and the method of instruction adopted to teach them may be critical to their capacity to improve their reading and comprehension. Yet other fresh students may read at the independent level which makes them self reliant in reading some of their academic texts without too much support from the teacher.

From the foregoing, it is plain that appropriate and innovative instructional methods and strategies will need to be adopted so as to address the needs of the students as individuals and as a group. This is because the learner's capacity of reading effectively constitutes the fulcrum of success in schooling, especially at the tertiary level. This is corroborated by the WAEC lead assessors' reports on the English language performance of candidates for the 2011, 2017 and 2018 academic sessions. Less than 50% of candidates passed the May/June examinations with credit in English in 2018. The challenges of the students included inadequate grasp and utilisation of the English language, weak grammatical expressions, error in spelling and unintelligible constructions. The chief examiners wondered why the secondary schools enrolled untaught and non-proficient applicants for the examination, and suggested, among other things, that the methods and tactics adapted by teachers to instruct students in the English language be reviewed so as to check this negative trend. They also suggested that particular attention be paid to enhancing candidates' language skills and the inculcation of good reading habits in students through causing them to read widely in order to remedy their writing in the examinations. It is important to note that these candidates constitute the population out of which fresh university students are drawn.

The evolution of reading and writing cannot be detached from the advancement of instruction in the skills. Initially, learners were taught the two skills separately. Writing was taught while reading was neglected (Institute for Writing and Rhetoric, 2013). Reading was seen as a more elementary skill than writing and was not accorded as much respect as writing which was considered a privileged skill (Goen and Gillote-Tropp, 2003; Shanahan, 2003). But later, universities such as Harvard came to the



conclusion that reading was fundamental to knowing how to write (IWR, 2013). This led to a new emphasis on reading in the school syllabus which in turn led to the neglect of writing.

With the advent of the protestant reformation in the 1600s and the use of the printing press in the 1800s, literacy and reading instruction which came into being as early as the 15<sup>th</sup> century in England (Brown, 2015), became widespread and were no longer reserved for only a privileged few (van Kleeck & Schuele, 2010). Both individuals and governments in Europe and America started to invest in reading instruction as the responsibility for reading instruction moved from individual families to schools and educational institutions; and governments of nations developed educational policies which emphasized instruction in reading and writing (Freedman and Dipardo, 2014). Thus instruction in reading and writing continued to gain ground and spread to other locations. The arrival of the British colonialists in Nigeria brought the introduction of their language, formal education, schools, together with teaching of reading, writing and arithmetic into the country (Onukaogu, 2003). This opened wide vistas of opportunities and development for Nigerians, both at the individual and national levels, as they made great efforts to acquire the language by learning the basics of how to read and write it. This development of reading and writing instruction has given rise to different approaches to and methods of teaching these skills.

### **2.1.3 Reading-writing relations**

For a long time, reading and writing instruction were separated from each other, but from the middle 1900s, scholars (Goodman, Smith, Meredith and Goodman, 1987; Fink, 2017; Shanahan, 2020) asserted that reading is interconnected with writing for the reason that one strengthens the other and because both readers and writers make meaning and both use prior knowledge. Eldouma and Elamin (2018) posit that the activities undertaken by the reader to comprehend a text and those undertaken by the writer to compose a text are similar. Turbill (2002) points out that this period saw writing as the creating of meaning while writing a text, and reading as the creating of meaning from a written text. As such, learners were taught sound-symbol correspondence, rereading, prediction of meaning through use of context, spelling, the writing process, amongst others. Learners were also expected to read and write

extensively, to bring background knowledge into their reading, to learn the writing process and as well as use written texts as models to learn from.

Harl (2013) posits that reading-writing connection was viewed from three perspectives: that of seeing reading as a process of ingesting meaning and writing as that of creating meaning; that of seeing both skills as producing meaning; and that of seeing both skills as each being a means of producing and ingesting meaning. The Institute for Writing and Rhetoric (2016) confirms that through reading, students gain knowledge beyond their experience which helps their critical and analytical thinking. This becomes the basis or subject for their writing. They advise that both skills should be seen as beneficial one to the learning of the other, and as such should be integrated in their teaching. Currently, scholars (Raphael and Hiebert, 2013) call for the incorporation of elements of reading instruction into writing instruction and elements of writing instruction into reading instruction in literature and content area courses. Whatever be the methods adopted in the teaching of reading, the critical place of writing in achieving this task cannot be overlooked. To facilitate the extraction of information from a written material, the student may have to employ writing as a sort of catalyst to gain understanding of the text or as a tool to respond to the message in the text. This particularly applies to undergraduates in tertiary institutions. Thus the concept of reading cannot be divorced from that of writing.

#### **2.1.4 Integrated reading and writing (IRW) instruction**

IRW instruction came into play when scholars decided that reading is very critical to learning to write (Institute for Writing and Rhetoric (IWR), 2015). Ndukwe (2015) and Christopher (2012) see it as a method of reading instruction that encourages teachers to employ reading and writing in a two pronged instructional option. Sometimes called reading through writing or writing to read, it requires learners to read selected texts and to write extensively on them through answering questions, use of work sheets and composing responses to texts on paper (Rass, 2001). This trains the learners to develop the habit of reading, from which they gain background knowledge, as well as learn aspects of language usage such as paragraph development techniques, punctuations, sentence/grammatical constructions, amongst others (Olness, 2005). It also enables the learners to develop the habit of writing whilst practicing the writing of paragraphs

using grammatical and other techniques that will enhance their competence in the target language.

IRW research has consisted of three perspectives based on the bearing of reading and writing on one another and in connection with the use of mental tactics employed by learners to carry out tasks involving the two skills. Grabe (2003) contends that this has to do with the argument as to whether instruction in IRW should start from reading and then go to writing or vice-versa in order to achieve the most benefit for the learner. The first perspective, called the functional view of reading-writing relations (Graham and Hebert, 2011) deals with the transfer of cognitive strategies from one skill to the other; for example, using reading strategies or skills to carry out tasks in writing. Therefore, Shanahan (2017) posits that when learners write about a passage they have read, it helps their comprehension. This is also known as the directional model (Eisterhold, 1990).

The second perspective is what Graham and Hebert (2011) call the shared knowledge view of reading-writing relations. This view holds that the same cognitive skills or strategies can be used in either reading or writing, so that progress in reading will also result in progress in writing since both skills involve the making or construction of meaning (Shanahan, 2020). This is called the non-directional model.

The third view, the rhetorical relations perspective, considers reading, together with writing as modes of communication that are interdependent because reading affects writing and vice-versa. Hirvela (2004) believes that the directional model/functional perspective is most relevant for purposes of instruction because a teacher will have to know in which direction to give instruction, either from writing to reading or from reading to writing.

Based on the above perspectives, scholars, (Shanahan, 2017, Jodi and Eric, 2013) posit that reading and writing facilitate one another. Indeed Jodi and Eric emphasize that none of the skills can be taught outside of the other. Others, (Parodi, 2007; Holschuh and Paulson, 2013) maintain that they are inter-connected hence they ought to be taught together. National Writing Project (2010) insists that both skills are vital to one another because they are related and interdependent. In fact, Dobie (2012) describes the two skills as different sides of the same coin and asserts that a reader must write extensively and a writer read extensively in order to be successful in each of the skills.

Gordon (2008) maintains that one of the characteristics of good writers is that they read widely and that for a writer (at any level) to become skilled and write well in any language, reading widely is an invaluable task that must be accomplished. Hirvela (2005) therefore believes that the fact that writing helps the reader to create or determine meaning cannot be over-emphasized. This is because learners make use of the same mental resources in learning both skills and as such, integrating both skills in instruction will benefit them (Glenn, 2007).

Writing is of fundamental importance in understanding any material that we read (LeBron, 2008; Wallace, Pearman, Hail and Hurst, 2007). Therefore any instruction in reading must incorporate writing in order to enhance understanding and learning in the reader. Glenn (2007) believes integration of activities that have to do with reading and writing during lessons enhances learning and causes learners to become better readers and writers because writing causes the reader to actively think about what s/he has read and to connect it with his/her experiences or those of others, to ask questions and make things readily understandable. Ramirez (2013) also indicates that writing boosts reading and comprehension in learners and that this can be exploited through encouraging learners to write personal responses to texts and summaries of important ideas in a text or to survey other texts in order to write their own text. Ramirez further notes that reading also gives the learner good examples of writing to emulate and the instructor can gauge the reader's insight into a particular reading task when the reader has written down his/her reaction to the material read. Thus the instructor can easily identify areas where there is confusion or inaccuracy in the reader (Giesen, 2001).

IRW consists of two major branches. Tsai (2006) lists them as reading-to-write, and writing-to-read while Raphael and Hiebert (2013) include a third one, writing to learn. The reading-to-write aspect helps learners to extract information from materials they have perused and to apply this in what they write. This aspect can be taught by encouraging students to look out for and learn such things in texts as grammar, lexical items, etc. while reading, as these would help them in their own writing, and to critically look out for how writers use language in their texts as well as read extensively.

Conversely, writing-to-read assumes the aspect of instruction whereby writing is used as tool to enhance reading ability in learners. Learners are taught how to write

summaries, answer inquiries, solve problems and write comments and remarks on materials read by them, as well as to look out for text structures, sentence structures and paragraph development techniques (Graham and Hiebert, 2010) in texts they read and to apply them to the ones they write. Such techniques as writing-before-you-read, keeping a reading journal, and summarizing, according to Delaney (2008), are used to teach writing-to-read. Knipper and Duggan (2006) found that writing-to-learn is used to facilitate learning and meaning making and that it is usually applied by students in content area reading because it does not follow the writing process but is used to remember, elucidate and query or probe what is clear and what is not so clear to them about a topic. Since the academic survival of tertiary students depends on their capacity as readers who are able to understand written materials that they read, and to write about the materials which they encounter in their various courses, it is imperative that they are given every assistance so that they can become proficient in these skills through their integration as a method of instruction. This is because writing is a tool for evaluating their progress or otherwise in their academic work and whoever is not able to write proficiently will be unable to achieve the set academic goals.

### **2.1.5 Academic achievement, writing and reading**

Steinmayr, Meifbner, Weidinger, and Wirthwein (2015) define scholastic attainment to be the accomplishment of students shown through performing the tasks set before them, which demonstrates their attainment of particular academic goals in a particular subject or course which they have been taught, and evidences the understanding or knowledge which students have acquired in particular intellectual disciplines like literacy or mathematics. Many indicators such as students' knowledge of processes (skills) or their exhibition of knowledge (facts) show achievement. Algarabel and Dasi (2001) separate achievement into three components: the declarative (knowledge of facts of a specific domain of knowledge), procedural (knowledge of processes or procedures) and strategic (knowledge of strategies or methods). Academic achievement is gauged through tasks given to students in tests or examinations. Differences in personality, understanding, knowledge or proficiency affect the scholastic attainment of learners in such areas as reading and writing. Therefore the outcome of students' achievement plays a role in the adoption of particular methods of instruction by teachers.

Reading and writing proficiency have been indicated to affect the educational achievement of students, including at the tertiary level (Delaney, 2008). Students who have developed expertise with reading and writing will academically achieve better in their school subjects than those who have not. Consequently, a consideration of methods of teaching students to read and to write may help them become more proficient in both skills and enhance their academic achievement, not just in reading and writing but in other subjects as well, especially at the tertiary level. This study therefore assessed the effects of the IRW methods of response to text, activation of background knowledge and response to text + activation of background knowledge on the academic achievement of undergraduates in writing.

### **2.1.6 Reading/writing strategies and academic achievement**

Strategy instruction in reading and writing has been verified as helpful in enhancing accomplishment of learners in acquisition of literacy skills. Experts (Graham and Perin, 2007; Koster, Tribushina, De Yong and Van den Bergh, 2015) all affirm that this contributes a large percentage of the effect sizes of what constitutes the instructional practices that improve students' achievement in reading and writing. Several scholars (Negari, 2011, Parr and Wolloshyn, 2013, Tawalbeh and Al-zuoud, 2013) have also reported the enhancing effect of different teaching techniques on the literacy development of tertiary undergraduates as well as other students. Different types of texts (narrative, expository, argumentative and descriptive) are employed in the integration of instructional methods that are meant to enhance students' reading and writing skills simultaneously. Therefore, using these instructional methods and strategies in this study which made use of narrative and expository texts was a means to change the prevailing non-competence of fresh Nigerian university students in effective use of writing and reading.

### **2.1.7 Gender, writing and reading**

Gender is another pertinent concept in this study. It is the description of the roles played by men and women in society which is different from their socially determined functions as male or female (UN Women/IPS Africa, n.d.). Gender is the cumulative of the cultural and social values, attitudes, practices and uniqueness attached to being male or female (Anyanwu, 2015). Studies in gender have sought to identify and reveal

the disparities and inequalities between the different gender and the effects of these on different areas of society such as education, health, and even business. Boyi (2013) asserts that gender serves as a means of differentiation in the allocation of opportunities or participation in such areas as labour, education, income, amongst others. Gender disparities or inequalities are prevalent in Nigeria, especially in the educational sector. This is evident in the enrolment of children into school where more males are enrolled than females, as well as in admission into tertiary institutions also where the same applies. For example, Fapohunda (2011) describes the participation of females in tertiary education as abysmally low when compared with that of males, while Mukoro (2014) reports that the figures for the feminine gender in the JAMB university entrance examinations was on the decline from 2013 to 2014 while earlier university enrolment figures from 2003 to 2008 were all in favour of males. He laments the socially created difficulties and hurdles which guarantee gender inequality in favour of males in the acquisition of tertiary training in the country. These include marrying girls off at a tender age and compelling them to be out of school in order to have children, as well as leaving the burden of domestic chores to females, all of which ensure that many girls do not attain tertiary education. In the same vein, Oludayo, Popoola, Akanbi and Atayero (2019) also found the same gender inequality in tertiary admissions in Nigeria from 2010 to 2015 all in favour of males.

Gender differences have been found in students' academic performance and achievement. For example, males are said to perform better than females in schools (UNESCO, 2006); males have also been found to boast of greater achievement in the sciences and numerate disciplines while females perform more than males in the humanities (Adeyemi, 2008). Eurydice, (2010) affirms that at all levels of education female students read more than male students. Williams and Takaku (2011) also contend that females perform better than males in composition writing. Anidu (2015) carried out an investigation to assess whether gender and mode of teaching would affect students' retention ability in biology. The results showed that females in a cooperative study setting performed better than males in the same setting whereas males in an individualistic situation attained better results than the females who were in the same setting. Thus, gender differences in academic achievement were considered in this present study to be a moderating variable because being masculine

or feminine constitutes just one out of several variables that could affect academic achievement in language skills.

### **2.1.8 Response to text, writing and reading**

This is another concept pertinent to the study at hand. Response to text is a technique that is grounded in the transactional perspective of the constructivist theory of learning (Rosenblatt, 1978), which sees meaning as a product of what learners have within them as non verbal or mental resources (prior knowledge, experience, personality) prior to when they read what the writer has put down in the text. As Spiegel (1998) posits, it consists of two critical elements, which are: reading and responding. The reader must also take into account the context which informed the writing of the text or where this is not available, provide a context with his/her own background knowledge (Alberta, 2003). The response to text method is therefore a practice in which the reader uses his/her unique personality and experience to construct his/her own meaning from a text and responds, or reacts, to the text in his or her own way through writing. Alberta (2003) points out that response to text is a means through which readers talk to and with themselves in order to react to issues relating to a text; and involves the construction of meaning, interpretation of text, interrelationship of the person who reads with the written material that is to be read, and the environment or situation in which the reading takes place. This enables the reader to handle the text and make evident his/her understanding of it.

Glenn, (2007) posits that response to text exposes the personal reactions, thoughts, feelings and questions a reader has about the events or characters in a text and also enables the learner to think analytically about what s/he is reading. Response to text may take the form of writing an explanation, a poem, satire, or extension of the contents of a text (McMahan, Day and Funk, 1999), or keeping a journal and sometimes, oral discussion (Spiegel, 1998). Students may respond efferently to a text, in which case they will look out for aspects of the text which the teacher will require from them. That is, they will read for facts which may be required of them in tests or examinations. But responding aesthetically to the same text means they will write based on the feelings which the text generates in them without reference to what might be required by the teacher. This method, therefore, is useful for both reading comprehension and writing.



In this study, students were required to respond efferently in writing to set texts. The students were encouraged to explore a given text, react to that text, clarify the reasons for their particular reactions and justify their position on the text. This may engender confidence in them to write freely about their feelings about the text as well as the facts of the text.

### **2.1.9 Activation of background knowledge, writing and reading**

The calling up or remembrance of past knowledge and experiences before a learner starts the task of writing on or reading a particular topic is a method grounded in the schema view of the constructivist theory. It is used by teachers to help recollect the knowledge which learners have about a topic, subject or idea (Strangman and Hall, 2009). Activation of background knowledge is frequently used in teaching comprehension, recall of expository text, and writing (Strangman and Hall, 2009). When students do not have background or prior knowledge on a particular topic or text, reading a trade or historical book or watching a film on the topic may help build up background knowledge on the subject. The teacher can also activate the background knowledge of his/her students by asking them questions connected to the topic, through brainstorming or class discussion on the topic to be read. The writer also uses his/her background knowledge to construct his text, thus this strategy is useful for both reading and writing. Students of the present study were obligated to apply the background information and experience they had about the topics in given texts to carry out the response to text tasks.

### **2.1.10 Verbal ability, writing and reading**

The concept of verbal ability is relevant in this investigation as well. Andrew, Cobb and Giampietro (2005) define it to be the capacity that a person has to put his/her thoughts into oral and written words; ability to know and use a great variety of words to express different shades of meaning and to arrange these words in meaningful ways. Verbal ability shows a person's capacity to speak and write well and can be used as a measure of intelligence. Verbal ability shows the level of linguistic capability of a learner and will therefore determine the learner's ability to write well (Adegbite and Alabi, 2007). Thus verbal ability constitutes a device for evaluating students' writing and reading competences and as such may be used to classify subjects into ability groups. Since the level of ability can affect students' performance in academic tasks or

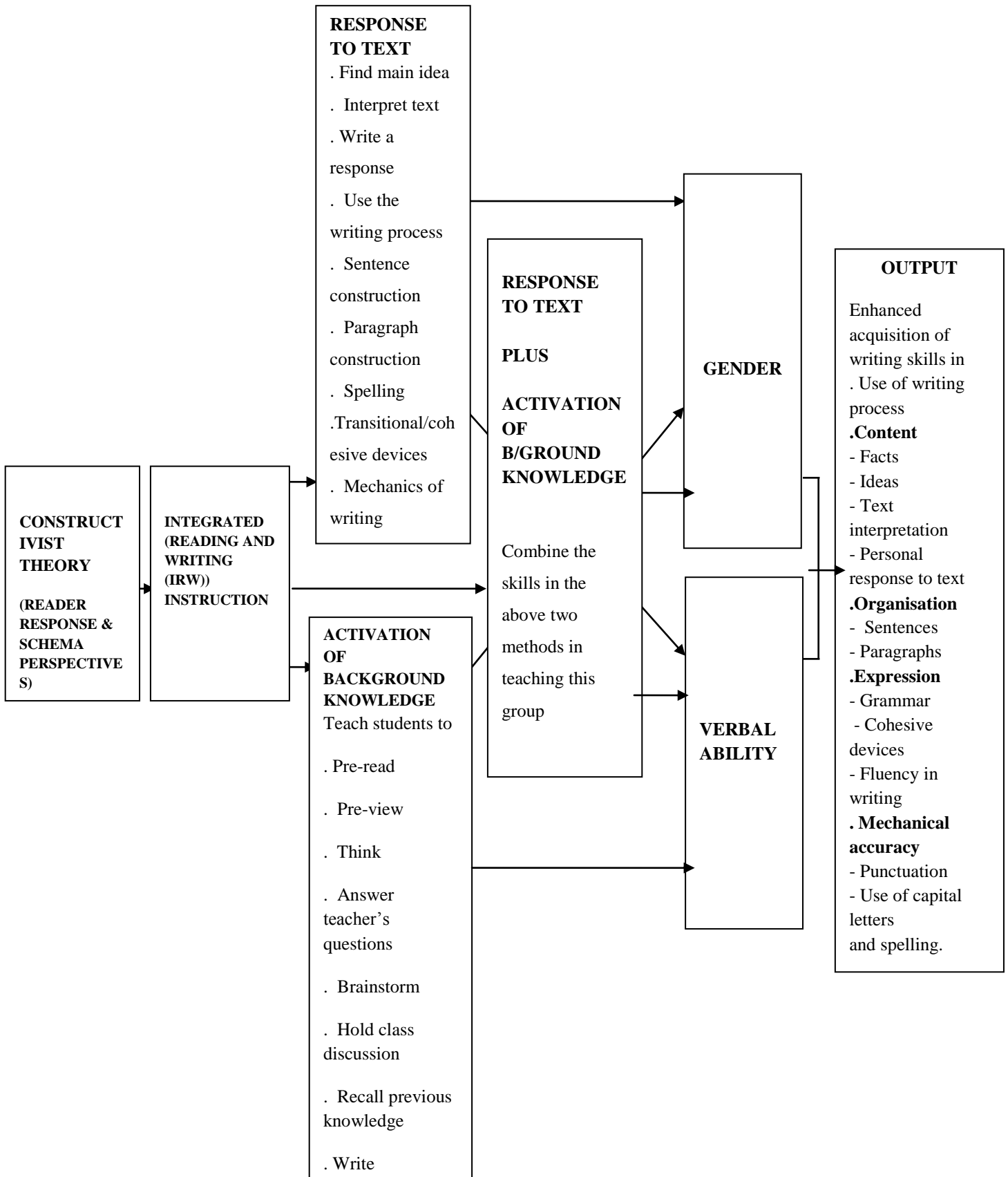
teachers and other workers in their professional tasks, tests of verbal aptitude may be necessary to measure academic ability in programmes of study.

The verbal ability level of learners has been found to affect their achievement in reading and writing. For example, Adegbite and Alabi (2007) found that secondary school students with elevated aptitude for using words achieved significantly improved results in composition writing than average or low ability students. Conversely, Uchemadu and Ogunsola (2016) did not find any relationship between the verbal ability of students and their spelling achievement. In another study on ability grouping, Adodo and Agbayewa (2011) found that secondary school students in a homogenous ability group achieved better in science than those who were in a heterogeneous group, while Andrew, Cobb and Giampietro (2005) found that the verbal aptitude of teachers was a measure of their effectiveness in their professional delivery. Thus verbal ability could take up a crucial role in the academic achievement of learners, especially undergraduates. Verbal ability was therefore utilized as a moderating variable for the current research and was used to describe and classify the subjects into high, average or low ability groups.

### 2.1.11 Conceptual framework

The framework for the concepts in this investigation is diagrammatically given below:

**Fig 2.1: Framework for concepts in the study**



The above framework displays the various concepts that relate to the study and how they connect with one another. This is spelt out in the following section on variables that relate to this investigation.

## **2.2 Empirical review**

This section presents an appraisal of empirical investigations that are associated with this study. The review discusses the following: studies on integrated reading and writing, studies on response to text, writing and reading; studies relating to activation of background knowledge, writing and reading, studies on verbal ability, writing and reading; and studies regarding gender, writing and reading.

### **2.2.1 Empirical Studies on the effects of integrated reading and writing instruction on writing**

Researchers have consistently reported that IRW instruction has facilitative effects on the reading and writing achievement of learners. The following presents empirical evidence of the effect of IRW on the reading and writing achievement of subjects.

Empirical studies have revealed that proficiency in writing and reading English is key determinant of academic performance. For example, Delaney (2008) explored the use of reading to teach writing in relation to reading ability. Subjects (59 whose first language was English, 89 whose first language was not English, made up of 41 males and 89 females) performed tasks of summary and response to texts read. Subjects were recruited from two American universities and from student teachers in Venezuela. One text, selected from a pool of six argumentative passages from magazines and college text books on matters relating to social, business and science issues, was used for the tasks. In the summary task, students summarised the major views expressed by the author. In the response to text task, the students responded to questions about the major views in the passage. The reading level of subjects was ascertained while a writing rubric was used to score their writing. The researcher reported that language proficiency was a factor in the achievement of English as first language and non-first language subjects, and that level of education affected subjects' performance of the tasks. She also found that the ability to read in order to write will manifest differently in learners depending on the task at hand. However, the use of only one text makes it only possible to generalize the results to only genre of text used. Also an element of

familiarity and practice with the text could arise since the two tasks given to subjects made use of the same text.

Fifty-four subjects participated in a study conducted by Zhou and Siriyothin (2009). The investigation lasted for 18 weeks of two 50 minute lecture periods a week. The subjects were divided into two groups; one practiced work on summary writing after reading and the other used journal writing after reading. Eleven texts were read for the duration of the study. Though the researchers were mainly investigating the attitude of the subjects, they concluded that the use of writing to teach reading should be incorporated to teach EFL students because this will positively affect their learning to write and read.

Oyinloye and Gbenedio (2010) studied how the use of integrated instruction which incorporated reading as well as writing would affect the learning outcome and attitude of pupils in senior secondary schools. The six-week, quasi-experiment used 521 pupils from 163 colleges in Kwara as subjects. The study made use of a linguistic input package as well as a writing achievement test as instruments to collect the data. Analysis of Covariance and Scheffe test were used to analyse the data. The results showed that experimental subjects who received the reading-writing treatment attained enhanced results over all other groups

Collins and Madigan (2010), in their two-year study of 1062 fourth and fifth grade (primary school) students from 10 schools in America, investigated how instruction in reading comprehension that used IRW for the treatment category and traditional instruction for the non-treatment category would affect the pupils' performance. Three of the schools were used as control. The study made use of multiple choice questions (MCQ) and think sheets as sources of data. The answers to the MCQ were analysed with hierarchical linear modeling. The researchers discovered that teaching reading with intensive writing positively affected the ability of the treatment subjects to read with understanding and write far above those in the control group. However, the study did not indicate how the students' writings were analysed.

Hamad (2011) explored how IRW instruction would impact writing ability in subjects. The study was a quasi experiment which used already existing groups of undergraduate students as subjects. One class was used for treatment and the other as comparison. Population sampled for study was all male. Reading texts were used as

instrument while scores from students' writing were used as data and analysed with means, standard deviations and t-test. The results showed a distinction between the performance of experimental subjects in the earlier and later tests. Results also showed that the treatment group performed better than the non-treatment group in ability to write and read in a significant manner. The researcher concluded that IRW instruction helped to develop students' skills in writing and language use. However, this particular study made use of only male subjects and cannot be said to present the complete picture of such a study carried out in a tertiary institution.

Emejulu and Chukwu (2012) report a study in which first year undergraduate students were read a short story by the researchers during lecture. The number of students was not given. Students then responded in writing by extending the story in any way they chose. Time allowed for this was 20 minutes. The researchers measured the students' ability to extend the story so as to contain the fundamental gist, to have unity and observe the correct use of grammar, punctuation and capital letters, among other things. Students' writing was graded and their errors identified and discussed by the researchers. The results showed that the students' writings were filled with errors of reference, conjunction and cohesion. The researchers concluded that apart from structural errors, there is a necessity for students to learn how to use cohesion in their writing if they are to communicate effectively. In spite of this, the study made use of just one class session in which students were given 20 minutes to write. Though the exercise seemed to be a sort of initial diagnosis of students' writing problems, the researchers made no mention of what was done to remedy the writing challenges of the students. In addition, the study did not use any experimental design so no statistical analysis could be carried out to measure any effects. However, the study gives credence to the need for a method of instruction which would assist students to develop their writing skills to measure up with what is expected of undergraduates, as well a study design that would make it possible to measure the effects of any instructional method used.

In another study, Li (2014) assessed whether subjects' ability to read and write would affect their ability to summarise passages. Subjects were 64 undergraduate EFL learners. Subjects were divided into two groups. The first four students utilised a think-aloud- protocol during the summarization test and had a one-on-one interview with the researcher immediately after the test. Based on the analysis, a second set of 60 students

filled out a questionnaire immediately the summarization task was over to discover the strategies used by the students when summarizing a text. The think-aloud and interview segments were video recorded and analysed qualitatively. The researcher concluded that reading skills together with writing skills play very important roles in summarization but that writing is more essential for performing this task. Also the general competence of the subjects in the English language was found not to have exerted any significant effect on the use of both reading and writing strategies when summarizing texts. It was also found that participants' reading and writing abilities only made moderate input to their summarization performance. It was also found that subjects' dexterity in writing and reading only affected their ability to summarize averagely. Despite the findings, the small number of subjects who used the think-aloud protocol could limit the range of strategies which were culled from their protocols. Also some of the subjects may not have said aloud all the strategies which they used during the assignments. Therefore there is a need to investigate the use of integrating writing and reading to affect writing generally and not just in summarization.

Pek and Mee (2014) considered whether reading comprehension tasks could affect achievement in writing of undergraduates of a university in Selangor in Malaysia. Using a non-equivalent control group design, 52 students from the Faculties of Computer Science and Information Technology were purposively used as subjects. Twenty-six learners from one faculty constituted the treatment group while other 26 from the other faculty were the control group. The pre-test consisted of an essay which the students wrote in 40 minutes. The experimental group was then given reading comprehension passages and tasks in which they analysed the organization and structure of argumentative essays before they wrote their own essays. These researchers report that candidates in the first group accomplished more than those in the non-treatment group in content, structure, as well as language, making the experimental group have an overall performance far above the control. Despite this result, non-random assignment of subjects into groups could imply subjects may not be similar in all variables that may affect their performance and which could also leave room for competing interpretations from the data; yet the study contributes to the discussion of benefits of IRW instruction.

Jayanti (2014) examined the effects IRW instruction had on ability of students to write. The participants were 87 students from the English department. A group

embedded figure test and a writing test were the instruments. The quasi experimental study which made use of already existing classes of students revealed that the experimental group taught with IRW instruction did not achieve significantly better results in writing than the traditional instruction group. Thus this result contradicts all other studies which found that IRW instruction aids achievement in writing. So this makes it necessary to use the present study to find out whether the use of IRW in a different setting would confirm the findings or yield a different finding.

Ukoha (2015) investigated the impact of writing on the reading competence of adolescents. The quasi-experimental study used 52 junior secondary school students as sample in a two-week study. Using a random sampling procedure, two groups of 26 students, made up of 14 males and 12 females in each group, were assigned as control and experimental subjects. The instruments were reading comprehension passages and verbal aptitude test. The experimental group was given writing assignments in addition to the comprehension lessons while the control group was drilled only in comprehension. The subjects were tested on reading with confidence, with meaning and understanding. The researcher concluded that writing, aptitude, sex and age influenced performance in subjects. The very short duration of two weeks lends little credence to the authenticity of the results since improvements in language competence build up gradually. It is, therefore, important that an extended study be carried out to confirm or refute the result as far as writing and reading are concerned.

Working with National Certificate of Education (NCE) teacher education students, Ndukwe (2015) conducted a study in which a total of 176 students were the subjects. Eighty-eight English/Social studies students were used as the experimental group while 88 English/PES students were the control group. The treatment, IRW instruction, was given to one set of subjects (experimental) and the skill-by-skill instruction to the control. After six weeks, the IRW set was discovered to have excelled far above the skill-by-skill set in their achievement in writing. This study was on student- teachers in the arts and humanities in a middle level tertiary institution, therefore it is pertinent to investigate IRW methods in a university of technology where the students are purely science and technology inclined.

In a bid to explore the relationship that reading has with writing, Lee and Schallert (2016) conducted a year-long experimental study in which 300 junior college students



constituted the subjects. The students were in three treatment conditions – reading, writing, and customary instruction (which was the control group). These treatments were carried out in the groups once a week for a whole session. Pre- and post-tests were conducted on the subjects. The researchers report that all the groups improved significantly in reading comprehension over time but did not significantly differ from each other. But in the writing sub-section, the reading group and the writing group differed significantly from the customary instruction group but did not differ significantly from each other. The study also discovered that all subjects improved over time in reading comprehension regardless of their proficiency in language while only those with advanced competence improved significantly in writing performance over time. Thus the researchers concluded that writing can influence reading and vice versa in students.

Babangida (2016) examined how extensive reading would impact on the summary and essay writing of students who had failed the English language at the WAEC exit examination for senior secondary schools, but who were taking remedial teaching for the subject at the Abubakar Tafawa Balewa University in Bauchi. The quasi-experimental investigation made use of 167 students who were randomly selected and assigned to treatment and non-treatment groups. Extensive reading treatment was given to the experimental group while the control group received no such treatment. Students' scores at the before- and after- treatment tests constituted the data and were analysed with percentages, t-test and ANOVA. The researcher found that students trained with extensive reading achieved far more in summary and essay writing than those who did not receive the training. The study thus added to research on the need to use reading to teach writing and vice versa. Therefore, it is needful to test whether integrating reading and writing instruction for undergraduates of a university of technology would have a positive effect on their writing achievement.

In another study, Esmali (2017) studied the effect that knowledge of subject matter from materials read would have on the writing process and product of adult ESL students' writing and reading in an English language test that made use of reading and writing components. Following a counterbalanced within-subjects design, 34 first year engineering students with medium levels of English ability carried out two reading and writing tasks in two conditions: one when the theme of the reading passage was related to that of the writing task; and the other when the reading passage was not. In addition,

participants answered interview questions and filled out a form to recall the writing strategies which they used when the topic of the writing task was related to the subject matter of the reading task. The results showed that the students improved in their writing when the reading passage was connected to the writing topic. This also obtained in their summary and comprehension outcomes. The study also revealed that the common theme between reading and writing enhanced both the processes and products of students' writing. Thus the connection of reading to writing positively affected students' writing and reading outcomes. However, the small number of subjects in the study would make it difficult to generalize the results of the study.

- **Summary of studies on Integrated Reading and Writing Instruction**

Majority of studies so far reviewed indicate that IRW instruction facilitates the enhancement of writing and reading performance as well as students' achievement in literacy. These studies comprise those conducted within Nigeria and outside Nigeria. Some of the limitations of these studies include the use of small samples, short duration of study, use of a single sex sample as well as inconsistent findings. For example while Delaney and Lee and Schallert (2016) found that language proficiency determines achievement, Li (2014) did not discover any noteworthy outcome of language proficiency on achievement or performance. Conversely, Jayanti (2014) found that integrating reading and writing in instruction did not affect learners' writing ability, thus contradicting a general belief that IRW is effective in aiding writing.

Also most of the studies used argumentative texts for the reading component of the IRW instruction. The few Nigerian studies available in this area used secondary school subjects and those who used tertiary institutions did not use university students or students in science and technology. The lack of studies on university undergraduates majoring in science or technology in Nigeria provided impetus for this current study. This study also used passages that were informational and descriptive for the reading component of this study.

### **2.2.2 Previous studies on response to text, writing and reading**

Reader response strategies have been found to be of benefit to learners of English and as such, different scholars have studied its effects on students. For example, Chung and Lee (2012) used assignment-dependent plus learner reaction-evoking strategies to

consider the effect of teaching on the motivation of subjects in an ESL class. Fifty non-literature major students of a university in Taiwan were the participants in the research. Texts for the treatment consisted of a novel, a picture book variation of the novel, and a film variation of the novel. Written reports (as opposed to oral), summarization, cloze test and work sheets were the instruments of the study. The researchers assigned a chapter each to the research groups. They were then asked to make a list of lexical items from their chapter, write a summary of the chapter, and then make an oral presentation in the class. They were thereafter asked to watch the movie and give a written feedback after which they held class discussions. They were also given essay questions which elicited responses from them; and finally filled out the content knowledge questionnaire and self access form (that elicits the students' knowledge of the facts of the stories they read) which provide the researchers with feedback on the content of the text. A qualitative data analysis showed that students generated multiple interpretations of the text and also enhanced their reasoning capabilities.

In another study, Khatib and Farahian (2013) sought to find out what effects reader response strategies would have on university students' comprehension of short stories, as well as their attitude and motivation. One hundred undergraduates in Iran were subjects of the study. Students' Grade Point Average (of which no benchmark was given by the authors) and performance in a standardized language test were the basis upon which 75 of them were selected for the study. These students constituted two treatment and one comparison group. After a pre-treatment test, the treatment groups were taught for three weeks. The first group read selected short stories at home. When they came to class, they were given a set of tasks (nine questions) meant to elicit their responses to the stories. The second experimental group was taught the use of reading logs in which the students recorded their questions, memories, guesses, reflections, comments, thoughts and feelings, as well as connections they made to the stories. The non-treatment group was taught with conventional instruction whereby instructors gave lectures to students who received information and interpretation of the stories from them. Findings revealed that the second set of students who received the log treatment outperformed the first experimental unit as well as the control. However, the short treatment of three weeks could have been elongated.

Iskhak (2015) conducted an Action Research with his prose class in a private university in Indonesia. The subjects were 36 third year student teachers in the English

Department, purposively selected. Their teacher was the researcher. The qualitative study made use of video taping of activities in the classroom as well as participant observation. Written reflections, response journals, as well as questionnaire administered on the students were also used as sources of data. The resulting data were analysed through reduction and themes development (identifying features of participants' writings which the researcher sees as relevant to what is being investigated while discarding what is not relevant). The results showed that the reader response activities enabled the subjects to develop boldness, courage and self-confidence to participate in classroom activities as well as improve their competence in their reading and writing skills.

Corrigan, Chiad and Echendu (2015) investigated the use of reader response and discovery response by ESL students in three countries. The study used as subjects students from Nigeria, China, and Iraq. Subjects from these three countries read Hemingway's story, *A Day's Wait* and then wrote well organized, personal reader responses to the story. The students' responses were collected by the teacher/researchers from their students in each country and exchanged with the teacher/researchers in the other two countries. These were then given to the students in those countries to read and reflect on the similarities and differences between their own personal response and that of the foreign student whose response they read. They also wrote a "discovery" response on the similarities and differences in the two responses. The students were thereafter informed of which country(ies) the other students wrote from and then a class discussion was held on the questions raised by the students. The teacher/researchers then read both the reader responses and the discovery responses to identify the data that emerged. The results showed that the students got broader and deeper understanding and perspectives from reading students' responses from other countries. They were also able to create multiple interpretations from the same story, and there was no wrong or right interpretation. The researchers report that the study also generated interest and curiosity of the students in their counterparts from the other countries (p.19). This study is relevant to this current study as it confirms the notion that use of texts and instructional methods which engage the interest of students contribute to developing their interest in reading and writing.

- **Summary of studies reviewed on response to text, writing and reading**

This review shows the response to text strategy to be useful as a tool for the enhancement of literacy skills in students. However, some studies used subjects from primary school or very short duration for treatment. Those that used tertiary students are outside the shores of Nigeria, except for Corrigan, Chiad and Echendu (2015) which used Polytechnic students from Nigeria as one part of a triangular study on reader response. Therefore this study examined the use of the response to text strategy in developing the writing skills of Nigerian undergraduate students in a technology based university.

### **2.2.3 Previous studies on activation of background knowledge, writing and reading**

Background knowledge has been found to enhance reading and writing efficiency in ESL/ EFL classrooms. For example, a study conducted by Najmeh (2012) investigated if stimulating students' previous knowledge would affect their understanding of materials that discuss cultural activities. Undergraduates of English/Literature/TEFL in a university in Iran were respondents. Thirty-five students served as the experimental group while 41 others served as the control group. Pre-reading activities were used twice as treatment on the experimental group to help them relate the text to their background knowledge. The control subjects received no treatment. The instrument used for the study was a text on the origin and customs of Halloween, a cultural festival that was different from the cultural background of the subjects. The text was used both for the before-treatment and after-treatment tests. The posttest took place two weeks after treatment. The researcher concluded there was a noticeable improvement of the experimental group's comprehension of the cultural text, over and above that of the control group.

Davaei and Talebinezhad (2012) investigated, among others, whether activating background knowledge would impact performance of students' in comprehension. The subjects were allocated into three groups (two experimental, one control). The Nelson English Proficiency Test and a reading passage were the instruments used for the study. Two treatments (using questions to stimulate background knowledge; and making students to listen as someone reading) were effected on the experimental groups after pre-test. The outcome indicated a superior performance of students treated

with activation of prior knowledge. Thus the researchers concluded that activating prior knowledge enhances understanding of text to be read.

Oyinloye and Popoola (2013) conducted a quasi-experimental study using 260 students from junior secondary schools in Ekiti State. The participants were selected using stratified random sampling. The study which lasted for six weeks used an achievement test in English based on multiple choice questions as instrument for the English segment of the study. The experimental group was treated with strategies to activate students' prior knowledge. Students' scores were used as data and subjected to t-test. The researchers found that the treatment group made greater gains in the English language than the non-treatment group.

Kulo and Omulando (2014) conducted a study in the Kisumu North County of Kenya. The subjects of the study were 256 secondary school students who were in form three in 16 secondary schools in the county. The study investigated whether students used reading strategies and whether they activated background knowledge in the course of reading in order to comprehend what they read. Researchers collected data through questionnaire and by observing lessons. One lesson was observed in each of the 16 schools. Frequency counts and percentages were the method of data analysis. The results revealed that the students did not use appropriate reading strategies and as such did not activate background knowledge. Hence comprehension was not effective.

In a related study, Jahwari and Al-Humaidi (2015) sought to elicit teachers' views on the place of previous knowledge in students' understanding of texts read, the types of techniques employed by teachers to stimulate background knowledge in their students, as well as limitations they experience in doing this. Two hundred and seventeen EFL teachers in Oman (129 females and 88 males) made up the study sample. Thirty teachers were observed in their classrooms as they taught their students. Questionnaire, observation checklist and interview were study instruments. The researchers report that teachers in Oman indicate that sufficient previous knowledge enables students to comprehend better and recall information as well as carry out other tasks associated with their classroom learning. In classifying instructional strategies for the activation of prior knowledge, the teachers listed the use of class discussion as very important. The researchers also reported that brainstorming, questioning, class discussion and use of audio-visuals were the most frequently used strategies in classrooms which they

observed. They also observed that insufficient knowledge of method of activation was a major handicap on the part of the teachers. Thus the use of activation of background knowledge has been confirmed as very germane to students' understanding of passages read.

In a similar exploration, Alhaisoni (2017) investigated the perception of lecturers regarding the value of previous knowledge in enabling students understand reading passages. He also investigated methods teachers use to provoke previous knowledge, as well as problems experienced by them as they activate students' prior knowledge. The subjects were 83 teachers made up of 44 males and 39 females, who answered the questionnaire. Twenty-three of them were observed during lessons. All respondents lecture pre-degree students in a Saudi university. Questionnaire and observation were the instruments used to collect data for the study. The researcher reports that the teachers strongly believed that activation of background knowledge positively affected students' comprehension and recall of information; they also observed that the use of activation of background knowledge did not help those deficient in knowledge of the language. Discussion, signal words and brainstorming were indicated as critical tools to recall prior knowledge in students by the teachers. The researcher also observed that brainstorming, use of audio visual aids, questioning and class discussion were the most frequently used strategies of activating background knowledge in classrooms in Saudi Arabia while the greatest challenge in using the method was the lack of reading on the part of students.

Oyinloye and Ajayi (2018) also investigated if the activation of background knowledge would affect the English language achievement of junior secondary school students in Ekiti State. The quasi-experimental study which lasted nine weeks used a sample of 160 students who were assigned to three experimental groups and one control. A 50 question instrument was developed to stimulate prior knowledge in the students while brain storming, semantic mapping and KWL were used as treatment on the experimental groups. Students' scores were used as data which were analysed with bar graphs and ANCOVA. The researchers report a greater achievement in English by the experimental groups above the control group. They also advised that different strategies be used for different pupils since only one or two strategies cannot suit all students in order to improve their performance and achievement. Therefore a different

set of methods and strategies were used for tertiary students in a university of technology.

### **Summary of studies on activation of background knowledge**

Some of the studies reviewed under this section endorse the merit of stimulating prior knowledge of students to improve their insight into the meaning of passages read, while others discovered nothing advantageous in using background knowledge for recall of concepts. Majority of the investigations concentrated on comprehension and so did not address writing since the questions used during the studies were mainly multiple-choice. Others used questionnaire administration on teachers and observation of their classrooms to find out the strategies they used in activating background knowledge. Still some of the studies used very short duration for the treatment on subjects. Those that used university or tertiary students as subjects are outside the shores of Nigeria. Therefore, this study filled the gap by using the activation of background knowledge method as one of the methods to examine the effects of IRW instructional methods on the writing of Nigerian undergraduate students.

#### **2.2.4 Empirical studies on gender, writing and reading**

Gender differences have been found to occur in academic settings, especially in reading and writing achievement. For example, Adegite & Alabi (2007) considered if verbal ability would affect achievement of secondary school subjects in writing. They discovered that performance of boys and girls as both low and high verbal ability candidates did not differ. For both sexes, increase in verbal ability equated increase in performance.

In another study, Adeyemi (2008) studied the gender differences in composition writing using secondary school students in Botswana as subjects. She wanted to know whether there would be significant dissimilarity in achievement of subjects using individual and cooperative composition writing based on gender. Results showed that females gained better achievement scores than males on both counts.

Gathumbi (2009) carried out an investigation to ascertain the levels at which primary school pupils in Kenya could write or read. A sample of 7253 pupils was selected through random and purposive selection. Various reading and writing sub-skills were tested, including comprehension, skimming, accurate recall, grasping information, as



well as relating pieces of information in writing. This was done by use of 12 questions which elicited the above sub-skills. Maximum score available was 36 while the minimum was zero. Three competency levels were achievable: the required level, the minimum level, and those who failed. Data were analysed using percentages. Of all the subjects who were tested, 22 (seven girls and 17 boys) scored maximum while three (one girl and two boys) failed. Overall, girls performed slightly better than boys at the required level in all the provinces of Kenya except in the north, but more boys than girls scored 36, the highest score achieved.

In a study conducted in Kogi State of Nigeria, Muodumogu and Unwaha (2013) used the mini lesson strategy to investigate the essay writing achievement of SS 11 students. Three hundred and forty-two students in eight intact classes in four schools were used as subjects through a non-random sampling procedure that shared them in treatment and non-treatment groups. The researchers report that boys and girls performed at the same level and gender had no appreciable impact on performance in writing.

In another study, Olajide (2013) used the integrated approach to writing instruction to measure writing achievement of students in the polytechnic. One hundred and fifty students (90 males and 60 females) were chosen as participants through random selection. An achievement test and log containing topics as guide to teachers as well as a rubric for scoring students' writing constituted the instruments for the study. Scores from students writing made up the data which were analysed with ANCOVA. Results indicated that gender did not have any appreciable effect on performance as both sexes were on the same level of accomplishment.

Okonkwo (2015) studied how students in a collaborative setting would be affected by gender in their composition writing. One hundred and ninety one students from four co-educational secondary schools in Abakaliki, Ebonyi State, Nigeria, made up the sample. Students from two schools were selected as experimental while those from the other two were the control. The experimental students were taught with the collaborative instructional package while the others were taught with conventional method. Other instructors in the schools acted as research assistants and the treatment period was for six weeks. An achievement test was used as instrument while students' scores made up the data which were analysed with statistical correlation. The researcher reports, among other things, that boys in the treatment group attained higher

grades than girls in the same group, while girls in that same group beat the boys in the control group. Girls in the control group also performed better than boys in the same group. In general, the performance was not significant.

Ladipo and Gbotosho (2015) examined whether gender had any bearing on the achievement and habits in reading of medical students in the University of Ibadan. The survey design was adopted while the questionnaire was used as instrument for collection of data. The sample was 429 students selected randomly. Data was analysed with mean and standard deviation as well as correlation. Results revealed that male students achieved more than females but there was no difference in the reading habits of participants.

Al Khamisi, Al Bawani, Al Meklafi & Osman (2016) in their study of EFL students, sought to find out if there was a difference between the achievement in reading of male and female students in elementary and secondary schools in Oman, amongst other things. The study which lasted for six weeks employed questionnaire to collect data from a total of sample of subjects made up of 323 girls and 313 boys. A reading achievement test was used for the reading segment of the study. Data was analysed by t-tests, regression and correlation. The researchers found that girls had greater achievement in reading than boys with mean performance in favour of the females against the males.

In a similar study, Anggraini (2016) sought to find out if gender would make a distinction in the achievement in writing of 110 undergraduates (55 males and 55 females) who were purposively chosen for the study. Scores from students' essays formed data which were analysed with t-test, means and standard deviation. Results showed that being male or female did not play any major role in the writing achievement of subjects. Indeed, the male subjects' achievement excelled above that of females, thus upturning the wide-spread belief that females generally perform better than males in literacy skills.

Etim (2019) sought to understand whether there was a relationship between gender and teachers' instruction in argumentative essays in secondary schools. Sample for the study was 100 teachers of English language from south of Nigeria. A questionnaire was the instrument for collecting data. Analysis of data was done by frequency counts and percentages. The researcher found that there was a connection between gender and

teaching of argumentative writing as more males than females taught it, amongst other findings.

- **Summary of studies on gender, writing and reading**

The studies reviewed indicate there are inconsistencies in the performance of both gender in reading and writing. While some studies report that males perform better than females, others report that the females perform better than the males, while yet others report that achievement and gender have no noteworthy correlation. Nevertheless, the studies show that gender is an important variable that could influence performance and achievement of learners in reading and writing. This study therefore sought to find out if gender would correlate with achievement of first year university undergraduates.

### **2.2.5 Empirical studies on verbal ability, writing and reading**

Verbal ability is a factor which scholars have considered necessary for proficiency in literacy and other fields of endeavour. Though studies on it have not been too many, those available confirm the above position. For instance, Olatoye and Aderogba (2011) found in their study of secondary school (SS II) students in Ogun State of Nigeria that verbal ability was an important issue in participants' attainments in aptitude tests because individuals who possessed the capacity to use words improved significantly in the tests than those who did not.

Adodo and Agbayewa (2011), in a quasi-experimental study with 60 junior secondary school students purposively selected, investigated whether participants would achieve better in science when they are grouped with those who have similar or dissimilar verbal ability as themselves. Students were allotted to three verbal ability groups: high, average and low. To ascertain if verbal ability affected the subjects, 10 students from each ability group were purposively chosen and a homogenous group was placed in one school while a heterogeneous group was placed in the other school. Data was analysed using mean, standard deviation, and t-test. Results showed that homogenous verbal ability grouping enhanced students' learning.

Muodumogu and Unwaha (2013), cited above, ascertained the verbal ability groups of their respondents (senior secondary school students) through the use of the Australian Council for Educational Research (ACER) standardized test. The results indicate that

medium and low ability subjects performed better than those with high ability. Also the distinction between the high and low groups in writing ability was significant.

Jele, Drummond and Selvaratnam (2015) investigated the verbal ability and use of language skills of students studying a four year Bachelor of Science course in a university in South Africa. In order to identify the aspects of language and verbal reasoning which the students found challenging, the researchers developed a 14 question document which tested the students understanding and use of non-specialised English words in chemistry. A questionnaire was also used to elicit verbal ability level of students. Data were analysed with percentages. The findings show that many of the students had poor verbal and language skills which made learning challenging for them in their chosen course. They concluded that poor verbal ability and weak English language skills negatively affected the students' academic performance. Thus this confirms the need to use appropriate instructional methods to help students, especially those in science and technology, to improve their language and verbal reasoning skills in order to improve performance.

Several studies on verbal ability and how it affects writing have been reviewed. It is pertinent that though they indicate the influence of verbal ability on the achievement of students, none of the studies reviewed dealt with undergraduate students of Nigerian universities. Most of the studies investigated secondary school students. The only one that dealt with university students was carried out in South Africa. The present study for which this review was carried out therefore explored whether verbal ability would have any relationship with writing achievement of fresh Nigerian university learners who are studying science and technology courses.

## **2.3 Theoretical framework**

This segment looks at theories that have influenced instruction in reading and writing in the past. It also reviews the theory undergirding this study.

### **2.3.1 Theories that have influenced reading and writing instruction**

Scholars have identified three major learning theories which have been applied to reading and writing instruction over the years. These include behaviourism, cognitivism and constructivism. Pham (2011) points out that behaviourism (Skinner, 1974) assumes that alteration of conduct or action can be termed as learning since

human mental activities cannot be physically examined; and because behaviour (which is equated with response) can be formed through careful fortification or emphasis (which produces stimulus), behaviourism was seen as a stimulus-response model. Stimulus produced response which engendered incentive or reprimand. Reyhner (2008) notes that the era of behaviourism encouraged the teaching of writing and reading as the transmission of meaning from the teacher to the learner. Students were seen as passive receivers of knowledge and therefore contributed little or nothing to the learning process. The teaching of skills and sounds were emphasized and instruction revolved around the teacher who controlled the class. It saw reading as the capacity to simply write and read, involving teaching skills on how words can be interpreted, and these were all taught in an unrelated manner, with emphasis on memorization as well as repeated exercise and practice. Serafini (2003) also reveals that meaning resided in the written passage which could be retrieved by way of careful reading and scrutiny of the text by expert readers such as professors of literature who could say which was the correct interpretation of the text. As Raphael and Hiebert (2013) also point out, writing was seen as a product and instruction was on good sentence construction, verb tense, punctuation and editing. They also note that the reader's previous knowledge, experience, and intentions for reading the text, or the social and cultural activities which take place around the reading of the text, were not taken into consideration. Criticism of the shortcomings of this theory gave rise to cognitivism.

The cognitive perspective consists of several views, including information processing, memory and meta-cognition, amongst others. This perspective concentrates on the mental goings-on that take place within the learner/reader/writer and which enable him/her to understand what is read. It deals with the identification of signals and the making sense of these signals by the learner and holds that the brain has a major responsibility in the sorting and classifying of previous experiences which enable the learner to understand new information. This theory assumes that people participate actively in learning and therefore the learner/reader is not seen as passive. The learner is in control of the reading or writing experience because s/he thinks about and acts on it. Calfee and Nelson-Barber (1991), therefore, see the human memory as a central resource without which learning cannot occur. Thus the information processing view by Rumelhart, (1977) emphasizes the role of memory and perception in obtaining fresh experience and knowledge since the learner uses his/her mental activities to create new

experience and meaning. McCarthy and Raphael (1989) point out that this model distinguishes the differences between proficient and inexperienced readers and writers without addressing “how” the inexperienced learner can become more knowledgeable and proficient. It is also described as linear because it sees reading and writing as a succession of step by step activities.

With regard to instruction in writing, Barber (2013) posits that writing, in the cognitive perspective, is seen as the result of personal intellectual endeavour which is deliberate, while Smith (1988) and Flower and Hayes (1981) see it as relative to context and goal driven, respectively. Turbill, (2002) posits that the mechanistic/behaviourist period (in which learning was passive and based on external stimuli) and the cognitivist period (in which learning was learner centred and mental based while writing and reading were seen to be different and unconnected) gave rise to the era of the reading-writing connection which saw reading as parallel to writing because both deal with meaning from and into the written text. He also asserts that this period saw the teaching of reading strategies and the writing process in which readers were influenced to read and write an array of genres for various purposes, and learners were encouraged to bring their background knowledge to their reading and writing, to read for the gist of the passage, examine written texts as models, and understand the writing process, as well as write extensively.

The strength of the cognitive theory is based on the fact that writing and reading are considered practices that are interactive whereby the learner is not passive but is actively engaged in the making of meaning through remembering, blending and appraising new knowledge and experience against old ones in order to create new meaning, and these all take place through the thinking process. It is significant to note that the cognitive perspective failed to take cognizance of the social and cultural atmosphere in which the reading activity takes place as part of the making of meaning. Barber (2013) also observes that it seems to be over-reliant on how the mind works and on the premise that the schema theory can be applied to all students. Nevertheless, aspects of cognitivism are relevant to this study since the activation of background knowledge deals with memory and other mental processes that give rise to writing and reading. The theory also relates to the reader response method which makes students to be active and participate in their own learning.

### **2.3.2 Constructivism**

The constructivist theory consists of the transactional/reader response, socio-cultural and schema perspectives of reading (Tracey and Morrow, 2012). The transactional perspective (Rosenblatt, 1978) centres on personal experience as key to a person's understanding of his/her environment. The basic assumptions of this perspective include that the learner interacts with the text to generate meaning and this meaning is based on a combination of the personal attributes of the learner which intermingle with the text to produce a unique meaning of that text that is personal to the individual learner; and that an efferent or aesthetic stance could be taken based on what a person is reading or writing, and/or why he is reading or writing it.. Hence the learner interprets new experiences based on and in relation with previous experience. Emphasis is keyed on the reader's responsibility to make meaning from a written passage using his/her prior knowledge and experience and personal attributes. Thus a particular occurrence or text can have as many interpretations as there are readers. This is because each individual has a peculiar experience and personality that is exclusively and uniquely their own. Therefore, in reading/writing instruction, the totality of the learner's attributes, personality, knowledge and experience is connected to the present experience to generate meaning and the learner learns to read/write by hands-on practice of reading, writing and thinking. The shortcomings of this theory are its over-emphasis on the reader and lesser emphasis on the text as well as its non-emphasis on the social and cultural environment in which reading and writing take place.

The socio-cultural perspective (Vygotsky, 1978) extends the transactional theory by positing that social and cultural factors are inextricably intertwined with cognitive factors in the creation of meaning, and that social relationships are as important as the mental activities that take place during the making of meaning from or in a text. McCarthy and Raphael (1989) therefore believe that the social and cultural background of individuals will determine how they build meaning from or in a text since the reader, the passage being read and the classroom community all contribute to the making of meaning. McLeod (2019) posits that the more experienced members of the community such as teachers, parents or even class mates are important channels of learning to read or write by helping the child to achieve what he/she could not achieve if left to him/herself. The key strength of this theoretical perspective is its attention on the reader's experience, the social background and cultural environment where the

learner reads or writes. But its major drawback is its non-emphasis on the mental, psychological and linguistic courses of action that take place in the reader's mind (Goodman, 1988).

The schema perspective is based on Bruner's (1966), and Rumelhart's, (1980) cognitive constructivism which asserts that the internal organization of information in the learner's brain enables him/her to use the present and prior knowledge to understand new experiences. These knowledge and experiences are filed in the brain and help the understanding of learners when faced with experiences related to what is already in the mental files. Like Vygotsky, Bruner introduced the scaffolding principle in which learners are given support by their teachers but as they grasp the lesson, the support is gradually withdrawn until they can stand on their own.

The fast developments and innovation in computer and information and communication technology have made reading and writing not just to be in print but to include hypertext, word, sound, movement, colour and visual graphics (Walsh, 2010). This has given rise to the age of multi or new literacies.

This study is grounded in the cognitive (Bruner, 1966; Rumelhart, 1980) and reader response (Rosenblatt, 1978) perspectives of the constructivism theory which see reading, writing, and meaning making as products of the internal mental storage of previous knowledge and experience, as well as the interaction between the reader and the passage before him or her

### **2.3.3 The reader response perspective**

This view of the constructivist theory which is based on the transactional perspective was advanced by Louise Rosenblatt in 1978. The main assumption of this outlook is that meaning is created through the transaction of the reader with the written passage before him. According to Karolides (2000), the reader and the text are given equal emphasis during the creation of meaning and the meaning of a text comes alive when the reader interacts with the written passage. He comes to read the passage with the totality of information at his disposal, his personality and know-how which bear on the text to produce the meaning. Dobie (2012) explains that the unique personality, feelings and experience that each reader brings to interact with the text produces as many meanings as there are readers. A rereading of a text by the same reader may even



produce a different interpretation of the same text. Morrow and Gambrell (2003) argue that meaning is therefore personal and unique to the reader and therefore, different readers will get different meanings from one particular passage and a text will have as many interpretations as there are readers; and therefore no one interpretation of a text can be said to be the right or correct one. Karolides argues that a text can only be in existence and have meaning not because it has been written by the author but because there is a reader who transacts with the text. Dobie sees the interaction as what causes the reader to call up the cultural values and experiences which help him/her make connection with the text. It is this personal connection with the text that generates the meaning for the reader.

The transaction which a reader has with the written passage may be either efferent (i.e. he reads to get ideas) or aesthetic (the reader reads for feeling or pleasure) (Rosenblatt 1978; Spiegel, 1998), and a reader's stance while reading a particular text can move on a continuum from efferent to aesthetic or vice versa (Rosenblatt, 1978). In other words, while reading a particular text, the reader may focus on getting information from that text at one point and/or may focus on the feeling that the text generates in him/her at another point within the same reading event. Prather (2001) points out that efferent teaching makes the student focus on getting out information which s/he thinks the teacher is likely to require. Thus the student concentrates on passing a test or examination and ignores any other information which is not expected to add to this. But aesthetic teaching makes the students to experience the reading in their own peculiar and unique ways based on the knowledge and experience, and the emotional response which the text produces in them. Their interpretation is uniquely theirs and no two interpretations can be the same.

Nevertheless, there have been criticisms and objections by scholars with regard to the reader response theory. For example, Dobie (2012) argues that the meaning constructed by the reader may be subjective and that the many meanings that a text will have may not give room for shared experience and intellectual discussion on the text. Dobie affirms that though this position may be countered by the fact that proponents of the theory assume that readers bring to their reading a shared set of conventions or literary proficiency (and therefore know what signals they should find and how to use them to interpret the text), this position does not take cognizance of the

novice learner who has no idea of literary conventions and who is anything but proficient.

This perspective is relevant to this study and participants were not bound in their readings to find a correct interpretation of any given text but were free to use their individual experiences as a tool that would help them interpret the materials before them. They were expected to make connections between their experiences and the texts. Yet their interpretations were expected to be bound by focus on the strategies used to extract meaning from texts (Dobie 2012). The subjects' responses to texts would be uniquely theirs but would not be unconnected with the texts or the structure and elements of such texts. Their responses to the texts formed the subject of the writing tasks which were given to them.

The reader response perspective of the constructivist theory has been applied to instruction in writing (Alberta, 2012). This is because it enables students to use their own personality, experience and knowledge as a basis to exercise in writing their own interpretation of the texts they have read and to apply the strategies they have learnt in writing tasks that have personal relevance and use for them. Thus, learners respond to real life issues discussed in texts, making their own contributions to on-going discussions, hence being motivated to write.

#### **2.3.4 The schema perspective**

The schema perspective of the constructivist theory (Anderson, 1977) asserts that knowledge is mentally organized in compartments or slots which are related to one another and these have a critical bearing on the making of meaning. This schema premise of learning was introduced by Bartlett in 1932 (Brewer, 2000). Marvin Minsky, a computer scientist, built on this in the 1970s while David Rumelhart, a cognitive psychologist, turned this into an extant theory of mental representation of knowledge. This was extended to the area of education by Jerome Bruner in 1966 and to reading by Richard Anderson in 1977.

The major assumptions of the schema viewpoint are that individuals – readers/writers/learners – store information, knowledge or schema (plural- schemata) in their minds (Rumelhart, 1980). The way earlier knowledge or information is organized and stored will have a bearing, whether positive or negative, on the learning

and storing of new information. Strangman and Hall (2009) indicate that all knowledge (old and new) is organized in the mind in files that are related to one another by association, categories or arrangement. Therefore, the learners who have files of old knowledge (schemata) that are related to new knowledge to be learned will more easily understand and retain the new information. So the activation of old schemata or the building of schemata relating to a new subject to be learned by students will enable them relate the new material to what they have experienced in the past, thereby facilitating comprehension (Smith, 1982). Bruner (1966) assumed that learners build new meaning based on their present and past knowledge and experiences which are stored in their brain, and that they apply these knowledge and experiences to circumstances that they are confronted with.

The schema theory assumes that all learners of reading or writing have previous information and encounters which they incorporate into the task of reading and/or writing. This previous experience/background or prior knowledge combines with the ideas written by the author to generate meaning. Thus a reader generates meaning from a text and a writer generates meaning in a passage that s/he is writing. This means that the more familiar a learner is with a topic to be read or written about, the better he/she will understand or write it. Thus Anson, Bommarito and Deuser (1983) believe that writers utilize prior knowledge as a device to warehouse, manage, recover and manipulate information and experience. Bruner's scaffolding concept comes into play when learners are supported to build up or recall background knowledge through questioning, brainstorming and other such activities by the teacher. Thus this perspective of the constructivist theory is very relevant to the study at hand.

Schemata are constantly in a state of change because each new experience by an individual affects the schemata which are already in existence. Rumelhart and Norman (1981a) list accretion, tuning and restructuring as the major ways to accumulate or build up background knowledge or schemata. Accretion is the normal means of adding new information to the files of already existing information without any alteration of the current schemata. Tuning alters the current schemata in order to make adjustment for the new information to be added, while restructuring takes place when the already existing schemata is re-arranged to make meaning of the new information or experience.

However, in spite of the popularity enjoyed by the schema theory, there are limitations pointed out by scholars. For example, Stott (2000) indicates that certain strategies used to activate background knowledge of students, such as creating of context to situate a text where such is not originally given, do not always activate background knowledge or enhance comprehension. Strangman and Hall (2004) affirm that learners may have wrong or inaccurate ideas about a topic and in that case, the activation of their prior knowledge may not be helpful; and when the memory fails or the schemata are forgotten, the learner replaces them with his/her own invention. Teachers may also focus on schema activation activities to the neglect of attention to facts or particulars in a text and this may hinder understanding. Therefore the theory is relevant to this study because subjects will recall previous experiences that relate to the texts under consideration and apply them to the task at hand.

This perspective has been utilised in writing instruction because of the relevance of background knowledge which, as indicated by Dean, Odendahl, Quinlan, Fowles, Welsh and Bivens-Tatum (2008), is very important in any writing assignment because it helps the writer to organize his/her work in a consistent manner. As they indicate, prior knowledge of a particular genre or subject matter, as well as of words or structure peculiar to that genre, will positively help the learner to properly organise a text and to write with ease and fluency. Thus students' prior knowledge will be of immense benefit to them in the organization of their writing. Also assisting students to build or activate their background knowledge of texts or topics to be written about will constitute scaffolding as posited by Bruner (1966).

## **CHAPTER THREE**

### **METHODOLOGY**

This chapter presents the steps which the researcher took in order to get to the final results. These steps are the research methodology used for the study. The details are outlined as follow: Research design, variables of the study, population of the study, sample size and sampling technique. Others are research instruments, validity and Reliability of the instruments, treatment procedure, pilot study, method of data collection and method of data analysis.

#### **3.1 Research design**

This study adopted the pretest, posttest, control group quasi-experimental 4 x 2 x 3 factorial design and survey. This became important given that the researcher was manipulating some variables and methods to see if there would be changes in the variable being measured. The design enabled the researcher to compare intact groups since random assignment was not feasible because the time-table for the classes in the whole university had been approved and implemented (Aussems, Boosma and Snijders, 2009). Although random assignment of individual participants could have strengthened the internal validity of this research, it was not possible to use it in this study because and allocation of lecturers to their courses and departments had already been made by the university authorities and it was not possible for the researcher to change the schedules of particular departments. This choice of the quasi experimental design is in consonance with practice by other scholars who assert that in cases where it is impossible to disrupt the already made schedules in educational institutions, the researcher's best option is to use the quasi-experimental design with non-randomised intact groups (Farroki and Mamoudi-Hamidabad, 2012). They affirm that the quasi-experimental design is an effective alternative when a proper experimental design is not practicable. Further, similar studies that measured the impact of instructional methods on writing and reading have employed quasi-experimental group designs. Above all, the design was necessary for the current investigation because some variables and methods which would systematically lead to some observable effects on

the writing skills of the subjects were being manipulated. This attests to the appropriateness of this design for this study. In this design, four whole first year classes from four different faculties comprising the Schools of Health Technology (Public Health), Biological Sciences (Biology), Science (Statistics) and Engineering (Polymer and Textile Engineering), who registered for the Use of English course, participated in the study. The faculties were chosen as experimental (three groups) or Control (one group) by random assignment. Two of the experimental groups were each treated with only one of the methods (response to text strategy (RT) or activation of background knowledge strategy (ABK)) while the third experimental group (RTABK) was exposed to the two methods. The control group was not treated with any of the methods. All the groups were administered both the pre-test and post-test. The pre-test was used as a covariate to control for any selection threat to validity.

This is represented below as follows:

$E_1: \quad R \quad O_1 \quad X_1 \quad O_1$

$E_2: \quad R \quad O_2 \quad X_2 \quad O_2$

$E_3: \quad R \quad O_3 \quad X_3 \quad O_3$

$C_4 \quad - \quad O_4 \quad N \quad O_4$

Where

$O_1 =$  Pre-test and post-test observations for the experimental group 1

$O_2 =$  Pre-test and post-test observations for the experimental group 2

$O_3 =$  Pre-test and post-test observations for the experimental group 3

$O_4 =$  Pre-test and post-test observations for the control group

$X_1$  (treatment 1) = (IRW instruction using response to text method + text)

$X_2$  (treatment 2) = (IRW instruction using Activation of background knowledge + text)

$X_3$  (treatment 3) = (IRW instruction using both response to text and activation of background knowledge + text)

N = (Traditional instruction using none of the above methods but text only)

E1 = Experimental group 1

E2 = Experimental group 2

E3 = Experimental group 3

C = Control group

R = Random selection of intact groups

A 4 x 2 x 3 factorial design was used for the study and this is presented below:

Table 3.1: Factorial Matrix of study

<b>Treatments</b>			
	<b>Verbal Ability</b>	<b>Gender</b>	
		<b>Male</b>	<b>Female</b>
T 1: Response to text strategy	High		
	Average		
	Low		
T 2: Activation of background knowledge strategy	High		
	Average		
	Low		
T 3: Response to text + Activation of background knowledge strategy	High		
	Average		
	Low		
C 4: Conventional method	High		
	Average		
	Low		



Table 3.1 displays the 4 x 2 x 3 factorial matrix used for the study. It shows that the Independent variables, which are the instructional treatments given to the experimental participants, which are (T1= response to text, T2 = activation of background knowledge, and T3 = response to text + activation of background knowledge) plus the control (C4 = conventional instruction). The two moderator variables are gender and verbal ability. Gender is at two levels (male and female) while verbal ability is at three levels (high, average and low). The two levels of gender must interact with each level of the treatment as well as the control. The three levels of verbal ability must also have to interact with the three levels of treatment and the control, as well as with the two levels of gender. Thus we have 24 cells showing the different possible interactions among the different variables used in the study. These interactions are shown more explicitly in the table below.

Table 3.2 : Variables interaction.

	<b>Male</b>	<b>Female</b>
Response to Text	T1 +S1+V1	T1 + S2 + V1
	T1 + S1 +V2	T1 + S2 + V2
	T1 + S1 + V3	T1 + S2 + V3
Activation of Backgd. Kn.	T2 + S1 + V1	T2 + S2 + V1
	T2 + S1 + V2	T2 + S2 +V2
	T2 + S1 + V3	T2 + S2 + V3
Resp. to Text + Activ. of B/Kn.	T3 + S1 +V1	T3 + S2 + V1
	T3 + S1 + V2	T3 + S2 + V2
	T3 + S1 + V3	T3 + S2 + V3
Conventional Instruction	C4 + S1 + V1	C4 + S2 + V1
	C4 + S1 + V2	C4 + S2 + V2
	C4 + S1 + V3	C4 + S2 + V3

**Key:**

- T1 - IRW instruction using response to text method
- T2 - IRW instruction using activation of background knowledge method
- T3 - IRW instruction using response to text + activation of background knowledge methods
- C4 - Conventional instruction
- S1 - Male
- S2 - Female
- V1 - High verbal ability
- V2 - Average verbal ability
- V3 - Low verbal ability

This matrix above shows the independent variables and the full range of the conditions in the study. This has the advantage of showing the interaction effect of the dependent and moderator variables (achievement in writing, gender and verbal ability) and the independent variables (the integrated reading and writing methods of response to text, activation of background knowledge and response to text plus activation of background knowledge, as well as conventional instruction). The survey method was also used in addition.

### **3.2 Variables of the study**

The following variables were examined in this study.

1. **The independent variables:** these are the integrated reading and writing instructional methods of
  - Response to Text
  - Activation of Background Knowledge , and
  - Response to text + activation of background knowledge
  - Plus
  - Conventional Instructional method

The integrated reading and writing instructional methods are three in all and were used to instruct the experimental groups. The first method is the response to text which was used for the first experimental group. The second method is the activation of background knowledge method which was administered on the second experimental group, and the third is a combination of the above two methods (response to text + activation of background knowledge) which was administered on the third experimental group. Conventional method was used to teach the control group.

2. **The moderator variables**

- i. Verbal ability (High, Average and Low)
- ii. Gender (Male and Female)

There were two moderator variables in the study as shown above. These variables were examined to see if they had any effect on the writing achievement of the respondents

and whether they interacted individually or collectively with the various independent variables to have an effect on the dependent variable in any way.

The research variables are diagrammatically represented below for more clarification.

### 3. **The dependent variable**

- Achievement in writing

There was one dependent variable in the study which was the difference between the pre and post treatment scores of the different experimental groups. This difference represented the achievement of the subjects in the two types of writing in which they were trained, narrative and expository writing.

**Table 3.3: Research variables**

<b>Independent variables (Treatments)</b>	<b>Moderator variables</b>		<b>Dependent Variable</b>
	<b>Gender</b>	<b>Verbal Ability</b>	
1. Response to text			Writing Achievement: Writing ( Expository and Narrative)
2. Activation of background knowledge	a. Male	a. High	
3. Response to text plus Activation of Background knowledge	b. Female	b. Average	
4. Conventional Instructional method		c. Low	

Table 3.3 gives a visual presentation of the design of the study. The independent variables are shown as three instructional methods for the experimental groups and the conventional method for the control group. The moderator variables are displayed while the dependent variable is also shown. The design indicates that the study consists of four independent variables which are activation of background knowledge, response to text, and response to text + activation of background knowledge methods as well as the conventional method of instruction; a dependent variable, (achievement in writing); and two moderator variables which are gender and verbal. The experimental groups were exposed to the independent variables. The control group was not exposed to these variables but was taught with conventional instruction without any recourse to the integrated methods of instruction. The choice of this design was influenced by the fact that it allowed the use of more than one research hypothesis and showed the interaction effect of the different variables of the study.

At the end of the study, the achievement of the students in the post test constituted the dependent variable. The moderator variables were taken into consideration as they could affect the achievement of the subjects.

### **3.3 Population of the study**

The population for this study comprised all 100 level (5300) fresh University students in the Federal University of Technology Owerri who registered for the Use of English course. The university was purposively selected from the seven federally owned universities of technology in Nigeria. The use of one university ensured that the population from which the sample was taken was homogenous because they were all science and technology based students who were freshly admitted in to the university through the Joint Admissions and Matriculations Board (JAMB) university entrance qualifying examination. They were all non first language speakers of English who use it as their second language and are assumed to be on the same level of competence in writing and reading. This is because they had all been taught English for 12 years: (elementary school - 6 years, and college - 6 years). In addition, though they were all from different departments, they offered all the university common courses and were yet to specialize in any of their chosen disciplines. To ensure that there was no contamination of the subjects, students from four different schools/faculties were used: (School of Health Technology (SOHT), School of Science (SOSC), School of

Biological Sciences (SOBS) and School of Engineering and Engineering Technology (SEET). This is because each set of students is taught by a different lecturer from the Use of English Directorate and the students are examined and graded by their own particular lecturer. So whatever the lecturers teach their groups is what they are expected to write during any test or examination; therefore following the peculiarities of a different lecturer might earn them less marks. So the attention of the students in the different groups was on what they were taught by their own lecturer and not on what other departments were doing. In addition, the faculties/schools are far apart from one another and students from different schools live in different hostels which are also far removed from one another. All participants as well as other students were taught the Use of English course with the university-approved course outline. In addition, the subjects were not informed that they were in a research study situation and the likelihood of a Hawthorn/demoralisation effect was checked.

### **3.4 Sampling technique**

One out of the seven federal technological universities in Nigeria, FUTO was purposively chosen for the study. This specialised university was chosen because according to Owolabi (2012), students in universities of technology and other science and technology based institutions do not regard English language courses as a basic pillar for success in their studies or future careers. Hence it was assumed that students in this specialized institution will require strategies/methods that would activate, uphold and keep their attention and also persuade them read and write the English language; as such they would be the best set of students to receive the IRW instruction.

All the first year students of FUTO (giving a sampling frame of 5300) were separated into eight major clusters (in line with the eight schools/faculties in the institution). Four Schools were purposively selected deriving from the failure rate of students in the Use of English course and then split into sub-groups (Departments). All of the four selected groups or departments (please see Table 3.4) were intact classes and their students served as the subjects. Research assistants and experts in the field of language were trained by the researcher as instructors to teach the experimental subjects of the study. The training was to ensure that they understood the basic requirements and expectations from them during the conduct of the study. Students who were repeating the course as carry-over and those admitted through pre-degree or JUPEB were

excluded from the sample because they could have an advantage over the other students since they had been exposed to the Use of English course or had studied at a higher level than those subjects who came into the university directly from the secondary school.

### **3.5 Sample size**

First year undergraduate students of the Federal University of Technology Owerri constituted the subjects of the study. The subjects were drawn from a sampling frame of all the first year undergraduates accepted into the university by means of the Joint Admissions and Matriculations Board (JAMB). Using the purposive procedure deriving from failure rate of students in the Use of English course, four schools were selected out of the eight schools in the university; then four departments were also randomly selected from the four schools that had been earlier selected. A total number of 425 students were allotted to the Treatment and Control groups. These were made up of 251 boys and 174 girls. Males were greater in number than females in the Engineering and Statistics Departments because more males study science and engineering courses in Nigeria than females (Fapohunda, 2011). But conversely, the females were more in number in the Biological Science and Public Health Departments, thus overturning the above hypothesis by Fapohunda. All the first year students of both treatment and non-treatment groups registered for the Use of English course for the session. Those who were repeating the course as carry-over and those who were admitted through the direct entry or pre-degree programmes were excluded because it is assumed that they would have an advantage over the fresh students, having come in at a higher level (direct entry) or having become conversant with the Use of English course (pre-degree).



**Table 3.4 - The schools and the number of students in each department**

<b>GROUPS</b>	<b>SCHOOLS</b>	<b>NUMBER</b>
Group 1	School of Health Technology (SOHT) – Public Health	123
Group 2	School of Biological Sciences (SOBS) - Biology	94
Group 3	School of Science (SOSC) - Statistics	83
Group 4	School of Engineering and Engineering Technology (SEET ) – Polymer & Textile Engineering	125
Total		425

### **3.6 Research instruments**

Texts/reading materials and teacher instructional guides were provided in addition to the three instruments which were used for the study:

- Texts/reading materials
  - Teacher Instructional Guide (Response to text, Activation of background knowledge and Response to text + Activation of background knowledge)
1. Students' Writing Achievement Test
  2. Verbal Ability Test
  3. Focus group Discussions

#### **3.6.1 Texts or reading materials**

This study made use of seven different texts/materials of approximately 400 words, drawn from various sources such as Science and Technology, humanities, and others (please see Table 3.5). The texts were chosen so as to equally represent narrative and expository academic reading materials. These texts were selected from a collection of passages from International English Language Test Systems developed and administered by the British Council and Cambridge University; Varieties of English by H. L. B. Moody, The Use of English and Communication Skills for Tertiary Education by Ogu, Ihejirika and Emejulu (Eds.) and texts taken from past JAMB university entry qualifying examination questions. The choice of the passages was because they are targeted at higher education candidates. The passages from the JAMB University Entrance Examination past questions are targeted at potential first year undergraduates. All the passages have content which are relevant to the language and experience of subjects. The first four are expository texts while the last three are narrative texts.

**Table 3.5: Selected texts for the study**

	<b>Title of text</b>	<b>Author of text</b>	<b>Source</b>	<b>Target audience</b>
1.	The risk of cigarette smoke	International English Language Test Systems	IELTS Mentor – <a href="http://www.ielts-mentor.com/www.ielts.org">www.ielts-mentor.com/www.ielts.org</a>	Higher education candidates
2.	Mortuary stylistics	-	JAMB	Candidates for higher education
3.	Science, technology and human existence	-	JAMB	Candidates for higher education
4.	Television and violence	-	JAMB	Candidates for higher education
5.	A close encounter	-	The Use of English and Communication Skills for Tertiary Education, pp. 166-167	Higher education students
6.	Lagos	Elspeth Huxley	Varieties of English (12 <sup>th</sup> ed.) 1979, by H.L.B. Moody, pp. 34-35	Higher education students
7.	FESTAC	-	JAMB	Candidates for higher education

The selection criteria for the texts were based on the students' acquaintance with issues discussed under the topics and interest they would generate in them. Because all the students were admitted through JAMB, the passages from past questions were deemed to be within their readability level. The passages from the past JAMB question papers were given titles by the researcher since they were untitled in the original form. Only the texts were taken from their sources; the questions were generated by the researcher. Of the seven passages selected, all the contents were on day-to-day topics which the students could relate to. All the texts were used in their original form without any modifications. Two of the passages (one narrative and one expository) were used for the pre- and post-treatment tests while the rest served as texts for teaching students during the treatment.

The readability of the passages was assessed using a set of 25 first year undergraduates of the Michael Okpara University of Agriculture Umudike in 2016. The students were administered the texts using the cloze procedure. The opening and closing sentences of every material were intact. Every fifth word was removed from the rest of the sentences until 50 words had been crossed out. Each passage contained at least 250 words as recommended by Criscoe and Gee (1984). The students were asked to supply the missing words or synonyms very close to them. Each item carried two marks, making a total of 100 marks for the 50 items. The mean score of each passage was worked out by totaling the marks of all students and dividing by 25 (students who took the test) for each passage. The mean of means was calculated by adding the average score of each of the passages and dividing the figure by the entire number of texts. The passages whose mean scores were closest to the mean of means were selected. Of the 12 passages initially selected, three were found to be too difficult for the students and were therefore discarded. Students who scored correctly between 29 and 50 of the blanks (i.e. 58% – 100%) were deemed to read at the independent level and could work without the help of the teacher. Those who supplied 44% -57% of the words (i.e. 22 – 28 blank spaces filled correctly) were deemed to read at the instructional level and would require the help of the teacher. Students who supplied less than 43% of the words correctly (0 – 21 blank spaces filled correctly) were deemed to be reading at the frustration level, meaning that the material was too difficult for them. The readability levels of the texts range from 68% to 78%. This indicates that the students were able to

read the passages. The table below gives the information on the readability levels of the passages.

**Table 3.6 – the texts, their sources and results of readability tests**

<b>S/No</b>	<b>Title of passage</b>	<b>Source</b>	<b>Readability Score Cloze at the 5<sup>th</sup> word</b>
1.	The risk of cigarette smoke	IELTS	68
2.	Mortuary stylistics	JAMB	76
3.	Science, technology and human existence	JAMB	72
4.	Television and violence	JAMB	70
5.	A close encounter	The Use of English and Comm. skills for Tertiary Education	72
6.	Lagos	Varieties of English	69
7.	FESTAC	JAMB	78

The validity of the materials was also established by two senior scholars in reading and writing from Department of Communication and Language Arts and Department of Adult Education of the University of Ibadan. Their suggestions and comments led to slight editing of some of the passages and modifications of some of the questions.

### **3.6.2 Instructional Guides for the experimental groups**

These are instructional guides which the researcher produced to be used as teaching guide to conduct the study. These guides were meant to ensure adherence by the lecturers (who were also trained as research assistants) to the laid down criteria for teaching with the IRW methods in the experimental groups and use of traditional instruction in the control group. These teaching guides are:

- **Instructional guide for Response to text**

This refers to initial verbal comments or story which the teacher tells the students and asks them to say their reactions or perceptions about it. The teacher explains what response to text is about and how it is carried out. This takes place for about ten minutes and is meant to guide the students to think about what is presented to them and gauge their own personal responses to story. The text is then distributed to them to read and respond.

- **Instructional guide for activation of background knowledge**

These are questions, comments and discussions which are introduced by the lecturer to activate students' previous knowledge on the topic to be treated. These are drawn from the text and other experiences similar to those in the text in order to enable the students remember things they know that are similar to the ideas in the topic. These questions plus discussions last for about ten minutes before the texts are distributed to the students.

- **Instructional guide for Response to text + activation of background knowledge**

These are the introduction of the combination of the activities in the above two methods to the students through comments, questions and discussions to cause the students to think, initiate a reaction and stimulate them to remember what they know about the topics. The texts are then distributed to the students.

### 3.6.3 Students' Writing Achievement Test

This consisted of questions drawn from the reading passages and were meant to activate students' background knowledge and required students to relate to and respond to the texts read. They were required to put down in writing the reactions they have to issues in the texts, evaluate the texts, disagree with the ideas in the text or extend the text from a different perspective. All these were geared at making the students think critically about the subjects of discourse (Dobie, 2012), create meaning from the texts, as well as make connections to their own lives or experiences (Rosenblatt, 1978). The texts produced by the students were assessed based on content, organization, expression and mechanical accuracy.

**Content:** these are key ideas, details and examples which reflect students' understanding of the task required of them

**Organisation:** this represents the logical organization of ideas, the text having a beginning, middle and ending, the structural organization of the text followed, as well as effective use of transitional devices.

**Expression:** this is the clear and grammatical presentation of students' ideas in writing.

**Mechanical Accuracy:** this is the use of punctuations, correct spelling, use of capital letters, paragraph indentation, etc.

Below are the mark allocations for the different items above.

<b>Item</b>	<b>Mark allocated</b>
Content	30
Organization	30
Expression	20
Mechanical Accuracy	20
Total Marks	100



### **3.6.4 Verbal ability test**

This is a test used to measure the intelligence and academic ability of students and may be used to forecast the academic accomplishment of learners as well as their level of proficiency and use of language (Adegbite and Alabi, 2007). This is because it reveals the level at which students can reason through language and the ability of the individual student to read written language. Verbal ability helps assess students across the curriculum and thus, students who score high in verbal ability tests are deemed to be able to communicate effectively and perform better academically than those with low scores (Gambari, Kutigi and Fagbemi, 2014). Verbal ability tests are made up of questions on grammar, synonyms and antonyms, spelling, sentence completion, critical reasoning and verbal inferences, etc.

For this study, the verbal ability test was used as an instrument to classify subjects into ability groups because verbal ability has been confirmed as a tool to enhance students' accomplishment of academic tasks (Adegbite and Alabi, 2007). This study adopted the verbal ability test developed by Fola-Adebayo (2014). This test was adopted because it was originally targeted at first year Nigerian university undergraduates in two technological universities in Nigeria. This test is contemporary and its reliability index is already established. The reliability index of the 100-item test was  $\alpha = 0.78$  and the average item difficulty was .47. This test therefore was used for the same type of audience (first year undergraduate university of technology students) for which it was originally developed (See Appendix 2). Each item carries one mark. The scores were converted to percentages. Those who scored 60% and above were classified as high ability students while those who scored 50 - 59% were assumed average verbal ability students. The low verbal ability students were those who scored 49% and below. Thus the subjects were grouped as high ability (60% and above), average ability (50% – 59%) and low ability (49% and below). Performance in the test was used as a measure to describe the students as high, average or low.

### **3.6.5 Focus group discussions (FGD)**

This was utilised to compile non-numerical data through dialogue by which some of the participants were brought together to discuss what they had gained from the study or the things they would like to see in the instruction they received from their teachers during lecture. A series of questions that were open-ended were asked the participants

by a moderator who conducted the FGD while the researcher made notes during the discussion. At the end of the FGD, the data which was tape recorded were transcribed and examined for themes or patterns.

### **3.7 Control of extraneous variables**

These are situations that may occur while the experiment is going on; their taking place concurrently with the study may confound it, though on their own they may not be relevant to the study. Such extraneous variables are:

- **History**- this is the occurrence of any event which is outside the treatment but which may affect the performance on the dependent variable. This was countered in this present study through selection of both the experimental and comparison groups from the same university. Everything connected with the study and the treatment took place at the same time. As such, the researcher and the research assistants monitored all the groups concomitantly since all lectures were taught concurrently each day of the week for all the groups.
- **Maturation** – these are the physical or mental changes that may occur in the subjects over a period of time and which may affect their performance in the variable being measured. In order to manage this, subjects were on the treatment for only five weeks after the pre-treatment test. Everything in the study was carried out within one semester to ensure there would have been no significant changes in the physical or mental aspects of the subjects.
- **Testing** – this is the improvement recorded in the post-treatment grades of participants on account of having taken pre-tests (i.e. participant become too familiar with the questions or texts used for the pre test that it affects their performance at the post-test). To control for any effect from this:
  - The pre-test was given to all the groups being investigated so that any such effect will not be localized on only one group.
  - The questions were such that the subjects would respond to them immediately based on their individual personality, experience and prior knowledge. There was no room for memorization.
  - None of the groups had any prior knowledge of the passages, and the questions were similar.

- **Threat to internal validity** – to control for this, none of the groups was aware that they were in a research situation; this was to eliminate any possibility of a Hawthorn effect where subjects would be affected by the novelty of being in a research situation. As a result, none of the groups had any reason to do anything that would make the study succeed or fail.

### **3.8 The Pilot Study**

The preliminary study aimed to achieve the following:

- To determine the workability of the instructional methods to be used for the study
- To validate the instruments of the study
- To detect any methodological shortcomings and correct them for the main study
- To test the hypotheses and make the researcher conversant with the statistical analysis that will be employed for the substantive study
- To estimate the length of time that the subjects would require to complete various tasks so as to assign adequate time for the main study
- To find out if the allotted duration of training on the selected methods was reasonable.

#### **3.8.1 Participants**

The pilot study was carried out using newly admitted students of the Michael Okpara University of Agriculture, Umudike in 2016. The university was chosen to ensure that the subjects of the main study did not know about the study. The subjects were 60 students (30 males and 30 females) chosen from the Departments of Biochemistry, Biotechnology, Chemical Engineering, Fisheries, Animal Production, and Accountancy. These students have similar characteristics with those who participated in the actual investigation in that they were also freshly admitted into the institution through JAMB and they were studying the same courses that are obtainable in university that hosted the main study. Ten students were chosen from each Department. Students who were repeating the Use of English General Studies course were not included as subjects. The verbal ability test was administered on the subjects based on which they were classified as possessing high verbal ability (60% and above),

average ability (50% – 59%) or low verbal ability (49% and below). The students were then allocated to treatment (three) and control (one) made up of 15 students of various verbal abilities. The pre-treatment test was given to all the groups and the treatment group was then rendered the treatments which lasted for three weeks. The post test was then given to all groups. A mini focus group discussion was also conducted with the ad-hoc course representatives of each of the three experimental groups. The data obtained were used to test the hypotheses and to have an insight into the strengths and weaknesses of the research procedure. The data collected were analysed and results obtained were used to verify whether research instruments measured what they were supposed to measure.

The preliminary study was similar to the substantive one because experimental subjects were exposed to the same treatments and were handled by language experts and research assistants recruited for the study.

The constructivist theory (Bruner 1966 and Rosenblatt, 1978) which emphasizes the central role of the student in every learning situation and his/her contributions to his/her own learning, was borne in mind while organising the resources and teaching methods used for the investigation.

### **3.8.2 Teaching methodology**

The teaching methodology which was also used for the main study was based on Bloom's Taxonomy as revised by Anderson and Krathwhol (2001). The suggested activities which were adopted for the study are:

- Remembering (retrieving, recognizing, and recalling relevant knowledge from long term memory). Activities were undertaken which would assist the students retrieve or activate background knowledge relevant to the texts or topics being taught.
- Understanding (constructing meaning from oral or written passages through inferences, interpreting, summarizing or explaining). Students were coached so as to construct meaning from passages/texts used for the study. They were able to identify and explain different ideas or concepts which they encountered in the course of the lectures based on their own interpretation.

- Applying (carrying out or using a procedure through executing or implementing). The different organizational structures of texts (informational or narrative) were explained to students, and they were made to practice them in their own writings. The information they gathered from the texts were used in new ways in their own writings, for instance, writing a letter based on an expository text read.
- Analyzing (breaking material into constituent parts, determining how the parts relate to each other or to an overall structure or purpose through differentiating, organizing and attributing). Students practiced identifying and using the steps of the writing process, key vocabulary, paragraph structures and relating these to their own writing. They learnt to use transitional devices to link or connect their ideas in a logical and coherent manner.
- Evaluating (making judgments based on criteria and standards through critiquing). Students evaluated information contained in the selected passages and reached conclusions based on their own personal experiences, the text and others around them. They took a stand which they defended or justified.
- Creating (putting elements together to form a functional whole, reorganizing elements into a new pattern or structure through generating, planning or producing). Students learnt and practiced through reading texts, analyzing them and producing their own texts using the structures which they had learnt.

The teaching methodology was learner oriented and task based, with the lecturer acting as a guide or coach to the students. The students read texts, developed critical thinking, constructed meaning from the texts, appraised and evaluated the information at their disposal and formed their judgments. Thus they were guided to use information and knowledge gathered from their readings to create new ideas and input for their own writings. The reading and writing techniques of the control group were derived from the regular method of teaching, and as such they were not given IRW instruction but only used the selected texts and carried out assigned tasks.

- **Teaching plan for the response to text group**

The teacher explains to the students the meaning of the method, what it is all about and its applications. They are made to know that they are to react to the text, give their own personal interpretations and associate ideas in the text with personal experiences, other

texts, or society/world generally. They are encouraged to explore the text, make their own personal judgments about the meaning of the text, its quality, and the writer's attitude to his subject as well as justify their position.

- **Teaching plan for the activation of background knowledge**

This consists of stimulating students to recall past knowledge and experiences by the teacher asking questions and generating discussions among the students on the topic or ideas related to the text. Students also brainstorm.

- **Teaching plan for the Response to text + Activation of background knowledge**

The teacher explains the two methods to the group and they are made to know that they are to make connections with the texts, interpret and evaluate them, take a stand and defend their stand. Their background knowledge is also activated through questions, discussions and brainstorming.

### **3.8.3 Data analysis of the pilot study**

Pre- and post-treatment grades of students constituted the data. The students' written responses to the prompts on the passages were marked and graded. The data was analysed with the use of ANCOVA while the hypotheses were tested for significance at  $p < 0.05$ .

#### **Summary of results of the pilot study**

1. The summary of ANCOVA and t-test for treatment indicated that treatment was effective on the achievement of experimental subjects over that of the control subjects in writing ( $F=4.26, P<0.05$ ).
2. The response to text + Activation of background knowledge group performed more than the response to text only or activation of background knowledge only groups (64.01;  $SD=10.1$ ), followed by the response to text only group (63.38;  $SD=8.6$ ), and the activation of background knowledge only group (60.50;  $SD=14.0$ ). The control group scored least (54.5;  $SD=18.3$ )
3. The achievement of the high ability candidates was significantly higher than that of low verbal ability group ( $F=2.29, P<0.05$ ). The high verbal

ability group (62.4; SD=19.9) performed more than the low verbal ability subjects (59.71; SD=20.5).

4. The males (53.42) in the high ability group achieved more than females (50.1).
5. Overall, the females achieved slightly better than their male counterparts with a mean score of 50.3 as against 47.2 for the males

#### **3.8.4 Implications for the main study**

- The instructional method was appropriate but an additional research assistant was recruited and trained to assist in monitoring the larger sample size in the main study, thus bringing their number to four.
- The time duration (length) of the study was increased from six weeks to eight weeks in order to have adequate time for the study.
- Some of the questions were redesigned and recast to avoid ambiguity.
- To guarantee sameness of difficulty levels of texts used in the pre-test and post-test, the texts used for the pre-test (The risk of cigarette smoke and Lagos) were also used for the post-test so that the students' achievements in their various groups could be compared.
- The time duration of one hour for the completion of tasks was found to be adequate, so it was maintained.

#### **3.9 Procedure for the substantive study**

The treatment commenced 13 months after the pilot study. The study was carried out in four stages which lasted for eight weeks. The first week was used by the researcher to train the language experts and research assistants who handled the experimental groups and to select and assign subjects into the different groups. The last week was for the post test and Focus Group Discussion. The procedure is given in Table 3.7.

**Table 3.7: Schedule of activities during the study**

<b>Weeks</b>	<b>Activities</b>
1	Training of regular Use of English lecturers, selecting and assigning students into experimental and control groups.
2	Administration of Verbal Ability Test and pre-test
3 - 7	Exposure of the experimental groups to treatment, and teaching the Comparison group using conventional method.
8	Administration of post test, second verbal ability test and the focus group discussion.



### **3.9.1 Appointing and training lecturers and research assistants**

After the students had been allocated to experimental and control groups, four lecturers from the Use of English unit of the Directorate of General Studies were trained to teach the three experimental groups. The lecturer for the control group did not undergo the training. Three other lecturers from the same unit were also trained as research assistants. The lecturers were made to know the content of the instructional methods which they were to use in their different groups. The steps to be used in the methods were given to them and the researcher ensured that they mastered and were able to use the instructional guides appropriately.

The instructional methods were discussed with and demonstrated to the lecturers. The lecturers for the different instructional groups were trained separately. The researcher then discussed the procedure in which the pre test and verbal ability test were to be administered. There was also demonstration of lessons based on the different instructional methods for the experimental groups, after which the lecturers were asked to practice their own instructional methods.

### **3.9.2 Conduct of the verbal ability test and the pre test.**

The verbal ability test (VAT) and the pre-test were conducted in the second week. The pre-test was conducted for the four sets of subjects prior to the commencement of treatment. The students were given passages to read and respond to them in writing immediately after reading. The pre-test was to ascertain the proficiency status of all subjects prior to commencement of treatment and for comparison with the post-test at the conclusion of the study. The texts were made up of one expository and one narrative text for the pre-test. The same passages were used for posttest.

Table 3.8 contains the procedure and treatment of the experimental groups. The treatment of the experimental groups commenced in the third week.

**Table 3.8: Teaching plan for the experimental groups**

<b>Weeks</b>	<b>Time allotted (hours)</b>	<b>Intended teaching focus</b>	<b>Presentation of texts</b>	<b>Intended skill/competence</b>
3.	2	The stages of the writing process; identification of main ideas, supporting details and author's perspective.	Mortuary stylistics	Students to learn the stages of the writing process and identify main ideas, supporting details and author's perspective
4.	2	Teaching students paragraph development, topic sentences, types of paragraphs, linking or cohesive devices.	FESTAC	Students to identify topic sentences, types of paragraphs, cohesive devices.
5.	2	Teaching students structure of paragraphs, topic sentences	Science, technology and human existence	Students practice the writing process as they write different paragraphs and topic sentences
6.	2	Teaching students the organizational structure of expository texts	Television and violence	Students to identify the structure of expository texts
7.	2	Teaching students the structure of narrative texts	A close encounter	Students to identify the structure of narrative texts – character, setting, plot, theme, etc.

### **3.9.3. Treatment of the experimental groups**

Experimental subjects were exposed to the response to text, activation of background knowledge, as well as response to text + activation of background knowledge instructional methods before the post-test. The control group was not given any treatment but was taught with the conventional instruction. Research assistants were also assigned to the control group to ensure that the conventional method of instruction was used by the lecturer. The researcher also visited the control group from time to time for monitoring.

The use of treatment and non-treatment groups from the university was to ensure that students would be made up of homogenous groups who were taught with the same course outline, sat for the same examinations and whose lectures took place at the same period in their various faculties. The subjects were in the same environment and this reduced any threat posed by the non-random selection of individual subjects. The researcher was also able to personally monitor the different groups throughout the duration of the study.

The procedure for the presentation of each method is given below.

- **Procedure for the response to text group**

This was developed by the researcher to enable the lecturers uniformly teach the lessons. Each lecture period was for one hour two times a week.

- **Steps in the guide to response to text strategy.**

Phase 1: Instructor introduces the lecture and the method, discusses it with the students and distributes the material to be used to the students.

Phase 2: Students are taught the structure of narrative and expository passages

Phase 3: Students are taught the use of cohesive devices, paragraphing, and mechanic of writing

Phase 4: The teacher asks the subjects to read the materials/articles and they read silently

Phase 5: The teacher now asks the students to write their reactions to the text read. The response is in the form of a personal reaction to the subject matter read either in narrative or expository mode. For example, the students were

required to write a letter to the editor of a newspaper expressing their views on the subject matter at hand.

Phase 6: Students respond to the passage by writing in the paper provided.

Phase 7: The teacher collects the responses for grading and return to students as feedback.

- **Procedure for the activation of background knowledge group**

Phase 1: Instructor introduces the lecture to the students

Phase 2: He questions them about the topic and asks them other questions based on their answers to further activate their prior knowledge. Teacher asks questions that will cause students to recollect knowledge of similar experiences relating to the topic. Students answer questions and give anecdotes of their experiences and what they recall about the topic. The students also hold a short interactive discussion on topic or related idea.

Phase 3: Students are taught the structure of narrative and expository passages, paragraph structure, and cohesive devices, and mechanics of writing.

Phase 4: Instructor distributes the passage and directs the students to answer the questions

Phase 5: Students read the passage silently

Phase 6: Students answer the questions in the paper provided.

- **Procedure for the response to text + activation of background knowledge group**

Phase 1: The instructor presents the subject matter, questions the students to help them remember what they know about the topic; he allows a brainstorming/discussion session to stimulate students' thinking and activate background knowledge. He also explains how the response to text method works

Phase 2: Teacher teaches the students how to identify main ideas, paragraph structure, expository and narrative text structure.

Phase 3: Teacher distributes the passages and the students read silently

Phase 4: Students answer the questions that follow in writing

- **Procedure for the traditional instruction (control) group**

The lecturer taught the students without using any of the above methods. The course outline was followed. The following steps were applied

Phase 1: The lecturer writes down the topic for the lecture

Phase 2: Teacher lectures class paragraph development, cohesive devices, narrative and expository structure.

Phase 3: Students ask questions if they have any questions.

Phase 4: The teacher answers their questions.

Phase 5: Students are given the reading passages; they read and answer the questions

- **Treatment of the experimental groups**

**Experimental Group 1 – Response to text:** After each teaching session, the designated texts were given to the subjects who were instructed to read and react to the texts by writing a summary, a reflection/reaction to the text, a formal or informal letter or extending the story read. The students were reminded to ensure that their writings had a beginning, middle and an ending. When treating narrative passages, the students were sometimes asked to write a story similar to or in contrast to what had been read and to adhere to the narrative text structure. They were also asked to identify main ideas and details in the passages read, replace certain words with similar words or write a letter to a friend based on the text read. They were also taught to identify while reading, and use when writing, topic sentences, cohesive devices, etc. as well as to make inferences or identify and write using a cause and effect structure in the case of expository writing.

**Experimental Group 2 – Activation of background knowledge:** After pre-reading activities such as discussions, questioning or brainstorming, which were meant to activate students' background knowledge on the topics to be read, the students were given the relevant texts for the day's lecture. They were asked to compare and contrast the ideas in the text with what they had witnessed or experienced or heard about in the society, determine cause and effect or draw inferences. They were also asked to write letters to the editor or personal letters to relations on the idea being discussed, as well as identify main ideas, topic sentences and supporting details. They were also encouraged to ensure their writing had a beginning, middle and ending. This procedure covered both expository and narrative texts.

**Experimental Group 3 – Response to text plus activation of background knowledge:** Students were taught to connect the ideas in the passages to their

experience or prior knowledge and to give their personal reactions to ideas in the designated passages in writing, as well as activate what they already know through discussions, brainstorming and questioning by the teacher. They were then asked to compare and contrast, describe or narrate in answer to prompts given at the end of the passages. Thus their comprehension of the passages was demonstrated through their writing.

All the above methods were geared to develop in the students an active involvement in their own learning as espoused by the constructivist theory instead of the passivity that is associated with the traditional instructional method in which the teacher gives all the information to a passive student body.

The control group did not receive any treatment but were taught using the pre-existing conventional method.

#### **3.9.4 Conduct of the Post test**

At the end of the five weeks of treatment on the experimental groups, the post test and the verbal ability tests were once more administered on all the groups. This took place during the last week of the study.

#### **3.10 Procedure for data analysis**

At the end of the treatment, the students' written texts in the pre and post tests were graded and the scores used as data. Inferential statistics, Analysis of covariance (ANCOVA), was used in the study to measure the joint variability or linear dependence between two random variables. ANCOVA shows the magnitude in the relationship between two random variables (Cov (X, Y)). Bonferroni post hoc tests at 0.05 level of significance were also carried out.

The qualitative aspect of data collection was done through the use of Focus Group Discussion. At the end of the post test, the course representatives of the different groups were brought together in a focus group discussion. This indicated what the students had gained from the study and what they thought of the course. Their discussion was recorded, transcribed and content analysed for themes and patterns.

## **CHAPTER FOUR**

### **RESULTS AND DISCUSSION**

This experimental study investigated the effects of three Integrated Reading and Writing instructional methods on the writing achievement of undergraduate students in a university of technology - the Response to text, the activation of background knowledge and a combination of these two methods. The moderating effects of verbal ability and gender on writing achievement were also assessed. The students were first year undergraduate students (N = 425) consisting of 251 males and 174 females whose age was  $18.30 \pm 2.60$  years and who were in four intact classes in four departments of four different faculties of the university.

The study participants were allocated to groups as follows: Experimental Group 1 (N = 123 students in the Public Health Department) was taught with the response to text method (RT); Experimental Group 2 (N = 94 students of the Biological Science Department) was taught using the Activation of Background knowledge method (ABK); Experimental Group 3 (N = 83 students of statistics Department) was taught with a combination of the response to text and the activation of background knowledge methods (RTABK); the Control Group (N = 125 students of Polymer and Textile Engineering Department) was taught with the conventional instructional method.

A verbal ability test and a pre-test were administered on the groups before the commencement of the treatment on the experimental groups. The treatment was concluded with a posttest in which all the groups also participated. The same instruments used for the pre-test were used for the posttest.

#### **4.1 Presentation of findings**

In this section, the presentation of data generated, its analysis and the discussions that follow are guided by the research questions and hypotheses. The results are presented in tables and are discussed preceded by the result of the initial verbal ability test.

### **Initial Verbal ability test and status of participants**

In order to find out the status of participants regarding their competence in the English language, a verbal ability test was administered on subjects in all the four groups before the commencement of treatment on the experimental groups. The students' scores in the initial verbal ability test were used to delineate and classify them into one of the three verbal ability levels of High, Average or Low.

At the end of treatment on the experimental students, the same verbal ability test was administered on all the groups once again. This was to make it possible to compare with the initial verbal ability test and to know whether the treatment affected the level of difference between the various verbal ability groups. It also made it possible to see if verbal ability would interact with other variables in the study to affect achievement. Table 4.1 shows the performance of the students in this initial verbal test.



**Table 4.1: Pre treatment mean scores of students in different verbal ability levels within the various groups.**

<b>Treatment</b>	<b>Verbal Ability</b>	<b>N</b>	<b>Pre-Test Mean</b>	<b>Std</b>
<b>RT</b>	<b>Low (L)</b>	45	46.17	5.13
	<b>Average (A)</b>	51	52.28	4.44
	<b>High (H)</b>	27	58.66	4.16
<b>ABK</b>	<b>Low (L)</b>	30	45.16	4.44
	<b>Average (A)</b>	43	53.14	4.84
	<b>High (H)</b>	21	60.29	4.55
<b>RTABK</b>	<b>Low (L)</b>	23	45.35	5.26
	<b>Average (A)</b>	39	51.78	6.49
	<b>High (H)</b>	21	58.83	4.80
<b>CG</b>	<b>Low (L)</b>	33	44.85	6.65
	<b>Average (A)</b>	65	51.69	8.14
	<b>High (H)</b>	27	57.66	5.59

Table 4.1 shows that within the different study groups, students in the average ability level were the highest in number (41% in RT, 46% in ABK, 47% in RTABK and 52% in the Control group), followed by those in the low ability group (RT : 37%, ABK : 32%, RTABK : 28% and CG : 26%). The high ability students were the fewest in number (RT : 22%, ABK : 22%, RTABK : 25% and CG : 22%). A similar pattern of aptitude is observed across the groups suggesting that the groups are about homogeneous entities, none being superior to the other.

**Research Question 1:** What effect did the IRW instructional methods have on the writing achievement of students?

In order to respond to this research question, data (test results) from pre-test and post test were compared to assess the effect of the three different methods of IRW.

All the groups were administered a writing pre-test using one expository text (“The risk of cigarette smoke”) and one narrative text (“Lagos”), (see Appendix 3 Text1 and Text 2) as background texts. Prompts were provided at the end of each passage to serve as a guide to responding to the texts. At the end of the pre-test, their writings were graded using four criteria – Content, Organisation, Expression and Mechanical Accuracy.

Similarly at the end of the treatment, the same tests were administered as post tests. The tables (4.2 and 4.3) below show the scores of students in both narrative and expository texts before they were added and averaged.

Table 4.2: Pre-test results of students in narrative and expository writing

Pre-test								
TEST	RT (N=123)		ABK (N=94)		RTABK (N=83)		CG (N=125)	
	Mean	STD.	Mean	STD.	Mean	STD.	Mean	STD.
Narrative	52.630	4.720	53.210	5.499	52.550	5.104	52.470	6.820
Expository	52.111	4.675	52.500	3.921	51.430	6.021	50.340	7.033
Total	52.37	4.69	52.86	4.78	51.99	5.59	51.41	6.99

The pre-test results for all the groups show similar achievement because the pre-test scores in (expository and narrative) writing were not too different from one another. The means of the experimental and control groups were just slightly different from one another for both the expository and narrative writing, indicating that the students were alike and had a similar level of language background and proficiency. From Table 4.2, the standard deviations also show that scores of the individual students in the various groups were also very close to the mean. Actually, it is only in the Control Group that the standard deviations for both narrative and expository writing were a little bit spread out from the mean. But the performance of the various groups is different in the post test.

Table 4.3: Post-test results of students in narrative and expository writing

TEST	<b>RT (N=123)</b>		<b>ABK (N=94)</b>		<b>RTABK (N=83)</b>		<b>CG (N=125)</b>	
	Mean	STD.	Mean	STD.	Mean	STD.	Mean	STD.
Narrative	72.730	8.547	71.790	8.382	76.770	9.508	61.870	13.321
Expository	71.950	7.512	69.360	8.186	76.280	9.473	57.200	12.771
Total	72.34	8.04	70.57	8.35	76.52	9.47	59.54	13.23

The scores in the post test indicate that there was a difference in achievement of the students in the different types of writing. Also from Table 4.3, it is noticed that all the groups achieved better in narrative writing than in the expository. The RTABK group had the highest mean score, followed by RT, the ABK group and lastly the control Group. This may be linked to the intrinsic qualities of the narrative text structure which evokes the story telling capability in the students, thus indicating that the students were more comfortable with the narrative text structure than with the expository text structure.

Also in the expository text, the RTABK group had the highest mean score followed by the RT group, the ABK group and lastly the Control Group. The standard deviations for each of the groups also show that the individual scores of the students had a greater spread from the average than what obtained in the pre test, indicating that the treatments had an effect on the experimental students' expository and narrative writing.

It became necessary to add the scores of both types of writing to get the average for the rest of the analyses because the study was measuring writing as a single variable and not as two variables. The overall scores of the students in the narrative and expository passages were added and the average scores of students provided the data. Table 4.4 below shows the combined mean scores of the different groups in the pre test.

**Table 4.4:** Pre-test result of the effect of IRW instructional methods on the writing achievement of students

<b>Groups</b>	<b>N</b>	<b>Pre-Test Mean</b>	<b>Std. Deviation</b>
<b>RT</b>	<b>123</b>	<b>52.37</b>	<b>4.69</b>
<b>ABK</b>	<b>94</b>	<b>52.86</b>	<b>4.78</b>
<b>RTABK</b>	<b>83</b>	<b>51.99</b>	<b>5.59</b>
<b>CG</b>	<b>125</b>	<b>51.40</b>	<b>6.99</b>

From Table 4.4, the mean score of the RTABK was lowest of the three experimental groups at the pre-test (51.99, SD 5.59), almost on an equal footing with the control group (51.40, SD 6.99). The standard deviation of the scores of the different groups indicate that the individual participants in these groups congregated around the mean of their group, showing that the scores were not too far apart from one another.



**Table 4.5:** Pre-test and post test results of the effect of IRW instructional methods on the writing achievement of students

<b>Groups</b>	<b>N</b>	<b>Pre-Test Mean</b>	<b>Std. Deviation</b>	<b>Post-Test Mean</b>	<b>Std. Deviation</b>
<b>RT</b>	<b>123</b>	<b>52.37</b>	<b>4.69</b>	<b>72.34</b>	<b>8.03</b>
<b>ABK</b>	<b>94</b>	<b>52.86</b>	<b>4.78</b>	<b>70.57</b>	<b>8.35</b>
<b>RTABK</b>	<b>83</b>	<b>51.99</b>	<b>5.59</b>	<b>76.52</b>	<b>9.47</b>
<b>CG</b>	<b>125</b>	<b>51.40</b>	<b>6.99</b>	<b>59.54</b>	<b>13.23</b>

At the post-test, the Experimental groups 1, 2, and 3 (RT, ABK, RTABK) which had received the instruction-based response to text, activation of background knowledge and response to text + activation of background knowledge instructional methods, respectively, increased appreciably in their mean scores whereas the Control group which had received instruction in the traditional method increased only marginally. The RTABK group which had the lowest mean score of the three experimental groups in the pre-test now had the highest mean score. The standard deviations of the scores in the post test indicate that there was a greater spread of the students' scores than what obtained in the pretest.

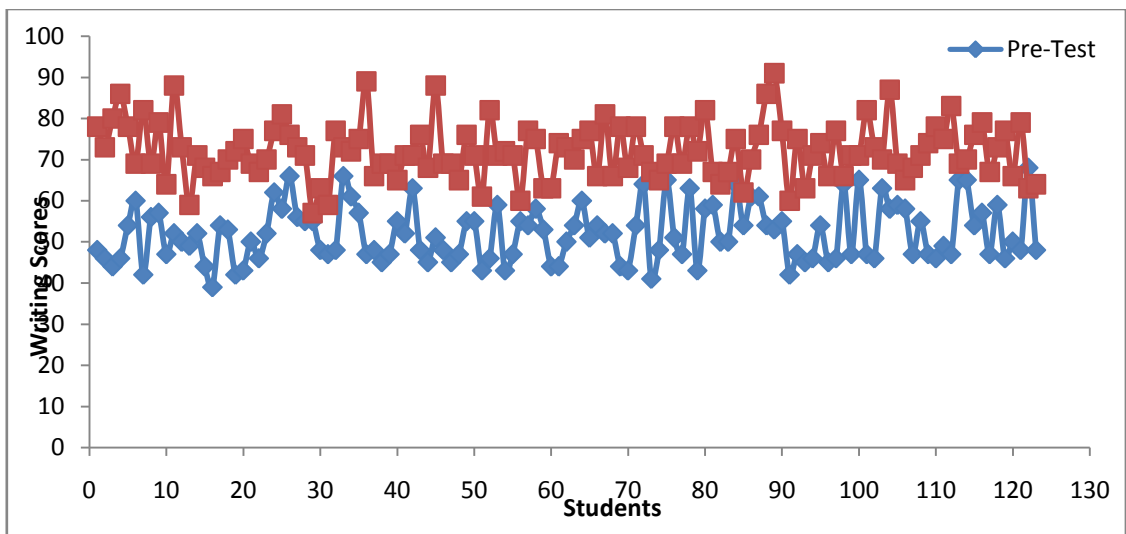
This is also further noticed in Table 4.6 which disaggregated the scores into the four elements used in scoring the students' writing.

**Table 4.6:** Disaggregated Pre and Post-test results of writing achievement of subject groups based on four writing elements.

Treatment	Test	Content		Organization		Expression		Mechanical Accuracy	
		Mean	Std.	Mean	Std.	Mean	Std.	Mean	Std.
<b>RT</b>	Pre	17.93	3.38	13.68	2.54	10.68	1.71	9.63	1.92
	<b>Post</b>	<b>22.55</b>	<b>3.42</b>	<b>22.51</b>	<b>2.56</b>	<b>13.65</b>	<b>2.54</b>	<b>13.38</b>	<b>2.79</b>
<b>ABK</b>	Pre	18.83	4.02	13.30	2.19	10.41	1.78	9.67	1.75
	<b>Post</b>	<b>23.13</b>	<b>3.46</b>	<b>21.17</b>	<b>3.80</b>	<b>13.44</b>	<b>2.43</b>	<b>13.10</b>	<b>2.41</b>
<b>RTABK</b>	Pre	18.48	2.80	13.24	1.92	10.46	1.87	9.22	1.52
	<b>Post</b>	<b>24.31</b>	<b>2.51</b>	<b>22.57</b>	<b>3.69</b>	<b>15.17</b>	<b>3.20</b>	<b>14.39</b>	<b>3.34</b>
<b>CG</b>	Pre	18.10	3.18	12.75	1.79	10.16	1.74	9.58	1.78
	<b>Post</b>	<b>21.49</b>	<b>3.71</b>	<b>16.60</b>	<b>3.86</b>	<b>12.34</b>	<b>3.13</b>	<b>10.62</b>	<b>3.25</b>

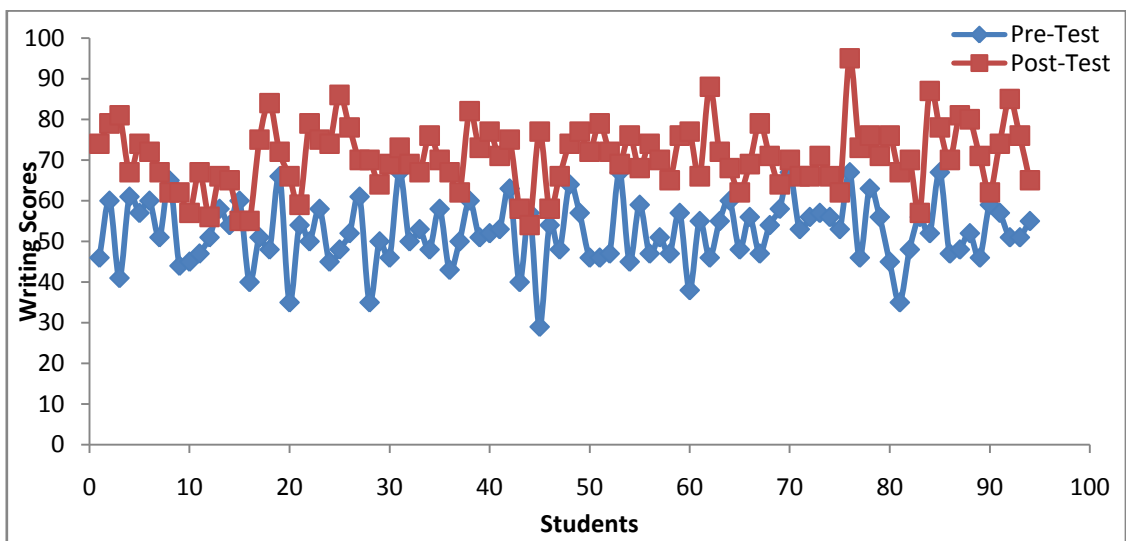
Table 4.6 indicates that in the pre-test, students in the different groups performed at similar levels in the different elements of writing. But in the post test, it was observed that the experimental groups achieved better mean scores in the four elements than the control group. The lower performance of the different groups in Expression and Mechanical Accuracy could be explained by the fact that since they measure the versatility of students in producing the language, students will require a more sustained and concentrated teaching in these two areas than in Content and Organisation. Nevertheless, the treatments affected the achievement of the experimental students above what obtained in the control students.

The graphs in Figures 4.1 to 4.4 further illustrate the differences in the overall achievement of individual students in the different groups in both the pre-test and post-test.

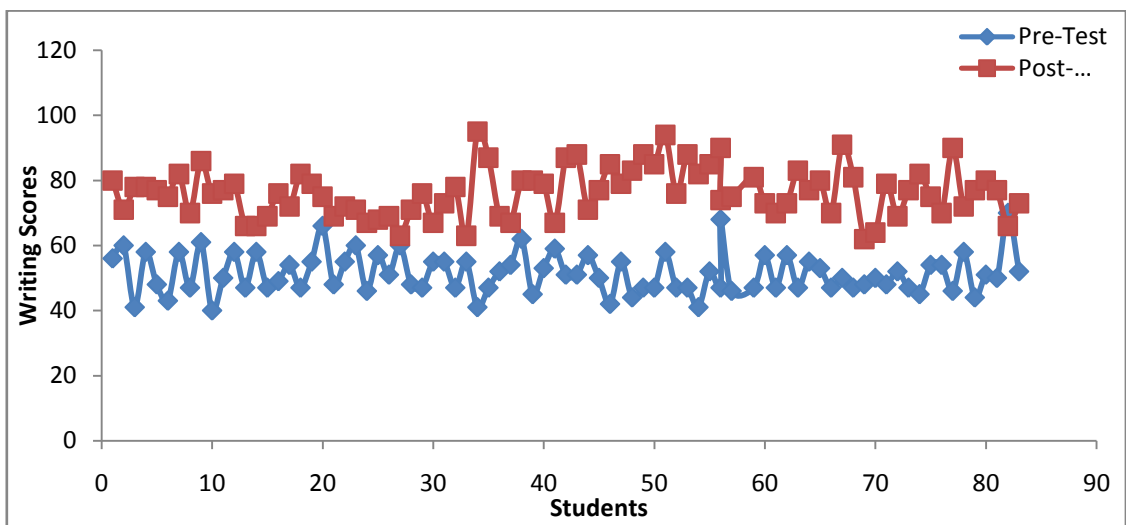


**Fig 4.1:** Pre-test and Post-test Writing Scores of Students in RT.

Figure 4.1 shows the achievement of the Experimental Group 1 which was taught with the Response to text instructional method. The graph shows that the post test scores (the red graphs) were higher than the pre-test scores (the blue graphs) indicating that the students' achievement were better in the post test than at the pre-test. Even the students who had very low scores in the pre-test improved on them in the post test. The same type of achievement is observed in Fig 4.2 (for Experimental Group 2 – taught with the Activation of Background knowledge method). The red graph is higher than the blue, indicating that the instructional method impacted on the achievement of the students. The Experimental Group 3 (taught with a combination of Response to text and Activation of background Knowledge methods) was also of the same higher achievement in the post test than in the pre-test (see Figs 4.3 and 4.4 below).



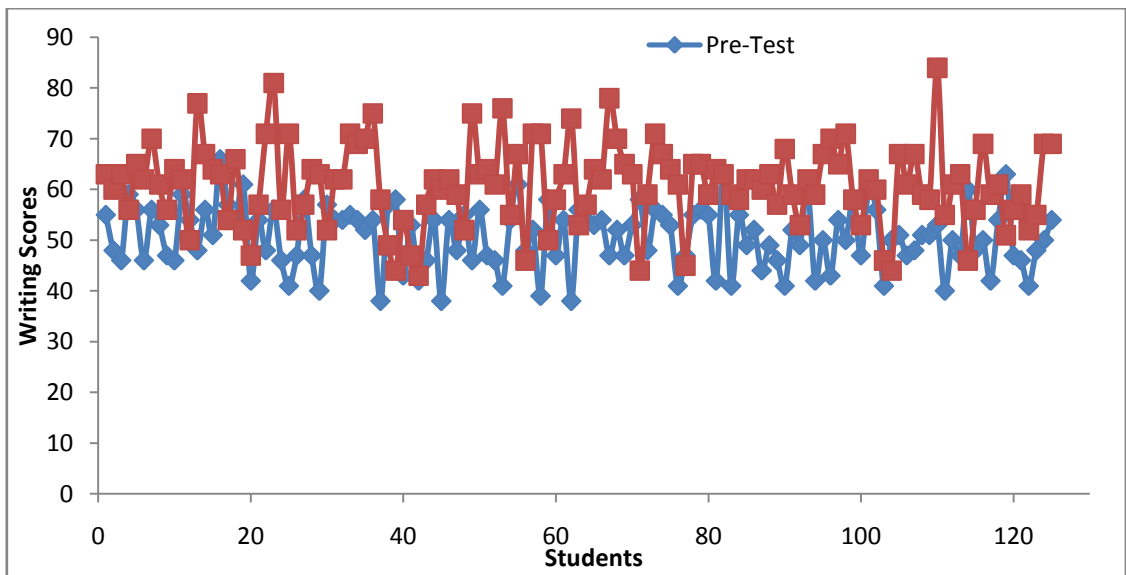
**Fig 4.2:** Pre-test and Post-test Writing Scores of Students in ABK.



**Fig 4.3:** Pre-test and Post-test Writing Scores of Students in RTABK.



However, the case of the Control Group (CG) is different from that of the experimental groups. Fig. 4.4 shows that this group, taught with the traditional instructional method, had only a marginal improvement in their post test over the pre-test. For this Control Group, the blue and red graphs bullets are clustering together. The blue is difficult to find as the red almost covers it, indicating that there was not much difference between the pre and post test scores of the Control Group.



**Fig 4.4:** Pre-test and Post-test Writing Scores of Students in CG.

The red graphs of the experimental groups are higher than the blue, indicating a higher impact of the instructional methods used for the experimental groups than the traditional instructional method used for the control group. From the graphs, it is revealed that the Group 3 (RTABK) achieved better improvement from the pre-test than all the other groups in writing in the post-test, followed by Group 1 (RT), Group 2 (ABK) and lastly Group 4 (CG). Thus the IRW instructional methods had higher positive effects on the post test scores, and therefore engendered greater improvement in the writing achievement of experimental students. This finding confirms the findings of other studies (Delaney, 2008; Hamad, 2011) which conclude that Integrated Reading and writing instructional methods are effective in improving the achievement of students in writing.

In order to test the significance of the effects of IRW instructional methods Hypothesis 1 was raised.

**H<sub>01</sub>: There is no significant main effect of IRW treatment on the writing achievement of students.**

Students' scores were subjected to Analysis of covariance. The results are shown in the table below.

**Table 4.7: Analysis of Covariance (ANCOVA) of Post-test Achievement by Treatment, Gender and Verbal ability**

Source	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared
Corrected Model	15540.575	24	647.524	11.972	0.000	0.418
Intercept	15407.921	1	15407.921	284.868	0.000	0.416
Pre Writing	234.491	1	234.491	4.335	0.038	0.011
Treatment	6781.144	3	2260.381	41.791	0.000*	0.239
Gender	54.196	1	54.196	1.002	0.317	0.002
Verbal ability	15.445	2	7.722	0.143	0.867	0.001
Treatment x Gender	227.642	3	75.881	1.403	0.241	0.010
Treatment x Verbal ability	217.096	6	36.183	0.669	0.675	0.010
Gender x Verbal ability	28.912	2	14.456	.267	0.766	0.001
Treatment x Gender x Verbal ability	43.291	6	7.215	.133	0.992	0.002
Error	21635.190	400	54.088			
Total	2082741.000	425				
Corrected Total	37175.765	424				

R Squared = 0.42 (Adjusted R Squared = 0.38)

\* denotes significant  $p < 0.05$

Results displayed in Table 4.7 reveal that the treatment given to students had a significant main effect on their achievement in writing ( $F_{(3, 400)} = 41.79$ ;  $p < 0.05$ , partial  $\eta^2 = 0.24$ ). The Partial Eta Squared revealed a treatment effect of 24.0%. This indicates that 24.0% of the total variation of 38.0% (Adjusted  $R^2 = 0.38$ ) in students' achievement is attributable to the treatment. Thus, Hypothesis 1 is rejected. To explore the magnitude of the significant main effect across treatment groups, the estimated marginal means of the treatment groups were carried out and the result is presented in Table 4.8.

**Table 4.8: Estimated Marginal Means for Post-test Achievement by Treatment and Control groups**

<b>Treatment</b>	<b>Mean</b>	<b>Std. Error</b>	<b>95% Confidence Interval</b>	
			<b>Lower Bound</b>	<b>Upper Bound</b>
Response to Text (RT)	72.34	0.72	70.92	73.76
Activation of Background Knowledge (ABK)	70.57	0.86	68.88	72.26
Response to Text + Activation of Background Knowledge (RTABK)	76.52	1.04	74.48	78.57
Control Group (CG)	59.54	1.18	57.21	61.86

Table 4.8 indicates that students exposed to Response to Text + Activation of Background Knowledge treatment Group 3 have the highest adjusted post-achievement mean score in writing (76.52) than their counterparts in the Response to Text treatment Group (72.34), Activation of Background Knowledge treatment Group (70.57) and the Control Group (59.54). The order can be presented as RTABK > RT > ABK > CG. To further corroborate the difference between the achievements of the various groups, the Bonferroni post-hoc analysis was carried out across the treatment groups and the result is presented in Table 4.9

**Table 4.9: Bonferroni Post-hoc Analysis of Post-test Achievement by Treatment and Control Group**

Treatment	Mean	RT	ABK	RTABK	CG
Response to Text	72.34			*	*
Activation of Background Knowledge	70.57			*	*
Response to Text + Activation of Background Knowledge	76.52	*	*		*
Control Group	59.54	*	*	*	



The post-hoc test above further substantiates the differences between the achievements of the various groups as the mean scores of all the experimental groups exceeded that of the control group.

The result of the current study indicates that the use of IRW instructional methods facilitated the writing achievement of students. This result agrees with the findings of studies that assert that IRW instruction enhances students' achievement in writing (Pek and Mee, 2014; Lee and Schallert, 2016).

The results also reveal that there was a difference between the effects each of the various instructional methods had on the achievement of the group they were used for when the groups were compared. For example, the Experimental Group 3 (taught with the Response to text strategy + Activation of background knowledge) achieved best of the three experimental groups, followed by the Experimental Group 1. It is possible that the combination of the response to text and activation of background knowledge methods may have stimulated the students to interact with the various texts they encountered during the study as well as dig into their previous knowledge and experience in their interpretation of the texts and development of their writing. The treatment emphasized efferent teaching which aims at the information and knowledge to be gained. This may have helped the students to focus on the information they were to extract while interacting with the texts, hence their better overall achievement in the post test. In addition, embedded in the reader response theory is the fact that each individual already has past experiences and unique personality from which they respond to the text. It is possible that this may have given an added fillip to the RTABK group since they could add their prior knowledge and experience to the information contained in the texts in order to respond to these texts.

On the other hand, the activation of background knowledge method was combined with the RT to teach the students in the Experimental Group 3 to retrieve what they already knew about the topics and texts they encountered during the treatment. Though the texts were on topics the students were familiar with, it does seem that ABK only and the RT only methods did not have as much effect on the experimental Groups 1 and 2 respectively as the RTABK method had on Experimental Group 3. It could be that the use of only the students' prior knowledge activated before reading and writing or only the response to text may not have been enough to enable them (Groups 1 and 2) execute the tasks required of them. This position is strengthened by the actuality that the Response to text + Activation of background knowledge group achieved better than the RT and ABK groups. The combination of response to text and activation of

background knowledge methods seems to have enabled the RTABK group to comprehend the source texts as well as respond to them more effectively than the response to text only or the activation of background knowledge only groups.

From the foregoing, it may be safe to surmise that a longer period of treatment and writing instruction using the combination of response to text and activation of background knowledge methods will positively affect the writing capability of the students.

**Research Question 2:** What level of difference exists between the writing achievement of the experimental and control students?

In order to answer this research question, a paired t-test analysis was carried out to examine the difference between the achievement of the experimental and the control groups.

**Table 4.10:** Paired t-test analysis of pre and posttest scores of the different groups.

<b>Treatment</b>	<b>Test</b>	<b>N</b>	<b>Mean</b>	<b>Std. Deviation</b>	<b>Mean Difference</b>	<b>T</b>	<b>df</b>	<b>p-value</b>	<b>Decision</b>	
Pair 1	RT	123	Pre	52.37	4.69	-19.97	-23.82	122	0.000*	p<0.05
			Post	72.34	8.03					
Pair 2	ABK	94	Pre	52.86	4.78	-17.710	-17.85	93	0.000*	p<0.05
			Post	70.57	8.35					
Pair 3	RTABK	83	Pre	51.99	5.59	-24.53	-20.32	82	0.000*	p<0.05
			Post	76.52	9.47					
Pair 4	CG	125	Pre	51.40	6.99	-8.14	-6.08	124	0.000*	p<0.05
			Post	59.50	13.20					

\*Significant at 0.05 level of significance.

Result from Table 4.10 shows the mean differences between the pre- and post test scores of the experimental and the control groups. The Experimental Group 3 (RTABK, which received the Response to text + Activation of background knowledge treatment) had the highest mean difference, followed by Experimental Group 1 (RT, which received the Response to text treatment) and Experimental Group 2 (ABK, which received the Activation of background knowledge treatment). The Control Group (which received no treatment but was taught with the conventional method) had the least mean difference between the pre- and posttest scores. The post test mean scores of the experimental group 3 differed significantly from that of the other experimental groups as well as that of the control group. Also there was a significant difference between the achievement in writing of the three experimental groups and that of the control group. This indicates that the response to text + activation of background knowledge treatment had the highest effect on the students, followed by the response to text treatment. The activation of background knowledge treatment also had effect on the students but was not as effective as the other treatments. Thus the IRW treatments had a significant effect on the writing achievement of the three experimental groups above what was achieved by the control group.

**Research Question 3:** What level of difference exists between the writing achievement of high, average and low verbal ability students.

The verbal ability test was administered on all the students at the pre- and post tests. The pre test was to ascertain the language ability level of the students prior to the treatment on the experimental students; while the post test was used to compare with the pre test and to find out if verbal ability would affect the achievement of students in writing; as well as ascertain whether treatment would affect the level of difference between the ability groups in any considerable manner.

**Table 4.11:** Analysis showing the difference between writing achievement of high, average and low verbal ability students.

<b>Treatment</b>	<b>Verbal Ability</b>	<b>N</b>	<b>Pre-Test</b>		<b>Post-Test</b>	
			<b>Mean</b>	<b>Std</b>	<b>Mean</b>	<b>Std</b>
<b>RT</b>	<b>Low (L)</b>	45	46.17	5.13	73.66	8.55
	<b>Average (A)</b>	51	52.28	4.44	71.65	7.53
	<b>High (H)</b>	27	58.66	4.16	71.72	7.94
<b>ABK</b>	<b>Low (L)</b>	30	45.16	4.44	71.86	7.77
	<b>Average (A)</b>	43	53.14	4.84	70.54	8.24
	<b>High (H)</b>	21	60.29	4.55	69.32	8.77
<b>RTABK</b>	<b>Low (L)</b>	23	45.35	5.26	77.12	9.09
	<b>Average (A)</b>	39	51.78	6.49	77.41	10.99
	<b>High (H)</b>	21	58.83	4.80	75.05	8.44
<b>CG</b>	<b>Low (L)</b>	33	44.85	6.65	58.12	15.52
	<b>Average (A)</b>	65	51.69	8.14	58.94	12.71
	<b>High (H)</b>	27	57.66	5.59	61.55	8.94

Table 4.12 displays the difference in the achievement of the various ability groups. The performance of the students in Verbal Ability test after treatment did not follow the same pattern as their pre treatment performance. Unexpectedly, the low verbal ability students in the three experimental groups achieved greater mean scores than the high and average verbal ability levels though the difference between the mean scores of the different ability levels was only marginal. It was only in the Control Group that performance trend in the post test was consistent with that of the pretest. The performance of the low verbal ability level students in the experimental groups could be due to a mix of various activities such as emulating stronger classmates, high attendance of classes, plus the treatment administered, which altogether could have made the weaker students able to bridge the deficiencies they had and could now make them able to compete more favourably with others who had a better background in the their primary and secondary schools. Thus one can conclude that the initial verbal ability levels of the students did not determine their achievement in writing because other indices such as class attendance, new knowledge gained and treatment received may have added to their achievement in the post test. Thus this finding supports previous study of Nathan and Abernathy, 2012 which noticed that verbal ability did not affect the achievement of non- learning impaired learners in their writing.

To further ascertain the effect of verbal ability on students' writing, hypothesis three was tested.

**H<sub>02</sub>: There is no significant main effect of verbal ability on writing achievement of students exposed to IRW.**

The verbal ability test was administered on all the students at the pre- and post tests to ascertain their language ability prior to treatment and to find out if verbal ability level would have any noticeable effect on the achievement of participants.

Table 4.7 (p.112) indicates that verbal ability had no appreciable effect on the achievement in writing by students ( $F_{(2, 400)} = 0.14$ ;  $p > 0.05$ , partial  $\eta^2 = 0.00$ ). Thus, Hypothesis 2 was not rejected. The Bonferroni pairwise comparison (Table 4.13) shows that there was no significant difference between the mean scores of the different participants in the different ability groups. This suggests that a combination of new knowledge from the treatments and/or peers, personal effort and application to duty may have helped the students or that they may have been among those who had high class attendance and as such were able to perform comparable to those in the high

ability group; or there could be an unknown reason for this. Thus it may be tenable to assume that when students gain knowledge and apply themselves to their studies, any disadvantage they may have due to their verbal ability level can be overcome.



**Table 4.12: Difference between the means of participants in various verbal ability groups.**

**Pairwise Comparisons**

Dependent Variable: Post Writing

(I)Verbal ability	(J)Verbal ability	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval for Difference	
					Lower Bound	Upper Bound
Low	Average	.557	1.248	1.000	-2.443	3.556
	High	.781	1.524	1.000	-2.883	4.445
Average	Low	-.557	1.248	1.000	-3.556	2.443
	High	.224	1.195	1.000	-2.648	3.096
High	Low	-.781	1.524	1.000	-4.445	2.883
	Average	-.224	1.195	1.000	-3.096	2.648

Based on estimated marginal means

a. Adjustment for multiple comparisons: Bonferroni.

The findings of this study, that verbal ability level did not have a main effect on the post test achievement of students in writing and that there was no significant difference between the verbal ability scores of the various ability levels within the various groups, align with that of Uchemadu and Ogunsola (2016) who did not find any significant effect of verbal ability on the spelling achievement of students, but contradict that of Adegbite and Alabi (2007) which reported that verbal ability had a significant main effect on the writing achievement of subjects and that those with high verbal ability performed better in writing than those with average or low verbal ability.

**Research Question 4:** What level of difference exists between the writing achievement of male and female students?

To answer this research question, the mean scores of males and females in the different study groups were computed. Table 4.14 shows the result.

**Table 4.13:** Pre-test and post test results of the writing achievement of male and female students.

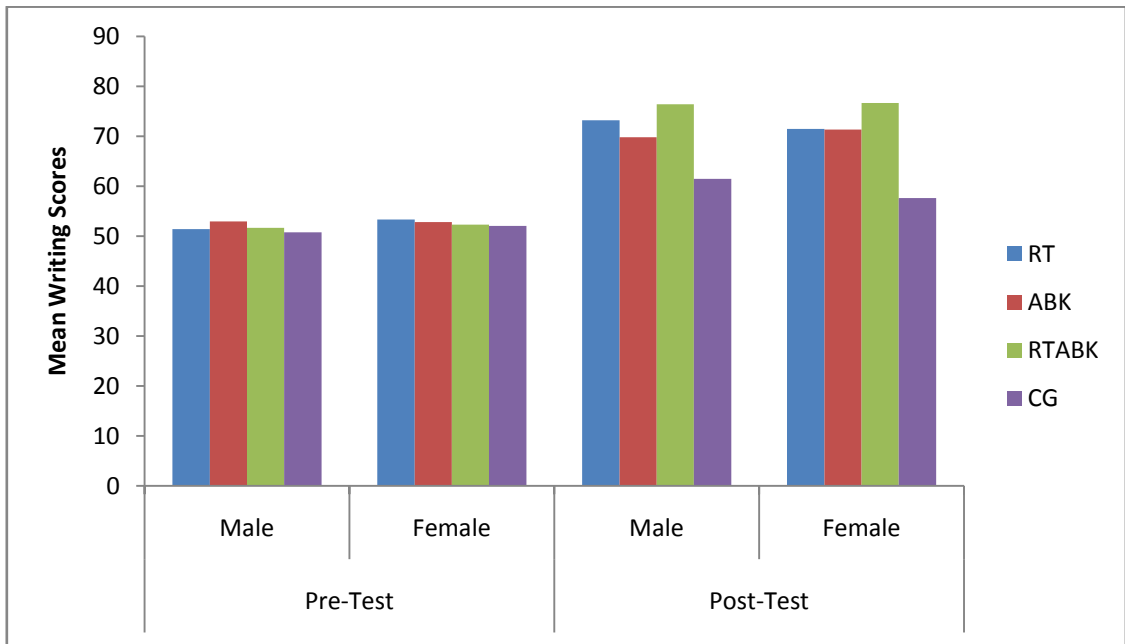
Groups	Gender	N	Pre-Test		Post-Test	
			Mean	Std. Deviation	Mean	Std. Deviation
<b>RT</b>	Male	43	51.43	4.49	73.23	7.76
	Female	80	53.31	4.45	71.46	7.42
	<b>Total</b>	<b>123</b>	<b>52.37</b>	<b>4.69</b>	<b>72.34</b>	<b>8.03</b>
<b>ABK</b>	Male	32	52.94	4.50	69.82	7.91
	Female	62	52.79	4.58	71.33	7.79
	<b>Total</b>	<b>94</b>	<b>52.86</b>	<b>4.78</b>	<b>70.57</b>	<b>8.35</b>
<b>RTABK</b>	Male	67	51.69	4.61	76.40	7.82
	Female	16	52.29	4.36	76.65	7.39
	<b>Total</b>	<b>83</b>	<b>51.99</b>	<b>5.59</b>	<b>76.52</b>	<b>9.47</b>
<b>CG</b>	Male	111	50.77	4.74	61.46	8.05
	Female	14	52.03	4.36	57.61	8.37
	<b>Total</b>	<b>125</b>	<b>51.40</b>	<b>6.99</b>	<b>59.54</b>	<b>13.23</b>
<b>Total</b>	Male	253	51.71	5.06	70.23	8.76
	Female	172	52.61	5.80	69.26	10.41

In the pre-test, there was not much difference in the mean scores of males and females in the different groups. Though the females were slightly better than the males in the RT, RTABK and Control groups while the males performed slightly better than the females in the ABK group, the mean scores were all at par. In the post-test, the males performed slightly better than the females in the RT and the Control groups while the females achieved very slightly better than the males in the ABK and RTABK groups. A t-test was carried out on the scores of male and female students to ascertain if there was any difference between the genders. Table 4.15 below displays the analysis.

**Table 4.14** : T-Test analysis of the difference between the writing achievement of male and female students in the Pre and Post-Tests.

<b>Group/ Treatment</b>	<b>Test</b>	<b>Gender</b>	<b>N</b>	<b>Mean</b>	<b>Std</b>	<b>Mean Difference</b>	<b>Df</b>	<b>T- statistic</b>	<b>p- value</b>	<b>Decision</b>
<b>RT</b>	<b>Pre</b>	Male	43	51.43	4.49	-1.88	121	-2.22	0.029	Sig.
		Female	80	53.31	4.45					
<b>ABK</b>	<b>Post</b>	Male	43	73.23	7.76	1.77	121	1.22	0.224	Not Sig.
		Female	80	71.46	7.42					
	<b>Pre</b>	Male	32	52.94	4.50	0.150	92	0.15	0.880	Not Sig.
		Female	62	52.79	4.58					
<b>RTABK</b>	<b>Post</b>	Male	32	69.82	7.91	-1.51	92	-0.88	0.381	Not Sig.
		Female	62	71.33	7.79					
	<b>Pre</b>	Male	67	51.69	4.61	-0.60	81	-0.49	0.629	Not Sig.
		Female	16	52.29	4.36					
<b>CG</b>	<b>Post</b>	Male	67	76.40	7.82	-0.25	81	-0.12	0.905	Not Sig.
		Female	16	76.65	7.39					
	<b>Pre</b>	Male	111	50.77	4.74	-1.26	123	-1.01	0.327	Not Sig.
		Female	14	52.03	4.36					
<b>Post</b>	Male	111	61.46	8.05	3.85	123	1.63	0.123	Not Sig.	
	Female	14	57.61	8.37						

The t-test shows that the mean difference between the achievement of males and females in all the study groups was not significant as the difference between the mean scores of males and females was very infinitesimal and not statistically significant. Thus, gender is not significant in explaining the achievement of students in writing. This result is in consonance with studies by Muodumogu and Unwaha (2013), and Okonkwo (2015) which found that there is no difference between the writing achievement of males and females; as well as that of Gambari, Kutigi and Fagbemi (2014) which found no significant difference in the oral English achievement of male and female students. Thus it is concluded that gender had no effect on writing achievement, in contradiction to Adeyemi (2008), and Williams and Takaku (2011) who found that females performed better than males in composition writing. Figure 4.5 below graphically shows no significant difference between the achievements of the different genders.



**Fig 4.5:** Pre and Post-test Mean Scores by Gender for Treatments groups.

From the chart above, we see that in the pre-test, generally, the achievement of both males and females in all the groups were approximately on the same level. The slight differences in the achievement of the genders in the various groups at post test does not signify any significance.

**H<sub>03</sub>: There is no significant main effect of gender on writing achievement of students exposed to IRW.**

Table 4.7 (p.112) indicates that gender had no noticeable effect on achievement of participants in writing ( $F_{(1, 400)} = 1.00$ ;  $p > 0.05$ , partial  $\eta^2 = 0.00$ ). Thus, Hypothesis 3 was not rejected. This implies that gender has no appreciable impact on students' achievement in writing. This is further clarified on Table 4.16.



**Table 4.15: Analysis of effects of gender on writing achievement of participants**

Dependent Variable: Post Writing

Gender	Mean	Std. Error	95% Confidence Interval	
			Lower Bound	Upper Bound
Male	70.226 <sup>a</sup>	.551	69.143	71.310
Female	69.261 <sup>a</sup>	.794	67.699	70.822

The table shows that the difference between the mean scores of males and females was not statistically significant. Thus it is in agreement with the finding above that gender did not affect the ability of the students to write. It is therefore pertinent to conclude that any student who applies him/herself to study would excel irrespective of whether s/he is male or female.

### **Results of the interactional analysis**

This section considers the result of the interactional effect of the variables on the writing achievement of the subjects. Apart from looking at the effect of instructional methods on the achievement of students in writing, this study also took into account the outcome of the interface of the following variables on achievement in writing:

- Interaction effect of treatment and gender on achievement in writing
- Interaction effect of treatment and verbal ability on achievement in writing
- Interaction effect of gender and verbal ability on achievement in writing.
- Interaction effect of treatment, gender and verbal ability on achievement in writing.

This interactional analysis is undergirded by hypotheses 5–7 and the discussions that follow.

**H<sub>04</sub>: H<sub>04</sub>: There is no significant interaction effect of treatment and gender on the writing achievement of students.**

The interaction of the IRW treatment and gender were examined to see if it had any effect on the achievement of students in writing. Table 4.17 gives presents the data of this.

**Table 4.16:** ANCOVA analysis of the interaction effect of treatment and gender on participants' achievement in writing

**Treatment \* Gender**

Dependent Variable: Post Writing

Treatment	Gender	Mean	Std. Error	95% Confidence Interval	
				Lower Bound	Upper Bound
Response to Text (RT)	Male	73.228 <sup>a</sup>	1.184	70.900	75.556
	Female	71.456 <sup>a</sup>	.829	69.826	73.086
Activation of Background Knowledge (ABK)	Male	69.815 <sup>a</sup>	1.399	67.065	72.566
	Female	71.325 <sup>a</sup>	.989	69.380	73.270
Response to Text + Activation of Background Knowledge (RTABK)	Male	76.399 <sup>a</sup>	.955	74.522	78.276
	Female	76.647 <sup>a</sup>	1.847	73.017	80.278
Control Group (CG)	Male	61.463 <sup>a</sup>	.764	59.961	62.966
	Female	57.614 <sup>a</sup>	2.238	53.214	62.014

The analyses in Tables 4.7 and 4.17 were used to test the hypothesis. The tables show that both in the pre-test and the post test, gender did not play any significant role in scores of the students. The mean differences between the males and females in the different groups were infinitesimal. In addition, the p-values for both males and females were more than 0.05 level of significance in each case, suggesting that there was no difference between the achievement of the different genders. Table 4.7 (p.112) indicates that treatment did not correlate with gender to produce any appreciable effect on students' achievement in writing ( $F_{(3, 400)} = 1.40$ ;  $p > 0.05$ , partial  $\eta^2 = 0.01$ ). Hence, hypothesis 4 was not rejected. The null hypothesis was therefore accepted. This result shows that the gender of students did not determine their ability to write effectively. According to Jerome Bruner's constructivist theory of learning, learners form new ideas based on their present and past experiences and this helps them to perform present and new tasks. So the emphasis is on the personal experiences of the participants which they processed and employed in the writing tasks which they were faced with and not on whether they are male or female.

This result is consistent with the findings of Ezeokoli and Igubor (2016) which found that the interface between gender and treatment had no notable impact on the writing achievement of students because there was no appreciable difference between the achievement of male and female secondary school students in essay writing.

**H<sub>05</sub>: There is no significant interaction effect of treatment and verbal ability on writing achievement of students.**

Data from students' scores were analysed using ANCOVA to find out if the intermingling of treatment and verbal ability would have any bearing on the achievement of students in writing. This is presented in Table 4.18.

**Table 4.17 : ANCOVA analysis of the interaction effect of treatment and verbal ability on students' achievement in writing**

**Treatment \* Verbal ability**  
 Dependent Variable: Post Writing

Treatment	Verbal ability	Mean	Std. Error	95% Confidence Interval	
				Lower Bound	Upper Bound
Response to Text (RT)	Low	73.659 <sup>a</sup>	1.275	71.152	76.166
	Average	71.647 <sup>a</sup>	1.055	69.573	73.722
	High	71.720 <sup>a</sup>	1.528	68.716	74.724
Activation of Background Knowledge (ABK)	Low	71.858 <sup>a</sup>	1.418	69.069	74.647
	Average	70.535 <sup>a</sup>	1.256	68.067	73.004
	High	69.318 <sup>a</sup>	1.914	65.556	73.080
Response to Text + Activation of Background Knowledge (RTABK)	Low	77.120 <sup>a</sup>	1.896	73.391	80.848
	Average	77.405 <sup>a</sup>	1.761	73.943	80.868
	High	75.045 <sup>a</sup>	1.841	71.426	78.664
Control Group (CG)	Low	58.121 <sup>a</sup>	2.702	52.809	63.433
	Average	58.942 <sup>a</sup>	1.576	55.844	62.041
	High	61.552 <sup>a</sup>	1.720	58.171	64.932

Table 4.7 (p.112) and Table 4.18 (below) show that the interface between treatment and verbal ability had no influence on the writing achievement of students. Table 4.7 (p.112) indicates that there is no significant interaction effect of treatment and verbal ability on students' achievement in writing ( $F_{(6, 400)} = 0.67$ ;  $p > 0.05$ , partial  $\eta^2 = 0.01$ ). Hence, hypothesis 5 was not rejected. In other words, students' verbal ability did not interact with the treatment to influence their achievement in writing, which implies that students' improvement in writing was as a result of the treatments administered on them and not on their level of verbal ability; that is, the IRW methods positively affected their writing achievement. Hence the null hypothesis was accepted.

This result is consistent with the finding of Fola-Adebayo (2014) in which treatment and verbal ability had no significant interaction effect on the achievement of students.

**H<sub>06</sub>: There is no significant interaction effect of gender and verbal ability on the writing achievement of students.**

Data from students' scores were analysed to ascertain if gender and verbal ability would interact to impinge on the achievement of students in writing in any significant manner. The analysis is given in Table 4.7 and 4.19.

**Table 4.18: Interaction effect of gender and verbal ability**

**Gender \* Verbal ability**

Dependent Variable: Post Writing

Gender	Verbal ability	Mean	Std. Error	95% Confidence Interval	
				Lower Bound	Upper Bound
Male	Low	70.146 <sup>a</sup>	.952	68.273	72.018
	Average	70.307 <sup>a</sup>	.780	68.774	71.841
	High	70.226 <sup>a</sup>	1.241	67.786	72.667
Female	Low	70.233 <sup>a</sup>	1.694	66.903	73.564
	Average	68.958 <sup>a</sup>	1.208	66.584	71.332
	High	68.591 <sup>a</sup>	1.323	65.989	71.192

a. Covariates appearing in the model are evaluated at the following values: Pre Writing = 51.4541.

The two tables show gender and verbal ability did not correlate to improve students' achievement in writing ( $F_{(2, 400)} = 0.27$ ;  $p > 0.05$ , partial  $\eta^2 = 0.00$ ). Therefore, hypothesis 6 was not rejected. This indicates that gender and verbal ability did not intermingle to produce any noticeable effects on students' achievement in writing. That means that the achievement in writing by students was a result of the treatment given to them. This situation could be explained by the fact that writing is a skill which involves thinking, personal attributes as well as the previous experience which the students combine in order to produce their written texts. So the level of verbal ability or the reality of being male or female did not influence the ability of students to write. However, this finding varies from that of Adegbite and Alabi (2007) who reported that an interaction of the two variables affected the writing achievement of senior secondary school (SS2) students in essay writing.

**H<sub>07</sub>: There is no significant interaction effect of treatment, gender and verbal ability on the writing achievement of students.**

ANCOVA was used to test the three-way correlation between treatment, gender and verbal ability in order to find out if they had a significant effect on the achievement of students in writing. The result is shown in Tables 4.7 and 4.20.



**Table 4.19: Interaction effect of treatment, gender and verbal ability on students' achievement in writing**

**Treatment \* Gender \* Verbal ability**  
 Dependent Variable: PostWriting

					95% Confidence Interval		
Treatment	Gender	Verbal ability	Mean	Std. Error	Lower Bound	Upper Bound	
Response to Text (RT)	Male	Low	73.794 <sup>a</sup>	1.990	69.881	77.706	
		Average	73.071 <sup>a</sup>	1.645	69.838	76.304	
		High	72.819 <sup>a</sup>	2.505	67.895	77.743	
	Female	Low	73.525 <sup>a</sup>	1.507	70.562	76.487	
		Average	70.223 <sup>a</sup>	1.322	67.623	72.823	
		High	70.621 <sup>a</sup>	1.605	67.465	73.776	
	Activation Background Knowledge (ABK)	Male	Low	70.156 <sup>a</sup>	2.009	66.205	74.106
			Average	70.067 <sup>a</sup>	2.133	65.873	74.261
			High	69.223 <sup>a</sup>	3.081	63.165	75.281
Female		Low	73.560 <sup>a</sup>	1.900	69.825	77.296	
		Average	71.004 <sup>a</sup>	1.321	68.406	73.601	
		High	69.412 <sup>a</sup>	2.035	65.412	73.412	
Response to Text + Activation Background Knowledge (RTABK)	Male	Low	76.188 <sup>a</sup>	1.788	72.674	79.703	
		Average	77.032 <sup>a</sup>	1.261	74.552	79.512	
		High	75.977 <sup>a</sup>	1.954	72.136	79.818	
	Female	Low	78.051 <sup>a</sup>	3.304	71.556	84.546	
		Average	77.779 <sup>a</sup>	3.289	71.313	84.245	
		High	74.113 <sup>a</sup>	3.045	68.127	80.099	
Control Group (CG)	Male	Low	60.446 <sup>a</sup>	1.346	57.799	63.092	
		Average	61.058 <sup>a</sup>	.960	59.171	62.946	
		High	62.886 <sup>a</sup>	1.616	59.708	66.063	
	Female	Low	55.797 <sup>a</sup>	5.214	45.546	66.048	
		Average	56.827 <sup>a</sup>	3.002	50.924	62.729	
		High	60.218 <sup>a</sup>	3.017	54.287	66.149	

The results in Tables 4.7 and 4.20 show that treatment, gender and verbal ability did not interact to produce any appreciable effect on the writing of students ( $F_{(6, 400)} = 0.13$ ;  $p > 0.05$ , partial  $\eta^2 = 0.00$ ). Thus the interaction of the three variables had no significant effect on the writing achievement of students. Hence the null hypothesis is accepted.

Table 4.7 (p.112) indicates that there was no significant one way, two way or three way interaction between the treatment and the moderating variables. This means that gender and verbal ability did not interact with the IRW response to text, activation of background knowledge and response to text + activation of background knowledge methods to improve the writing achievement of students. This is in consonance with Uchemadu and Ogunsola (2016) who found that there were no one-way, two-way or three-way interactions of treatment, gender and verbal ability on the spelling achievement of students in their study; but this study contradicts Adegbite and Alabi (2007) who found a notable two-way interaction of gender and verbal ability on students' achievement in essay writing.

### **Summary of findings**

This study investigated the effects of integrated reading and writing instructional methods on the writing achievement of undergraduates in Federal University of Technology Owerri, Nigeria. A summary of the findings is given below:

In summary, Research Question 1 and Hypothesis 1 indicate that the Integrated Reading and Writing instructional methods of response to text, activation of background knowledge and a combination of response to text and activation of background knowledge methods had a significant effect on the achievement in writing by participants. This result denotes that integrating reading and writing instruction for university undergraduates impacted on their proficiency in writing in the English language. There was an improvement in the writing achievement of the treatment groups, while the control group did not experience such level of improvement. Also in order to identify which of the instructional methods was most effective in enhancing students' writing achievement, the findings show that the response to text + activation of background knowledge method was most effective, followed by the response to text and finally the activation of background knowledge. This is in consonance with Lee and Schallert (2015) who found that reading as well as writing facilitates the acquisition of each skill by learners because they entail similar procedures. This also suggests that students who are taught with improved methods of instruction will

improve in their writing and reading more than those who are taught with the same old method which has not yielded much in improving the achievement of students in reading or writing.

Results from the study also showed that gender and verbal ability had no significant main effects on the writing achievement of the study participants.

The study also investigated the interactional effect of instructional method, gender and verbal ability on the achievement of the students in writing. The one-way, two-way and three-way interaction of instructional method, verbal ability and gender had a non-significant interactional effect on the writing achievement of the students.

### **Focus group discussion**

A Focus Group Discussion (FGD) was used as a supplementary means of gathering qualitative data for the study from the participants. This was done in order to know what the views of students were regarding the instructional methods used during the study; to elicit what they found most beneficial to them; and how the study affected them.

### **On methodology**

The FGD was fixed to take place three days after the end of the study since this would ensure that the experiences of the participants during the study would still be fresh in their minds and the researcher would be able to get immediate reactions from them. One of the classrooms in the Directorate of General Studies was used as the venue. A set of open-ended questions was prepared by the researcher and discussed with one of the study instructors who acted as the moderator during the discussion. This was to ensure that the moderator had an outline to guide the discussion. The course representatives of the three experimental groups were invited to participate in the FGD. This consisted of three course representatives who were male, and one assistant course representative who was female. These participants were selected because they are the leaders of the classes and are representative members of the sample of study who experienced the IRW treatments.

During the FGD proper, the participants were welcomed by the moderator and made to feel comfortable and at ease. They were informed that the FGD was to find out what their views were about the just concluded study so as to enable the interviewers make representations to the University for improving lecture delivery to students. They were also told that everything said during the course of the discussion would be treated as strictly confidential. Then everyone was asked to introduce themselves and to put off

their cell phones or at least put them on silent. The moderator then followed the outline prepared by the researcher based on Krueger (2002) to give the ground rules for the discussion and the questions followed (See Appendices 5 and 6 on pages 197 and 198 for the outline and the questions).

### **Data Collection and analysis**

The discussions were tape recorded and transcribed after the session. The notes written by the researcher during the discussion were also taken into consideration. This formed the data which were then analysed according to themes that had been earlier defined based on the purposes of the FGD. This was also subjected to interpretive analysis.

### **Findings**

#### **Gains from the study**

From their responses, the students indicated that they had gained knowledge and skill from the treatment and that they were confident they would apply what they had learnt to their other courses. For example, participants indicated that they had improved in their reading and writing skills as well as their enjoyment of reading and writing activities.

Participants generally commented that they found the course beneficial. One student said:

I now know how to use my previous knowledge to apply to what I am reading or writing. I have also learnt to write down my thoughts and feelings about a text I am reading, unlike before when I did not write down any thing I felt about a book I am reading. (Nsikak)

Another student also said:

I have learnt to pay attention to the writing process. I specially brainstorm, i.e. write down my ideas before I start writing. I also now make sure I review my writing before I submit it. (John)

Yet another student said:

This course has made me to know that there is a connection between reading and writing. So I pay more attention when I am reading so that I can use the knowledge I gain to write when the opportunity comes. I

have learnt that it is important to think of the person who will read my work and to place myself in his shoes.  
(Chibuikem)

The FGD participants also believed that the treatment improved their grammatical and spelling abilities as well as enabled them to pay attention to use of mechanics when reading and writing.

### **Views on the teaching methods**

Participants were of the opinion that the methods of activating what they already knew about topics through questions by the lecturer, class discussion and reacting to the topics in writing helped their understanding and writing practice

One of the discussants said:

The number of writing assignments has helped me to improve my writing, especially in the area of thinking before I write and also in my spelling and grammar.

### **Suggestions on how to improve instruction**

Some of the participants suggested that the course should be extended or the method of instruction applied to other courses.

I believe that this course should be continued in our two hundred level because it will help us to be grounded in our writing, even in our core courses. (Vanessa)

They also suggested that the University should conduct seminars or workshops where lecturers will be made to be conversant with such methods of instruction as response to text and activation of background knowledge.

Overall, from their responses, the students seemed to be enthusiastic about the treatments they received and happy about what they had learnt during the course of the study. This, it is hoped, will motivate them to take up more reading and writing activities which will in turn continue to contribute to the improvement of their literacy skills. The responses of the participants support the results from the Research Questions and hypotheses which show that integrated reading and writing instructional methods are effective in enhancing the writing abilities of first year undergraduate students. This is in consonance with the study conducted by Memduhoglu, Kotluk and Yayla (2017) in which they used FGD as a tool for self assessment by the students to gauge what they felt about their intervention.

## **CHAPTER FIVE**

### **SUMMARY, CONCLUSIONS AND RECOMMENDATIONS**

The importance of writing for academic, professional and even vocational development in Nigeria cannot be over-emphasized. Writing is an important tool for learning at all levels of education and the need for participation in the information and communication technology and other global activities demands that the second language user must be proficient in all language skills, especially writing. Studies indicate that learners' inability to write at expected levels of proficiency is a global concern (Graham and Perin, 2007), therefore, there is need to arm students with the necessary strategies and methods that will facilitate writing proficiency. Knowledge of writing strategies is important for the undergraduate who needs to write in a second language and studies suggest that there is a relationship between high level of proficiency in writing and frequent use of writing strategies.

Much work has been done in enhancing writing among primary and secondary school students in Nigeria and a gap exists as far as the development of writing in undergraduates is concerned. Also not much is known about studies that integrate reading and writing instruction to enhance writing achievement in science and technology undergraduates. This study investigated the effect of integrated reading and writing instructional methods (the activation of background knowledge, the response to text, and a combination of the two methods) on the writing achievement of first year undergraduate students of a university of technology. It also investigated whether there was a significant correlation between the verbal ability of students, their gender and the instructional method.

Purposive sampling was used to choose the Federal University of Technology Owerri, Imo State. Four out of the eight schools/faculties of the university were also purposively selected based on the failure rate in the Use of English course compared to other faculties. This was to ensure that students who were weakest based on the conventional teaching were used for the study. One department was then chosen from

each of the four schools through simple balloting. A total of 425 students, comprising 174 females and 251 males, were the participants of the study. The study employed a pre-test, post-test, control group quasi-experimental design with three experimental groups and one control group. The three experimental groups were taught with the activation of background knowledge, the response to text and a combination of the response to text + activation of background knowledge methods respectively. The instruction was for two hours a week for a total of five weeks.

Data was collected through a students' writing achievement test and Focus Group Discussion. A pilot study was carried out at the Michael Okpara University of Agriculture Umudike. This was in order to test the research questions and hypotheses and trial the research instruments on a small scale before the main study. The data from the main study was collected from the scores of students in the writing prompt given to them during the course of the study. Four research questions and seven hypotheses were formulated for the study and were tested at  $p < 0.05$  level of significance. The data obtained were analysed with the use of descriptive statistics, Analysis of covariance and Bonferroni post-hoc test at 0.05 level of significance.

## **5.1 Summary of findings**

This study which investigated the effect of Integrated reading and writing instructional methods (the response to text, the activation of background knowledge and response to text + activation of background knowledge) on the writing achievement of first year university of technology undergraduates and the moderating effects of verbal ability and gender on the learning outcome made the following findings:

- That there was a significant main effect of instructional method on the writing achievement of first year university undergraduates.
- That the experimental participants achieved significantly better in writing than the control students.
- Gender had no main effect on the achievement of the students. The analysis showed that the mean scores of the different genders were not significantly different from one another. Though the females performed very slightly better than the males, this difference was not significant.
- That verbal ability had no main effect on the writing achievement of the students. High verbal ability students did not have higher mean scores than medium or low

verbal ability students, thus indicating that verbal ability had no significant impact on the achievement of the students in writing.

- There was no significant interactional effect of treatment and gender on the writing achievement of the students.
- There was no significant interactional effect of treatment and verbal ability on the writing achievement of the students.
- There was no significant interactional effect of gender and verbal ability on the writing achievement of students
- Finally, there was no significant three way interactional effect of treatment, gender and verbal ability on the writing achievement of subjects.
- Also, with regard to determining which of the methods had the most effect on the writing achievement of students, the findings indicate that the combination of response to text and activation of background knowledge was the most effective on the writing achievement of participants, followed by the response to text and, lastly, by the activation of background knowledge.

## **5.2 Conclusions**

The findings of this study indicate that the use of the IRW instructional methods of response to text, activation of background knowledge and response to text + activation of background knowledge aided achievement in writing. The response to text + activation of background knowledge method was the most effective in impacting on the achievement of students in writing, followed by the response to text strategy, and finally by the activation of background knowledge respectively

The study also revealed that verbal ability did not impact on the achievement of the students in writing. High verbal ability students did not have any significantly higher mean scores than the medium and low verbal ability students. The medium verbal ability students also had no better achievement scores than the low verbal ability students in all the groups. Gender did not have a significant impact on the writing achievement of the students based on their mean scores but the individual scores of the gender differed. The females, overall, had slightly higher achievement scores than the males.



The study also indicates that there is no significant interactional effect of treatment and gender, treatment and verbal ability, gender and verbal ability, and treatment, gender and verbal ability on the achievement of the students in writing.

### **5.3 Recommendations**

As a result of the conclusions reached from this study, the following recommendations are presented:

- Teachers in the various language and content area courses in FUTO and other Nigerian universities should employ the IRW instructional methods of response to text and activation of background knowledge as this study has shown that this will promote the writing proficiency of their students.
- Teachers should encourage their students to read and write regularly and extensively.
- Teachers should be given the opportunity to undergo regular professional development where instructional methods such as IRW will be exposed to them to enable them improve the writing competency of their students
- Students should be encouraged to assess their learning outcomes in language and other courses so as to be able to evaluate what they gain or find difficult in particular courses. This will help both the teachers and students to set goals which they know would be measured for achievement or otherwise at the end of their courses.
- The lack of significance in the difference between the achievements of both sexes in this study indicates that females as well as males have the capacity to produce writing at the highest level of proficiency when exposed to the right instructional methods. The gender bias which relegates females to second place behind the males should be done away with.

### **5.4 Suggestions for further research**

Scholars and researchers interested in literacy instruction can use this study as a base to investigate other methods and strategies that would enhance the reading and writing proficiency of undergraduates and other students through integrating reading and writing instruction. Another research direction could be to investigate if teachers

would be willing to make the shift from the conventional to the IRW methods. The study could also be replicated in Colleges of Education.

### **5.5 Contributions to Knowledge**

1. This study has contributed to research in writing by utilizing a little known and unapplied methodology in a Nigerian university
2. Through the trial of internationally applied methods and strategies, the Use of English course can now be effectively taught and students' competence in the use of language can be elevated, thus making them able to compete with other students anywhere in the world.
3. This study showed that the Integrated Reading and Writing instruction effectively changed the mindset of students about learning write and read.

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## APPENDICES

### Appendix 1: Course Synopsis of the Use of English course

#### For First Year Students of the Federal University of Technology, Owerri

Course Code	Title and Description	Units
<b>GST 101</b>	<b>USE OF ENGLISH 1</b>	<b>2</b>
	<p><b>Introduction:</b> Historical Background of the English in Nigeria; Functions of English in Nigeria; Enhancing proficiency in English; Why use English?</p> <p><b>Study Skills:</b> Time management; Use of Library; Note taking; Use of Dictionary.</p> <p><b>Listening Skills:</b> What is listening? Types of listening; Factors that affect listening efficiency; How to cultivate good listening ability.</p> <p><b>Reading Skills:</b> Reading defined; Why we must read; Reading faults; Good reading habits; Reading speed; Reading techniques – skimming, scanning, SQ3R; Intensive and extensive reading; Levels of reading – reading for main ideas, reading for details, reading for links, reading critically, reading creatively.</p> <p><b>Vocabulary Development:</b> Meaning of vocabulary; word formation processes; Affixes – prefix and suffix; Lexical relations – synonym, antonym, homonym, hyponym, etc; Connotation and denotation; Collocations and idioms; Figures of speech.</p> <p><b>Outlining and Summary:</b> what is outline? Uses of outline; how to draw outline; summary defined; importance of summary; Essentials of summary writing; the format of summary.</p> <p><b>Oral communication skills:</b> organs of speech; speech sounds – consonants, vowels; simple phonemic transcription; stress; intonation.</p> <p><b>Literary Appreciation:</b> Literary genres and their features; Elements of a literary work – theme, plot, characterization, setting, point of view, etc.</p>	

GST 102	USE OF ENGLISH 2	2
	<p><b>Grammar:</b> introduction; word classes (parts of speech) functions and tenses; Phrases and clauses; Elements of sentences – subject (headwords), verb, object, complement; Sentence types – simple, compound, complex, compound-complex, declarative, interrogative, imperative and exclamation; Sentence agreement (concord); Voice – passive and active; Direct and indirect speeches; Mechanics – punctuation and spelling guide.</p> <p><b>Paragraph development:</b> what is a paragraph; types of paragraphs; structure of paragraph – introductory/topic sentence, linking devices; qualities of a good paragraph</p> <p><b>Essay writing:</b> Types – descriptive, narrative, expository, argumentative; pre-writing – planning, choosing/framing topic, articulating a thesis statement, gathering/sorting ideas/information, outlining; Writing – choice of words, tone style, paragraph and cohesion; Structure – introduction, development (body) and conclusion; Rewriting: review, checklist – punctuation, spellings, tenses , etc.</p> <p><b>Letter writing:</b> Types, format; letters of application; curriculum vitae;</p> <p><b>Report writing:</b> Types of report; features of reports; term paper; documentation and referencing</p>	

**APPENDIX 2:**  
**VERBAL ABILITY TEST**

1. **Name:** .....
2. **Sex:** .....
2. **Age:** .....
3. **Department:** .....

This test measures your verbal ability. It contains different questions. Tick the correct answers. Some examples are provided to show you how to answer the questions.

**Example A: Choose the option that best fills the gap.**

No one ..... better than Mary.

- a. act            b. acts            c. acting            d. have act

Since indefinite pronouns such as no one, each, everybody, everyone, etc. are singular and therefore require singular verbs, the correct answer in Example A is acts; so tick B.

**Example B: Choose the option opposite in meaning to the word in italics**

He talked about the *potency* of the drug

- a. action            b. power            c. inefficiency            d. loss

Since potency in this context means the strength of the effect of a drug, the opposite of the word must indicate lack of efficacy. Therefore the correct answer is inefficiency; so tick C.

**Read the passage below carefully and answer the questions that follow.**

One would have thought that now that the bottle of Coke is cheaper than the litre of petrol, we would have a respite from those that rule over us. Not so, apparently. We are now going to pay N1.50 more for every litre of fuel we buy at the deregulated price. Now that the grand men in Aso Rock Villa have ended the era of subsidy, that of taxation can follow.

There are two broad bases for the new taxation. One was that government needed so much money to maintain and repair old roads and also to construct new ones. This much needed fund can no longer be provided from the normal sources of fund available to the Federal Government. In its first four years in power, the Federal Government spent tens of billions of Naira on road construction and rehabilitation. Now the government needs even more funds and it can only get it by putting the gas nozzle to our heads. Literally, we are robbed at the nozzle point.

The second argument is even more bizarre and only a government can come up with such explanation. The government farmed out toll gates across the country through

which it believed it could realize enough funds to rehabilitate and maintain federal roads. Unfortunately, the government cannot monitor the civil servants running the toll gates. They were robbing government as they were robbing us. To stem the tide of the sleaze, the government appointed contractors to man the gates. (Adapted from the Editorial, *Tell Magazine*, 2004).

1. What does the expression “*we would have a respite*” mean?  
a) have a long period of rest   b) have a short period of rest   c) experience a little pain   d) experience much pain
2. From the passage, the author’s attitude to our leaders can be described as  
a) cynical   b) optimistic   c) indifferent   d) trusting
3. What is the main reason for the hike in the price of petroleum products?  
a) money is needed to repair and manage old roads   b) money is needed to rehabilitate and construct new roads   c) money is needed to manage the toll gates and our roads   d) money is needed to pay contractors and maintain our roads.
4. Sleaze as used in the passage must mean  
a) master   b) shortage   c) hike   d) theft
5. We can infer from the passage that before the hike in the price of fuel, the litre of petrol was cheaper than a bottle of coke.  
a) True   b) False   c) Not indicated in the passage

Read the passage below and answer the questions that follow:

18,000 years ago, much of Europe lay buried beneath vast sheets of ice, hundreds of metres thick. Ever since this astonishing fact was discovered in the last century, scientists have speculated on the nature of the ice age climate, and the circumstances that brought it to an end.

More recently, people have wondered if climate change could be taking place in our own time. During the early 1970s there were disastrous droughts in Africa, and frequent failures of the Indian monsoon. In 1976, Europe sweltered in the hottest summer for over a century, and experienced one of the worst droughts since records began. Could such events as these be symptoms of a worldwide climate shift?

Even small changes in climate that occur from time to time can have highly damaging effects on agriculture. With food reserves now standing at only a few percent of annual production, the world is extremely vulnerable to adverse shifts in climate. It is therefore vitally important for us to understand how climatic changes take place.

Equally important is the need to understand why such changes occur. Until recently we have assumed that variations in regional and global climate observed over the centuries resulted from natural phenomena. But there is now some tentative evidence suggesting that man's activities are already affecting local climates, and may affect regional and even global climatic patterns in future.

6. The author's claim that some tentative evidence suggesting that man's activities are already affecting local climates indicates that:
  - A. The author is convinced that man's activities are responsible for local climate change
  - B. The author is not convinced that man's activities are responsible for local climate change
  - C. The author is undecided.
7. We are told that much of Europe lay buried under vast sheet of ice 18,000 years ago. What do you think brought this to an end?
  - A. Activities of scientists
  - B. Climatic change
  - C. Man's activities
8. What were the immediate and medium-term consequences of the climatic events in Africa and India in the early 1970s?
  - A. Drought and hot summers
  - B. Hot summers and climatic shifts
  - C. Droughts and monsoon
9. From the passage, 'sweltered' must mean
  - A. persevered
  - B. suffered
  - C. went through
10. The following are the possible topics of the paragraphs of this passage. Number the sets in an order that follows the organization of the passage, then from each set select a, b, or c that best expresses the content of the passage.
  - A. (i) Effect of climate change on food supply  
(ii) Climatic changes resulting from man's activities  
(iii) Climatic changes in the 1970s  
(iv) Europe's climatic change thousands of years ago
  - B. (i) Climatic changes resulting from man's activities

- (ii) Europe's climatic change thousands of years ago
- (iii) Effect of climatic change on food supply
- (iv) Climatic changes in the 1970s
- C. (i) Europe's climatic change thousands of years ago
  - (ii) Climatic changes in the 1970s
  - (iii) Effect of climatic change on food supply
  - (iv) Climatic changes resulting from man's activities.

## **MARKET FAILURE**

Cocaine is profitable for the farmer and trafficker, otherwise they would not produce it. How, then, can it be said that cocaine may harm the economy, if it is profitable – indeed super-profitable- for the producers?

Even the most conservative of the economists recognized that sometimes that which is profitable is bad for society. Cocaine is a good example of what economists call “market failure”, that is, in some situations, markets encourage behavior that is unprofitable for society and discourage behavior that is better for development.

Market failure occurs when there is a difference between the costs of an action for an individual and the cost of that action for society. In the case of cocaine, market failure occurs – the market encourages cocaine production even though it may be bad for the society – because the roughly 5% of the national population involved in the cocaine industry do not bear many of the costs they impose on society.

The technical term for this problem is “negative externalities,” which are costs that society has to bear but are outside (external) the producer's obligation to pay. One example is the factory which pollutes the air. If a company is choosing between two ways of making a product, with one method costing less but producing less pollution while the other method costs more but does not pollute, the company will make more profit if it chooses the polluting method. That makes sense for the company but not necessarily for society, because the pollution causes health problems. It would be wrong to say that the pollution method is more economical: it is cheaper for the company, but it is more expensive for society.

This essay lays out the negative externalities of the cocaine industry. These include direct economic costs, indirect economic costs, ecological problems, and political costs; each is discussed in a separate section. We do not attempt to measure each of these costs; little hard data exists on many vital points, and besides which analysts

disagree on how to measure something as abstract as the cost of fear and intimidation from greater violence.

No one can deny that cocaine has some positive effects on the nation's economy, beyond just profits for the individuals who work in the industry. Cocaine exports have earned foreign exchange, which has made possible more imports and/or less external debt (though, as we argue below, cocaine may have undermined the legal economy and stimulated consumption so much that there may have been no net benefit to the balance of payments).

#### QUESTIONS

11. The following can be said of the effects of cocaine production on the nation
  - (a) The advantages and the disadvantages are almost equal
  - (b) Consumers and the economy lose more
  - (c) Cocaine production benefits the producers while the consumers lose
  - (d) Market encourages its production at the expense of the economy
12. From the first paragraph, one can conclude that
  - (a) If cocaine is not profitable for the producer, then it is super-profitable for the economy in the long run
  - (b) If cocaine harms the economy, it will also harm the producers
  - (c) Farmers and traffickers engage in cocaine production because of their selfish interest
  - (d) If cocaine production is not discouraged, it will harm the economy.
13. From the passage we can conclude that
  - (a) Market failure implies negative externalities
  - (b) If a company chooses a production method that does not pollute but costs more, it implies "negative externalities" for the company
  - (c) Any behavior that is profitable to the society is also profitable to the producer
  - (d) Even the conservative economists understand that any behavior that is profitable is bad for the economy.
14. What word is central to the content of this passage?
  - (a) Market failure
  - (b) Cocaine
  - (c) Behaviour
  - (d) Profitable



15. The author's feelings to the farmer and trafficker of cocaine can be summarized as
- (a) Feelings of indifference
  - (b) Feelings of disappointment and frustration
  - (c) Feelings of joy
  - (d) all of the above

The passage below has gaps numbered 16 to 25. Immediately following each gap, four options are provided. Choose the most appropriate option for each gap.

It is the business of the scientist to accumulate knowledge about the universe and all that is in it, and to find, if he is able, common \_\_\_\_\_16[A. *experiments* B. *instruments* C. *approaches* D. *factors*] which underlie and account for the facts that he knows. He chooses, when he can, the method of the controlled \_\_\_\_\_17[A. *respondent* B. *experiment* C. *system* D. *data*]. If he wants to find out the effects of light on growing plants, he takes many plants, as alike as possible. Some he stands in the sun, some in the shade, some in the dark; all the time keeping all other \_\_\_\_\_18[A. *studies* B. *procedures* C. *objects* D. *conditions*] (temperature, moisture, nourishment) the same. In this way, by keeping other variables \_\_\_\_\_19[A. *constant* B. *good* C. *dark* D. *natural*], and by varying the light only, the effect of light on plants can be clearly seen. This \_\_\_\_\_20[A. *research* B. *method* C. *tool* D. *rationale*] of using controls can be applied to a variety of situations, and can be used to find the answers to questions as widely different as 'must moisture be present if \_\_\_\_\_21[A. *an alloy* B. *gold* C. *bar* D. *iron*] is to rust' and 'which variety of beans gives the greatest yield in one \_\_\_\_\_22 [A. *climate* B. *period* C. *season* D. *weather*]?

In the course of his \_\_\_\_\_23 [A. *findings* B. *queries* C. *experiment* D. *inquiries*], the scientist may find what he thinks is one common explanation for an increasing number of facts. The explanation, if it seems consistently to fit the various facts, is called \_\_\_\_\_24 [A. *an antithesis* B. *a principle* C. *a thesis* D. *a hypothesis*]. If this continues to stand the test of numerous experiments, it becomes a \_\_\_\_\_25 [A. *deduction* B. *law* C. *notion* D. *thesis*].

**In each of the following questions choose the option that best completes the gaps.**

26. Her mother gave her .....
- (a) an old small white table-cloth
  - (b) a small old white table-cloth
  - (c) an old white small table-cloth

- (d) a white small old table-cloth
27. The project which was near realization, ... because of lack of funds.
- (a) fell over
  - (b) fell through
  - (c) fell off
  - (d) fell in
28. The director, no less than his workers ... is to blame
- (a) are
  - (b) is
  - (c) were
  - (d) ought
29. The magazine was ... by the government for an offensive publication
- (a) prescribed
  - (b) proscribed
  - (c) persecuted
  - (d) suspended
30. We were writing the examinations last night when the lights ...
- (a) were taken
  - (b) came off
  - (c) was quenched
  - (d) went off
31. The soldiers subjected them to a lot of
- (a) harassment
  - (b) harrasment
  - (c) harasement
  - (d) harrasement
32. I can't remember all the names ...
- (a) off head
  - (b) off hand
  - (c) at heart
  - (d) at hand
33. After the accused was found guilty by the court, his counsel ... before the sentence was passed

- (a) begged for mercy
  - (b) made a plea for mitigation
  - (c) made an ovation
  - (d) made a plea for litigation
34. The committee was angry because the chief withheld his
- (a) accent
  - (b) access
  - (c) assent
  - (d) ascent
35. The operations of the bank ... not ... cottage and small scale industries
- (a) does/covered
  - (b) does/cover
  - (c) did/covered
  - (d) do/cover
36. In order to convince you about my commitment to the project, I shall .....  
at the office before I leave tomorrow.
- (a) put up an appearance
  - (b) put in an appearance
  - (c) put up appearance
  - (d) put an appearance
37. Ayo was not a very ..... student when I first met him but the years  
have ..... his character
- (a) mature/mature
  - (b) matured/mature
  - (c) mature/matured
  - (d) matured/matured
38. The sea waves have continued to ..... the cliff on the coast
- (a) impair
  - (b) rub
  - (c) knock
  - (d) erode
39. Soyinka's masterful ..... of the atmosphere of his childhood  
helped to make his book, Ake, a great success.
- (a) borrowing

- (b) invocation  
(c) convocation  
(d) renovation
40. The public library has stopped ..... books to readers  
(a) borrowing  
(b) lending  
(c) renting  
(d) loaming
41. Jane is so ..... that she will accept anything I tell her  
(a) credible  
(b) credulous  
(c) creditable  
(d) incredible
42. After the Golden Eagles conceded two goals, their enthusiasm .....  
(a) was beginning to wane  
(b) was waning  
(c) began to wane  
(d) had begun to wane
43. .... to your request, we have decided to provide the necessary information  
(a) as regards  
(b) with regards  
(c) with regard  
(d) regarding
44. A survey of opinion on how students feel about their teachers ..... carried out  
(a) has been  
(b) have been  
(c) are being  
(d) is been

**Select the option that best explains the information conveyed in the underlined word/expression below**

45. He received an invaluable gift from the visitors  
a. priceless    b. worthless    c. costly    d. valueless

46. Tayo's friends gave a wide berth to the boy who beat him up  
a. kept well away from      b. teased      c. attacked      d. surrounded
47. The slide in the price of petroleum products in the world market has left the industry reeling  
a. The decline in the price of petroleum products is making the industry redundant  
b. The slide in the price of petroleum products is making the industry to boom  
c. The gradual fall in the price of petroleum products is making the industry unstable  
d. The stability in the price of petroleum products is making the industry stagnant.
48. The thief did not bat an eyelid when the judge pronounced the sentence  
a. displayed no understanding  
b. did not shed a single tear  
c. moved one of his eyelids  
d. showed no emotion or surprise
49. Watching war films is Tinuke's pet aversion  
a. something she likes very much  
b. something she dislikes very much  
c. a hobby she loves to pursue  
d. one thing she can't miss
50. The essay topic was nebulous  
a. vague  
b. incorrect  
c. clear  
d. distinct
51. The conference is biennial  
a. the conference is held twice every year  
b. The conference is held twice every two years  
c. The conference is held once very other year  
d. The conference lasts for two years
52. The organization is constantly in a state of flux  
a. There are periodic changes in the organization  
b. The organization is facing a difficult period  
c. The organization is experiencing good times

- d. The organization is moribund
53. Her meteoric rise to fame surprised us all
- Her rise to fame was only temporary
  - People were amazed at her rapid success
  - She became successful very suddenly
  - She rose to the top quite unexpectedly
54. He was pilloried by the press for his negative remarks
- he was snubbed by the press
  - he was criticized by the press
  - he was avoided by the press
  - he was ridiculed by the press
55. Joseph seemed strangely reticent about his past
- he revealed information about his past
  - he did not reveal information about his past
  - he hid some information about his past
  - he revealed some information about his past
56. She parried all the questions put to her
- she answered all the questions brilliantly
  - she evaded all the questions
  - she failed to answer the questions
  - she mastered all the questions
57. Everyone stared at John as he sauntered into the room
- crawled slowly
  - marched briskly
  - trudged reluctantly
  - walked in a leisurely way
58. They were ready to play the devil's advocate in the impeachment controversy
- they were ready to speak against the impeachment to encourage discussion on it
  - they were ready to defend an unpopular point of view concerning the impeachment
  - they were willing to fight for the defenceless citizens no matter the consequences

- d. they were ready to be quiet about the impeachment
59. The government warns that drunk-driving is punishable under the law
- drunkard driving can be punished
  - driving while drunk is an offence
  - driving while drinking is an offence
  - drinking and driving is an offence
60. After the war, the victors became increasingly vindictive
- vengeful attacks were incessantly carried out on those who lost the war
  - friendly measures were taken to heal the wounds
  - repressive measures were taken against those who lost the war
  - those who won the war became treacherous
61. A tentative solution was provided
- a convincing
  - provisional
  - an amicable
  - a definite
62. The press described the efforts of the government in pejorative terms
- critical
  - contemptible
  - palpable
  - superlative
63. Hundreds of used items will go under the hammer today
- unserviceable goods will be publicly destroyed at the weekend
  - impounded household items will be sold to the public before the weekend
  - damaged items will be sold next weekend
  - many old items will be auctioned this weekend

**Choose the option nearest in meaning to the underlined word**

64. The swindler gave her a winsome smile
- unattractive
  - winning
  - pleasant
  - deceptive
65. She made disparaging remarks about the clerk
- rude
  - derogatory
  - parochial
  - cynical
66. They were tardy in offering us help

- a. brave      b. generous    c. slow      d. quick
67. She was taken aback by her attitude  
 a. delayed    b. dragged back    c. surprised    d. overwhelmed
68. Their policies are inimical to the unity of the nation  
 a. favourable    b. harmless    good    d. hostile
69. She's very ingenuous when it comes to finding excuses  
 a. ignorant    b. foolish    c. clever      d. calculating
70. The witness was guilty of swearing to a statement he knew to false  
 a. forgery    b. perjury    c. libel      d.    slander
71. The councilor hit on a plan to retain his post after many months of lobbying  
 (a)    beat a plan  
 (b)    drew up a plan  
 (c)    discovered a plan  
 (d)    selected a plan
72. The convict said he was tired of leading a dog's life. To lead a dog's life means to live  
 (a)    carelessly  
 (b)    in disgrace  
 (c)    in misery  
 (d)    in poverty
73. The task was herculean  
 (a)    irregular  
 (b)    related to Hercules  
 (c)    stimulating  
 (d)    demanding
74. He came in stealthily through the back door  
 (a)    briskly  
 (b)    boldly  
 (c)    quietly  
 (d)    warily
75. I cannot understand how he suddenly became audacious  
 (a)    proud  
 (b)    bold  
 (c)    rude



- (d) hostile
76. She showed an affected interest in the game
- (a) real
  - (b) pretended
  - (c) concerned
  - (d) slight
77. The man's apathy was soon noticed by his subordinates
- (a) indifference
  - (b) kindness
  - (c) concern
  - (d) inefficiency
78. He handled the matter in a despicable way
- (a) disturbing
  - (b) likeable
  - (c) contemptible
  - (d) frustrating
79. His friend left him in the lurch
- (a) abandoned him
  - (b) punished him
  - (c) despised him
  - (d) ridiculed him
80. My plans are up in the air
- (a) being publicized
  - (b) uncertain
  - (c) uncovered
  - (d) unprotected
81. Your reaction underscores the point I was making
- (a) reveals
  - (b) proves wrong
  - (c) emphasizes
  - (d) justifies
82. The potential resources of the university should be fully exploited
- (a) important

- (b) latent
  - (c) effective
  - (d) abundant
83. He reneged on the agreement between him and his employees
- (a) kept
  - (b) failed to keep
  - (c) failed to approve
  - (d) failed to sign

**Choose the option opposite in meaning to the word(s) or phrase underlined**

84. The string was taut
- (a) loose      (b) firm      (c) stretched      (d) tight
85. Tunji wrote scurrilous piece about the chief in the press
- (a) rude      (b) insulting      (c) complimentary      (d) neutral
86. He inherited the property by right of primogeniture
- (a) being the youngest      (b) being the most trained son
  - (c) being the eldest son      (d) being the most talented son
87. The environment was imperiled by pollution
- (a) saved      (b) deceived      (c) destroyed      (d) hindered
88. Ayo pulled through after the surgical operation
- (a) was maimed      (b) survived      (c) died      (d) was revived
89. The affluence of the politicians contrasts with the ..... Of the masses
- (a) misery      (b) suffering      (c) poverty      (d) plenty
90. The high cost of living these days calls for a lot of frugality
- (a) extravagance      (b) economy      (c) recklessness      (d) wisdom
91. The tigers lost the match because their goalkeeper was in a haze
- (a) indisposed      (b) confused      (c) alert      (d) sleeping
92. We take exception to the ignoble role the young man played in the matter
- (a) honourable      (b) embarrassing      (c) dishonourable      (d) extraordinary
93. The difference between the procedures was imperceptible to me
- (a) negligible      (b) significant      (c) obvious      (d) obscure
94. His response infuriated her
- (a) annoyed      (b) pleased      (c) surprised      (d) confused
95. The economic situation is responsible for the recent discord in many families
- (a) division      (b) resourcefulness      (c) harmony      (d) suffering

96. The decision we have taken is irrevocable  
(a) responsible (b) irresponsible (c) reversible (d) irreversible
97. Such measures exacerbate pain  
(a) aggravate (b) increase (c) eliminate (d) alleviate
98. Musa is fastidious about his food  
(a) particular (b) undecided (c) indifferent (d) unmindful
99. The engineers have been urged to make a prototype of the long awaited Nigerian car  
(a) specimen (b) original (c) copy (d) drawing
100. The effect is beginning to abate  
(a) intensify (b) extenuate (c) surface (d) ameliorate

## APPENDIX 3 :TEXT 1

**Name (Surname first):**

**Department:**

**Level:**

**Date:**

**Sex:**

**Time Allowed:** 60 minutes

**General instructions:** Read passage below and answer the questions that follow at the back of these pages. You can use additional foolscap sheets if required.

### THE RISK OF CIGARETTE SMOKE

Discovered in the early 1800s and named nicotianine, the oily essence now called nicotine is the main active ingredient of tobacco. Nicotine, however, is only a small component of cigarette smoke, which contains more than 4,700 chemical compounds, including 43 cancer-causing substances. In recent times, scientific research has been providing evidence that, years of cigarette smoking vastly increases the risk of developing fatal medical conditions.

In addition to being responsible for more than 85 percent of lung cancers, smoking is associated with cancers of, amongst others, the mouth, stomach and kidneys, and is thought to cause about 14 per cent of leukemia and cervical cancers. In 1990, smoking caused more than 84,000 deaths, mainly resulting from such problems as pneumonia, bronchitis and influenza. Smoking, it is believed, is responsible for 30 per cent of all deaths from cancer and clearly represents the most important preventable cause of cancer in countries like the United States today.

Passive smoking, the breathing in of the side stream smoke from the burning of tobacco between puffs or of the smoke exhaled by a smoker, also causes a serious health risk. A report published in 1992 by the US Environmental protection Agency (EPA) emphasized the health dangers, especially from side-stream smoke. This type of smoke contains much smaller particles and is therefore more likely to be deposited deep in the lungs. On the basis of this report, the EPA has classified environmental tobacco smoke in the highest risk category for causing cancer.

As an illustration of the health risks, in the case of a married couple where one partner is a smoker and one a non-smoker, the latter is believed to have 30 per cent higher risk

of death from heart disease because of passive smoking. The risk of lung cancer also increases over the years of exposure and the figure jumps to 80 percent if the spouse has been smoking four packs a day for 20 years. It has been calculated that 17 per cent of cases of lung cancer can be attributed to high levels of exposure to second-hand smoke during childhood and adolescence.

A more recent study by researchers at the University of California at San Francisco (UCSF) has shown that second-hand cigarette smoke does more harm to non-smokers than to smokers. Leaving aside the philosophical question of whether anyone should have to breathe someone else's cigarette smoke, the report suggests that the smoke experienced by many people in their daily lives is enough to produce substantial adverse effects on a person's heart and lungs.

The report, published in the Journal of the American Medical Association (AMA), was based on the researchers' own earlier research but also includes a review of studies over the past few years. The American Medical Association represents about half of all US doctors and is a strong opponent to smoking. The report suggests that people who smoke cigarettes are continually damaging their cardiovascular system, which adapts in order to compensate for the effects of smoking. It further states that people who do not smoke do not have the benefit of their system adapting to the smoke inhalation. Consequently, the effects of passive smoking are far greater on non-smokers than on smokers.

This report emphasizes that cancer is not caused by a single element in cigarette smoke; harmful effects to health are caused by many components. Carbon monoxide, for example, competes with oxygen in red blood cells and interferes with the blood's ability to deliver life-giving oxygen to the heart. Nicotine and other toxins in cigarette smoke activate small blood cells called platelets, which increases the likelihood of blood clots, thereby affecting blood circulation throughout the body.

The researchers criticize the practice of some scientific consultants who work with the tobacco industry for assuming that cigarette smoke has the same impact on smokers as it does on non-smokers. They argue that those scientists are underestimating the damage done by passive smoking and, in support of their recent findings, cite some previous research which points to passive smoking as the cause for between 30,000 and 60,000 deaths from heart attacks each year in the United States. This means that passive smoking is the third most preventable cause of death after active smoking and alcohol related diseases.

The study argues that the type of action needed against passive smoking should be similar to that being taken against illegal drugs and AIDS (SIDA). The UCSF researchers maintain that the simplest and most cost effective action is to establish smoke-free work places, schools and public places.

**Questions:**

1. What is this passage talking about?
2. What does “second hand smoke” mean in the passage? Why is it dangerous to non-smokers?
3. Write a letter to a person who smokes telling him/her why he/she needs to stop smoking.
4. Should cigarette production be banned in Nigeria? Why or why not?

## APPENDIX 3: TEXT 2

**Name (Surname first):**

**Department:**

**Level:**

**Date:**

**Sex:**

**Time Allowed:** 60 minutes

**General instructions:** Read passage below and answer the questions that follow at the back of these pages. You can use additional foolscap sheets if required.

### LAGOS

1. Lagos assaults you with its squalor and vitality. The narrow streets, the houses –hovels, mainly – made of mud or old tin and packed as close as playing cards, the stinking open drains, the noise, the traffic, the jostling throngs – Lagos is Eastern in its feeling that sheer naked human life, mere existence, bubbles and pullulates with the frightening fecundity of bacteria. The town is on a small island surrounded by a lagoon into which the drains all empty, and a sour and sulphurous smell frequently envelops the Marina, Lagos’s nearest approach to a Chelsea Embankment or Riverside Drive.
2. Most Lagosians are in origin Yoruba, although every one of the multitudinous races of West Africa must be represented here. Yoruba women wear big, gay head-ties done in a knot at the back with ends protruding, like brilliant, giant butterflies. These women would sell their mothers’ milk at a profit. In Lagos market they are packed as close as hens in a battery, each with her pile of wares. I was drawn to the herbalists and witch-doctors’ stalls, loaded with all sorts of leaves, pods and lumps of clay or chalk having medicinal properties and with juju objects of many kinds, most of which defy recognition, though you can identify the tiny skulls of monkeys, the wings of bats and small crows, the antlers of baby deer, dogs’ paws, bundles of feathers, all exactly like the witches brew in *Macbeth*. Odd, how all the world over ‘eye of newt and toe of frog, wool of bat and tongue of dog, adder’s fork and blindworm’s sting’ are the stock-in-trade of magicians.
3. I tried to ascertain the use of some of these remedies. A wizen-faced elder explained that if you burnt a bunch of skull and some dried bats-wing, and

swallowed the resulting powder, you would vomit out a sickness of the stomach. Several were remedies for syphilis. Those – the majority, I expect – used for curses and charms were not explained. Cursing and poisoning are popular pastimes; a man was caught the other day putting pus from smallpox sores into an enemy's food. Probably he was a flower of Shopono, the Yoruba god of smallpox, whose priests by custom inherit the property of victims of the disease. Little wonder that, in by-gone days, smallpox outbreaks were many and devastating.

4. The town is growing fast and sprawls across more and more of the island. But there are still unspoilt beaches, with long Atlantic rollers breaking on the hot white sand. Nothing is pleasanter than to walk there in the evening, away from the heat and noise of the town. The sea is quiet and colourless and the sun sinks flatly into it, without effulgence, red as a Dutch cheese. Outlines are not exactly blurred, but lack sharpness, because of the harmattan that blows over the desert a thousand miles away and yet dims this bright Atlantic air.

From: Four Guineas by Elspeth Huxley. In *Varieties of English* by H. L. B. Moody.

### QUESTIONS

1. State objectively (in your own words) the principal facts enumerated in this passage.
2. Do you think that the writer is objective in her portrayal of Lagos and its inhabitants? Use information from the text to support your opinion and explain your reasons.
3. Compare and contrast the city of Lagos as described in the passage with any big Nigerian city you have lived in or visited, including today's Lagos.
4. For each of the following lexical items, give a word or phrase that means the same and can replace it in the passage
  - (a) fecundity
  - (b) envelops
  - (c) loaded
  - (d) wizen-faced
  - (e) sprawls



### APPENDIX 3: TEXT 3

**Name (Surname first)**

**Sex:**

**Department:**

**Level:**

**Date:**

**Time Allowed:** 60 minutes

**General instructions:** Read passage below and answer the questions that follow.

#### A CLOSE ENCOUNTER

I have learnt to exercise caution in whatever I say or do since the episode on the Garawa Baruwa Road. I had arrived at the Garawa Police Station with my driver to lodge a serious protest against the officers who had accosted us on the road. My car had been dangerously overtaken by another which pulled up before us, forcing us to a halt. In a flash, four uniformed men had grabbed my driver's shirt and slapped him several times. Angered by this uncivilized behaviour, I had got out and challenged the men.

They alleged that my driver had broken several road traffic regulations and then tried to seize my car ignition key from him.

I stood my ground, refusing to let the key be surrendered. Several harsh words were exchanged between them and me. They had manhandled me, trying to shove me aside, but I firmly resisted. The brawl lasted about fifteen minutes and suddenly they rushed to their car and sped off.

Their uncivilized behavior had so infuriated me that I decided to report the incident to the Divisional Police Officer at Garawa. Back we turned, and made the station in twenty minutes. Angrily, I demanded to see the boss immediately. The junior officers accorded me due regard as a traditional chief and led me to the Divisional Police Officer's office. There, hardly coherent, I reported the incident, calling the young police officers rather rude names.

Calmly, the DPO listened. Apart from nodding his head occasionally as I ranted on, he said nothing. I had expected him to apologise for his boys' action. But he didn't. Instead what he said stunned me. "Chief," he said calmly, "I'm surprised that up till now you've not realized that you ran into armed robbers in police uniform. I thought

you would have heard of their recent operations in this area. Did you not hear of how they killed Chief Koku?”

Disarmed, mouth agape, I sank into the chair which I had earlier on rejected. The sudden realization of how confidently I had marched on death's ground sent cold shivers through my body. For the first time since the encounter, I began to perspire.

From: *The Use of English and Communication Skills for Tertiary Education* by Ogu, Ihejirika and Emejulu (2016).

**Questions:**

1. Write an essay on a close encounter you had with danger.
2. In your opinion, is the response of the Divisional Police Officer appropriate? Why or why not?
3. Provide another suitable word that can replace each of the following words used in the passage.
  - a. Manhandled
  - b. infuriated
  - c. ranted
  - d. agape

**APPENDIX 3: TEXT 4**  
**MORTUARY STYLISTICS**

There are one or two things this country can teach others, one of which is the art of writing obituaries. One suspects that the reason why some of our newspapers still manage to break even is because of the great amount of revenue they derive from obituaries. It is not unusual for about one quarter of the volume of an average daily to be constituted of obituaries and *In memoriam* alone. One possible explanation for this, it has been argued, is that Nigerians value their dead greatly. And there is a saying amongst us that you do not say evil things against the dead. This is obviously the philosophy behind the large dose of encomiums with which our dead are bestowed.

From the evidences of these obituaries and *In memoriam*, every dead Nigerian must have been something of a saint while alive. This would explain why the death of most Nigerians is attributed to the evil machinations of the wicked. Only very few people in our country die a natural death, and even when they do, the obituaries, etc, always give the impression that such deaths constitute the saddest loss to befall the deceased's family. And that is why writers of these obituaries and their allied advertisements are experts on 'mortuary stylistics.' This 'mortuary stylistics', the study in the art of eulogizing the dead and making their loss sound so heart breaking, is one of the commodities which we can export to other countries.

**Questions:**

1. This passage describes a practice which ought to be encouraged in Nigeria. Discuss.
2. The ostentatious burial rites practiced by Nigerians is an ill-wind that blows no one any good. Respond.

### **APPENDIX 3: TEXT 5**

#### **FESTAC**

The Second World and African Festival of Arts and Culture (FESTAC) was staged in Nigeria in 1977. At the colloquium organized during the festival, various issues affecting the development of the black world, including the inability of most independent African nations to make a clean break with the language of colonialism, were discussed by seasoned intellectuals. It was resolved then that each African country should assign important functions to its major indigenous languages in order to facilitate the selection of one of them to replace the colonial language at the national level. This, it was hoped, could bring about the much needed unity and national integration. Besides, since the different European languages in use were considered to be unsuitable for the expression of African cultural values, African countries were urged to promote their cultures in their local languages.

As they put it, no language could effectively express an experience if the experience does not occur in that language; therefore, a campaign should be mounted, as a matter of urgency, to give impetus to the promotion of African languages. The media in each country, it was suggested, should spearhead the quest for an indigenous national language by educating, motivating and mobilizing their government and people towards the selection of an appropriate local language.

This, in itself, was a recognition that the media – a term usually applied in reference to all the important agencies of mass information and entertainment, like the press, the radio and the television – wield tremendous and immeasurable power through their ability to mobilize the people and modify their behavior, particularly towards important national issues. Regrettably, the media in Nigeria are yet to take up such major roles that would facilitate the emergence of an indigenous national language in the country.

#### **Prompt**

Recall any national or local festival you have attended and enumerate how it has helped the development of our local culture and languages.

## APPENDIX 3: TEXT 6

### TELEVISION AND VIOLENCE

Time was when boys used to point toy guns and say ‘Bang!’ Now, they aim real guns and shoot one another. Nearly 4,200 teenagers were killed by firearms in 1990. Only motor vehicle accidents kill more teenagers than firearms and the firearms figures are rising. The chance that a black male between the ages of 15 and 19 will be killed by a gun has almost tripled since 1985 and almost doubled for white males, according to the National Centre for Health Statistics.

Who could disagree with the Health and Human Services Secretary, Donna Shalala, when she pronounced these statistics ‘frightening and intolerable’? In the shameful light of this ‘waste of young lives,’ in Miss Shalala’s words, an often-asked question seems urgently due to be raised again: Would less violence on television – the surrounding environment of most children and young adults – make violence in actual life less normal, less accepted, less horrifying?

It may be difficult to prove an exact correlation between the viewer of fantasized violence and the criminal who acts out violence after turning off the set. But if the premise of education is granted – that good models can influence the young - then it follows that bad models can have an equivalent harmful effect. This is the reasonable hypothesis held by 80 percent of the respondents to a recent *Time Mirror* poll who think that violent entertainment is ‘harmful’ to society.

Witness enough mimed shootouts, see enough ‘corpses’ fall across the screen, and the taking of a human life seems no big deal. Even if a simple causal relationship cannot be established between watching violence and acting it out, is not this numbed sensitivity reason enough for cutting back on the overkill in films and TV?

#### **Prompt**

Consider what this writer is saying. What influence do you think our Nigerian films are having on the youths.

**APPENDIX 3: TEXT 7**  
**SCIENCE, TECHNOLOGY AND HUMAN EXISTENCE**

The development of science and technology in this century had led men into many inventions and discoveries. For nearly a century, men were content with use of railways, carriages and cars. Another chapter opened when steamships and airplanes were invented. Thus, through technology, man conquered the land, the water and the airspace. But there was one area left unconquered by man: outer space. In fact, outer space – planets, stars and galaxies - was known only through magnifying lenses. Thus, man operated on mere conjecture as far as knowledge of these things was concerned. Consequently, there was no scientific certainty, only hypotheses. But today, man has penetrated outer space.

It is true that science and technology have developed tremendously in this century. In the field of engineering, for example, the automobile has been invented as a means of easier, more comfortable and faster movement from one place to the other. Apart from that, methods and instruments for diagnosing diseases and promoting hygiene and sanitation have helped to reduce mortality rate and improve living conditions. In the field of electronics, the invention of the computer is a remarkable achievement. The use of computers in economic activities, education, administration and business has helped to reduce the exertion of human energy as more activities can be carried out faster and more effectively.

However, in spite of the laudable contributions and lofty accomplishments of technology, it has, nevertheless, succeeded in introducing several anomalies and, in some cases, reduced the value attached to human life. In our age social life has been greatly altered by technological changes such as the invention of nuclear energy. Those who support the invention of nuclear energy claim that the only way to maintain peace is to be battle ready. Humanity is greatly threatened and terrorized by the invention of the nuclear warhead. People now live in dread of the hour, as no one knows when conflict may arise between nations, which may lead to the use of the nuclear bomb assumed to possess the capacity of wiping out humanity within the twinkling of an eye.

**Prompt**

Respond to this text

## APPENDIX 4

### RUBRIC/MARKING GUIDE FOR SCORING WRITING

<b>Band</b>	<b>A</b>	<b>B</b>	<b>C</b>	<b>D</b>	<b>F</b>
<b>Content (30%)</b>	Student's response shows <b>excellent</b> <ul style="list-style-type: none"> <li>• Understanding of the task</li> <li>• Development of key ideas</li> <li>• Presentation of facts</li> <li>• Treatment of the topic</li> </ul>	Student's response shows <b>good</b> <ul style="list-style-type: none"> <li>• Understanding of the task</li> <li>• Development of key ideas</li> <li>• Presentation of facts</li> <li>• Treatment of the topic</li> </ul>	Student's response shows <b>satisfactory</b> <ul style="list-style-type: none"> <li>• Understanding of the task</li> <li>• Development of key ideas</li> <li>• Presentation of facts</li> <li>• Treatment of the topic</li> </ul>	Student's response shows <b>limited</b> <ul style="list-style-type: none"> <li>• Understanding of the task</li> <li>• Development of key ideas</li> <li>• Presentation of facts</li> <li>• Treatment of the topic</li> </ul>	Student's response shows <b>very limited</b> <ul style="list-style-type: none"> <li>• Understanding of the task</li> <li>• Development of key ideas</li> <li>• Presentation of facts</li> <li>• Treatment of the topic</li> </ul>
<b>Organisation (30%)</b>	Student's response shows <b>effective</b> <ul style="list-style-type: none"> <li>• Use of vocabulary</li> <li>• Logical organization of sentences</li> <li>• Unity and coherence of paragraphs</li> <li>• Logical arrangement of paragraphs</li> </ul>	Student's response shows <b>good</b> <ul style="list-style-type: none"> <li>• Use of vocabulary</li> <li>• Logical organization of sentences</li> <li>• Unity and coherence of paragraphs</li> <li>• Logical arrangement of paragraphs</li> </ul>	Student's response shows <b>satisfactory</b> <ul style="list-style-type: none"> <li>• Use of vocabulary</li> <li>• Logical organization of sentences</li> <li>• Unity and coherence of paragraphs</li> <li>• Logical arrangement of paragraphs</li> </ul>	Student's response shows <b>limited</b> <ul style="list-style-type: none"> <li>• Use of vocabulary</li> <li>• Logical organization of sentences</li> <li>• Unity and coherence of paragraphs</li> <li>• Logical arrangement of paragraphs</li> </ul>	Student's response shows <b>very limited</b> <ul style="list-style-type: none"> <li>• Use of vocabulary</li> <li>• Logical organization of sentences</li> <li>• Unity and coherence of paragraphs</li> <li>• Logical arrangement of paragraphs</li> </ul>

<b>Expression (20%)</b>	Student's response shows <b>excellent</b> <ul style="list-style-type: none"> <li>• Use of grammar</li> <li>• Use of cohesive devices</li> <li>• Fluency in writing</li> </ul>	Student's response shows <b>good</b> <ul style="list-style-type: none"> <li>• Use of grammar</li> <li>• Use of cohesive devices</li> <li>• Fluency in writing</li> </ul>	Student's response shows <b>satisfactory</b> <ul style="list-style-type: none"> <li>• Use of grammar</li> <li>• Use of cohesive devices</li> <li>• Fluency in writing</li> </ul>	Student's response shows <b>limited</b> <ul style="list-style-type: none"> <li>• Use of grammar</li> <li>• Use of cohesive devices</li> <li>• Fluency in writing</li> </ul>	Student's response shows <b>very limited</b> <ul style="list-style-type: none"> <li>• Use of grammar</li> <li>• Use of cohesive devices</li> <li>• Fluency in writing</li> </ul>
<b>Mechanical accuracy (20%)</b>	Student's response shows <b>excellent</b> <ul style="list-style-type: none"> <li>• Use of punctuation</li> <li>• Capital letters</li> <li>• Spelling</li> </ul>	Student's response shows <b>good</b> <ul style="list-style-type: none"> <li>• Use of punctuation</li> <li>• Capital letters</li> <li>• Spelling</li> </ul>	Student's response shows <b>satisfactory</b> <ul style="list-style-type: none"> <li>• Use of punctuation</li> <li>• Capital letters</li> <li>• Spelling</li> </ul>	Student's response shows <b>limited</b> <ul style="list-style-type: none"> <li>• Use of punctuation</li> <li>• Capital letters</li> <li>• Spelling</li> </ul>	Student's response shows <b>very limited</b> <ul style="list-style-type: none"> <li>• Use of punctuation</li> <li>• Capital letters</li> <li>• Spelling</li> </ul>
<b>Total</b>	<b>70 and above</b>	<b>60 - 69</b>	<b>50 - 59</b>	<b>45 – 49</b>	<b>0 - 44</b>



## **APPENDIX 5**

### **Focus Group Discussion Question Guide**

1. We want to talk about the methods used by the Use of English lecturers when they teach you. What do you think of the method of instruction used by your lecturers in the past five weeks?
2. Have you learnt or gained anything these five weeks?
3. What has been good about this course?
4. What has been lacking in this course?
5. How has this course benefited you?
6. Can you suggest how instruction by lecturers, especially in the Use of English classes can be improved?
7. Are there things you would want changed in the lecturers' methods of teaching?
8. What did you like best about the lectures?
9. How can this course be improved?
10. Any other suggestion or comment ?

## APPENDIX 6

### FOCUS GROUP DISCUSSION GUIDE

(Prepared by the researcher based on Kreuger 2002)

1. Welcome the participants
2. The topic for discussion is “The teaching methods used by the Use of English Lecturers in your classes in the past five weeks.” The participants in this discussion were selected because they are the course representatives of their different classes and would therefore be able to say the mind of their course mates.

The guidelines for the discussion are:

- No answer is right and none is wrong
- Only one person will speak at any given time.
- We will address one another by our first names
- We are to listen and be respectful to others even if we don't agree with their point of view
- We are all to switch off our cell phones for the duration of the discussion or put them on silent to avoid distractions during the discussions
- The moderator is here to guide the discussion
- Opinions and ideas of participants are strictly confidential.

## APPENDIX 6

### LESSON PLAN

#### EXPERIMENTAL GROUP 1: RESPONSE TO TEXT

##### Week 2

#### LESSON 1

**SUBJECT:** Use of English

**TEXT:** MORTUARY STYLISTICS (taken from past JAMB question paper)

**TOPIC:** The writing process

**SUB-TOPIC:**

- The stages of the writing process
- Main ideas and supporting details.

**CLASS:** First year undergraduates of Department of Public Health

**AGE:** 16 years and above

**METHOD:** Response to text method

**DURATION:** 120 minutes (Double period)

**Instructional Objectives:**

At the end of the lesson, students should be able to:

1. Explain what the writing process is
2. Write out the stages of the writing process
3. Practice the writing process
4. Identify main ideas
5. Identify supporting details

**Instructional materials:** texts, white board,

**Procedure:**

STEP	TEACHER'S ACTIVITY	STUDENTS' ACTIVITY	OBJECTIVE ACHIEVED
1. Introduction	The teacher reviews the previous lesson with the students by asking questions	Students answer the questions.	Students' attention is aroused
2. Presentation	He teaches a lesson on the writing process and the	Students listen, ask questions or make	Students participate in the lesson

	<p>stages of the writing process to the students. He explains that writing is a process which writers go through to produce their texts. The writing process starts with brainstorming, followed by research, then drafting, reviewing, editing and lastly publishing. He also introduces the reader response concept and explains that readers react in writing to texts that they have read. . He encourages them to interact with texts in their own capacity as individuals.</p>	<p>contributions of their own personal actions while reading.</p>	
3. Development	<p>The teacher gives the text to the students to read and guides them to identify the main ideas and supporting details in the text.</p>	<p>The students read the text, identify the main ideas and supporting details in the text.</p>	<p>Identification of main ideas and supporting details by students</p>
4. Application	<p>The teacher asks the students to react to the story they have read (while applying the writing process) by writing on what they think of the activities described in the text.</p>	<p>The students write their responses to the text they have read and practice the writing process</p>	<p>Students respond to the text and practice the writing process</p>
5. Discussion	<p>The teacher asks some students to read out their responses and</p>		<p>Students exhibit their reactions and also listen to others peoples’</p>

	allows others to comment.		reactions..
6. Evaluation	He then collects the students' written responses for grading and to be returned as feedback to the students during the next class.		Students submit their responses
7. Assignment	The teacher asks the students to read another text and write a response to it while following the steps of the writing process.		Students practice writing.

## LESSON NOTES

### EXPERIMENTAL GROUP 1: RESPONSE TO TEXT

#### WEEK 3

#### LESSON 1

**SUBJECT:** Use of English

**TEXT:** FESTAC (taken from past JAMB question paper)

**TOPIC:** Paragraph Development

**SUB-TOPIC:** Meaning and types of paragraphs

**CLASS:** First year undergraduates of Department of Public Health

**METHOD:** Response to text method

**DURATION:** 120 minutes (Double period)

#### **Instructional Objectives:**

At the end of the lesson, students should be able to:

1. Explain what a paragraph is
2. Describe the structure of a paragraph
3. Identify topic sentences in a paragraph from a source text
4. Develop a paragraph from a topic sentence
5. Write a paragraph that has eight sentences

**Instructional materials:** Text, white board.

#### **Procedure:**

STEP	TEACHER'S ACTIVITY	STUDENTS' ACTIVITY	OBJECTIVE ACHIEVED
1. Introduction	The teacher reviews the previous lesson with the students by asking questions. He explains to the students the concept of responding to texts as affect you personally.	Students answer the questions.	Students' attention is aroused
2. Presentation	He teaches a lesson on what a paragraph is. He	Students listen, ask questions or make	Students participate in the lesson

	<p>explains that a paragraph is made up of a topic sentence and supporting sentences. The topic sentence contains the main idea of the paragraph while the other sentences elaborate the idea. He also explains that the position of the topic sentence in the paragraph determines the type of paragraph it is. The loose paragraph has its topic sentence at the beginning of the paragraph; the mixed paragraph has its topic sentence at the middle of the paragraph while the periodic paragraph has its topic sentence at the end.</p>	<p>contributions of their own personal actions while reading.</p>	
3. Development	<p>The teacher gives the text to the students to read and guides them to identify the paragraphs and the topic sentences in the paragraphs.</p>	<p>The students read the text, identify the paragraphs and topic sentences. They also locate the positions of the topic sentences and say what type of paragraphs there are in the passage.</p>	<p>Students identify topic sentences in paragraphs and locate the position of the topic sentences to know the type of paragraph.</p>
4. Application	<p>The teacher asks the students to react to the passage they have read by writing on what they think of the activities described</p>	<p>The students write their responses to the text. They write topic sentences, paragraphs of five to eight</p>	<p>Students respond, to the text. They write topic sentences, paragraphs, and practice different types of topic</p>

	in the text. They are to write topic sentences, paragraphs of five to eight sentences	sentences. They also practice locating their topic sentences at different positions in their paragraphs.	sentences and paragraphs.
5. Discussion	The teacher asks some students to read out their topic sentences and paragraphs. Others listen and comment..		Students listen and comment.
6. Evaluation	He then collects the students' written paragraphs for grading and to be returned as feedback to the students during the next class.		Students submit their paragraphs
7. Assignment	The teacher asks the students to read the text and write a full response to it while paying attention to their topic sentences and paragraphs.		Students practice writing topic sentences, paragraphs and responding to text.



## LESSON NOTES

### EXPERIMENTAL GROUP 1: RESPONSE TO TEXT

#### WEEK 4

#### LESSON 3

**SUBJECT:** Use of English

**TEXT:** Science, Technology and Human Existence (taken from past JAMB question paper)

**TOPIC:** Paragraph Development

**SUB-TOPIC:**

- Topic sentences
- Types of paragraphs
- Cohesive or linking devices

**CLASS:** First year undergraduates of Department of Public Health

**METHOD:** Response to text method

**DURATION:** 120 minutes (Double period)

**Instructional Objectives:**

At the end of the lesson, students should be able to:

1. Write different types of topic sentences
2. Attempt different types of paragraphs
3. identify and practice use of cohesive devices
4. Write a three paragraph essay with topic sentences in different positions
5. Use transitional devices to link the paragraphs.

**Instructional materials:** Text, white board.

**Procedure:**

STEP	TEACHER'S ACTIVITY	STUDENTS' ACTIVITY	OBJECTIVE ACHIEVED
1. Introduction	The teacher reviews the previous lesson with the students by asking questions. He reminds the students of the practice of responding to texts	Students answer the questions.	Students' attention is aroused

	as they affect them personally and that they will use this to respond to the texts they read.		
2. Presentation	<p>The teacher continues the lesson on paragraphs. He guides the students to practice writing different topic sentences and paragraphs. He guides them to write loose, mixed and periodic paragraphs. He also teaches them a lesson on transitional devices and explains that these are words that help the writer to make a flow from one paragraph to the other logically. He explains that these words or phrases act as a bridge from one idea, sentence or paragraph to the next. He gives examples of linking devices and the function they perform. To give illustration, such words or phrases as “for example”, “for instance”, “to illustrate” are used. For contrast such words or phrases as, however, conversely, in contrast are used to link sentences or paragraphs. To give a chronological</p>	Students listen, ask questions and mention other linking devices that they know and how they are used.	Students listen and participate in the lesson

	arrangement, such words as firstly, secondly, lastly are also used.		
3. Development	The teacher gives the text to the students to read and guides them to locate different positions of the topic sentences in the paragraphs as well as the transitional devices used by the writer.	The students read the text, locate the positions of the topic sentences in the paragraphs. They also identify the linking devices that are used by the author to link the sentences or paragraphs and explain their functions.	Students identify topic sentences in paragraphs and locate the position of the topic sentences to know the type of paragraph.
4. Application	The teacher asks the students to respond to the passage in three paragraphs that have different topic sentences in different positions. He also asks them to use different words to link the paragraphs.	The students write their responses to the text. They write topic sentences, paragraphs of five to eight sentences. They also practice locating their topic sentences at different positions in their paragraphs. They use linking devices to join the paragraphs.	Students respond, to the text. They write topic sentences, paragraphs, and practice different types of topic sentences and paragraphs. They also use linking devices.
5. Discussion	The teacher asks some students to read paragraphs, identify their topic sentences and linking devices. Others listen and comment.	The students write their topic sentences, paragraphs and linking devices	Students read, listen and comment.
6. Evaluation	He then collects the students' written paragraphs for grading and to be returned as feedback to the	Students make comments or ask questions.	Students submit their paragraphs

	students during the next class.		
7. Assignment	The teacher asks the students to read the text and write a full response to it while paying attention to their topic sentences, paragraphs and linking devices.	Students carry out the assignment.	Students practice writing topic sentences, paragraphs and use of linking devices. They also respond to the text.

## LESSON NOTES

### EXPERIMENTAL GROUP 1: RESPONSE TO TEXT

#### WEEK 5

#### LESSON 4

**SUBJECT:** Use of English

**TEXT:** A close encounter (taken from *The Use of English and Communication Skills for Tertiary Education* (Ogu and Emejulu (Eds.) 2016)

**TOPIC:** Structure of the narrative text

**SUB-TOPIC:**

- Setting, Plot
- Character, Theme
- Conflict, Resolution

**CLASS:** First year undergraduates of Department of Public Health

**METHOD:** Response to text method

**DURATION:** 120 minutes (Double period)

**Instructional Objectives:**

At the end of the lesson, students should be able to:

1. Understand the structure of a narrative text
2. Identify the different elements in the narrative text
3. Apply these to the text to be read.
4. Understand that story should have a beginning, middle and ending

**Instructional materials:** Text, white board.

**Procedure:**

STEP	TEACHER'S ACTIVITY	STUDENTS' ACTIVITY	OBJECTIVE ACHIEVED
1. Introduction	The teacher reviews the previous lesson with the students by asking questions. He reminds the students of the practice of	Students answer the questions.	Students' attention is aroused

	responding to texts as they affect them personally and that they will use this to respond to the texts they read.		
2. Presentation	<p>The teacher introduces the structure of the narrative text. He explains to the students that a narrative is a story of something that has taken place in the past. The incidents in the story must be told in the past tense, so it has to have a beginning (when the action started in time), middle and an end (when the action stopped). The narrative has certain constituents that cannot be overlooked. These are <b>character</b>: the person or individuals who are involved in the action of the story; the <b>theme</b>: the main lesson or message which the story is giving to the reader; the <b>plot</b>: the activities or scenarios that play out in the story. Other elements include <b>setting</b>: the place or time where/when the story takes place; <b>conflict</b>: the problem which the characters,</p>	Students listen, ask questions or make comments.	Students listen and participate in the lesson

	especially the main character, grapple with; <b>resolution:</b> the outcome or solution that resolves the problem.		
3. Development	The teacher gives the text to the students to read and guides them to identify the various elements from the text.	The students read and identify the various components of the narrative text	Students read and identify
4. Application	The teacher asks the students to respond to the passage by pretending to be one of the characters in the story and extending the narrative in any way they like from that character's perspective	Students respond, to the text and extend the story	The students read, write, extend story
5. Discussion	The teacher asks some students to read out their responses while others listen and comment	The students read out their writing.	Students read, listen and comment.
6. Evaluation	He then collects the students' written responses for grading and to be returned as feedback to the students during the next class.	Students make comments or ask questions.	Students submit their paragraphs
7. Assignment	The teacher asks the students to read the text and write a full response to it while paying attention to the various elements of the story structure.	Students carry out the assignment.	Students practice writing

## LESSON PLAN

### EXPERIMENTAL GROUP 2: ACTIVATION OF BACKGROUND KNOWLEDGE

#### Week 2

#### LESSON 1

**SUBJECT:** Use of English

**TEXT:** FESTAC

**TOPIC:** The writing process

**SUB-TOPIC:**

- The stages of the writing process
- Main ideas and supporting details.

**CLASS:** First year undergraduates of Department of Biology

**AGE:** 16 years and above

**METHOD:** Activation of background knowledge

**DURATION:** 120 minutes (Double period)

#### **Instructional Objectives:**

At the end of the lesson, students should be able to:

6. Explain what the writing process is
7. Write out the stages of the writing process
8. Practice the writing process
9. Identify main ideas
10. Identify supporting details

**Instructional materials:** texts, white board,

#### **Procedure:**

<b>STEP</b>	<b>TEACHER'S ACTIVITY</b>	<b>STUDENTS' ACTIVITY</b>	<b>OBJECTIVE ACHIEVED</b>
<b>8. Introduction</b>	The teacher activates the students' prior knowledge by asking them what they know about the writing process.	Students answer the questions and take part in the discussion and brain storm. They also look at the advanced	Students' attention is aroused and their background knowledge activated.



	He also starts a discussion on how people mourn their dead. He allows them to brainstorm and finally uses an advanced organizer to activate their prior knowledge.	organizer.	
<b>9. Presentation</b>	He teaches a lesson on the writing process and the stages of the writing process to the students. He explains that writing is a process which writers go through to produce their texts. The writing process starts with brainstorming, followed by research, then drafting, reviewing, editing and lastly publishing.	Students listen, ask questions and recollect any knowledge relating to the topic	Students recall what they know about the topic.
<b>10. Development</b>	The teacher gives the text to the students to read and guides them to identify the main ideas and supporting details in the text.	The students read the text, identify the main ideas and supporting details in the text.	Identification of main ideas and supporting details by students
<b>11. Application</b>	The teacher asks the students answer the questions at the end of the story and apply the writing process as they write.	The students write based on the questions at the end of the text they have read and practice the writing process	Students write following the writing process
<b>12. Discussion</b>	The teacher asks some students to read out what they had written and allows others to	Students read what they have written while others listen, ask questions or	Students listen, ask questions, comment and interact with others.

	comment.	comment	
<b>13. Evaluation</b>	He then collects the students' writing for grading and to be returned as feedback to the students during the next class.	Students submit their writing	Students submit their responses
<b>14. Assignment</b>	The teacher asks the students to read another text and answer the questions while following the steps of the writing process.		Students practice writing.

## LESSON NOTES

### EXPERIMENTAL GROUP 2: ACTIVATION OF BACKGROUND KNOWLEDGE

#### WEEK 3

#### LESSON 1

**SUBJECT:** Use of English

**TEXT:** FESTAC

**TOPIC:** Paragraph Development

**SUB-TOPIC:** Meaning and types of paragraphs

**CLASS:** First year undergraduates of Department of Biology

**METHOD:** Activation of Background Knowledge

**DURATION:** 120 minutes (Double period)

#### **Instructional Objectives:**

At the end of the lesson, students should be able to:

6. Explain what a paragraph is
7. Describe the structure of a paragraph
8. Identify topic sentences in a paragraph in a source text
9. Develop a paragraph from a topic sentence
10. Write a paragraph that has eight sentences.

**Instructional materials:** Text, white board.

#### **Procedure:**

<b>STEP</b>	<b>TEACHER'S ACTIVITY</b>	<b>STUDENTS' ACTIVITY</b>	<b>OBJECTIVE ACHIEVED</b>
8. Introduction	The teacher activates the students' prior knowledge by asking them what they know about paragraphs. He reminds them of main ideas and details which they learnt in the	Students answer the questions and take part in the discussion and brain storm. They also look at the advanced organizer.	Students' attention is aroused and their background knowledge activated.

	previous lesson. He allows them to brainstorm and finally uses an advanced organizer to activate their prior knowledge.		
9. Presentation	He teaches a lesson on what a paragraph is. He explains that a paragraph is made up of a topic sentence and supporting sentences. The topic sentence contains the main idea of the paragraph while the other sentences elaborate the idea. He also explains that the position of the topic sentence in the paragraph determines the type of paragraph it is. The loose paragraph has its topic sentence at the beginning of the paragraph; the mixed paragraph has its topic sentence at the middle of the paragraph while the periodic paragraph has its topic sentence at the end.	Students listen, ask questions and recollect any knowledge relating to the topic	Students recall what they know about the topic.
10. Development	The teacher gives the text to the students to read and guides them to identify the paragraphs and the topic sentences in the paragraphs.	The students read the text, identify the paragraphs and topic sentences. They also locate the positions of the topic sentences and say what type	Students identify topic sentences in paragraphs and locate the position of the topic sentences to know the type of paragraph.

		of paragraphs there are in the passage.	
11. Application	The teacher asks the students to react to the passage they have read by writing on what they think of the activities described in the text. They are to write topic sentences, paragraphs of five to eight sentences	They write topic sentences, paragraphs of five to eight sentences. They also practice locating their topic sentences at different positions in their paragraphs.	Students write topic sentences, paragraphs, and practice different types of topic sentences and paragraphs.
12. Discussion	The teacher asks some students to read out their topic sentences and paragraphs. Others listen and comment.		Students listen and comment.
13. Evaluation	Teacher then collects the students' written paragraphs for grading and to be returned as feedback to the students during the next class.		Students submit their paragraphs
14. Assignment	The teacher asks the students to read the text and write their answers to the questions at the end of the passage while paying attention to their topic sentences and paragraphs.		Students practice writing topic sentences, paragraphs and responding to text.

## LESSON NOTES

### EXPERIMENTAL GROUP 2: ACTIVATION OF BACKGROUND KNOWLEDGE

#### WEEK 4

#### LESSON 3

**SUBJECT:** Use of English

**TEXT:** Science, Technology and Human Existence (taken from past JAMB question paper)

**TOPIC:** Paragraph Development

**SUB-TOPIC:**

- Topic sentences
- Types of paragraphs
- Cohesive or linking devices

**CLASS:** First year undergraduates of Department of Biology

**METHOD:** Activation of Background knowledge

**DURATION:** 120 minutes (Double period)

**Instructional Objectives:**

At the end of the lesson, students should be able to:

6. Write different types of topic sentences
7. Attempt different types of paragraphs
8. identify and practice use of cohesive devices
9. Write a three paragraph essay with topic sentences in different positions
10. Use transitional devices to link the paragraphs.

**Instructional materials:** Text, white board.

**Procedure:**

STEP	TEACHER'S ACTIVITY	STUDENTS' ACTIVITY	OBJECTIVE ACHIEVED
8. Introduction	The teacher activates the students' prior knowledge by asking them what they learnt about paragraphs and topic sentences. He	Students answer the questions, discuss and brainstorm on the function that a bridge performs for those who use it.	Students' attention is aroused and their background knowledge activated.

	uses questioning and brainstorming to activate their background knowledge of the topic. He asks the role a bridges plays for those who use it.		
9. Presentation	The teacher continues the lesson on different types of paragraphs and the location of their topic sentences. He guides the students to practice writing different topic sentences and paragraphs. He guides them to write loose, mixed and periodic paragraphs. He also teaches them a lesson on transitional devices and explains that these are words that help the writer to make a flow from one paragraph to the other logically. He explains that these words or phrases act as a bridge from one idea, sentence or paragraph to the next. He gives examples of linking devices and the function they perform. To give illustration, such words or phrases as “for example”, “for instance”, “to illustrate” are used. For contrast such	Students listen, ask questions and mention other linking devices that they know and how they are used.	Students listen and participate in the lesson

	words or phrases as, however, conversely, in contrast are used to link sentences or paragraphs. To give a chronological arrangement, such words as firstly, secondly, lastly are also used.		
10. Development	The teacher gives the text to the students to read and guides them to locate different positions of the topic sentences in the paragraphs as well as the transitional devices used by the writer.	The students read the text, locate the positions of the topic sentences in the paragraphs. They also identify the linking devices that are used by the author to link the sentences or paragraphs and explain their functions.	Students identify topic sentences, paragraphs, and locate transitional devices and how they are used.
11. Application	The teacher asks the students to write three paragraphs that have different topic sentences in different positions. He also asks them to use different words to link the paragraphs.	The students write the topic sentences and paragraphs of five to eight sentences. They also practice locating their topic sentences at different positions in the paragraphs. They use linking devices to join the paragraphs.	Students write topic sentences, paragraphs, and practice different linking devices. They also use linking devices.
12. Discussion	The teacher asks some students to read their paragraphs, identify their topic sentences and linking devices. Others listen and comment.	The students read their topic sentences, paragraphs and linking devices	Students read, listen and comment.
13. Evaluation	He then collects the	Students make	Students submit



	students' written paragraphs for grading and to be returned as feedback to the students during the next class.	comments or ask questions.	their paragraphs
14. Assignment	The teacher asks the students to read the text and write based on the questions at the end of the text while paying attention to their topic sentences, paragraphs and linking devices.	Students carry out the assignment.	Students practice writing topic sentences, paragraphs and use of linking devices..

## LESSON NOTES

### EXPERIMENTAL GROUP 2: ACTIVATION OF BACKGROUND KNOWLEDGE

#### WEEK 5

#### LESSON 4

**SUBJECT:** Use of English

**TEXT:** A close encounter (taken from *The Use of English and Communication Skills for Tertiary Education* (Ogu and Emejulu (Eds.) 2016)

**TOPIC:** Structure of the narrative text

**SUB-TOPIC:**

- Setting, Plot
- Character, Theme
- Conflict, Resolution

**CLASS:** First year undergraduates of Department of Biology

**METHOD:** Response to text method

**DURATION:** 120 minutes (Double period)

**Instructional Objectives:**

At the end of the lesson, students should be able to:

5. Understand the structure of a narrative text
6. Identify the different elements in the narrative text
7. Apply these to the text to be read.
8. Understand that story should have a beginning, middle and ending

**Instructional materials:** Text, white board.

**Procedure:**

STEP	TEACHER'S ACTIVITY	STUDENTS' ACTIVITY	OBJECTIVE ACHIEVED
1. Introduction	The teacher activates the students' prior knowledge by asking them what anybody has an interesting story to tell the class. He	Students answer the questions, discuss and brainstorm as they tell and listen to anecdotes from the teacher and	Students' attention is aroused and their background knowledge activated.

	uses questioning and brainstorming to activate their background knowledge of the topic.	some students.	
2. Presentation	The teacher continues the lesson on the features of the narrative structure. He explains to the students that a narrative is a story of something that has taken place in the past. The incidents in the story must be told in the past tense, so it has to have a beginning (when the action started in time), middle and an ending (when the action stopped). The narrative has certain constituents that cannot be overlooked. These are <b>character</b> : the person or individuals who are involved in the action of the story; the <b>theme</b> : the main lesson or message which the story is giving to the reader; the <b>plot</b> : the activities or scenarios that play out in the story. Other elements include <b>setting</b> : the place or time where/when the story takes place; <b>conflict</b> : the problem which the	Students listen, ask questions or make comments.	Students listen and participate in the lesson

	characters, especially the main character, grapple with; <b>resolution:</b> the outcome or solution that resolves the problem.		
3. Development	The teacher gives the text to the students to read and guides them to identify the various elements from the text.	The students read and identify the various components of the narrative text	Students read and identify
4. Application	The teacher asks the students to write a one paragraph story that will contain some elements of the narrative text..	The students write the paragraph	Students write
5. Discussion	The teacher asks some students to read their paragraphs, identify the elements in their story Others listen and comment.	The students read their, paragraphs and identify their story constituents	Students read, listen and comment.
6. Evaluation	He then collects the students' written paragraphs for grading and to be returned as feedback to the students during the next class.	Students make comments or ask questions.	Students submit their paragraphs
7. Assignment	The teacher asks the students to read the text and write based on the questions at the end of the text while paying attention to basic story elements.	Students carry out the assignment.	Students practice writing

## LESSON PLAN

### EXPERIMENTAL GROUP 3: RESPONSE TO TEXT + ACTIVATION OF BACKGROUND KNOWLEDGE

#### Week 2

#### LESSON 1

**SUBJECT:** Use of English

**TEXT:** MORTUARY STYLISTICS

**TOPIC:** The writing process

**SUB-TOPICS:**

- The stages of the writing process
- Main ideas and supporting details.

**Class:** First year undergraduates of Department of Statistics

**AGE:** 16 years and above

**METHOD:** Response to text + Activation of Background Knowledge methods.

**DURATION:** 120 minutes (Double period)

**Instructional Objectives:**

At the end of the lesson, students should be able to:

11. Explain what the writing process is
12. Write out the stages of the writing process
13. Practice the writing process
14. Identify main ideas
15. Identify supporting details

**Instructional Aid:** text, white board,

**Procedure:**

STEP	TEACHER'S ACTIVITY	STUDENTS' ACTIVITY	OBJECTIVE ACHIEVED
15. Introduction	The teacher reviews the previous lesson with the students by asking questions. The teacher activates the students' prior knowledge by	Students answer the questions and take part in the discussion.	Students' attention is aroused and their background knowledge activated.

	<p>asking them what they know about the writing process. He also starts a discussion on how people mourn their dead. He allows them to brainstorm and finally uses an advanced organizer to trigger their prior knowledge. He also talks them about responding to texts that they read.</p>		
16. Presentation	<p>He teaches a lesson on the writing process and the stages of the writing process to the students. He explains that writing is a process which writers go through to produce their texts. The writing process starts with brainstorming, followed by research, then drafting, reviewing, editing and lastly publishing. He also introduces the reader response concept and explains that readers react in writing to texts that they have read.</p>	<p>Students listen, ask questions or make contributions of their own personal actions while reading. They recollect any knowledge they have of the topic under discussion</p>	<p>Students participate in the lesson and activate their prior knowledge</p>
17. Development	<p>The teacher gives the text to the students to read and guides them to identify the main ideas and supporting details in the text.</p>	<p>The students read the text, identify the main ideas and supporting details in the text.</p>	<p>Identification of main ideas and supporting details by students</p>
18. Application	<p>The teacher asks</p>	<p>The students</p>	<p>Students respond</p>

	the students to react to the story they have read (while applying the writing process) by writing on what they think of the activities described in the text. He also asks them to connect the ideas in the passage to what they have experienced	write their responses to the text and practice the writing process, while connecting to their previous experience.	to the text and practice the writing process while also connecting to their past experiences.
19. Discussion	The teacher asks some students to read out their responses and allows others to comment.		Students exhibit their reactions and also listen to others peoples' reactions.
20. Evaluation	He then collects the students' written responses for grading and to be returned as feedback to the students during the next class.	Students submit their writing	Students submit their responses
21. Assignment	The teacher asks the students to read another text, answer the questions and write a response to it while following the steps of the writing process.	Students do the assignment	Students practice writing.

## LESSON PLAN

### EXPERIMENTAL GROUP 3: ACTIVATION OF BACKGROUND KNOWLEDGE + RESPONSE TO TEXT

#### Week 3

#### LESSON 2

**SUBJECT:** Use of English

**TEXT:** FESTAC

**TOPIC:** Paragraph Development

**SUB-TOPIC:** Meaning and types of paragraphs,

**CLASS:** First year undergraduates of Department of Statistics.

**METHOD:** Response to text + Activation of Background Knowledge.

**DURATION:** 120 minutes (Double period)

#### **Instructional Objectives:**

At the end of the lesson, students should be able to:

1. Explain what a paragraph is
2. Understand the structure of a paragraph
3. Identify topic sentences in a source text
4. Develop a paragraph from a topic sentence
5. Write a paragraph that has eight sentences

**Instructional Aid:** texts, white board,

#### **Procedure:**

<b>STEP</b>	<b>TEACHER'S ACTIVITY</b>	<b>STUDENTS' ACTIVITY</b>	<b>OBJECTIVE ACHIEVED</b>
15. Introduction	The teacher reviews the previous lesson with the students by asking questions. The teacher activates the students' prior knowledge by asking them what they know about main ideas and details in texts. He	Students answer the questions and take part in the discussion.	Students' attention is aroused and their background knowledge activated.



	also asks them what they know about paragraphs. He allows them to brainstorm and finally uses an advanced organizer to trigger their prior knowledge. He also reminds them of responding to texts.		
16. Presentation	He teaches a lesson on what a paragraph is. He explains that a paragraph is made up of a topic sentence and supporting sentences. The topic sentence contains the main idea of the paragraph while the other sentences elaborate the idea. He also explains that the position of the topic sentence in the paragraph determines the type of paragraph it is. The loose paragraph has its topic sentence at the beginning of the paragraph; the mixed paragraph has its topic sentence at the middle of the paragraph while the periodic paragraph has its topic sentence at the end.	Students listen, ask questions or make contributions.	Students participate in the lesson
17. Development	The teacher gives the text to the students to read and guides them to identify the	The students read the text, identify the paragraphs and topic sentences. They	Students identify topic sentences in paragraphs and locate the position of the

	paragraphs and the topic sentences in the paragraphs.	also locate the positions of the topic sentences and say what type of paragraphs there are in the passage.	topic sentences to know the type of paragraph.
18. Application	The teacher asks the students to read the first two paragraphs in the text and in response to the ideas in the paragraph write topic sentences and paragraphs of five to eight sentences. They must connect their previous knowledge or experience in their paragraph.	The students write their responses to the text. They write topic sentences, paragraphs of five to eight sentences. They also practice locating their topic sentences at different positions in their paragraphs. They connect their writing to past experiences.	Students connect to past experiences and respond, to the text. They write topic sentences, paragraphs, and practice different types of topic sentences and paragraphs.
19. Discussion	The teacher asks some students to read out their topic sentences and paragraphs. Others listen and comment.	Students read and listen.	Students listen and comment.
20. Evaluation	He then collects the students' written paragraphs for grading and to be returned as feedback to the students during the next class.	Students hand in their writing	Students submit their paragraphs
21. Assignment	The teacher asks the students to read the text and write a full response to it while paying attention to their topic sentences and paragraphs.	Students carry out the assignment.	Students practice writing topic sentences, paragraphs and responding to text.

## LESSON NOTES

### EXPERIMENTAL GROUP 3: ACTIVATION OF BACKGROUND KNOWLEDGE + RESPONSE TO TEXT

#### WEEK 4

#### LESSON 3

**SUBJECT:** Use of English

**TEXT:** Science, Technology and Human Existence (taken from past JAMB question paper)

**TOPIC:** Paragraph Development

**SUB-TOPIC:**

- Topic sentences
- Types of paragraphs
- Cohesive or linking devices

**CLASS:** First year undergraduates of Department of Statistics

**METHOD:** Response to text + Activation of Background Knowledge

**DURATION:** 120 minutes (Double period)

**Instructional Objectives:**

At the end of the lesson, students should be able to:

11. Write different types of topic sentences
12. Attempt different types of paragraphs
13. Identify and practice use of cohesive devices
14. Write a three paragraph essay with topic sentences in different positions
15. Use transitional devices to link the paragraphs.

**Procedure:**

STEP	TEACHER'S ACTIVITY	STUDENTS' ACTIVITY	OBJECTIVE ACHIEVED
15. Introduction	The teacher reviews the previous lesson with the students by asking questions. He reminds the students of the practice of responding to texts as they affect them	Students answer the questions, discuss and brainstorm on the function that a bridge performs for those who use it.	Students' attention is aroused and their background knowledge activated.

	<p>personally and that they will use this to respond to the texts they read. He also activates the students' prior knowledge by asking them what they learnt about paragraphs and topic sentences. He uses questioning and brainstorming to activate their background knowledge of the topic. He asks the role a bridges plays for those who use it.</p>		
16. Presentation	<p>The teacher continues the lesson on paragraphs. He guides the students to practice writing different topic sentences and paragraphs. He guides them to write loose, mixed and periodic paragraphs. He also teaches them a lesson on transitional devices and explains that these are words that help the writer to make a flow from one paragraph to the other logically. He explains that these words or phrases act as a bridge from one idea, sentence or paragraph to the next. He gives examples of linking devices and the</p>	<p>Students listen, ask questions and mention other linking devices that they know and how they are used.</p>	<p>Students listen and participate in the lesson</p>

	<p>function they perform. To give illustration, such words or phrases as “for example”, “for instance”, “to illustrate” are used. For contrast such words or phrases as, however, conversely, in contrast are used to link sentences or paragraphs. To give a chronological arrangement, such words as firstly, secondly, lastly are also used.</p>		
17. Development	<p>The teacher gives the text to the students to read a few paragraphs and guides them to locate different positions of the topic sentences in the paragraphs as well as the transitional devices used by the writer.</p>	<p>The students read the text, locate the positions of the topic sentences in the paragraphs. They also identify the linking devices that are used by the author to link the sentences or paragraphs and explain their functions.</p>	<p>Students identify topic sentences in paragraphs and locate transitional devices and how they are used.</p>
18. Application	<p>The teacher asks the students to respond to the passage in three paragraphs that have different topic sentences in different positions. He also asks them to use different words to link the paragraphs.</p>	<p>The students write their responses to the text. They write topic sentences, paragraphs of five to eight sentences. They also practice locating their topic sentences at different positions in their paragraphs. They use linking devices to join the</p>	<p>Students respond, to the text. They write topic sentences, paragraphs, and practice different types of topic sentences and paragraphs. They also use linking devices.</p>

		paragraphs.	
19. Discussion	The teacher asks some students to read their paragraphs, identify their topic sentences and linking devices.	The students identify their topic sentences, paragraphs and linking devices	Students read, identify, listen and comment.
20. Evaluation	He then collects the students' written paragraphs for grading and to be returned as feedback to the students during the next class.	Students make comments or ask questions.	Students submit their paragraphs
21. Assignment	The teacher asks the students to read the complete text and write a full response to it while paying attention to their topic sentences, paragraphs and linking devices. He also reminds them to link their response to their previous experience.	Students carry out the assignment.	Students practice writing topic sentences, paragraphs and use of linking devices. They also respond to the text and link to their previous experience with regard to the text..

## LESSON NOTES

### EXPERIMENTAL GROUP 1: RESPONSE TO TEXT + ACTIVATION OF BACKGROUND KNOWLEDGE

#### WEEK 5

#### LESSON 4

**SUBJECT:** Use of English

**TEXT:** A close encounter (taken from *The Use of English and Communication Skills for Tertiary Education* (Ogu and Emejulu (Eds.) 2016)

**TOPIC:** Structure of the narrative text

**SUB-TOPIC:**

- Setting, Plot
- Character, Theme
- Conflict, Resolution

**CLASS:** First year undergraduates of Department of Statistics

**METHOD:** Response to text + Activation of Background knowledge methods

**DURATION:** 120 minutes (Double period)

**Instructional Objectives:**

At the end of the lesson, students should be able to:

9. Understand the structure of a narrative text
10. Identify the different elements in the narrative text
11. Apply these to the text to be read.
12. Understand that story should have a beginning, middle and ending

**Instructional materials:** Text, white board.

**Procedure:**

STEP	TEACHER'S ACTIVITY	STUDENTS' ACTIVITY	OBJECTIVE ACHIEVED
8. Introduction	The teacher reviews the previous lesson with the students by asking questions. He reminds the students of the	Students answer the questions, discuss and brainstorm	Students' attention is aroused and their background knowledge activated

	<p>practice of responding to texts as they affect them personally and that they will use this to respond to the texts they read. He also activates the students' prior knowledge by asking them if grandparents used to tell them interesting stories as children. He uses questioning and brainstorming to activate their background knowledge of the topic.</p>		
9. Presentation	<p>The teacher introduces the structure of the narrative text. He explains to the students that a narrative is a story of something that has taken place in the past. The incidents in the story must be told in the past tense, so it has to have a beginning (when the action started in time), middle and an end (when the action stopped). The narrative has certain constituents that cannot be overlooked. These are <b>character</b>: the person or individuals who are involved in the action of the story; the <b>theme</b>: the</p>	Students listen, ask questions or make comments.	Students listen and participate in the lesson



	<p>main lesson or message which the story is giving to the reader; the <b>plot</b>: the activities or scenarios that play out in the story. Other elements include <b>setting</b>: the place or time where/when the story takes place; <b>conflict</b>: the problem which the characters, especially the main character, grapple with; <b>resolution</b>: the outcome or solution that resolves the problem.</p>		
10. Development	The teacher gives the text to the students to read and guides them to identify the various elements from the text.	The students read and identify the various components of the narrative text	Students read and identify
11. Application	The teacher asks the students to respond to the passage by pretending to be one of the characters in the story and extending the narrative in any way they like from that character's perspective	Students respond, to the text and extend the story	The students read, write, extend story
12. Discussion	The teacher asks some students to read out their responses while others listen and comment	The students read out their writing.	Students read, listen and comment.
13. Evaluation	He then collects the students' written	Students make comments or ask	Students submit their paragraphs

	responses for grading and to be returned as feedback to the students during the next class.	questions.	
14. Assignment	The teacher asks the students to read the text, write a full response to it based on the prompts at the end of the text while paying attention to the various elements of the story structure.	Students carry out the assignment.	Students practice writing

## LESSON PLAN

### CONTROL GROUP: CONVENTIONAL METHOD

#### Week 2

#### LESSON 1

**SUBJECT:** Use of English

**TEXT: MORTUARY STYLISTICS**

**TOPIC:** The writing process

**SUB-TOPIC:**

- The stages of the writing process
- Main ideas and supporting details.

**Class:** First year undergraduates of Department of Polymer and Textile Engineering

**AGE:** 16 years and above

**METHOD:** Conventional method

**DURATION:** 120 minutes (Double period)

**Instructional Objectives:**

At the end of the lesson, students should be able to:

16. Explain what the writing process is
17. Write out the stages of the writing process
18. Practice the writing process
19. Identify main ideas
20. Identify supporting details

**Instructional Aid:** texts, white board,

**Procedure:**

STEP	TEACHER'S ACTIVITY	STUDENTS' ACTIVITY	OBJECTIVE ACHIEVED
22. Introduction	The teacher reviews the previous lesson with the students by asking questions.	Students answer the questions.	Students' attention is aroused
23. Presentation	He teaches a lesson on the writing process and the stages of the writing process to	Students listen	Students take notes

	the students. He explains that writing is a process which writers go through to produce their texts. The writing process starts with brainstorming, followed by research, then drafting, reviewing, editing and lastly publishing.		
24. Development	The teacher gives the text to the students to read and identify the main ideas and supporting details in the text.	The students read the text, identify the main ideas and supporting details in the text.	Identification of main ideas and supporting details by students, the writing process.
25. Application	The teacher asks the students write answers to questions prepared by the teacher	The students read the text and answer the questions in writing.	Students write answers to the questions
26. Discussion	The teacher asks some students to read what they had written	Students read	Students read and listen and answer questions
27. Evaluation	He then collects the students' writing for grading and to be returned as feedback to the students during the next class.		Students submit their writing
28. Assignment	The teacher asks the students to read another text at home and answer the questions that follow.		Students practice writing.

## LESSON PLAN

### CONTROL GROUP: CONVENTIONAL METHOD

#### Week 3

#### LESSON 2

**SUBJECT:** Use of English

**TEXT:** To be determined by the teacher

**TOPIC:** Paragraph Development

**SUB-TOPIC:** Meaning and types of paragraphs

**CLASS:** First year undergraduates of Department Polymer and Textile Engineering

**METHOD:** Conventional

**DURATION:** 60 minutes

#### **Instructional Objectives:**

At the end of the lesson, students should be able to:

1. Explain what a paragraph is
2. Describe the structure of a paragraph
3. Identify topic sentences in a source text
4. Develop a paragraph from a topic sentence
5. Write a paragraph that has eight sentences

**Instructional Aid:** To be determined by the teacher

#### **Procedure:**

STEP	TEACHER'S ACTIVITY	STUDENTS' ACTIVITY	OBJECTIVE ACHIEVED
1. Introduction	The teacher reviews the previous lesson with the students by asking questions.	Students answer the questions.	Students' attention is aroused
2. Presentation	He teaches a lesson on paragraphs. He explains what a paragraph is, what a topic sentence is and the different types of topic sentences.	Students listen	Students take notes
3. Development	The teacher asks	The students	Students answer

	the students questions.	answer the teacher's questions	questions.
4. Application	The teacher writes sample topic sentences and paragraphs on the board.	The students copy what the teacher has written.	Students write.
5. Discussion	The teacher asks the students if they have any questions and the teacher answers the questions.	Students ask questions	Students ask questions
6. Evaluation	Determined by the teacher.	The student submit any written tasks to the teacher	
7. Assignment	The teacher asks the students to read another text at home and write paragraphs and topic sentences.	students carry out the assignments	Students practice writing.

## LESSON PLAN

### CONTROL GROUP: CONVENTIONAL METHOD

Week 4

#### LESSON 3

**SUBJECT:** Use of English

**TEXT:** Science, Technology and Human Existence (Taken from past JAMB question paper)

**TOPIC:** Paragraph Development

**SUB-TOPIC:**

- Topic sentences
- Types of paragraphs
- Cohesive or linking devices

**CLASS:** First year undergraduates of Department Polymer and Textile Engineering

**METHOD:** Conventional

**DURATION:** 120 minutes

**Instructional Objectives:**

At the end of the lesson, students should be able to:

16. Write different types of topic sentences
17. Attempt different types of paragraphs
18. identify and practice use of cohesive devices
19. Write a three paragraph essay with topic sentences in different positions
20. Use transitional devices to link the paragraphs.

**Instructional materials:** To be determined by the teacher

**Procedure:**

STEP	TEACHER'S ACTIVITY	STUDENTS' ACTIVITY	OBJECTIVE ACHIEVED
1. Introduction	The teacher reviews the previous lesson with the students or he asks questions.	Students listen or answer the questions.	Students' attention is aroused
2. Presentation	He teaches a lesson on paragraphs and the different locations that a topic sentence can	Students listen	Students take notes

	occur in the paragraph. He also explains what linking devices are and how they are used.		
3. Development	The teacher asks the students questions.	The students answer the teacher's questions or ask questions if they have any.	Students answer questions.
4. Application	The teacher gives examples of linking devices on the board.	The students copy what the teacher has written.	Students write.
5. Discussion	The teacher asks the students if they have any questions and the teacher answers the questions.	Students ask questions	Students ask questions
6. Evaluation	Determined by the teacher.	The student submit any written tasks to the teacher	
7. Assignment	The teacher asks the students to read another text at home and write paragraphs and topic sentences as well as linking devices	students carry out the assignments	Students practice writing.



## LESSON NOTES

### CONTROL GROUP: CONVENTIONAL METHOD

#### WEEK 5

#### LESSON 4

**SUBJECT:** Use of English

**TEXT:** A close encounter (taken from *The Use of English and Communication Skills for Tertiary Education* (Ogu and Emejulu (Eds.) 2016)

**TOPIC:** Structure of the narrative text

**SUB-TOPIC:**

- Setting, Plot
- Character, Theme
- Conflict, Resolution

**CLASS:** First year undergraduates of Department of Polymer and Textile Engineering

**METHOD:** Conventional method

**DURATION:** 120 minutes (Double period)

**Instructional Objectives:**

At the end of the lesson, students should be able to:

13. Understand the structure of a narrative text
14. Identify the different elements in the narrative text
15. Apply these to the text to be read.
16. Understand that the text should have a beginning, middle and ending

**Instructional materials:** Text, white board.

**Procedure:**

STEP	TEACHER'S ACTIVITY	STUDENTS' ACTIVITY	OBJECTIVE ACHIEVED
1. Introduction	The teacher reviews the previous lesson with the students by asking questions.	Students answer the questions.	Students' attention is aroused
2. Presentation	He introduced the narrative text to them and teaches a lesson on various constituents of the	Students listen and take notes of what the teacher says.	Students take notes

	narrative structure. Such as theme, plot, character, setting, conflict and resolution. He explains what these terms mean.		
3. Development	The teacher asks the students questions.	The students answer the teacher's questions	Students answer questions.
4. Application	The teacher writes down the different components on the board.	The students copy what the teacher has written.	Students write.
5. Discussion	The teacher asks the students if they have any questions and the teacher answers the questions.	Students ask questions	Students ask questions
6. Evaluation	Determined by the teacher.	The student submit any written tasks to the teacher	Students submit
7. Assignment	The teacher asks the students to read the text at home and write the answers to the questions contained therein.	students carry out the assignments	Students practice writing.