

**EFFECTS OF FLIPPED CLASSROOM INSTRUCTIONAL STRATEGIES ON  
SENIOR SECONDARY SCHOOL STUDENTS' PERFORMANCE IN ORAL-  
ENGLISH IN MINNA, NIGER STATE, NIGERIA**

**BY**

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ZARIA, NIGERIA**

**MARCH, 2020**

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ENGLISH IN MINNA, NIGER STATE, NIGERIA**

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**A THESIS SUBMITTED TO THE SCOOLOF POST GRADUATE STUDIES  
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**DEPARTMENT OF EDUCATIONAL FOUNDATIONS AND CURRICULUM,  
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ZARIA, NIGERIA**

**MARCH, 2020**

## DECLARATION

I hereby declare that this thesis titled: **“Effects of flipped classroom instructional strategies on senior secondary school students’ performance in Oral-English in Minna, Niger State, Nigeria”** is a product of my original research work and it has not been presented for any other qualification anywhere. Information from other sources (published and unpublished) have been duly acknowledged.

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.....  
Signature and Date

## CERTIFICATION

This thesis titled: **“Effects of flipped classroom instructional strategies on senior secondary school students’ performance in Oral-English in Minna, Niger State, Nigeria”** by Amina Usman KUTIGI (P14EDFC 9034) meets the regulation governing the award of the degree of Doctor of Philosophy (PhD) of the Ahmadu Bello University, Zaria and has been approved for its contribution to knowledge and literary presentation.

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## **DEDICATION**

This research is dedicated to my guardian Hajiya Fatima AbubakarPanti (Mama).

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## **ABSTRACT**

This study investigated the effects of flipped classroom instructional strategies on senior secondary school students' performance in Oral-English in Minna, Niger state, Nigeria. The study adopted a quasi-experimental design using pretest, posttest, non-randomized, non-equivalent control group design. The research was guided by eight objectives, eight research questions with corresponding eight null hypotheses tested at 0.05 level of significance. The target population for the study was all senior secondary school students offering English Language in Minna, Niger State. Multi-stage sampling was used to select the schools and students for the study. The sample was made up of 125 students (69 males and 56 females) from the three co-education secondary schools selected for the study. The schools were randomly assigned into three groups namely: Reciprocal Peer Tutoring Flipped Classroom (RPTFC) which comprised 35 students (19 males and 16 females), Think Pair Share Flipped Classroom (TPSFC) which involved 35 students (19 males and 16 females), and the Flipped Classroom Strategy (FCS) made up of 55 students (31 males and 24 females). Students were stratified along gender (male and female). The contents of the Oral-English were developed and organized into video instructional package. The instrument for data collection was Oral-English Performance Test (OPT). The research instrument was validated by experts. The instrument was pilot tested on 45 selected Senior Secondary School II (SS II) students in Minna, Niger State. The result obtained after pilot testing yielded 0.96 using Pearson Product Moment Correlation (PPMC) coefficient. Pretest, posttest and retention tests were administered on the three groups. The data collected were analyzed using descriptive statistics of mean and standard deviation to answer the research questions while inferential statistics of

Analysis of Covariance (ANCOVA) was used to test the research hypotheses. The findings of the study revealed that: students taught with Reciprocal Peer Tutoring Flipped Classroom (RPTFC) and Think Pair Share Flipped Classroom (TPSFC) performed significantly better and retained better than those taught using Flipped Classroom Strategy (FCS). However, no significant difference was found between male and female students taught Oral-English language using Reciprocal Peer Tutoring Flipped Classroom (RPTFC) and Think Pair Share Flipped Classroom (TPSFC) at performance and retention tests. Based on the findings, the study recommends that English language teachers should be encouraged to use RPTFC and TPSFC for teaching Oral-English at senior secondary schools; curriculum planners should include the use of RPTFC and TPSFC collaborative learning into teacher education programme so that teacher can use it to teach Oral-English at secondary school level of education.

## OPERATIONAL DEFINITION OF TERMS

The following concepts are operationally defined in relation to the study for clarification purposes:

**Flipped Classroom Strategy:** It is an approach in which students learn Oral-English contents through recorded video instructional package of Oral-English lectures, usually at home and tasks are done in the class with teachers and students involving in discussion and solving problematic issues of prior learning.

**Oral-English Video Instructional Package:** This refers to the video package of Oral-English language developed (lecture video) for teaching and learning during the flipped classroom.

**Post-Performance:** the act of a notable change in students' behaviours as a result of their exposure to Oral-English Video Instructional Package using flipped classroom instructional strategies.

**Retention Test:** This is an ability to recall and reproduce the concepts of Oral-English being taught for future use.

**Reciprocal Peer Tutoring Flipped Classroom (TPSFC):** is a collaborative learning technique where students share the contents of Oral-English among the group members to master the concepts by watching the Oral-English video instructional package in flipped classroom and take turns to teach the group members.

**Think-Pair-Share Flipped Classroom (TPSFC):** is a collaborative learning technique where students think, pair, and share the contents of (learning materials) Oral-English Video Instructional package in same group using flipped classroom strategy.

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# **CHAPTER ONE**

## **INTRODUCTION**

### **1.1 Background to the Study**

English is the language of instruction and a subject of study across all the levels of education in Nigeria. It is used in primary and secondary schools, colleges of education, polytechnics and universities. The main objectives of English language teaching are to give children permanent literacy and enable them to communicate effectively in the language (Federal Republic of Nigeria, 2013). Hence, the English language is a tool with which some of the objectives of education could be achieved. Furthermore, English language is the lingua franca of Nigeria, hence, it filled the communication gap between the various ethnic groups. At the moment, a candidate must have a pass in the English language at credit level to qualify for admission into a university for any of the programmes. However, deficiency in grammar, lexis, and structure, and phonetics is one of the limitations students encounter in passing English language examinations in Nigeria (Gambari, Kutigi & Fagbemi, 2014)

Despite the importance of the English language to all subjects in Nigeria, the performance of senior secondary school students at the national examination in the subject is not encouraging. This situation has attracted different comments from the parents, teachers and other stakeholders. In a World Bank report, Nigerian graduates were scored very low due to poor abilities in oral and written expressions in the English language (Majgaard & Mingat, 2012). These graduates were taught the English language and the use of English in their various universities, yet they were not proficient in the use of the English language. Consequently, their performance in the subject has continued to

be poor which adversely affected other subjects. Furthermore, Egwuchukwu (2012) reported that poor performance in the English language has a spill-over effect on other subjects.

There are many factors that can be attributed for the poor performance of students in the English language at the secondary school level in Nigeria. Lawal (2019) and Olaleye, Ajayi, Oyebola, and Ajayi (2017) identified the absence of an enabling environment, ill-equipped classrooms, and over-crowded classrooms as factors that have contributed to this situation. The implication of over-crowded classrooms, poor teaching methods and lack of language laboratory and other learning materials are leading to restiveness and poor classroom management. Furthermore, Thompson, Morton and Storch (2013) reported that technology that could enhance English language teaching and learning had not been effectively utilized in most schools in Nigeria. Furthermore, Egwuchukwu (2012) blames students' poor performance on the inconsistency in the curriculum. She argued that a major feature of English language teaching and learning in Nigeria is that the curriculum is constantly changed in line with new ideas and in response to the classroom, sociological and political realities of the time. Adeyele and Yusuff (2012) lamented that frequent use of lecture method in teaching and learning in most schools does not provide for the sequence of learning experiences. Furthermore, Gambari, Olumba, and Gbodi, (2012) reported that the lecture method of teaching employed by secondary school teachers is one of the factors responsible for mass failure in the English language.

There are different aspects of the English language offered in secondary schools in Nigeria which include grammar, lexis, and structure, writing, reading, and phonetics.

Grammar is a collection of rules that explain how a majority of people speak and write. It deals with different kinds of work that words do in a sentence. Grammar could be said to be the change that words undergo to express different meanings and the correct arrangement of words in a sentence (Aina, Ogundele, & Olanipekun, 2013). It also studies the way words and morphemes join to form meaningful sentences.

Lexis, on the other hand, refers to the vocabulary of a language. Lexis is important in language learning; it constitutes words in the language which are used for expressing ideas and meaning. It is taught as vocabulary development (AminAfshar, & Mojavezi, 2017). Writing is another aspect of the English language. It is a piece of prose devoted to a particular subject. It is taught as essay writing which is a form of communication. The rules of writing include grammar, spelling, and punctuation. It tests the ability of one to write grammatically correct sentences. Reading refers to the physical and mental processes involved in communication between a writer and a reader. It may be seen as the oral delivery of a written text (Rahimi & Taheri (2016). Gomaa (2015) sees reading as the recognition and conscious reproduction of writing or printed symbols, letters, words, word groups, and sentences either mentally or vocally through eye or finger contact.

Oral English is taught as phonetics. Phonetics concerns itself with the production and classification of speech sound which also deals with listening or hearing and speaking. A sound that has not been heard correctly cannot be reproduced correctly except by chance (Negari, Azizi, & Arani, 2018). A learner who is deficient in pronunciation will have difficulty in communicating orally. Listening comprehension is also an aspect of Oral English. It involves sound discrimination and development of ear

and memory association as well as sustained listening and recognition of speech sounds such as vowels and consonants (NematTabrizi & Saber, 2016). Looking at the composition of Oral English, it could be deduced that it has not been given proper attention in Nigerian secondary schools.

Ola-Busari (2014) analysed state of English language teaching and learning in Nigeria and Namibia and observed that the teaching of Oral English has been neglected in Nigerian schools because most teachers of English language are not familiar with the basic sound systems of English language which are consonants, vowels, stress, and intonation. It is possible that the inability of most teachers to teach Oral English could contribute to students' poor performance in English language examination. To support this assertion, Momoh (2013) notes that most teachers lack the basic training required in the teaching of Oral English.

One of the linguistic factors that affect the performance of students in English language is the interference phenomenon experienced by second language learners as a result of the linguistic elements present or absent in the mother tongue (Sa'ad, & Usman, 2014)). Despite that, Oribabor (2014) pointed out that successful learners should be able to produce their thoughts in a way that will make their messages intelligible to native speakers. The phenomenon of interference is the transfer effect of the mastery of elements of the first language into the use and expression of the English language (L2). Very often, the student transfers the pronunciation, stress, rhythm and intonation patterns of the L1 to the language production of the second language (L2) thereby committing serious errors in the English language. L1, according to language classification, is the native or first language of a child which is usually his mother tongue or his early

childhood language (Thompson, Morton, & Storch, 2013). It is the first language a child uses in communication. The second language, on the other hand, refers to a non-native language. The term second language (L2) points to the fact that the person already has a first language. To overcome the interference of L1, information and communication technology (ICT) could be used for teaching Oral English (UNESCO, 2004).

Information and communication technology (ICT) generally refers to the diverse set of technological tools and resources used to communicate, create, disseminate, store, and manage information (Asan & Montague, 2014)). The emergence of information and communication technology marks the beginning of various forms of systematic teaching and learning in education. ICT has revolutionised all aspects of education and it gave birth to an electronic way of doing things such as e-learning, e-teaching, e-journal, e-campus, e-library, e-registration, e-examination, among others. Furthermore, ICT promotes the student-centred approach of teaching and learning such as collaborative learning, flipped classroom, among others (Sánchez & Alemán, 2011).

The student-centred approach supported by instructional media could enhance effective teaching and learning (Gambari & Yusuf, 2015). The flipped classroom model is one of the recent instructional strategies that can be explored to enhance students' performance in the English language. A flipped classroom is a student-centered task-based and activity-based learning approach that provides several advantages to the student (Johnson & Renner, 2012). It can assist the student to enhance the skills of communication, interpersonal social relationship, cooperation in sharing and caring, openness, flexibility, adaptability, knowledge retention, higher-order critical thinking. It is a method in which students work together in small groups towards a common goal

(Green, 2012). Students, through flipped classrooms, can work together on a task, exchange their views, experiences, opinions, discuss and negotiate strategies, actions and results (Strayer, 2012). These actions can provide students with the opportunity to assist, explain, teach, understand, review and influence each other. By developing a community of learners, flipped classroom could also provide the opportunity to combine the special abilities of everyone to achieve a common goal through collaborative means. The achievement of the common goal is shared among all group members. The teacher acts as a coach, mentor or facilitator of the learning process (Johnson & Renner, 2012).

A teacher leads in class discussions, while activities can be students led and students might create their content, engage in independent problem solving or work on some inquiry-based activities in small groups putting into practice what they have learned from their preparation. Teachers move around the classroom answering questions, asking probing questions from students to uncover misconceptions, working with small groups and guiding the overall learning experience (Green, 2012).

There are four common key elements, according to Brame (2013) which are indicative of a flipped classroom. These elements are opportunities for students to gain first exposure before class; an incentive for students to prepare for the class; a mechanism to assess students' understanding; and in-classes activities that focus on higher-level cognitive activities. These elements are the backbone of a flipped classroom and each one of these is tied to an important learning principle that makes the flipped classroom a potential teaching method that can improve student learning. The use of flipped classrooms has been experimented in different subjects like Mathematics, Chemistry,

Physics, Social Sciences, Arts and Humanity, and English language among others (Johnson & Renner, 2012).

There are many ways of applying the Flipped classroom strategy for teaching and learning. Thakare (2018) identified eight major types of flipped classrooms: Standard Inverted Classroom, Micro Flipped Classroom, Discussion-Oriented Flipped Classroom, Demonstration-Based Flipped Classroom, Faux-Flipped Classroom, Group-Based Flipped Classroom, Virtual Flipped Classroom, and Role-Reversal 2.0 (Flipping the Teacher). In this study, Group-Based Flipped Classroom and Normal Flipped Classroom Strategy will be employed.

The group-based flipping model adds value to the learning experience through student interaction. Students digest video and other resources before the class and work in teams to learn the material. This format encourages students to learn from one another. It also reinforces soft skills and specific knowledge, as they need to have a firm grasp of the subject to explain it to their peers. This is similar to collaborative learning but in a flipped mode.

Collaborative learning is referred to as a methodology in which learners engage in a common task where individuals depend on one another and are accountable to one another. Collaborative learning activities can include collaborative writing, group projects, joint problem solving, debates, study teams, and others. These also include both face-to-face conversation (Chiu, 2008) and computer discussion (online forum, chat rooms, among others). The following five major collaborative learning techniques were identified by Cerbin (2010); Think-Pair-Share (TPS), Reciprocal Peer Tutoring (RPT), Think-Aloud Pair Problem Solving (TAPPS), Group Grid (GG) and Collaborative

Writing Strategy (CWS). Each of the aforementioned collaborative settings has its dynamics and extent of collaboration mode. This study, therefore, dwelled on TPS and RPT being the common collaborative strategies being fully explored. Summarily, collaborative learning helps in the development of high-level thinking, oral communication, self-management, leadership skills, irrespective of race and gender (Cerbin, 2010).

Think-Pair-Share is a cooperative discussion strategy that emanates from three stages of student action, with an emphasis on what students are to be doing at each of those stages (Gafoor, 2012). This teaching-learning strategy works in three phases which are Think, Pair, and Share. Firstly, Think: The teacher provokes students' thinking with a question, prompt, or observation. The students should take a few minutes just to think about the question. Secondly, Pair: Using a partner or a desk-mate, students pair up to talk about the answer each came up with. They compare their mental or written notes and identify the answers they think are best, most convincing, or most unique based on their exposure to the Flipped Classroom and finally, Share: After students talk in pairs for a few minutes, the teacher calls for pairs to share their thinking with the rest of the class (Khaji, 2010)). This learning strategy promotes classroom participation by encouraging a high degree of pupil response, rather than using a basic recitation method in which a teacher poses a question and one student offers a response (Susan,2001).

Reciprocal Peer Tutoring (RPT) is a form of collaborative learning in which students function reciprocally as both tutor and tutee (Ogbuanya, Bakare & Igweh, 2009). In RPT, students share the contents of Oral-English among the group members and each member after mastering the concepts by watching the Oral-English video instructional

package in the flipped classroom, takes turns to teach the group members. This dual role, according to Obiunu (2008) is beneficial because it enables students to gain from both the preparation and the instruction in which tutors engage and from the instructions that tutees receive. Reciprocal Peer Tutoring helps teachers to cope with challenges such as limited instructional time, multiple curricular requirements and appropriate social engagement among learners.

Flipping classroom is the standard format in which students watch short explanatory or tutorial video before the class. They then practice key concepts doing exercises or debating while receiving personalized feedback. After the class, students review what they learned and expand their knowledge.

The flipped classroom could be technology-driven because technology is one of the key components of the flipped approach (Pilten, 2016). The teacher in flipped classroom focuses on the desired outcome and makes use of learning technologies, particularly multimedia which provides opportunities for students to learn. These multimedia techniques could include podcasting, video, and screencasting to provide teaching contents outside the formal learning environment free from the traditional face to face lecture format (Marks, 2014).

In this study, pre-recorded video lectures were used for flip classroom. Video instruction is a kind of multimedia that transmits verbal and non-verbal with the combination of Audio and Visual materials. It develops continuity of thought and offers a reality of experience that stimulates self-activities on the part of the students (Engin, 2014). In the flipped environment of this nature, the teacher produces an instructional video package that was installed on laptops for the learners to watch individually or

collaboratively. At the interval, one may choose to stop playing and explain certain points or probably wait until the end of the lesson. Learners have the opportunity to repeat the lesson over and over (Strayer, 2012). This action can provide students with the opportunity to assist, explain, teach, understand, review, influence each other thereby enhance a motivational situation for developing a community of learners.

Performance of a student displays the competencies to demonstrate a specific skill or knowledge. Performance is a notable change in the students as a result of their exposure to the specific programme of instruction. It can also be seen as an act of achieving (accomplishment) or as a result gained by effort or as a great or heroic deed or as the quality and quantity of a student's work feat. Waseka, Simatwa, and Okwach (2016) reported that there is a positive correlation between good teaching approach and students' performance. Oluwatayo and Fatoba (2010) stated that instruction can be organised in such a way and manner that all students in the class can achieve and retain better.

Retention is the ability to reproduce the learned concept when the need arises over a while (Palmer, Maranba, & Dancy, 2011). Students' performance in various subjects is influenced by their retention abilities. Therefore, poor retention is one of the prevalent problems among Nigerian secondary school students. This may be due to teachers' non-use of instructional media to support their teaching. It was discovered that students' interest and retention could be aroused and retained through the use of multimedia instructional approaches (Adegoke, 2010). Starbek, Eriavec, and Peklai (2010) reported that students acquired knowledge better, retained what they had learnt, and improved comprehension skills when taught through the use of appropriate instructional media such

as video instructional packages, computer-assisted instruction, multimedia among other. The impact of media on students' performance cut across males and females.

Gender issues have also been linked with academic performance and retention of students in several studies (Achebe, 2008; Gambari, Yaki, Gana, & Ughovwa, 2014; Ozofofor, & Onos, 2018; Umoru, & Adekunle, 2019).). Gender differences have historically been held responsible for divergence in academic and career success. It has been identified as one of the factors influencing students' performance in school subjects (Owodunni, & Ogundola, 2013). Several studies revealed that male students performed better than female students in science, while others revealed otherwise. Some studies could not establish any form of influence being exerted by gender on academic performance. Certain researchers observed that children at elementary school, especially females do fall behind males on standardized assessments (Safo, Ezenwa, & Wushishi, 2013). Males always outperform females in elementary, middle and high school in science performance (Nosek, Frederick, Sriram, Lindner, Devos, Ayala,..., & Greenwald, 2009).; Snyder, & Dillow 2009). This disparity between male and female achievement continues at post-secondary education level where only a few women are less likely to major in the science disciplines (Anagbogu, & Ezeliora, 2007; Owodunni, & Ogundola, 2013; Miyake Kost-smith, Finkelstein, Pollock, Cohen, & Ito, 2010).

At secondary school level in Niger State and the other Nigerian States in general, students persistent failure in the English language especially in Oral English is attributed to lack of language laboratory, teacher-centred instructional approach, lack of qualified English language teachers, lack of instructional media, among others (Yaki, & Babagana, 2016; Gambari, Kutigi & Fagbemi, 2014). Annually, students' performance in the West

African Examinations Council (WAEC) and National Examinations Council (NECO) examinations is less than 50% in the English language (WAEC, 2018). Therefore, this study investigates the effects of flipped classroom models on senior secondary school students' learning outcomes in Oral-English in Minna, Niger State, Nigeria.

## **1.2 Statement of the Problem**

English language is an official language in Nigeria. It is the language of instruction in schools particularly from the upper level of primary school, secondary school and beyond. It is compulsory as a pre-requisite for entering into university to study engineering, medicine, accounting, economics as well as other formal disciplines in the university. It comes in two folds, written and spoken. Oral English belongs to the spoken type and it is compulsorily studied by all students in secondary school. Its importance made Federal Government of Nigeria to include it in the school curriculum and made it compulsory for all students to learn in order to ensure desired skill in speech production. The concept underlying the flipped learning approach includes helping students to become active learners and enhance their engagement. Flipped classroom has been proofed as effective learning strategy for many disciplines especially for English as a Foreign Language (EFL). It promotes student-centred approach that enhanced students' achievement and retention irrespective of their gender.

Despite the importance of English language in Nigerian schools, students' poor performance at Senior Secondary Schools Certificate Examination has been a major concern. Students encounter problems in both speaking and writing. Oral-English is one of the aspects that students find difficult to pass, thereby, leading to mass failure in the subject. These problems also affected the performance of the students of Niger state in

the West African Senior Secondary Certificate Examination (WASSCE) results. The poor performance was evident in the WAEC and NECO examination of 2013 to 2018 where many students' could not secure admission into universities due to the failure in English language (Appendix A, WAEC & NECO recent results).

The conventional method of teaching employed by English language teachers at senior secondary schools in Niger State in particular and Nigeria at large has been identified as one of the problems causing poor performance in the English language. Non-use of modern teaching resources during the teaching of English language that would encourage students to learn the subject effectively also attributed to the poor performance. The need to determine a suitable strategy for solving this problem is no longer merely desirable but compelling. This has precipitated the efforts to use the flipped classroom instructional strategy for the teaching of the Oral-English language concept. There were several studies on implementing flipped learning in secondary school, but in different content areas. Some researchers have worked on effects of the flipped classroom on students' performance and retention in other subjects but most of these known to the researches were not in Oral-English language. Moreover, some studies on EFL were not carried out in Nigeria. Studies on the influence of gender on instructional strategies are inconclusive, some studies favour male, and some studies favour females while others are neutral. Similarly, studies on types of Flipped Classroom strategies using video instructional media in a collaborative setting are very scanty. Therefore, this study investigated the effects of flipped classrooms on performance and retention of senior secondary school students in Minna Metropolis, Niger State.

### **1.3 Objectives of the Study**

This study investigated the effects of flipped classroom instructional strategies on senior secondary school students' performance in Oral-English in Minna, Niger State, Nigeria. Specifically, the study was designed to:

- (i). Determine the effect of Reciprocal Peer Tutoring Flipped Classroom (RPTFC), Think-Pair-Share Flipped Classroom (TPSFC) and Flipped Classroom Strategy (FCS) on the students' posttest performance in Oral-English.
- (ii). Find out the effect of Reciprocal Peer Tutoring Flipped Classroom (RPTFC), Think-Pair-Share Flipped Classroom (TPSFC) and Flipped Classroom Strategy (FCS) on the students' retention test in Oral-English.
- (iii). Ascertain the influence of gender on the posttest performance of students taught Oral-English using Reciprocal Peer Tutoring Flipped Classroom (RPTFC).
- (iv). Compare the mean posttest performance scores of male and female students taught Oral-English using Think-Pair-Share Flipped Classroom (TPSFC).
- (v). Find out the influence of gender on the performance of students taught Oral-English using Flipped Classroom Strategy (FCS).
- (vi). Determine the influence of gender on the retention test performance of students taught Oral-English using Reciprocal Peer Tutoring Flipped Classroom (RPTFC).
- (vii). Find out the influence of gender on the retention test performance of students taught Oral-English using Think-Pair-Share Flipped Classroom (TPSFC).
- (viii). Ascertain the influence of gender on the retention test performance of students taught Oral-English using Flipped Classroom Strategy (FCS).

#### **1.4 Research Questions**

The following research questions were raised to guide the study:

- (i) Would there be any difference in the posttest performance scores of secondary school students taught Oral-English in Reciprocal Peer Tutoring Flipped Classroom (RPTFC), Think-Pair-Share Flipped Classroom (TPSFC) and Flipped Classroom Strategy (FCS)?
- (ii) Would there be any difference in the retention test scores of secondary school students taught Oral-English in Reciprocal Peer Tutoring Flipped Classroom (RPTFC), Think-Pair-Share Flipped Classroom (TPSFC) and Flipped Classroom Strategy (FCS)?
- (iii) Could there be any difference in the posttest performance scores of male and female students taught Oral-English in Reciprocal Peer Tutoring Flipped Classroom (RPTFC)?
- (iv) Do students' gender influence their posttest performance when they are taught Oral-English in Think-Pair-Share Flipped Classroom (TPSFC)?
- (v) How do male and female students differ in the performance test scores in Oral-English when taught using Flipped Classroom Strategy (FCS)?
- (vi) Would there be difference in the retention test scores of male and female students taught Oral-English in Reciprocal Peer Tutoring Flipped Classroom (RPTFC)?
- (vii) How do male and female students differ in the retention test scores in Oral-English when taught using Think-Pair-Share Flipped Classroom (TPSFC)?
- (viii) Do students' gender influence their retention test scores when they are taught Oral-English in Flipped Classroom Strategy (FCS)?

## **1.5 Research Hypotheses**

The following null hypotheses were tested at 0.05 level of significance:

- (i) There is no significant difference in the posttest performance of secondary school students taught Oral-English using Reciprocal Peer Tutoring Flipped Classroom (RPTFC), Think-Pair-Share Flipped Classroom (TPSFC) and Flipped Classroom Strategy (FCS).
- (ii) There is no significant difference in the retention test performance of secondary school students taught Oral-English using Reciprocal Peer Tutoring Flipped Classroom (RPTFC), Think-Pair-Share Flipped Classroom (TPSFC) and Flipped Classroom Strategy (FCS).
- (iii) There is no significant difference in the posttest performance of male and female students taught Oral-English in Reciprocal Peer Tutoring Flipped Classroom (RPTFC).
- (iv) There is no significant difference in the posttest performance of male and female students taught Oral-English in Think-Peer-Share Flipped Classroom (TPSFC).
- (v) There is no significant difference in the posttest performance of male and female students taught Oral-English in Flipped Classroom Strategy (FCS).
- (vi) There is no significant difference in the retention test performance of male and female students taught Oral-English in Reciprocal Peer Tutoring Flipped Classroom (RPTFC).
- (vii) There is no significant difference in the retention test performance of male and female students taught Oral-English in Think-Peer-Share Flipped Classroom (TPSFC).
- (viii) There is no significant difference in the retention test performance of male and female students taught Oral-English in Flipped Classroom Strategy (FCS).

## **1.6 Scope of the Study**

This study was restricted to selected senior secondary schools in Minna Metropolis, specifically in Bosso and Chanchaga Local Government Areas of Niger State.

Since English language is a compulsory subject for secondary school students in Nigeria, students from Senior Secondary class two (SSII) were chosen for the study because the concept to be taught is contained in the SSI1 Syllabus and scheme of work.

The study was limited to three co-educational schools and each school was assigned to experimental I, II, and III groups. This was because it is intra-media and strategy study aimed at determining the most effective approach to using Flipped Classroom Models. The study was also limited to the following Oral-English concepts: Monophthongs, Diphthongs, Triphthongs, Consonant, and Consonant Clusters. These concepts were chosen due to their abstract nature considered by Chief Examiner reports (2019) as one of the difficult areas to pass during an examination.

Furthermore, the study was limited to three independent variables of Think-pair-Share flipped classroom, Reciprocal Peer Tutoring flipped classroom, and Flipping classroom strategy while the performance and retention were the dependent variables. The moderating independent variable of gender was also explored across two of the independent variables.

## **1.7 Significance of the Study**

The findings of this research study will be of significance to the following stakeholders: students, teachers, curriculum planners, examination bodies, researchers in English language, textbook writers / publishers, and instructional designers.

It is hoped that at the end of this study, students who took part in the experiment will benefit from the findings and recommendations of this study. Findings from this study are expected to have a positive impact on the students' performance in Oral-English language in the sense that the Oral-English Video Instructional package using Flipped Classroom Instructional strategy would be readily available for the learners' use during and after the lesson. This may enable the learners to study a particular concept over and over at their own pace. This procedure may take care of individual differences, eliminate tension, make learning easier, simpler, and more enjoyable and might enhance mastery of the contents.

The findings and recommendations of this study may be of significance to teachers in improving their teaching process. Again, the findings could provide some positive approaches to the teaching of abstract and complex in Oral-English language concepts. English language teachers will also benefit as they will learn how to produce flipped classroom instructional materials for teaching their subject.

Teacher education programme designers will derive benefit from the study because it might provide information that will be used in formulating the adoption of Flipped classroom strategy for the preparation of teachers of Oral-English teaching at the primary, secondary school, and tertiary institution levels. Publishers will use the information provided in this study to improve the contents of their books. Curricular designers may also use the result of the findings of the study in modifying curriculum contents of Oral-English to include media resources in teaching at the primary and secondary school level.

It is expected that instructional designers and developers, educational technologists and even the Open University Learning Centres would be provided with the empirical information on the potential of Flipped Classroom Instructional strategy for teaching Oral-English.

The theory of constructivism was applied in this study. The significance of the study is that it will provide an opportunity to see the extent to which the behaviourist theory strategy of imitation, repetition; pattern practice, drill, and reinforcement, could influence students' performance in Oral-English teaching and learning.

Curriculum developers, planners, and policymakers may probably derive immense benefits from the findings of this study. This is because it may enable the policy makers to possess the knowledge and disposition that Flipped Classroom Instructional strategies that may encourage the development of critical thinking, problem-solving and performance skills among students.

Researchers in the education will be provided with data for further research in the area of teaching Oral-English with Flipped Classroom. The government will also benefit since it will justify equipping the school with instructional media (such as language laboratory, computer laboratory, etc) for effective implementation of flipped classroom instructional strategy for Oral-English teaching and learning.

## CHAPTER TWO

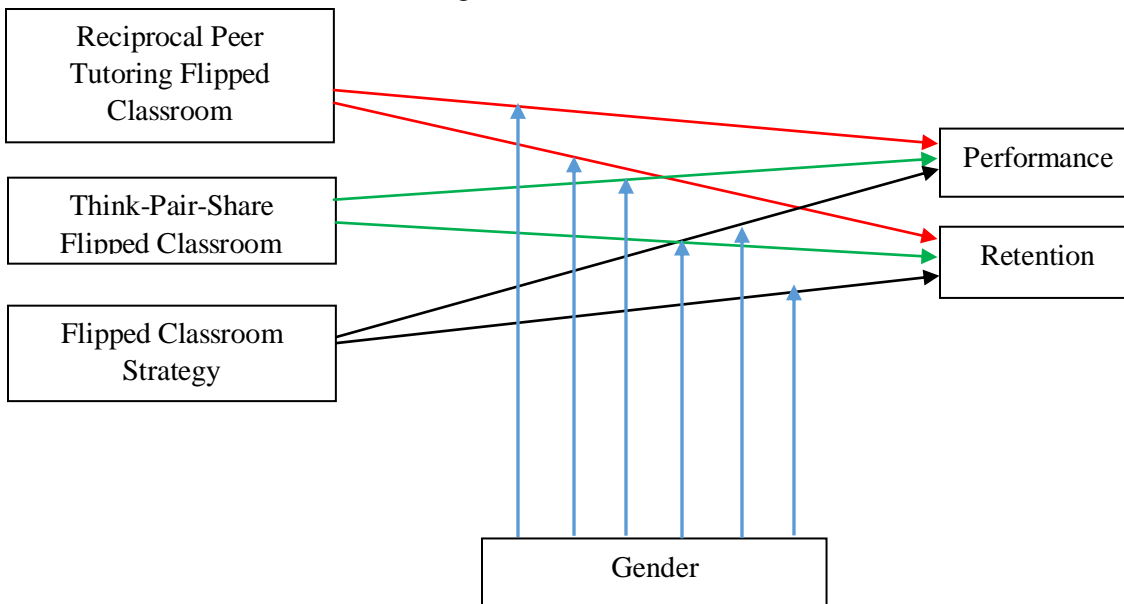
### REVIEW OF RELATED LITERATURE

#### 2.0 Introduction

This chapter reviews the relevant literature on the effects of flipped classroom models on senior secondary school students' learning outcomes in Oral-English in Minna, Niger State, Nigeria. The literature related to the present study is reviewed under the following major headings: Conceptual Framework, Theoretical Framework, Empirical Studies, and Summary of Literature Review.

#### 2.1 Conceptual Framework

Relevant literature was reviewed under the following concepts and variables: Importance of English language in Nigeria Educational System, Overview of Nigerian secondary School English Language Curriculum, Concept of Oral-English at Senior Secondary School Level in Nigeria, Roles of Digital Video Instruction in Teaching and Learning English Language, Impact of Retention on Students Performance, Theoretical Framework of the Study, Empirical Studies, and Summary of Reviewed Literature. This arrangement of the literature is used to formulate the framework in carrying out this research work as shown in Figure 1.



**Figure 1: Conceptual Framework for the Study** study that consists of three independent variables which include, Reciprocal Peer Tutoring Flipped Classroom (RPTFC), Think-Pair-Share Flipped Classroom (TPSFC) and Flipped Classroom Strategy (FCS). Achievement and Retention are the two independent variables while Gender (Male and Female) are the moderating independent variable of the study.

From the figure, the effect of Reciprocal Peer Tutoring Flipped Classroom (RPTFC) was determined on students' performance and Retention after administering the treatment. Similarly, the effect of Think-Pair-Share Flipped Classroom (TPSFC) was determined on students' Performance and Retention. The effect of Flipped Classroom Strategy (FCS) was also determined on students' Performance and Retention while the influence of treatment on students' Gender was determined by each of the strategies. In other words, the male and female students Performance and Retention were determined by the influence of Reciprocal Peer Tutoring Flipped Classroom treatment. Similarly, the influence of gender on students' Performance and Retention was also determined by Think-Pair-Share Flipped Classroom. Finally, the Flipped Classroom Strategy (FCS) treatment was administered to determine male and female students' Performance and Retention when exposed to Oral-English.

### **2.1.1 Importance of English Language in Nigeria Educational System**

English Language got to Nigeria as early as the fifteenth century through Portuguese traders and later the Missionaries and Colonial Masters. It found its way into education gradually through the Education Code of 1882 which recommended the

payment of grants-in-aid to schools where English was taught (Kolawole, 2002). Today, it has become an all-important language in Nigeria since it has been domesticated. In Nigeria today, and for all it matters, the English Language is the language of science and technology, national and international communication (Beach, 2012), to mention a few. Of course, it has become the language that determines the progress that students can make in their quest to acquire higher education and prestigious employment. This is because admissions into tertiary institutions are based on the acquisition of a minimum of a credit pass in the language at the WAEC, WASSCE, GCE, NABTEB and NECO examinations. This is so because Nigeria, as a multilingual and multiethnic country, has so many languages, some of which have no standard orthography that can be used to perform these functions.

Similarly, students are not promoted into higher classes if they do not do well in the English Language. It is a fact that students cannot move to the Senior Secondary classes if they do not pass English at the Junior Secondary School Examinations. It is affirmed that no student graduates from the universities without passing the compulsory (Use of English) course. Also, society expects students, at all levels, to be able to use English both in spoken and written forms, to communicate meaningfully and intelligently. To make sure that English is taught and learnt well, it has become a compulsory subject at all levels of education in Nigeria. This position is underscored by the fact that nursery/primary schools that ought to have used mother tongue as the language of instruction have abandoned the policy (Federal Republic of Nigeria (FRN), 2013) and have resorted to the use of English Language. Oribabor (2014) reported parents' claim that they sent their children to private nursery/primary schools to be taught

English. As a language of instruction, every learner is expected to reach a level of mastery that will enable them to understand what the language is used to pass across in the process of teaching and learning. They are also expected to be able to use the same language in expressing themselves or writing answers to questions whenever the need for such arises. In addition to being a language of instruction, English is also a compulsory subject that students must pass. This has posed a problem to most learners today because most students have found it difficult to pass the all-important subject. Several factors have been advanced for students' inability to pass but efforts are daily being made to help them overcome the problems through a deeper understanding of both English as content (knowing) and as a process (doing). Efforts have also been made to incorporate the process approach into the teaching of English to help students learn the subject in an integrative manner.

### **2.1.2 Overview of Nigerian Secondary School English Language Curriculum**

Long before the current English curriculum which was a product of the 1969 National Curriculum Conference came into being, the curriculum of English, according to Kolawole (2002) was essentially made up of three major components, namely: Grammar and Precise; Composition; and Literature. This type of curriculum emphasized Literature in English and grammar as the substantive content areas (scholarly knowledge) which had to be taught to learners. It is reported by Bernhardt (2011) that one major process of teaching the content was predominantly through the process of composition writing and that in addition to writing compositions, the introduction of language arts gave birth to the inclusion of the language skills of writing, reading, listening and speaking, to widen both the content and process of the curriculum. According to Oribabor

(2014), the current English Language Curriculum in Nigeria includes all those experiences which point towards the development of the communicative skills and the language arts of listening, speaking, reading and writing.

The four language skills have been given adequate attention in the curriculum and they cover both content and process required for teaching the subject. These skills are essential if anybody hopes to achieve a mastery of the language. To facilitate easy mastery therefore, the curriculum is broad and covers topics such as grammar, reading, comprehension, dictation, vocabulary study, punctuation, oral (speech work), writing and listening. According to Adamu (2007), one of the goals of teaching English across cultures is to help learners to be able to communicate effectively in the language. Being able to communicate in the language naturally is the ability to read, write, speak and understand the language when in the process of communication. This justifies the inclusion of the four language skills. The Federal Ministry of Education designed two new sets of the English Language Curriculum: A 9-years Basic Education Curriculum (which covers the Junior Secondary Classes i.e. 1-3) and a Senior Secondary School Curriculum extracts which covers Parts of speech: adverbs, conjunctions and prepositions, and the use of adverbs/adverbials and other terms to indicate manner (Federal Republic of Nigeria, 2013). What is clear is that the current English Language curriculum, like other subjects and previous ones, apart from selecting content to cover all the language skills, also clearly displays each Topic, Performance Objectives, Content, Class, Activities, Teachings Aids as well as Evaluation Guide.

English language as one of the core subjects in the curriculum of both junior and senior secondary schools, is an integrated subject whose studies in the curriculum

comprises of the following essential components or elements: vocabulary development, comprehension, listening and reading structure, spoken English, writing and literature. The idea is to promote systematic development of both the language skills and the literary knowledge, that are considered essential for effective use of English in oral and written communication as well as in learning other subjects in the school curriculum (Federal Republic of Nigeria, 2013).

The main aim of the spoken English syllabus at the secondary school level is to provide systematic training towards the acquisition of speech skills which will enable the learners to communicate intelligibly in English in addition to being able to listen and understand the English of other speakers of the language (Ikwuka, 2007). Furthermore, in situations where instructions in spoken English have been provided at the primary school level, this syllabus will serve as further reinforcement and better proficiency in spoken English at the secondary school level. The main aim as stated earlier, presupposes the skills of the listed points; (a) Listening and understanding, (b) Speaking skills, which learners will have to acquire since they are expected to study English as a core subject in the curriculum and also to learn other subjects in the school curriculum through the medium of English (Oribabor, 2014).

According to Olanipekun, (2013), the National Curriculum for Senior Secondary Schools states that English-Language syllabus should comprise of content, performance and should be interactive. Also, English- language studies should have the following essential elements: Vocabulary development, comprehension, listening and reading, spoken English, writing and literature. The idea is to promote systematic development of both the language skills as the literary satisfactory level of competence in a given

language depends not only on the ability to use them meaningfully but also in an appropriate context. The Federal Republic of Nigeria (2013) also emphasises that English-language serves as: medium of instructions in schools and colleges, and medium of communication for inter-personal, inter-ethnic, government and business.

It also strives to equip the students with an adequate range of words and phrases that would enable them to communicate effectively in the context of the different kinds of everyday situations, at both home, school, and work. It asserted further that, teaching syllabus is designed to improve and expose students to a wide range of vocabulary items of a familiar and everyday situation. This is to enable the students to acquire sufficient vocabulary that will enable them to write effectively within the first three years in secondary school (Olanipekun, 2013).

The syllabus is designed to emphasize and facilitate the systematic development of two types of comprehension namely: Listening and reading comprehension. This aspect cannot be ruled out in the teaching and learning of phonetics. It is, therefore of necessity to produce teachers who will be competent enough to include the right kind of knowledge of technology as stated in the curriculum of the subject.

### **2.1.3 Concept of Oral-English at Senior Secondary School in Nigeria**

Oral-English is a relay of information by usage of words with a collective set of inert symbols and syllables. It is otherwise called phonetics - the scientific study of speech sounds and how they are produced. It can equally be described as an art of communication that has to deal with speaking of the language in the right manner of the native speaker. In a nutshell, the phonological component of English-language generates

two kinds of phonological structures namely: segmental and supra-segmental (Aina, Ogundele, & Olanipekun, 2013).

In the act of speaking, the two are inseparable: segmental structures are extremely important for expression and interpretation of the morphological content of the grammatical component. English words cannot exist apart from some segmental phonemic shape; supra-segmental structures are equally important for expression and interpretation of the syntactic content of the grammatical component. English phrases, clauses and sentences cannot exist apart from some stress, affixes or intonation pattern. Since the principle of permeation is ever at work in the language, words cannot be articulated apart from Supra-segmental structures nor can phrase, clauses and sentences be articulated apart from Segmental structures (Anyadiiegwu, 2012).

This study focuses on Segmental Phonemes (SP) which are: minimum class units of sounds that are contrastive and therefore significant. The speakers translate alphabetically written words into segmental phonemes when they are read and listeners interpret it as alphabetically written words when they are read. "SP" comprises of the following, 25 Vowel Sounds which can be divided into 12 Monophthongs, 8 Diphthongs of (5 Closing and 3 Centering Diphthongs), 5 Triphthongs and 24 Consonant sounds three of which act as semi-vowel /h, w and y/. Consonants have their varieties called Consonant Clusters that is, the double or triple occurrence of the phonemes either at the initial, middle or at the final position of a word e.g./pl, pr, py, kl, tr, bl or spl, spr, skl, sky and str, etc (Bernhardt, 2011).

There a lot of problems associated with teaching and learning of Oral-English in Nigeria. However, the following problems have been identified by various researchers as

the factors contributing to poor teaching and learning of Oral-English in both Junior and Senior Secondary Schools: negligence of the aspect during the teaching of English – language for the fear of L1 interference by the teacher; lack of Language laboratory; and lack of any organized teaching or carefully prepared instructional material in Oral English (El-Omari, 2016; Gambari, Kutigi & Fagbemi, 2014; Olanipekun, 2013; Oribabor, 2014).

The little amount of teaching and learning of what is referred to as Oral English at the secondary school level in Nigeria schools is done solely for Senior Secondary Certificate Examination (SSCE). The syllabus of Oral-English is comprehensively reflected and produced by examination bodies like the West African Examinations Council (WAEC), National Examination Council (NECO), and National Examination for Business and Technical Education (NABTEB). The Oral-English Examination is compulsory and consequently, many secondary school students in Nigeria do not have interest due to the attitude of the teachers of English towards it. Little efforts have so far been made at this level to consciously teach spoken English to encourage the learners (Adekola, 2012).

The two major problems that have been identified as a hindrance to effective teaching and learning of Oral English in Nigeria school are: inadequate knowledge of the subject content and the fact that certain aspects of the subject are highly technical and demand some specialized knowledge of those areas, such as 'phonetics' and 'phonology'. These require the correct articulation of the vowel and consonant sounds of English that is being taught, the recognition and use of the various patterns of stress in English (Aina, Ogundele, & Olanipekun, 2013; Olanipekun, 2013).

Oluikpe, Anasiudu, Otagburuagu, Onuigbo, and Ogbonna (2012) state that in the teaching of a sound, the teacher should first drill the learners in that sound until mastery is proved. Nigeria is a multi-lingual country and is also like other neighbouring countries faced with the problem of interference of L1 with L2 which has been the major hindrance to the learning of Oral-English (Adamu, 2007). Similarly, Falaye (2003) observed that learners' failure was as a result of the crude method of teaching and lack of adequate knowledge of the Oral-English by the teacher. Olopoenia (2004) revealed that the inability of the teachers, learners, and parents to view the learning of Oral-English from hearing and listening perspectives makes it difficult to teach and learn.

Anyadiegwu (2012) observes that despite various problems facing Oral-English, urgent attention needs to be given to the area of Fluency and Accuracy in speech. Adekola (2012) discovered that the risk of making mistakes in utterances result in anxiety. Kang (2006) stated that age, social-cultural and affective factors are identified as contributive factors to failure in the English Language. There are only a few textbooks on Oral English that have been specifically written to suit the needs of the learners of English as a second language (Bernhardt, 2011). Adamu (2007) observed that inadequate textbooks are one of the problems facing teaching and learning of phonetics. Ikwuka (2007) reported a lack of using technology for teaching and learning of English Language resulted in students' poor performance in Oral-English.

The implication of this is that English language teacher that is not creative or innovative will simply teach with conventional methods of teaching. When this happens, learners are left to learn whatever they are being taught by their teachers in a mechanical process. A process that will not take into consideration the various situations and contexts

where effective teaching and learning of English can take place. The major concern of experts is the need to make Nigerians learning the English Language to be exposed to every concept that they need to be able to use the language well. This is necessary because close to 90% of Nigerians use English as a second language (L2) because they already have their first language (L1). Learning English as a second language, therefore, requires greater efforts on the part of teachers and learners. El-Omari (2016) intelligently discussed several methods and approaches to teaching language and as well explained the strong and weak points of these methods. The methods include; Grammar-Translation Method, Director Natural Method, Audio-Lingual Method, Silent Way Method, Total Physical Response Method, Audio-Visual Method, Play Method, Oral Method, and the Eclectic Way. Azikiwe (1998) further remarked that no method is the best for teaching and as such none is solely prescribed for the teacher of Language. It was, however, concluded that the essence is to make teachers know the methods and procedures that they could select from and use in the presentation of their lessons but that the success of the teacher does not arise from the use of a particular method but skill, insight, and resourcefulness on his part.

Iranmanesh and Darani (2018) stated that the roles of technology cannot be over emphasised in enhancing effective teaching and learning of the English Language. In support of this assertion, studies conducted by Gambari, Kutigi and Fagbemi (2014) and Genc and Aydin (2011) revealed that that, computer-assisted pronunciation has increased access to the pronunciation performance of the learners and that of others through visual displays such as spectrographic analyses of individual phonemes or amplitude waves showing the level of intensity for isolated words or phrases. In another study, Lee (2008)

reported that using self-directed Computer-assisted cued pronunciations in reading improves learners' fluency and also boosts confidence to speak English publicly without fear of being misunderstood by their audience. Mohammadian, Saed, and Shahi (2018) observed that video and television can be used to assist ESL learners through selected and analyzed programmes that have to do with dialogic speech.

## **2.1.4 Roles of Digital Video Instruction in Teaching and Learning English Language**

### **2.1.4.1 Concept of Digital Video**

Recently, video disc is a type of video recording system that works by using a digital rather than an analogue video signal. Digital video was first introduced commercially in 1986 with the Sony D-1 format, which recorded an uncompressed standard definition component, the video signal in digital form instead of the high-band analogue forms that had been commonplace until then. Due to the expense, D-1 was used primarily by large television networks. It was eventually replaced by cheaper systems using compressed data, most notably Sony's Digital Beta cam, still heavily used as a field recording format by professional television producers that made it in studios at their company (Mann, 2006).

According to Swisher (2007), digital video comprises a series of orthogonal bitmap digital images displayed in rapid succession at a constant rate. In the context of the video, these images are called frames. It measures the rate at which frames are displayed in Frames per Second (FPS). Since every frame is an orthogonal bitmap digital image, it comprises a raster of pixels. If it has a width of  $W$  pixels and a height of  $H$  pixels referred to as the frame size its  $W \times H$ . Pixels have only one property, their colour.

The colour of a pixel is presented by a fixed amount of bits. The more bits the more subtle variations of colours we can reproduce.

Digital video instruction is a video recording technology that stores video images as strings of binary numbers (Swisher, 2007). Digital video instructional packages can be manipulated (eg. content, size, and colour can be changed), stored, duplicated and replayed without loss of quality. They are stored in digital video discs, which is a compact disc format for displaying motion video and also a medium offering digital storage and playback of full-motion video. Materials stored on digital video discs can be changed and also one can edit the content and sequence of the moving images (Strayer, 2012).

The disc is the same physical size as an audio Compact Disc (CD) or a Compact Disc-Read Only Memory (CD-ROM) but can hold enough data for four full-length feature films with high-quality soundtracks (almost nine hours of video). Like CDs and CD-ROMs, Digital Versatile Disc (DVD) has instant random access and is highly durable. There is no distortion when you watch a DVD in slow motion. DVDs provide far superior sound and picture quality compared to a standard VHS videotape. Unlike videotape, DVD does not deteriorate over time. Text can be displayed in multiple languages and used to substitute or annotate video content. Some discs offer the ability to view an object from different angles selected by the students; up to nine different camera angles selected in real-time during playback. Discs offer index searching of title, chapter, track on time code for instant navigation-random access (Franciszkowicz, 2008).

A single-layer DVD can store over two hours of high quality, digital video including eight separate high-quality audio tracks for multiple languages, different grade

levels, and special video description for blind or visually impaired students. Digital Video Disc-Recordable (DVD-R) is now available to allow people to record their DVDs as they do videotapes. All DVD video discs can be played on all DVD players. The device also plays audio CDs, and that makes its use very paramount for the instructional purpose by combining a microcomputer to a digital video disc player to join audios and video presentations, thereby connecting it to a projector which projects the lesson on the screen for the benefit of the viewing audience (Lowisa, 2010).

The most important properties are the bit rate and video size. Digital video can be copied with no degradation in quality. No matter how many generations a digital source is copied, it will be as clear as the original first generation of digital footage. Similarly, it can be manipulated and edited to follow an order or sequence on the Non-Linear Editing (NLE) workstation using a computer-based device. Furthermore, it has a significantly lower cost than a 35mm film. The tape stock itself is very inexpensive. Also, it allows footage to be viewed on location without the expensive chemical processing required by the film, unlike analogue video. Recently, Digital video is used outside movies making, modern mobile phones, streaming video and peer-to-peer movies distribution (Mann, 2006).

#### **2.1.4.2 Application of Digital Video for Effective Instructional Delivery**

Video instruction is a term used by educators which are also known as technology interpretation to describe the effective uses of video technology by teachers in the classrooms to support instruction in language arts, social studies, science, mathematics or other content areas. Ofili and Okore (2012) emphasized that instructional video can enhance understanding of concepts that are intricate verbal explanation. Video with its

visual and animated features can be a powerful addition to second language acquisition. In the field of research on multimedia education, video was useful for visualizing processes, could clarify complex ideas and make them easier to remember. Thus, visuals that provide concrete referents for concepts play an essential role in fostering learners' comprehension (Mayer, 2008).

When dealing with a student with low learning motivation, it is very important to keep them interested in learning. Interesting lessons will arouse the interest of the students and enable them to do their self-directed learning and research (Ummunadi, 2009). The use of video instruction can help in keeping the students interested in learning about a new domain. It also helps students in developing mental morale and corrects the new knowledge domain.

With these documented benefits, digital videos can be used in academic contexts for various instructional purposes. Moreover, with the astonishing advancement of recent technology which enables digital video recordings to be played via computers when teachers integrate technology into their classroom practice, learners are empowered to be actively engaged in their learning (Mohammadian, Saed, & Shahi, 2018). When technology is integrated into the classroom, educators are taking the constructivist approach to learning. Students are becoming experts while the classroom environment is shifting from teacher-centered to student-centered. Any teacher who is not supporting student learning by integrating technology in the classroom is causing a disservice to students and the workforce that awaits them (Anunobi, 2009).

Despite these benefits of digital video, learning with digital video requires effective pedagogy. Digital video is not a teacher-proof educational tool, just as the film

never was. Video content should be closely matched to an instructional goal. Students need prior instruction about what to look for in a video and debriefing afterward to ensure they attend to targeted information (Franciszkowicz, 2008). Teachers must also attend to potential cognitive overload caused by too much information being presented too quickly or by the simultaneous appearance of moving images, narration, and sometimes onscreen text. Without an active teacher who attends to these issues, pausing the video at strategic points, replaying key segments, and assessing understanding, video, and animation may decrease students' comprehension of a concept (Gambari, Olumba, & Gbodi, 2012).

As teachers develop technological pedagogical content knowledge specific to digital video, they discover that they can actively engage students by asking them to observe, answer a question, or interpret a message. Video can become an object of analysis, sometimes even in combination with other interactive measurement technologies. Students can also create their videos as a form of knowledge expression, synthesizing and communicating what they have learned (Mohammadian, Saed & Shahi, 2018). In each case, video pedagogy is not generic. Examples of the way in which teachers can most effectively engage students with digital video is specific to the content being learned as shown in Table 1.

**Table 1: Student Engagement with Digital Video by Content Area**

<b>Subject Area</b>	<b>Student Activity</b>
Social Studies	<ul style="list-style-type: none"> <li>• Watch video clips of people and places outside of students' local experiences and historical reenactments.</li> <li>• Analyze video as a historical artifact or scrutinize political ads or product commercials to encourage critical thinking.</li> <li>• Create mini-documentaries about historical events to research and interpretive skills or make movies about current cultural customs and traditions to broaden students' perspectives.</li> </ul>

Science	<ul style="list-style-type: none"> <li>• Watch video clips of phenomena that engage them in scientific questions, elaborate on or apply a concept, or invite observation and inference.</li> <li>• Analyze video to make predictions, find patterns, take measurements, or determine classifications.</li> <li>• Create video of events and scientific phenomena that students have an interest in exploring further or that present students' understanding of a concept.</li> </ul>
Mathematics	<ul style="list-style-type: none"> <li>• Watch video-recorded events to visualize mathematics in nature and art and to set contexts for mathematical inquiry.</li> <li>• Analyze motion mathematically or examine the pattern and symmetry of choreographed dance, for example, or marching bands.</li> <li>• Create video that enacts a specific function or solves a mathematical problem or demonstrates understanding of a mathematical concept.</li> </ul>
English Language Arts	<ul style="list-style-type: none"> <li>• Watch video that engages students in meaning making and interpretation.</li> <li>• Analyze video to consider the effectiveness of combinations of spoken word, print text, soundtrack, image, and motion.</li> <li>• Create video as a multimodal text to express ideas and connect with an audience.</li> </ul>
Reading	<ul style="list-style-type: none"> <li>• Watch video as a pre -reading visualization activity that builds prior knowledge and engages students in the topic or view video renditions of fiction and drama for critical comparisons.</li> <li>• Analyze students' reading performances for self-reflection and feedback.</li> <li>• Create videos that demonstrate reading and composition skills or reading comprehension.</li> </ul>
Physical Education	<ul style="list-style-type: none"> <li>• Watch video of others' skill performance to learn techniques.</li> <li>• Analyze students' skill performance for both self-evaluation and teacher feedback.</li> <li>• Create digital video clips of others' skills or performances to demonstrate understanding or make fitness/wellness advocacy/public service announcement videos for an audience.</li> </ul>
Language Education	<ul style="list-style-type: none"> <li>• Watch video clips of everyday conversation in films or television broadcasts or music that can be replayed and processed in multiple ways.</li> <li>• Interact with native speakers through live video conferencing.</li> <li>• Create video of student conversations or skits or narrations of past events that demonstrate language mastery.</li> </ul>

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Although, the enthusiasm for educational use of digital video is high in some circles, the body of evidence is still evolving regarding the types of video and associated pedagogical methods that are most effective for teaching specific curricular topics.

### **2.1.4.3 Influence of Digital Video Instruction on Students' Performance**

Instructional designers use video to stimulate, arouse and engage learners of all ages. To support this assertion, Anunobi (2009) reported that learners had higher attention in video instruction than text – based instruction. In addition, learners classified video – based instructions as more memorable than text- based instruction. Montazemi (2006) also found that video contributes to learner satisfaction in an instructional programme. Finally, students found a learning programme that used video to be more useful than the one without video (Isiaka, 2007). Use of video helps students remember important learning information because video promotes simultaneous processing of both auditory and visual information (Mayer, 2008).

Video instruction is used to promote active learning. Years ago, early television instructional programme tended to fail because the video did not mentally engage learners (Choi & Johnson, 2007). However, Choi and Johnson (2005) found that video-based instruction could be an effective learning tool when learners are actively participating while viewing the video package. Kamin, Sullivan, Deterding and Younger (2003) reported that video instruction stimulate cognitive processes that helped facilitate active learning, and students who learned using digital instructional video engaged in critical thinking than those who did not.

In problem-based learning, students learn by actively solving context-specific, open-ended problems. Choi and Johnson (2007) stated that, video technology is believed to be particularly useful and suitable for problem-based learning because it can convey

setting, characters and action in more interesting way and can portray more complex and interconnected problems.

Choi and Johnson (2007) reported that the simultaneous processing of both auditory and visual information increase learner's comprehension and retention. Therefore, the use of video can help students learn by expanding the capacity of working memory, just as long as the video content and other simultaneously presented information do not overload the cognitive processes of the learner.

### **2.1.5. Overview of Flipped Classroom Instructional Strategy**

#### **2.1.5.1 Origin of Flipped Classroom Instructional Strategy**

The flipped classroom was successfully introduced at the University of Miami, Ohio to economics courses in the late 1990s. Students could access lecture and lecture material through PowerPoint slides and recorded audio lecture, or recorded video lectures. When the students entered the class, the instructor asked and answered and finally students completed work sheet and review questions, which could be answered individually or in groups. It was discovered that students preferred the flipped classroom to traditional lecture and instructors were similarly positive, stating they felt students were more motivated to learn. Both students and instructors commented they enjoyed the collaborative environment and the one-to-one support the flipped classroom allowed (Ahmad, 2016).

The advancement of flipped learning received more attention in 2007, when two rural Colorado chemistry teachers, who were concerned that students frequently missed end-of-day classes to travel to other schools for competitions, games or other events, began to use live video recordings and screen casting software to record lectures,

demonstrations, and slide presentations with annotations. Those materials were posted on the then-nascent YouTube for students to download and access whenever and wherever it was convenient. But the mode of delivery turned out to be less important than what it made possible. In early 2012, Sams and Bergmann started the flipped learning network (FLN) to provide educators with the knowledge, skills, and resources to successfully implement the flipped learning model. The goals of the organization are to provide professional learning opportunities on flipped learning; to conduct, collaborate and disseminate relevant research on flipped learning; and to act as the clearing house for distributing best/promising practices for current and future “flipped” educators (Strayer, 2012).

Educators have been laying more emphasis on shifting from teacher-centred instructional approach to student-centred approach. One of such approaches is called flipped learning in which digital technologies are used to shift direct instruction outside of the group learning space to the individual learning space. Offloading direct instruction in this way allows teachers to reconsider how to maximize individual face-to-face time with students (Little, 2015). Time becomes available for students to collaborate with peers on projects, engage more deeply with content, practice skills, and receive feedback on their progress. Teachers can devote more time to coaching their students, helping them develop procedural fluency if needed, and inspiring and assisting them with challenging projects that give them greater control over their own learning (van Vliet, Winnips, & Brouwer, 2015).

#### **2.1.5.2 Meaning of Flipped Classroom Instructional Strategy**

A flipped classroom (sometimes referred to as an inverted classroom) flips the traditional structure of a classroom. In a typical traditional classroom, students listen to lectures in class and perform other learning activities, such as solving practice problems after class. In this traditional structure, students are taught content in class via lectures and they attain deeper knowledge after class via various forms of homework. In a typical flipped classroom, students listen to recorded video lectures before class and perform other learning activities in class (Staker & Horn, 2012).

Also, in flipped structure, students are taught content before class via videos and readings, and they attain deeper knowledge in class via activities. In flipped classes, students may also have homework problems to solve independently after class. Many variations of learning environments are used in current classrooms and many of the terms used to describe these learning environments (e.g., blended and hybrid) are used inconsistently in the literature. For the purpose of this guide, a flipped class is defined as a specific type of a blended learning environment. This guide defines blended learning by two criterion: instructional guidance is delivered through both an instructor and technology, and knowledge is acquired through both information transmission and praxis. A flipped classroom fits this criteria because content is delivered (information transmission) through a computer and praxis is achieved through in-class activities with an instructor (Schell, 2013).

A flipped classroom is part of a blended learning model in which students have some control over 'time, place, path and/or pace' and are involved in active learning (Hamdan, Mcknight, Mcknight, & Arfstrom, 2013). A flipped approach is not just a pedagogic model, it is a mindset as to what the teacher and students' roles are and how

best to support student learning (Bergmann, 2012). The flipped model means that the input is given out of the class through digital video tutorials and what was formerly done at home is now carried out in class. Thus, in class teachers can work with students in a one-on-one tutorial mode (Hamdan *et al.*, 2013). Flipping the classroom builds on the already existing mobile technological tools which students use outside the classroom and reinforces the idea that learning does not have to take place only in ‘brick-and-mortar location’ establishments (Staker & Horn, 2012).

Baluja (2011) identified the goals of the original flipped classroom as to find an approach that would make it possible for faculty to move from sage to guide, reduce the amount of time spent in class on lecturing, open up class time for the use of active learning strategies, focus more on understanding and application than on recall of facts, while not sacrificing presentation of factual base, and provide students with more control over their own learning.

The term flipping comes from the idea of swapping homework for class work (Danker, 2015). When students go home to work on homework, some of them have well educated parents that can assist them with the work while others have parents that are not knowledgeable in the content and cannot assist them with their homework. Thus, according to Schell (2013) students are able to return to class with the content and then receive assistance with the homework from the expert in the field – the teacher during class time. It provides the students with in class support for completing work. The flipped classroom provides more time for hands on activities and content inquiry and analysis. Fulton (2013) also found that the flipped classroom causes “students to take more responsibility for their own learning.” Students also have access to the content at

home so if they are absent due to illness they can easily catch up and do not miss out on vital lectures.

### **2.1.5.3 Influence of Flipped Classroom Strategy on Students' Performance**

A flipped classroom approach has been used successfully in K-12 contexts in science (Bergman, 2012), Mathematics (Chen, Yang, & Hsiao, 2016; Fulton, 2013), in Language Arts (Fulton, 2013) and in higher education contexts with pharmaceutical students (Ryan, 2013), statistics courses (Strayer, 2007), and cinema and TV arts students (Enfield, 2013). Reports on flipped classrooms tend to come out of research in science, technology, engineering, and mathematics (STEM) subjects (Berrett, 2012). *The Economist* also notes that Khan Academy videos tend to be for the “numerate” subjects (“Hopes that the internet can improve teaching may at last be bearing fruit,” 2011). However, there have been almost no reports of the flipped classroom model in second language learning. Kukulska-Hulme and Shield (2008) report on how mobile learning is impacting on opportunities and different interactions in second language learning, but do not highlight studies using the flipped classroom model. This may be due to the fact that second language lessons cannot be “packaged” into a short video tutorial.

The model of flipped classroom is receiving increased attention in educational circle and popular press (Baluja, 2011; Leo & Puzio, 2016). In this model, the traditional practice of spending class time engaged in direct instruction and completing content related activities for home work is “flipped” so that students receive initial content instruction at home and spend class time working with their peers in a collaborative setting. The flipped classroom concept is gaining popularity, probably because of the increase in the use of ICT or availability of tunes, youtube and learning management

systems (LMS) which is as a result of ubiquitous nature of tools that teachers use to accomplish the flip. The flipped classroom model contains “in exorable logic” (Karimi & Hamzavi, 2017), but little research has been conducted on the approach in language settings, especially English language.

In the flipped learning model, teachers shift direct learning out of the large group learning space and move it into the individual learning space with the help of one of several technologies. Teachers record and narrate screencasts of work they do on their computer desktops, create videos of themselves teaching, or curate video lessons from internet sites such as TED-Ed and Khan Academy; many educators start flipping their classroom by using these readily available materials. The videos or screencasts are available for students to access whenever and wherever it is convenient at home, during study hall, on the bus, even in the hospital as many times as they like, enabling them to come to class better prepared (Clark, 2015).

Flipped learning has been compared to online, blended, and distance learning because of the screencast or video components, but, there are clear differences. Online education, for example, occurs only remotely and the teacher and student are never face-to-face. Virtual class meetings, assignments, and lectures happen online through a course management website usually, but not always, asynchronously. Sometimes, the lectures and other activities are augmented by group chats or other means of facilitating collaboration and peer instruction. Blended classes also have an online element, but that usually occurs during class time along with direct student-teacher contact (Staker & Horn, 2012).

The flipped learning model can enable educators to make the shift from teacher-driven instruction to student-centered learning. 2TED-Ed (ed. Ted. Com) has an entire library of educational videos, made specifically accessible to professional educators who have flipped their classrooms. Likewise, when Khan Academy has over 4,000 videos (Khan Academy.org), many focusing on mathematics and science, from which to select. Khan, the website's founder, has said that though the Academy has been associated with the idea of the flipped classroom, the concept was actually conceived by others before Khan Academy existed (Khan, 2012). The Flipped Classroom Model is receiving increased attention in educational circles and popular press (Toppo, 2011; Tucker, 2012). The concept is gaining popularity, perhaps due to the ubiquitous nature of the tools that teachers use to accomplish the flip such as iTunes, YouTube, and Learning Management Systems (LMS). The flipped classroom model contains "inexorable logic" (Howell, 2016), but little research has been conducted on the approach in a K-12 setting.

Flipped classroom model is highly beneficial to student. For instance, A flipped classroom allows students to learn on their own time and at their own pace. This allows one-on-one instruction as well as gives students the opportunity to ask questions about the subject-matter they found confusing or difficult. It also allows students to have more time for collaborating with other students which can be a great learning experiences for them and a way of building their team work abilities (Ahmad, 2016). When a student is watching a video lecture, for instance, the lecture can be replayed as often as the student would like. This extends to when a student is preparing for an exam as they can go back and review previous lectures. After students engage with a digital lesson or watch a video at home, they can brain storm questions to ask, which can open the floor for discussion

about anything that may have been unclear or confusing. Coming to class prepared with ideas and questions is a great way to jumpstart the class and share idea between students. In flipping the class, sick days will no longer interrupt a student's ability to learn because students engage with a lesson on their own time and an absence will not detract them from learning the material. On the same note, when one is absent from school, the students will not suffer from a substitute's inability to teach ones lesson well. The substitute only needs to oversee students working on their assignments in the classroom and be able to answer questions instead of introducing new content (Heyborne & Perrett, 2016).

Flipped classroom appears to enrich the learning experience and provides an opportunity for learners to shift from surface to deeper levels of learning. Surface learning is characterized by the approach of the learner to complete only the minimum content necessary to meet assessment requirements, whether that is learning only what may be presented in a test or simply attending and completing activities. Conversely, deep learning is how learners stand back from an experience, seek connections between concepts, and contextualize meaning. In general, the flipped classroom as a learning journal is a way of documenting learning and collecting information for self-analysis and inflection; it helps students' nurturance a habit to study from surface to deep. Cilli-Turner (2015) identified five reasons the flipped classroom works. These include: it increases student engagement; strengthens team-based skills; offers personalized student guidance; focuses classroom discussion; and provides faculty freedom.

Despite the benefits reported on student learning, in a flipped classroom it is still the teacher who lectures and gives the input (Nielsen, 2012). Flipped classroom

encourages students to move from novice to expert in the area of academic writing skills(Beach, 2012). Through the activity of student created video input, learners move from novice to expert by researching, comprehending, evaluating, and creating. It is noteworthy that these stages also closely correspond to Bloom's taxonomy which includes the highest level of cognitive processing – create. The creation of the video involves not only greater comprehension, but also higher levels of cognitive processing in order to be able to explain a topic to peers (Rodriguez, Frey, Dawson, Lieu, & Rotzhaupt, 2012).

#### **2.1.5.4 Strategies for Effective Flipping Classroom Strategy**

Flipping the classroom does not mean one can never lecture or that your classroom is always flipped. The teacher is still necessary in the flipped classroom. The teacher still has to plan and prepare for every class. Gojak (2012) suggested the following five tips for flipping the classroom which include: don't get hung up on creating your own videos, be thoughtful about what parts of your class you decide to "Flip" and when, if possible, find a partner to create videos with, address the issue of access early, and find a way to engage students in the videos.

In addition, Gorman (2012) identified fiveimportant content strategy components of flipping the classroom as:

**(i) Topics:** Before you start posting and sharing content for your flipped classroom accounts you should be able to answer a very basic but incredible important question, what are the 3-5 topics your audience is most interested in when on flipped classroom? These are the topics that need to dominate your news feeds.

**(ii) Consistency:** No matter when someone steps to the side of the freeway, they need to see you and value coming from your feed. This means every day, all day. Consistency increases the speed at which you can make meaningful connections.

**(iii) Frequency:** Think of flipped classroom posting as cars on the freeway and your audience as walking on the side of the freeway watching the cars goes by. You have enough cars on the road so your cars are seen. Flipped classroom users don't stand there watching all day long, they login and logoff with tremendous frequency. Your content duration posts need to be on the freeway all day, every day.

**(iv) Timing:** Do you know what time of the day your audience is most active on flipped classroom? You should not only know this, but you should be posting more frequently during those time periods.

**(v) Content Mix:** Be sure that 80% of the post you are making on the flipped classroom is curated content that is yours or about you. 20% of what you share should be your content or posts.

### **Features of Flipped Classroom Instructional Model**

The following four features of flipped classroom were identified by Brame (2013)

**(i) Flexible environment:** Flipped classrooms allow for a variety of learning modes, educators often physically rearrange their learning space to accommodate the lesson or unit which might involve group work, independent study, research, performance, and evaluation. Educators build appropriate assessments systems that objectively measure understanding in a way that is meaningful for students and the teacher.

**(ii) Shift in learning culture:** In the traditional teacher centered model, the teacher is the main source of information, the teacher is the 'sage on the stage (King 1993), i.e. the

sole content expert who provides the information to the students, generally via direct instruction lecture. In the flipped learning model, there is a deliberate shift from a teacher centred classroom to a student centred approach, where in-class time is meant for exploring topics in greater depth and creating richer learning opportunities.

**(iii) Intentional content:** Flipped educators evaluate what content they need to teach directly, since lectures are an effective tool for teaching particular skills and concepts, and what materials students should be allowed to explore first on their own outside the group learning space. They continually think about how they can use flipped learning model to help students gain conceptual understanding as well as procedural fluency.

**(iv) Professional educators:** Some critics of flipped learning have suggested that the instructional videos employed in the model will eventually replace educators. That is a misguided statement. In the flipped learning model, skilled, professional educators are more important than ever and often more demanding, than in traditional one. They must determine when and how to shift direct instruction from the group to the individual learning space and how to maximize the face-to-face time between teachers and students. Gojak (2012) noted that the right question for educators to ask themselves is not whether to adopt the flipped learning model, but instead, how they can utilize the affordances of the model to help students' gain conceptual understanding as well as procedural fluency when needed.

A common practice of teachers utilizing a flipped classroom is videos of the lectures. The videos are used in various ways. Teachers found that the use of short 10-15 minute videos is the best way to incorporate the videos. Resources have surfaced on the web of content information in a wide range of subject matter. Some websites provide

premade videos, tutorials, and interfaces on the subject matter. The most successful flipped classrooms report that they utilize videos of the content that they have gotten from a variety of places. By obtaining videos from other sources the students indicate they are more engaged and found the information refreshing. Videos from the same person can become mundane and boring (Franciszkowicz, 2008). Taking boring lectures and recording them and making students watch them on their own time is not the purpose of the flipped classroom. Voices over power points are also mundane and boring. Students will disengage and are likely not going to watch them with their full attention. One means of making the videos is the use of simple “one take” videos (Brunsell & Horejsi, 2011). To create these videos, there is need for an inexpensive digital camera, tripod, white panel board, and dry erase markers.

Teachers outline their presentation with visual media on a series of small whiteboards. Then, they simply record themselves talking through the series of whiteboards. The benefit of this approach is that videos can be created quickly; and by having the teacher on camera, students connect with both the content and their teacher.

Budget constraints do not have to prevent a teacher from utilizing the flipped classroom. The first consideration that must be made when incorporating a flipped classroom is what technology is available to not only the teacher but the students as well. If a teacher requires students to use the internet or view videos for homework, the students need to have access to this technology. Some teachers are shocked to discover how many of their students still do not even have a computer at home let alone access to the internet. Some teachers’ work address this by creating a means to provide access to these students while other teachers change their medium away from the computer (Chen,

2016). Whether it is watch videos or complete a reading, the teacher cannot just require the task to be completed. The student needs to be engaged in the process to assure its completion and the students acquiring the knowledge presented. This can be done in many ways. Teachers are even getting creative with this aspect of the flipped classroom. It can be as simple as having the students complete a worksheet or answer questions as they read or watch the video. Having the students write questions about what further information they need is helpful in moving to the in class portion of the lesson. Having the students identify and define words they were not familiar with is also helpful (Diris, 2017).

The flipped classroom should not just be a band wagon that all teachers jump on to use in their classrooms. It is vital that teachers approach the flipped classroom with care and knowledge. Neilsen (2012) identified the following five reasons to implement the flipped classroom with caution: many of our students don't have access to technology at home, flipped homework is still homework and there are a growing number of parents and educators who believe mandatory homework needlessly robs children of their after-school time, flipping instruction might end up just providing more time to do the same type of memorization and regurgitation that just doesn't work, if we really want transformation in education, one thing we must do is stop grouping students by date of manufacture, which the flipped classroom is ideally suited for. True flipping should include a careful redesign of the learning environment, but this is often overlooked, and the flipped classroom is built on a traditional model of teaching and learning.

#### **2.1.6 Concept of Collaborative Learning Strategy Flipped Classroom**

From the literature reviewed in the above sub-headings, it can be concluded that flipped classroom models create an opportunity for students to learn within and outside the classroom. The basic features necessary to cause learning in the aforementioned medium are access to portable technologies, stable internet possibilities, technology enhanced with multimedia facilities and quality chunks of instructional contents. The additional option for learning within the confine mobility is collaborative means of sharing and discussing ideas. Flipped classroom becomes interactive when used in collaborative environment (Chatti, Agustawan, Jarke, & Specht, 2012). Students, through flipped classroom, can work together on a task, exchange ideas, view experiences, opinions, discuss and negotiate strategies, actions and results (Vasiliou, & Economides, 2007).

Apart from making first-rate instruction available to far more people than a traditional brick-and-mortar, schools could support these systems which increasingly accommodate video technology devices that help students pose and answer questions, complete collaborative projects, and, more generally, lubricate the social interactions foundational to peer-to-peer education. This interactive programme dramatically changes the relationship between students and the environment they are studying and encourages high-level thinking skills, primary research and collaboration. It is an educational method in which students work together in small groups toward a common goal. The successful achievement of the common goal is shared by all group members. These actions can provide students with opportunity to assist, explain, teach, understand, review and influence each other. By developing a community of learners, it could also provide the opportunity to combine the special abilities on everyone to achieve a common goal in a

collaborative means. In the submission of Vasiliou and Economides (2007), collaborative learning is a student-centered, task-based, activity-based learning approach that provides several advantages to the students. It assists the students to enhance the skills of communication, interpersonal social interaction, cooperation of sharing and caring, openness, flexibility, adaptability, knowledge retention, higher-order of critical thinking, creativity, management, participation, commitment of persistency, motivation, confidence and self-efficacy. The students take initiative and responsibility for learning and actively learn by doing, by practice and by experience.

Collaborative learning occurs when learners stop relying on experts and teachers to transfer their knowledge to themselves but instead engage together in making sense and creating meaning for themselves (Rhea, 2010). It was elucidated that collaboration taps into the power of an inclusive and active group of learners to turn those wheels as fast as the spread or change and increasing complexity now required. Collaborative learning in a classroom can take the form of discussion among the whole class or within smaller group. Groups in collaborative learning techniques are dynamic in the context of activities engagement (Cerbin, 2010). In a training workshop organized in the Center for Advancing teaching and Learning 2010 at the University of Wisconsin, five major collaborative learning techniques were identified; Think-Pair-Share, (TPS), Reciprocal Peer Tutoring (RPT), Think-Aloud Pair Problem Solving (TAPPS), Group Grid (GG), and Collaborative Writing Strategy (CWS). Each of the identified collaborative group aforementioned has its dynamics and extent of collaboration mode.

Think-Pair-Share (TPS) is a type of collaborative learning in which group members think about a question/topic individually, share their thoughts with a partner.

The goal of a Think-Pair-Share is to allow participants time to think before they discuss. Research shows that when people are given time to contemplate an answer to a question, their answers differ from those they would give if they responded immediately. When doing a Think-Pair-Share, give participants a specific amount of time like 30 seconds, 5 minutes, and so on for the “think” portion (Glomo-Narzoles, 2012).

Reciprocal Peer Tutoring is a collaborative learning instructional method in which natural dialogue model reveals learner’s thinking processes about shared learning experiences. Teachers foster reciprocal teaching through their belief that collaborative construction of meaning between themselves and students takes ownership of their role in reciprocal teaching when they feel comfortable expressing their ideas and in open dialogue (Al-Harby, 2016).

Effective reciprocal teaching lessons include scaffolding, thinking aloud, using cooperative and facilitating, meta-cognition with each step. Each strategy is taught by the teacher and is clearly understood by students before they go on next strategy. Procedures are first modeled by the teacher and then they are practiced and coached with peer and teacher feedback. Finally, the leadership of the group strategy is handled over to the students (Shih & Allen, 2007). Continual teacher and student modeling of cognitive processes for each of the four strategies that is predicting, questioning, clarifying and summarizing are integral part of the process. The teacher monitors and evaluates to determine where scaffolding is needed to help students become aware of their own learning processes and think critically about them.

Understanding online group dynamics present excellent collaborative activities (Dooly, 2008). Online model provides an excellent group collaborative association with

incorporation of five phases; access and motivation, online socialization, information exchange, knowledge construction. The model can provide exceptional opportunity for effective communication within and among the various groups taking part in collaborative mobile learning environment. Group task presents an opportunity to design the necessary assignment to be carried out by group through collaboration and then, member personalities connotes the individual differences identified within and among the groups. The instructor, cognitive, managerial skill and social presence play a vital role in relation to the learning progression where learners collectively engage in learning process. Collaboration is also entertaining, as it integrates varieties of media like video clips, instant messages, photos, music, simulations and animations which are exchanged during collaborative mobile learning sessions (Klopfer, 2008).

Flipped classroom creates an opportunity for students to learn at anytime and anywhere. It also requires some basics that could actually present the chance of learning within and outside the classroom. The basic features necessary to cause learning in the aforementioned medium are access to technologies such as video, stable internet, and other technology that can enhance instructional contents. The additional option for learning within the confine mobility is collaborative means of sharing and discussing ideas. Flipped classroom could support collaborative learning through the share of knowledge, group discussion, group task assignments and all other forms of pervading knowledge gain among collaborating members. Group-based collaborative learning could arouse, increase, motivate and sustain learner's interest toward understanding a difficult concept in a subject area (Johnson, & Renner, 2012). The collaboration also provides a

medium of exchange of personal information and other related attributes of participating members in online group endeavour.

Well-structured chunks of instructional contents transmitted through mobile platform, enhanced with audio, video, simulation and animations can make difficult concept more clearly understood by the learners. The different media mix in a flipped classroom instructional content creates a meaningful engagement of the learner's intellectual capacity through active involvement in a collaborative learning setting. The availability and accessibility of social network application also promote individual contribution to a group task in a flipped classroom endeavour, hence, initiating long term relationship in the area of discipline and profession is of interest among participating members in a collaborative environment. It should however be noted that the effectiveness of flipped classroom in collaborative environment could be improved via instructor's approach, quality of instructional content, specification of group dynamism and appropriate links of multimedia tools to corresponding activity and task (Hashey, 2010).

Collaborative learning by definition is a situation in which two or more people learn or attempt to do something together (Chatti, Agustiawan, Jarke & Specht, 2012). In other words, collaborative learning could be categorized as one form of social interaction during learning processes that provide an additional platform for coordination within formal and informal learning environments. They further state three major elements inherent in collaborative learning which include scales of participation, learning context and methods of collaboration. Scale of participation deals with the size of participant which might be either in a pair, a small group, a class or a society and collaboration time

span. Learning context (sharing course material) or through joint problem-solving where learning is a side effect measured by improved performance of problem solving gained knowledge. The methods of collaboration can range from asynchronous communication to synchronous or co-location collaboration and this can trigger activities such as explanation disagreement and mutual regulation (Albeshar, 2012).

The importance of collaborative learning in both formal and informal learning could be associated to the interaction and exchange of information. Collaborative learning through flipped classroom via video device has been investigated mainly because of the availability and accessibility offered by these combinations. Jain, Birholts, Cutrell and Balakrishnan (2011) asserted that collaborative mobile learning is an activity that allows transparent collaboration by empowering the social negotiation space of group members, coordination between the activity states, encouraging the social negotiation space of group members, coordination between the activity states, encouraging member's mobility, possibility of mediation in interactivity, organization of managed material and enabling students to collaborate in groups through wireless network supporting social face-to-face communication.

### **2.1.7 The Impact of Students' Retention on Performance**

The concept of recall and retention has been used interchangeably. Retention is defined by Akpınar and Bardakçı, (2015) as a preservative factor of the mind. The mind acquired the material of knowledge through sensation and perception. These acquired materials in the mind need to be preserved in form of image to develop. When a stimulating situation occurs retained images are received or reproduced to make memorization possible. Hence, Oral-English concepts need to be presented to the learners

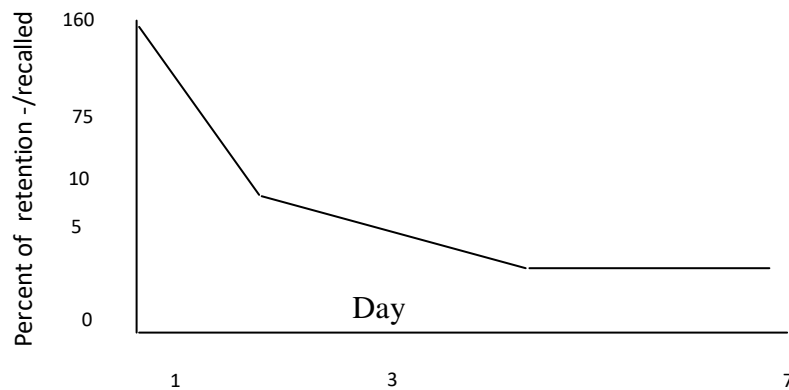
in a way or method that touches sub consciousness which can trigger quick recording of the concepts being taught or learnt. Achor, Emmanuel and Umoru (2013) defined retention as the ability to remember things learned by individual at a later time. They opined that the ability to remember things learned by individuals at later time is necessary for better performance. Retention takes place when learning is coded into memory and appropriate coding of incoming information provides the index that may be consulted, thereby enabling retention to take place without an elaborate search in the memory. Ukwuru (2012) sees retention as the ability to hold information or store learned material for future use. Learning cannot be measured directly but performance can be measured indirectly through the behaviour of the learner.

What facilitates students' understanding and retention of knowledge have been found to be dependent on such factors as learner's characteristics, the learning environment, the teacher's knowledge level and instructional approaches. The characteristics, teaching approaches, among others, are aspects of the teacher that is considered very important in influencing students' learning and retention. For example, in a teaching approach whereby the teacher uses real life experiences, simulation and the use of digital video to present lesson, students understanding and retention of the subject matter will be enhanced (AminAfshar, & Mojavezi, (2017).

Retention is the ability to respond to new stimulus using the previously learnt responses. It involved three methods, namely, recall recognition and relearning. Recall involved reproducing source or all the material learnt. The recognition method refers to identification of materials by the learner without actually recalling the details about the

learnt materials. The relearning method also regarded as the saving method, ensure that the learners learn the materials (Diris, 2017).

However, after learning, memories of the learnt materials will fade with time. This is referred to as forgetting or decrease in retention is over time. Forgetting is a normal everyday event and a reminder of our limitations. Retention and forgetting can be measured and depicted through a typical curve called the ‘curve of retention’ credited to Ebbinghaus and presented in figure 2.



**Figure 2: Curve of Retention for Nonsense Syllables**

**Source:** Cain and Wiley (1939).

The curve of retention also referred to as forgetting curve hypothesizes the decline of memory retention in time. This curve shows how information is lost over time when there is no attempt to retain it. A related concept is the strength of memory that refers to the durability of memory traces in the brain. The stronger the memory, the longer the period of time a person will be able to recall it. This graph shows that humans tend to lose their memory of newly learned knowledge in a matter of days or weeks unless they consciously review the learned material. The forgetting curve supports one of the seven

kinds of memory failures: transience, which is the process of forgetting that occurs with the passage of time.

Some theories of forgetting have also been propounded by scholars. These include the disuse theory, the preservation-consolidation theory and the interference theory (Tripathy & Öğmen, 2018). The disuse or decay explains that learning is the result of practice or use, while forgetting occurs during retention intervals, when the information in question is not used. Therefore, disuse causes forgetting. The perseveration - consolidation theory is an attempt to account for the difference between the effects of rest and activity during a retention interval. This is a physiological theory, the idea being that the neural activity produced by learning tends to perseverate (i.e. continue) after the end of explicit practice itself. Retention is, therefore more if resting follows initial learning than when learning is followed by other activities. The theory of interference postulates that, to understand the retention of any learning, all experience prior to and subsequent to the acquisition of the learning must be taken into consideration as they may either be inhibitory or facilitatory. Forgetting is, therefore, one manifestation of an inhibitory interaction. Some factors have also generally been observed to affect retention and forgetting. These include practice, meaningfulness of materials, provision of cues, intentional forgetting, thoroughness of original learning, among others.

Retention required to flip a classroom is equal to or less than that of a traditional classroom setting. The focus is on preparing the in-class activities, just like it has always been. However, instead of having to prepare homework in addition to a lecture, teachers are simply recording three to five videos a week, and then focusing the bulk of their time on classroom applications (Abbassi, Hassaskhah, & Tahriri, 2018). An additional concern

comes from teachers who are reluctant to give up the podium. The traditional role of teachers puts one person in the driver's seat, and giving up control may be a problem for some. However, the benefits to students should outweigh the need for complete classroom control.

### **Methods of Measuring Retention**

According to Martorell and Mariano (2018), there are four methods for appraising retention of prior learning. They are: Recalling, Recognition, Reproduction or Re-arrangement and Re-learning.

Method of Recall suggests that the learner is expected to recreate from memory what the learner has learnt, sometimes, the learner is expected to reproduce verbatim. Any deprivation from verbatim reproduction is regarded as an error. Method of recognition is a situation whereby the learner is presented with a mixed – up of what the learner has learnt and what has not learnt. The learner is therefore expected to recognize and pick out what he has learnt. Method of reproduction or re-arrangement is when the material is originally learnt in a sequence and later disorganized, and the learner is therefore expected to reproduce or re-arrange in the original sequence. Method of re-learning occurs when the learner is made to learn the material he/she has learnt before but the differences between the time of the first learning and second learning is the measure of the learner performance (Martorell & Mariano, 2018).

The retention ability of an individual learner depends on the learners' memory. Adekale (2009) defines memory as the process of acquiring, storing, and reproducing

knowledge, information or an idea. It is one of the characteristics of man that distinguishes him from animals and it helps man to link the past with the present. According to Dubrowski (2009), there are six types of memory namely: short term, long term, habit, aural, visual and rote.

Short Term Memory implies the memory episode in which the entire cycle of receiving, relating and using information occupies a few seconds. Short term memory may also be called an immediate memory. Long Term Memory implies the learning and retention of information in relatively precise and specific form for future reproduction. Habit Memory refers to the capacity to remember the things that are learnt after much efforts and frequent repetitions. Aural Memory refers power to remember what has been heard. Visual Memory is the power to remember what has been seen. Rote Memory is the power to memorize and reproduce what has been learnt word for word (Dubrowski, 2009).

Forgetting is a major enemy of students. Inability to recall is the cause of academic failure. In order to ensure better retention of what is learnt, some steps can be taken. Some of them are as follow; meaningfulness, organization, thorough mastery, reviews and certain personal and dynamic sets (Pratte, 2018). The student remembers things when action is performed in several times and reoccurrence persists when put in long term memory. This is exactly what happens when students continue watching lesson on video, via internet or from television set. Flipped classroom creates avenue for students to constantly perform same function at different times which could promote retention and prevent forgetting. Students can manipulate their environment by method of

re-learning by watching same concepts that are not clear to them until they understand them.

## **2.2 Theoretical Framework of the Study**

This section examines behaviourism, social constructivism theory and technology implementation that support the use of flipped classroom instructional models and collaborative learning.

### **2.2.1 Behaviourism Theory**

Burrhus Fredric Skinner properly known as B. F. Skinner is regarded as the father of behaviourist theory of operant conditioning, an item he coined in 1938, he was born in March 1904, in the United States of America. Behaviourist assumes learner's behaviour is shaped through positive or negative reinforcement.

According to the theory, certain stimuli automatically produce or elicit specific responses and sometimes, reflexes occur in response to the stimuli that appear to be indirectly related to the reflex. Basically, the behaviorist's theory of stimulus response learning as developed in the operant conditioning model of skinner, considers all learning to be the establishment of habits as a result of reinforcement and reward (Kareen, 2010).

The behaviourist believes that human being is an organism capable of exhibiting a wide repertoire of behaviour. The occurrence of this behaviour is dependent on three crucial elements in learning. These are stimuli, which serve to elicit behaviour; a response as a result of stimulus; and reinforcement which serves to mark the response as being appreciated. Reinforcement is a vital element in the learning process, because it increases the likelihood that the behaviour will occur again and eventually becomes a habit.

Skinner's views are applicable in language learning in this study. First, language learning is a verbal behaviour. The stimulus is what is taught or presented which in this case is Oral-English video instruction. The response is the learner's reaction to the stimulus, and reinforcement serves as motivation. Motivation may be approval and praise from the teacher. The motivation may also come from self- satisfaction of correct use of pronunciation items learnt.

### **2.2.2 Social Constructivism Theory**

Social constructivism theory grew out of Vygotsky's (1978) emphasis on the role of social interaction in the learning process. According to Vygotsky, children learn best when a parent, teacher, or more knowledgeable peer provides support for their learning through such practices as demonstration, questioning, encouraging, and correction. Learners' abilities can be measured both by their current level, working independently, and by the level they would be able to attain with appropriate guidance (Brown, 2012).

The gap between these two measurements is known as the zone of proximal development (Vygotsky, 1978). The optimal learning experience would fall within this zone and consist of activities that the learner is able to accomplish with assistance. Notably, the more experienced person providing the support is understood to also learn from the scaffolding interaction (Scrimsher & Tudge, 2003).

Learning from one another is a common occurrence in informal, everyday contexts, as well as in more formal settings, such as on the job. In college, students often learn outside the class by participating in organized peer activities such as student organizations or sports teams (Bruffee, 1999). Student peers in formal courses also frequently consult with each other, sharing both the effort and the enjoyment of the

learning process (Boud, Cohen, & Sampson, 2001). Where the traditional teaching model promotes interaction between the instructor and each individual student, accompanied by a sense of competition between students, a class oriented toward peer learning de-emphasizes the instructor-to-student relationship while emphasizing and enabling collaboration between students.

Within the classroom setting, a shift from teacher-centered to learner-centered instruction parallels a shift from a perception of learning by acquiring knowledge, teacher to student, to one of learning through participation with others in a practice (Barab & Duffy, 2000). Traditional school teaching methods and the resulting process of learning are seen as separating learning in an artificial way from the contexts, such as a post college career, in which the learning would be put to use. These less authentic methods, then, may be replaced with instructional practices that promote the development of a community of learners who engage themselves together in realistic activities. Peer learning is specifically not peer teaching or tutoring, in which the balance of power mimics that of teacher and student. In peer learning situations, students work together in a reciprocal manner without fixed roles (Boud *et al.*, 2001). Development of individual identity within the group is an important aspect of learning in a community (Barab & Duffy, 2000). In addition, when students interact as peers, they develop a “mature, effective interdependence,” a valuable skill for managing interactions in work settings and other pursuits (Bruffee, 1999).

When learning is viewed as a social activity, the advantages of the face-to-face classroom become apparent. Collaboration in an online course is often posited as a necessary method of strengthening connections among physically disparate learners

(Palloff & Pratt, 2007). How much more valuable, then, might collaboration be among students who meet in person on a regular basis. The particular value of the physical classroom comes from the opportunity to make use of face-to-face interaction, not only between instructor and students, but also among students in a class. Through working together, they learn not only the course content but also such necessary skills as communication, teamwork, and leadership. The combination of an active learning experience with a collaborative process supports an overall deeper level of learning for students (Palloff & Pratt, 2007). For this reason, the concepts of social constructivism are needed to inform the successful restructuring of classroom-based activity toward a learner-centered experience.

If learning is seen as change, it seems clear that a student will change and thus learn that much more through negotiating the merging of not only an instructor's knowledge with the student's own, but also the knowledge and perspectives of a group of others who are simultaneously negotiating their own understandings. This is the value of learning in a collaborative setting. From an instructor's perspective, peer learning may take many forms, depending on the characteristics and needs of the course, and will benefit from thoughtful course design (Boud *et al.*, 2001). An emphasis on peer learning embodies a further step in the shift from teacher-centered to learner-centered instruction, and may be seen as the final step in the transformation of the teaching archetype. The ideas discussed can be implemented without reliance on technology. Moreover, in this study, video technology that supports the instruction and the learning process were employed.

### **2.2.3 Collaborative and Cooperative Learning Theories**

The term collaborative learning is often used interchangeably with cooperative collaborative learning, though it may be considered to imply a different meaning. According to Bruffee (1999), both methods encourage student learning by creating situations in which they can work together, underlining their basis in social constructivist ideas. Moreover, the instructor-led method of cooperative learning focuses on the development of the social skills students need in order to learn and produce work together, and is most appropriate for younger students and foundational studies. Collaborative learning, on the other hand, relies on group self-governance to establish the interdependence necessary in a non-foundational environment where knowledge and authority are rightly questioned in the process of knowledge construction.

Collaborative learning stems from Piaget's theory of conflict (Foot & Howe, 1998), while cooperative learning stems from both Vygotsky's zone of proximal development (Doolittle, 1995) and social interdependence theory (Johnson & Johnson, 2009). Smith and MacGregor (1992) further explain that cooperative learning represents the most carefully structured end of the collaborative learning continuum. The theories of social interdependence and the zone of proximal development taken together form the theoretical basis for cooperative learning. Slavin (1997) presented four major theoretical perspectives aimed at explaining the achievement effects of cooperative learning: motivational, social cohesion, developmental, and cognitive elaboration perspectives.

***Motivational perspectives:*** focus primarily on the reward or goal structures under which students operate. From a motivationalist perspective, cooperative incentive structures create a situation in which the only way group members can attain their own personal goals is if all the members of the group are successful. In these conditions,

group members must both help their group mates to do whatever will help the group to succeed and to encourage their group mates to exert maximum efforts. Evidence from practical applications of cooperative learning in elementary and secondary schools supports the motivationalist position that group rewards are essential for the effectiveness of cooperative learning. Out of 64 studies on cooperative learning methods that provided group rewards based on the sum of group members' individual learning, 50 (78%) found significantly positive effects on achievement, and none found negative effects (Slavin, 1995b).

***Social Cohesion Perspectives:*** This theoretical perspective is related to the motivational viewpoint. According to this approach, effects of cooperative learning on achievement are mediated by the cohesiveness of the group. Also, this perspective emphasizes primarily motivational rather than cognitive explanations for the instructional effectiveness of cooperative learning. There is, however, an important difference. Motivational theory stresses extrinsic rewards; students help their group mates learn because it is in their own interest to do so, while social cohesion theorists emphasize the idea that students help their group mates learn because they care about the group. The social cohesion perspective emphasizes teambuilding activities in preparation for cooperative learning, as well as group self-evaluation, instead of external incentives and individual accountability. A well-known application of this theory is Aronson's (Aronson, Blaney, Srephan, Sikes, & Snapp, 1978) Jigsaw method where students concentrate on different topics in "expert groups" and subsequently share their expertise in groups where students from all expert groups come together. The theoretical idea in the Jigsaw method is to create interdependence between the group members in a way that

would increase social cohesion. A similar method has also been developed by Johnson and Johnson (1992) and the ideas have been applied in the instructional programme called Fostering Community of Learners (FCL), developed by Brown and Cambione (1994; 1996). The method of Brown and Cambione, which includes Jigsaw and many other innovative learning environment features has proved to be effective particularly in improving higher order learning in students. This, however, has not been the case in all experiments based on the Social Cohesion Theory. According to Slavin's (1995a) review, research on pedagogical applications of the Jigsaw has not generally found positive effects on students' achievement. The typical problem with this method is that students do not necessarily get acquainted with material other than that which they have studied themselves. Some of the very well implemented applications of the Jigsaw method, however, indicate that it is possible to avoid this problem (Sharan & Shachar, 1988; Sharan & Sharan, 1992; Johnson & Johnson, 1994).

*Developmental Perspectives:* The third perspective for explaining the mechanisms of cooperative learning proposed by Slavin (1997) was developmental theory (see e.g. Murray, 1983). The fundamental assumption of the developmental perspective on cooperative learning is that interaction among children around appropriate tasks increases their mastery of critical concepts (Damon, 1984). Both major traditions of developmental psychology, the Vygotskian and the Piagetian have substantially contributed to the theory of collaborative learning. Although Vygotsky (e.g. 1934/1994;1935/1994) in general did not believe in the usefulness of spontaneous cooperation among children of the same age, his theoretical ideas have been widely used in later theories of cooperative learning. In particular, Vygotsky's (1978) idea of the zone

of proximal development has been useful for understanding mechanisms in collaborative learning. According to this view, collaborative activity among children promotes growth if children of similar ages have developmental differences. More advanced peers are likely to be operating within one another's proximal zones of development while modeling in the collaborative group behaviours more advanced than those they could perform as individuals. Piaget (1926) held that social-arbitrary knowledge, language, values, rules, morality, and symbol systems, can only be learned in interactions with others. Peer interaction is also important in logical-mathematical thought in disequilibrating the child's egocentric conceptualization and in the provision of feedback to the child about the validity of logical constructions. On the basis of Piaget's theory, a group of psychologists undertook a systematic empirical investigation on how social interaction affects individual cognitive development (Doise & Mugny, 1984). These researchers borrowed from the Piagetian perspective, its structural framework and the major concepts which were used to account for development, conflict and the coordination of points of view (Dillenbourg, Baker, Blaye, & O'Malley, 1996).

***Cognitive Elaboration Perspectives:*** Cognitive Elaboration means a theoretical perspective in which cooperative learning is assumed to be effective because it requires participants to elaborate on their cognitive structures in a social context. One of the most effective means of elaboration is explaining the material to someone else. Several studies on peer tutoring have found achievement benefits for the tutor as well as the tutee. Webb (1989, 1992) found that students who gained most from cooperative activities were those who provided elaborate explanations to others. The cognitive elaboration idea of cooperative learning has been successfully applied in writing process models (Graves,

1997), in which students work in peer response groups or form partnerships to help one another draft, revise, and edit compositions. The well-known Reciprocal Teaching Model developed by Palincsar and Brown (1984) can also be considered as an example of the cognitive elaboration perspective. In reciprocal teaching, cooperative learning is a method for teaching reading comprehension skills. In this technique, students are taught to formulate questions for one another about a text. Students have to process the material themselves and learn how to focus on the essential elements of the reading passages before they are able to do comprehension modelling. Studies of reciprocal teaching have supported its effects on students' achievement (Jarvela, 1996).

All the four perspectives described above have been considered in the current applications of collaborative learning settings. The research tradition on collaborative and cooperative learning has been rather empirically oriented. Recent research on the role of cooperation in learning has tried to find deeper theoretical frameworks that could better guide the development of technology-assisted learning environments (Lehtinen et.al, 2008).The purpose of integrating technology is that technologies work best as the tools that assist in the thoughtful use of learner-centered models and methods.

#### **2.2.4 Technology Implementation in Collaborative Learning**

Presently, knowledge is the most critical resource for social and economic development and people need to be able to participate in a networked, information-based society. Whereas previously people engaged in manufacturing-based work where they generally competed with or worked independently from each other, people now engage in information and technological-rich work where they work in teams. People need to be

able to work cooperatively designing, using, and maintaining the tools of technology. Technology and teamwork will continue to play a larger role in most people's lives. Children, adolescents, and young adults have no choice but to develop and increase their technological and teamwork literacy. There is no better place for them to begin than in school. Learning in cooperative groups (both face to face and online) while utilizing the tools of technology should occur in all grade levels and subject areas (Johnson, & Johnson, 2008).

The failure of schools to adopt available instructional technologies and to maintain (let alone continuously improve) their use may be at least in part due to two barriers: (i) the individual assumption underlying most hardware and software development, and (ii) the failure to utilize cooperative learning as an inherent part of using instructional technologies. Technology can either facilitate or obstruct learning, depending on the conditions under which it is used (Johnson, & Johnson, 2008).

To understand how cooperative learning may be used with technology, the nature of cooperative learning must be defined, the theoretical foundations on which it is based must be clarified, the basic elements that make cooperation work must be defined, and the research validating its use must be reviewed. At that point, the interrelationships between cooperative learning and technology-supported instruction can be noted and their complementary strengths delineated.

**Individual Assumption:** Before the 1990s, most of the researches on computer-supported learning were based on the single-learner assumption. The *individual assumption* is that instruction should be tailored to each student's personal aptitude, learning style, personality characteristics, motivation, and needs. Computers were viewed

as an important tool for individualizing learning experiences, especially for programmed learning programme and learning experiences derived from constructivist principles (Crook, 1994). Many hardware and software designers (as well as teachers) assumed that all technology-supported instruction should be structured individualistically (one student to a computer), and computer programme were written accordingly (Johnson, & Johnson, 2008).

The ability of designers to adapt instruction sequences to the cognitive and affective needs of each learner, however, is limited by several factors. One is the substantial variation that exists in types of learning styles and personality traits and, although many of them are sometimes correlated with achievement, few have been shown to predict achievement consistently. Another is that little agreement exists on how to translate differences in learning styles and personal traits into instructional prescriptions. The only design rule that is widely accepted is that students should control the flow of information. A third is that it is time consuming and expensive to create algorithms to adapt instruction to individual needs and design and produce multiple versions of lessons. Finally, each person has multiple characteristics and traits that interact in unknown and unpredictable ways. Instruction cannot truly adapt to the complex of characteristics and traits that make up one person (Johnson, & Johnson, 2008).

More recently, Web courses have been developed with the assumption that each student will be taking the course individually. The individualistic assumption may be as strong today in Web courses as it was in the 1970s and 1980s in the instructional use of the computer. In addition to all of the problems noted above, such individualized

instruction assumes that students will work in isolation (which may lower motivation by increasing boredom, frustration, anxiety, and the view that learning is impersonal), with only their own and the course-provided resources. Thus, they lack support and encouragement from their peers and cannot take advantage of the cognitive benefits associated with explaining to peers and developing shared mental models (Johnson, & Johnson, 2008).

The omission of social interaction in technologically assisted learning experiences worried many educators in the 1980s (Baker, 1985; Cuban, 1986; Hawkins et al., 1982; Isenberg, 1992). Given the limitations and shortcomings of the individual assumption, technology may be more effective when it is combined with cooperative learning. The spontaneous cooperation often reported around technology, in addition, both casts doubt on the individual assumption and points toward the use of cooperative learning in technology-supported instruction (Dwyer, 1994). To use cooperative learning, however, educators must understand its nature.

**Cooperation through Computers:** The rapid expansion of computer network technology has allowed students all over the world to create powerful shared spaces on the computer screen. In a network-based environment, students and teachers can interact through the computer free of the limitations of time and place. The speed at which asynchronous and distance communication may be completed makes more intensive cooperation possible with out-of-school experts, brings students from different schools into contact with each other, and creates powerful tools for joint writing and knowledge sharing.

The network environment supports cooperation at different levels. From a series of studies, Bonk and King (1995) concluded that networks can (i) change the way students and instructors interact, (ii) enhance cooperative learning opportunities, (iii) facilitate class discussion, and (iv) move writing from being a solitary to a more active type of social learning. The network tools include *LAN-based client-server systems*, which features software programme based on local area networks and client-server architectures (e.g., CSILE, Belvedere, and CoVis). Another tool is e-mail, which is used to deliver information to students, supervise students, and support national and international communication between cooperative learning groups and schools located far away from each other. With the help of mailing lists, groups of students can use e-mail to share joint documents and comment on each other's work (Johnson, & Johnson, 2008).

Also, the Internet and World Wide Web may be used for cooperative learning. Internet-based conferencing systems and e-mail systems are very similar. Developments in broad-bandwidth technology have resulted in synchronous shared workspaces and two way audio-visual communication. Computer conferencing has existed since the first computer networks but has only recently been implemented as part of cooperative learning. Web-based cooperative learning is time-independent and location-independent, thus allowing a combination of synchronous and asynchronous discussions. Creating and using shared databases is especially helpful for network-based cooperative learning systems. Live video makes it easier for individuals and groups to conference with each other. Personal Web pages that link with those of friends and group members allow individuals to create networks of potential cooperators. Web logs (blogs) allow individuals to share their daily lives with others, exchange opinions and critique of each

other's work, carry on a dialogue with others, and comment on current affairs. Personal Web pages and blogs make it easier for individuals to create a social presence and get to know each other on a personal level. Finally, courses and degree programmes are offered on the Web through existing schools and through universities that primarily operate on the Web (Johnson, & Johnson, 2008).

A fourth network tool is an immersive, interactive digital entertainment, or videogame playing, which has considerable economic, cultural, and social influence (Squire, 2006) and is often used for cooperative endeavours. Many children, adolescents, and young adults spend more time playing in digital worlds than they do watching television, reading, or watching films (Funk *et al.*, 1999; Williams, 2003). These games are the leading edge of a culture of simulation. Simulations such as *Full Spectrum Warrior* and *America's Army* have changed the training of soldiers in the U.S. Army. Farming and town simulations such as *Animal Crossing* and *Harvest Moon* have made it possible for young children to plan and plant crops, pay off mortgages, and essentially run a farm. Disney's *Toontown* allows children from around the world to interact in a realtime, three-dimensional world where they meet and engage in cooperative quests (Johnson, & Johnson, 2008).

Simulations can utilize cooperative efforts to engage participants in ideological systems, learning by performing, and designed experiences (Squire, 2006). First, ideologies are taught by games such as *Grand Theft Auto* (which teaches students how to survive in a crime-filled society) and *Civilization III* (which involves ruling a civilization from 4000 B.C. to the present, primarily teaching the ideologies of colonialization, economic growth, and democracy). The games immerse players in complex cooperative

systems, allowing them to learn the points of view of those systems and develop identities within the systems; thus, organizations such as the U.S. military are using games to support their ideological agenda. Second a core characteristic of games is that they are organized for learning through doing or performance (Squire, 2006). Through recurring cycles of perceiving and acting, thinking and doing, players learn from their experiences, usually in cooperation with other players. In *Toontown*, for example, players band together in teams to play pranks on *cos*, evil cartoon villains who want to turn *Toontown* into a drab office environment. Finally, games provide designed experiences from which participants are active constructors of meaning with their own drives, goals, and motivations. In complex games such as *The Sims*, players form families and live in communities; in *World of Warcraft*, large number of players (over 7 million worldwide) form teams to solve puzzles, overcome challenges, and achieve tasks. Augmented reality simulation games (Klopfer & Squire, in press) place students in roles as investigators, scientists, or activists and have students work in cooperative teams to identify problems, pose data-gathering strategies, draw conclusions, and reframe their hypotheses as they work. Increasingly, immersive, interactive digital entertainment will become part of classroom experience, especially when it is coupled with cooperative learning.

The fifth network tool, and one of the most interesting uses of the Web utilizing cooperative learning, is adventure learning programs, such as GoNorth (a free adventure learning program for K–12 classes; [www.PolarHusky.com](http://www.PolarHusky.com)) (Doering, 2006). From 2006 to 2010 a team of educators, scientists, and explorers will dogsled live to five circumpolar Arctic locations and share those experiences with students around the world. A curriculum and activity guide are provided for each trek. Activities on the trail are

synched real time to the curriculum so students can engage in powerful cooperative experiences with the educators, scientists, and explorers as well with the huskies pulling the dogsleds (i.e., classes can adopt a dog and get involved in its feeding and care as well as its daily performance). Live field updates and field research findings are presented in collaboration with NASA and the National Science Foundation. The result is a community of over 3 million learners throughout the world acquiring knowledge from the expedition, the Arctic peoples, subject-matter experts, and each other (Doering, in press).

Adding technology to a lesson inherently increases the lesson's complexity. When students participate in technology-supported instruction, they have the dual tasks of learning how to use the technology (i.e., the hardware and software required by the lesson) and mastering the information, skills, procedures, and processes being presented within the technology. When cooperative learning groups are used, students have the additional task of learning teamwork procedures and skills; consequently, the initial use of technology-supported cooperative learning may take more time, but once students and teachers master the new systems the results will be worth the effort.

## **2.3 Empirical Studies**

Related empirical studies were reviewed based on the variables of the study.

### **2.3.1 Empirical Studies on Collaborative Flipped Classroom and Flipped Classroom Strategy**

In this study, two types of collaborative flipped classroom models were adopted. These include: Think-Paire-Share Flipped Classroom (TPSFC) and Reciprocal Peer Tutoring Flipped Classroom (RPTFC).

**(i) Empirical Studies on Students' Performance in Think-Pair-Share Flipped Classroom (TPSFC)**

Amin and Raba (2017) investigated the influence of think-pair-share (TPS) on improving students' oral communication skills in EFL classrooms. The EFL teachers who taught "English for Workplace" at the ELC, An-Najah National University observed and interviewed students' classroom interaction. Data collected were analysed and the findings revealed that think-pair-share strategy plays a positive role in improving students' oral communication skills, creating a cooperative learning environment and enhancing students' motivation to learn better. Furthermore, students enrolled in the faculties of applied sciences responded better than students enrolled in the faculties of human sciences; similar responses were shown from students of higher academic level. The relationship between the present study and reviewed study is on TPS whereas the dissimilarity is on subject content, gender influence, and retention.

Sumarni (2016) assessed the difference model Think-Pair-Share on performance and understanding of concepts in student learning and relationships with the understanding of the concept of learning performance. The results showed there is difference between the concept of understanding the experimental class and control class. There is also difference in performance between the experimental class and control as well as a relationship between understanding of the concept of learning with the performance of the experimental class.

Amelia (2016) investigated whether or not think-pair-share strategy: (a) improved eighth graders' vocabulary performance, (b) improved eighth graders' reading comprehension performance, (c) made a difference in the vocabulary and reading

comprehension performance between the experimental group students (those who were taught by using think-pair-share strategy) and control group students (who were not). In conducting the study, think-pair-share strategy was applied in the experimental group, but the control group did not get any treatment. Students were assigned to two groups, the experimental and the control groups. To collect the data, vocabulary and reading comprehension tests were used. The collected data were analyzed using paired sample t-test and independent sample t-tests. The findings of the study showed that there were improvement in eighth graders` vocabulary performance, in eighth graders` reading comprehension performance, and a significant difference in vocabulary and reading comprehension performance between the students who were taught using think-pair-share strategy and those who were not. Therefore, think-pair-share strategy seems effective for teaching reading as well as vocabulary.

AL-Madani (2015) investigated the effect of Think-Pair-Share Strategy on students' academic performance in Arabic language skills course at the Faculty of Education and Arts in Saudi Arabia. The study adopted an experimental approach, with a sample divided into two groups: control and experimental. The strategy was applied on ARAB 101 course, "Arabic Language Skills". The findings of the study indicate that the experimental group taught by Think-Pair-Share strategy outperformed the control group which used a traditional teaching method. This strategy increased the students' attention and their enthusiasm as well as motivation for active participation to the new teaching methodology. The new strategy encourages students to generate more ideas, give various examples, which contribute to developing their Arabic language skills and increasing

their academic performance. The relationship between the present study and reviewed study is on TPS and the dissimilarity is on subject content, retention and gender.

Shih and Reynolds (2015) investigated the usefulness of Think-Pair-Share in in Taiwanese EFL classroom. A traditional English as a Foreign Language (EFL) reading class was transformed by integrating think-pair-share with reading strategy instruction. An intervention class was also compared to a traditionally taught class to determine whether there is any difference, in terms of motivation towards learning English and reading strategy. In addition, it further investigated whether adolescent students accepted the think-pair-share integrated reading strategy method of English instruction. Results indicate that think-pair-share integrated reading strategy instruction was more effective in increasing motivation than the traditional approach. However, when examined in terms of motivation type, both the traditional and intervention groups showed a statistically significant increase in intrinsic motivation. Furthermore, statistical results indicate that the think-pair-share technique combined with reading strategy instruction did not change the participants' perceptions regarding their reading strategy use. Moreover, based on the responses from the closed- and open-ended questions, the students were receptive to the think-pair-share technique. Based on the findings of the study, the think-pair-share technique combined with reading strategy instruction was a plausible alternative for teaching English reading to adolescents in Taiwanese EFL classrooms.

Handayani (2014) conducted a research designed to improve the students' reading comprehension in English through Think-Pair-Share strategy. The research was conducted in Cipta Simpang Dolo, Medan, Indonesia using classroom action research. The finding showed that Think-Pair-Share strategy was successful in improving students'

reading comprehension. The improvement could be seen from the increase in students' reading scores. Besides, the finding also showed that Think-Pair-Share strategy was effective in enhancing the students' participation, especially in terms of sharing ideas, asking and answering questions. The similarity between the present study and the reviewed study is on TPS while the dissimilarity is on subject content, retention and gender.

M.afan and Marhaeni (2013) investigated the effect of Think-Pair-Share technique on English reading achievement of the students differing in achievement motivation at grade eight of SMPN 13 Mataram. The instrument used in this research are, English reading achievement test and achievement motivation questionnaire. Eighty students were sampled using cluster random sampling technique and then divided into experimental and control groups. The data were analysed using two ways analysis of variance (ANOVA). The findings revealed that; there was a significant difference in English reading achievement between the groups of students who were taught using think-pair-share technique and those taught with conventional teaching technique; there was an interaction effect between the teaching technique and achievement motivation toward the English reading achievement of the students; there was a significant difference in English reading achievement between the group of students who had high achievement motivation when taught with think-pair-share cooperative technique and those who were taught with conventional teaching technique; there was no significant difference in English reading achievement between the group of students who had low achievement motivation when taught with think-pair share cooperative technique and those taught with conventional teaching technique.

Utama, Permadi, Putra, and Nyoman (2013) investigated the effect of think-pair-share teaching strategy to students' self-confidence and students' speaking competence. The study was conducted on students of the second grade in SMPN 6 Singaraja, in 2012/2013 academic year. Students sample were put in experimental and control groups. The study used a post-test only control group design and the results indicate that: there was a significance effect of Think-Pair-Share on students' self-confidence; there was a significance effect of Think-Pair-Share on students' speaking competency, and there was significance effect of Think-Pair-Share on students' self-confidence and students' speaking competence. The relationship between the present study and the reviewed study is on the effects of TPS, while the dissimilarity is on subject content, retention, and gender effect.

Susanti (2011) examined the effect of students' reading comprehension between students who are taught by using Think-Pair-Share (TPS) Strategy and those taught using Three-Phase-Technique at the Second Year of SMPN I Airtiris of Kampar Regency. Sixty students from two classes participated in the study. Both class are administered a pretest at the beginning, different treatments at the middle and posttest at the end of the research. The data were analyzed using independent sample t-test. The finding showed that there is significant effect between students' reading comprehension of those taught using Think-Pair-Share strategy and those taught using conventional strategy. The present study is related to the reviewed study is on TPS, students' performance while the dissimilarity is on subject content, retention and gender.

Ofodu and Lawal (2011) investigated the comparative effects of Think-Pair-Share Method (TPSM) and Reciprocal Teaching Method (RTM) as cooperative methods on

students' performance levels. The quasi-experimental design of non-equivalent and non-randomized pre-test, post-test control group was employed in the study. Students were sampled for the experimental group and for the control group. Two validated researcher-designed instruments were used for the study. Data was analyzed using Analysis of Covariance (ANCOVA) for the two null hypotheses. The findings indicated that the Reciprocal Teaching Method (RTM) of cooperative instruction was the most effective method of teaching reading. This was closely followed by the Think-Pair-Share Method (TPSM) while the Conventional Instruction Method (CIM) was the last. The relationship between the present study and the reviewed study is on TPS, performance, data analysis (ANCOVA) and research design while the dissimilarity is on subject content, and students' performance, retention and gender.

Sumarsih and Sanjaya (2013) investigated students' performance in writing descriptive text using Think-Pair-Share (TPS) to solve the problems of poor performance. Action research was conducted for the result. Additionally, qualitative and quantitative techniques were applied in the research. The subjects of the research were grade VIII in Junior High School in Indonesia. From the study, the mean of the first evaluation sharply increased to the mean of the second evaluation and to the mean of the third evaluation. Observation result showed that the students gave their good attitude and responses during teaching and learning process by applying the application of TPS (Think-Pair-Share) technique.

**(ii) Empirical Studies on Students' Performance in Reciprocal Peer Tutoring  
Flipped Classroom (RPTFC)**

Lin (2018) investigated the effectiveness of group work (GW) on EFL vocabulary learning by second year, non-English major, university students in Taiwan, in comparison with working individually (IW). The students worked in mixed ability groups of 3-4 or in IW to complete vocabulary exercises following reading activities. The classroom intervention followed a repeated measures design with alternating sessions (one week IW, one week GW) for 12 weeks. In order to measure students' word knowledge gains, the modified vocabulary knowledge scale was used in pre-, post- and delayed-post tests, and the scores from the tests were analyzed with paired "t" tests. Qualitative information about vocabulary discovery and retention was further obtained from interviews with students conducted after the classroom intervention. Results showed that students' overall improvement in vocabulary knowledge with group work was significantly higher than that with individual work on immediate post-tests, though both treatments had a beneficial effect. Later retention of word knowledge after GW was higher than that with IW.

Al-Harby (2016) investigated the effectiveness of the reciprocal-teaching strategy on learning outcomes and attitudes of Qassim-University students in Islamic culture. Statistical analyses of the data revealed that there were statistically significant differences between the mean scores of the experimental and control groups in the post administration of the learning-outcomes test as well as in the attitude scale in favour of the experimental. The magnitude effect was big which proved the effectiveness of the reciprocal-teaching strategy.

Egbujuo (2012) investigated the effect of reciprocal peer tutoring on the academic performance of senior school students in chemical equilibrium. A quasi-experimental

non-randomized control group, pretest-posttest design was adopted for the study. SSII male and female science students participated in the study. The instrument used for data collection was Chemical Equilibrium Achievement Test (CEAT). Mean and standard deviation were used to analyze the data for answering the research questions. The hypotheses were tested using analysis of covariance (ANCOVA) at 0.05 level of significance. The results show that students taught with reciprocal peer tutoring had higher posttest mean scores in Chemical Equilibrium Achievement Test (CEAT) than those taught with the traditional method of teaching. The result also shows that gender had no effect on the academic achievement of students.

Izadi and Nowrouzi (2016) explored the effect of reciprocal reading strategies instruction on reading comprehension of EFL learners. Emotional intelligence, another variable of interest was assessed to indicate whether it plays a role in learners' comprehension. In a pre- and post-test study, forty-two learners went through a reciprocal reading strategy instruction. High and low level readers' performance at two levels of emotional intelligence was compared. Results of data analysis showed that all learners outperformed in their post-test performance except low level readers in high emotional intelligent group, (ii) reciprocal instruction significantly improved learners' reading comprehension, and (iii) emotional intelligence did not reveal meaningful correlation with reciprocal strategy instruction as far as learners' reading comprehension was concerned.

Ghorbani, Gangeraaj and Alavi (2013) examined the effect of reciprocal teaching-- which focuses on four reading comprehension strategies, namely summarizing, questioning, clarifying, and predicting--on improving EFL students' writing ability.

Assessment was made based on an evaluation sheet including five criteria (content, macro structure, micro structure, language range and complexity, and language errors) for evaluating the compositions. In this study, true-experimental design was used to study two classes randomly selected intermediate learners. The results of the independent sample t-test supported the effectiveness of reciprocal teaching of comprehension strategies in improving the learners' writing ability. The findings of this study imply that students will get motivated to read more if they realize the importance of reading in improving their writing performance.

Okkinga, van Steensel, van Gelderen, and Slegers (2018) investigated how reciprocal teaching can improve low-achieving adolescents' reading comprehension in whole-classroom settings (as opposed to small-group settings) and to what extent intervention effects are dependent on teacher behaviour. Over the course of one year, experimental teachers were given extensive training and coaching aimed at using principles of reciprocal teaching, while control teachers used their regular teaching method. Observations of teacher behaviour focused on instruction of reading strategies, modelling and support of group work and were performed in both experimental and control classes. The study showed that reciprocal teaching contributed to adolescent low achievers' reading comprehension only while experimental teachers provided high-quality strategy instruction. In addition, the results suggest that the quality of implementation of reciprocal teaching in whole-classroom settings should receive more research attention.

Gomaa (2015) investigated the effect of using reciprocal teaching intervention strategy on improving reading comprehension of reading disabled (RD) students in

primary five. A total of 66 students identified with RD participated in the study. The sample was divided into two groups; experimental and control. ANCOVA and T test were employed for data analysis. Findings from this study indicated the effectiveness of reciprocal teaching intervention strategy on improving reading comprehension in the target students. On the basis of the findings, the study advocated for the effectiveness of reciprocal teaching intervention strategy on improving reading comprehension in reading disabled students.

Tarchi and Pinto (2016) analyzed whether reciprocal teaching activates diversity in discourse moves, communicative functions, and interaction sequences; and to determine whether reciprocal teaching needs to be based on prior work on student collaboration and cooperation skills in order to be effective (context dependency vs. context independency). Two groups with a different instructional background were compared, one with a teacher-centered and one with a student-centered approach. Forty-three third-grade students were led through a reciprocal teaching reading activity. Video recordings of each group were transcribed and analyzed at the micro level. Frequencies of each category were described and interpreted. The two groups did not differ significantly in the processes followed, indicating that reciprocal teaching is context independent and able to create interaction-rich and diverse environment.

Pilten (2016) investigated the effects of reciprocal teaching in comprehending expository texts. The research was designed with mixed method. The quantitative dimension of the present research was designed in accordance with pre-test-post-test control group experimental model. The quantitative dimension of the present research was designed in accordance with descriptive case study. Reading Comprehension

Evaluation Scale was developed by the researcher and implemented as pre-test and post-test on the work-group. Teacher/students interview forms were used for collecting qualitative data. At the end of 11-week teaching process, expository text comprehension skills of experimental group students, on who reciprocal teaching strategy was implemented, developed more than control group students, on who teaching process projected in the curriculum was implemented, at a statistically significant level.

Shadiev, Hwang, Yeh, Yang, Stephen, Wang, Han and Hsu (2014) investigated the effectiveness of unidirectional and reciprocal teaching strategies on programming learning supported by web-based learning system (VPen); particularly, how differently effective these two teaching strategies would work. In this study novice programmers were exposed to three different conditions: applying no strategies, applying unidirectional teaching strategies, and applying reciprocal teaching strategies during learning. The results demonstrated that most students had positive perceptions toward VPen and the strategies. In the aspect of cognitive level of programming concept and programme writing, students who used unidirectional teaching strategy outperformed students who did not use any strategy. The reason is that unidirectional teaching strategy facilitated students not only to write programmecodes but also to explain the structure and logic of codes to peers. On the other hand, students who used reciprocal teaching strategies outperformed students who used unidirectional teaching strategy on level of cognition of programme concept and programme writing.

Kolovelonis, Goudas and Gerodimos (2011) examined the effects of the reciprocal and the self-check teaching styles on pupils' basketball chest pass performance and on related psychosocial variables in a single physical education session. Participants

were fifth and sixth grade pupils between 11 and 12 years of age who were randomly assigned to three experimental (reciprocal style, self-check style, sequential use of reciprocal and self-check style) and one control group. The results showed that the three experimental groups outperformed the control group in chest pass accuracy and form, but differences among the experimental groups were not found. Moreover, no differences were found among the four groups in self-efficacy, satisfaction, effort, and enjoyment. These results showed that the reciprocal and the self-check styles are effective in enhancing pupils' performance and are discussed with reference to self-regulated learning development in primary school physical education.

Mohammadian, Saed, and Shahi (2018) investigated the effect of video materials on improving reading comprehension of Iranian intermediate EFL learners. A Longman Placement Test was administered to EFL learners to ensure that learners are at the same level of proficiency. The students were chosen from the state high schools in Chabahar. The participants were regarded as intermediate learners and were divided into two groups (one experimental group and one control group). Then, a pre-test of reading comprehension was administered to assess the participants' reading comprehension. The participants of experimental group used video files to improve their reading comprehension while the control group received conventional approaches of teaching reading comprehension. Finally, all the participants were assigned a 40-item multiple-choice reading comprehension post-test. The results of the study indicated that video materials had a significant effect on promoting reading comprehension of Iranian intermediate EFL learners.

### **2.3.2 Empirical Studies on Flipped Classroom Strategy (FCS) and Students'**

## **Performance**

Karimi and Hamzavi (2017) investigated the effect of flipped model of instruction on EFL learners' reading comprehension ability. The study further aimed at identifying EFL students' attitudes toward flipped model of instruction. To this end, EFL learners studying at an accredited private language institute in Isfahan were first conveniently sampled and were homogenized through a sample of PET. EFL learners within age range of 19 to 25 were selected for the study and equally assigned into two groups-experimental and control group. A researcher-made reading comprehension test was given to the participants as the pretest of the study. The experimental group received flipped model of instruction, whereas the control group received traditional model of instruction. At the end of the study, the researcher-made reading comprehension test was administered to the two groups of the study as their posttest. The participants were asked to complete a questionnaire on flipped model of instruction developed primarily by Elfatah and Ahmed (2016). The results of ANCOVA revealed that flipped model of instruction had a significant positive effect on the reading comprehension ability of EFL students. Moreover, the results of frequency analyses indicated that EFL students in the experimental group had positive attitude towards attitude flipped model of instruction and agreed that it was helpful to them in many ways.

Lin and Hwang (2018) investigated factors affecting their flipped learning outcomes. In the study, an online community-based flipped learning approach was proposed for an EFL oral presentation course; moreover, a learning analytics approach was used to analyze factors affecting the students' oral presentation outcomes. An 18-week research design was implemented with the online community-based flipped

classroom using Facebook as the platform for facilitating and recording peer-to-peer interactions during the flipped learning process. In addition, the students' learning performance and perceptions were collected in 3 learning stages during the 18 weeks. The experimental results reveal positive effects of the online community-based flipped instruction over the conventional video-based instruction. That is, first, the online community-based flipped instruction using mobile devices can enhance students' English oral performance. Moreover, it was found that the high improvers had a significantly higher frequency of online participation, as well as more interactive behaviours and greater satisfaction with the flipped classroom than the low improvers. These results imply that the online community flipped classroom could not only provide learning materials and out-of-class learning for students, but could also help them become more responsible and autonomous in their learning and communication. These findings could be valuable references for those who intend to conduct effective flipped classrooms with an online community to facilitate students' before-class learning participation and to improve their in-class learning performance.

Balaban, Gilleskie, and Tran (2016) provide evidence that the flipped classroom instructional format increases student final exam performance, relative to the traditional instructional format, in a large lecture principles of economics course. The authors find that the flipped classroom directly improves students' performance, the standardized deviations depending on the type of learning objective (i.e., knowledge, comprehension, application, or analysis). It also revealed that the flipped classroom improves effort during the semester, measured by in-class polling participation, and find some evidence

of a heterogeneous, yet positive, effect of the flipped classroom by observable student characteristics and by level of performance.

Zhonggen and Guifang (2016) conducted a study to determine the effectiveness of the flipped model in business English writing course, combined the quantitative with the qualitative research methods. Participants were randomly selected from undergraduate students majoring in business English. The research instruments in this study included a satisfaction scale, a Business English Writing Test, and a semi-structured interview. The research procedure was made up of a pretest-treatment-posttest design. Both hypotheses were accepted and it was concluded that the flipped business English writing classroom brought about better academic performance than the traditional one, and the flipped business English writing classroom was more satisfactory than the traditional one.

Sun and Wu (2016) investigated the effectiveness of two different teaching methods on learning effectiveness. OpenCourseWare was integrated into the flipped classroom model (experimental group) and distance learning (control group). Learning effectiveness encompassed learning performance, teacher-student interactions, and learning satisfaction. The experimental method was supplemented with qualitative interviews. Overall, 181 freshmen taking a course on physics were allowed to choose their own class based on their preferred teaching method (experimental or control group). The findings indicated that learners in the experimental group scored higher for learning performance. When selecting a teaching method, if sufficient resources are available, it is suggested that teachers provide learners with the combination of OCW and flipped classroom. Although there was no significant difference between groups in terms of teacher-student interactions and learning satisfaction; the interactions in the flipped

classroom had positive effect on students' learning performance. The use of the flipped classroom model allows for adequate teacher-student interactions, as teachers can provide guidance and assistance to students in person, while there are greater opportunities for collaborative learning among learners.

Zuniga (2017) compared flipped classrooms to online courses to study the effects of the two instructional methodologies on students' performance and satisfaction in an undergraduate "Introduction to Education," EDUC 1301, course. Students self-matriculated in either traditional EDUC 1301 courses which were flipped or in EDUC 1301 online courses. Their final grades were used to assess their performance in both teaching methodologies. An end-of-course student evaluation of instructor performance was also used to assess students' satisfaction in the courses. A casual comparative research design was used to examine the effectiveness of both teaching methodologies. The result shows no difference between the two instructional methodologies on students' satisfaction. They were equally satisfied with both teaching methodologies. However, statistical significant differences were found in the students' achievement level. Students who self-enrolled in the flipped classrooms did statistically significantly better than those students who self-enrolled in the online courses. Instructional methodology was however an insignificant predictor of students' satisfaction in the two instructional methodologies, the flipped classrooms and the online courses.

Fraga and Harmon (2014) investigated preservice teachers' perspectives of the flipped classroom model and examined the impact of the model on student performance. The result admitted no significant difference between the flipped model and the

traditional model in terms of academic performance. The results also revealed different factors that may influence the effectiveness of the teaching model.

Foldnes (2016) investigated two implementations of the flipped classroom. The first implementation did not actively encourage cooperative learning, with students progressing through the course at their own pace. With this implementation, students' examination scores did not differ between the lecture classes and the flipped classroom. The second implementation was organised with cooperative learning activities. In a randomised control-group pretest-posttest experiment, students' scores on a post-test and on the final examination were significantly higher for the flipped classroom group than for the control group receiving traditional lectures. This demonstrates that flipped classroom if properly implemented with cooperative learning, can lead to increased academic performance.

Brooks (2014) examined the flipped classroom approach in higher education and its use in one-shot information literacy instruction session. The author presents findings from a pilot study of students' learning and perception in flipped model information literacy (IL) instruction. Students from two sections of the same course participated in the study. One section received one-shot information literacy instruction using a flipped approach, while the other section received traditional one-shot instruction. The result shows no difference between the two groups on a pre- and post-test analysis; however, an analysis of students' final papers from the flipped section showed more bibliography citations to scholarly journal articles. In addition, a survey conducted shows the majority of students preferred the flipped approach.

McCallum, Schultz, Sellke, and Spartz (2015) examined the flipped classroom's influence on students' academic, student peer-to-peer and student-faculty involvement. The study involved undergraduate male and female students from three flipped classrooms consisting of courses in mathematics and business study. Focus group interviews were conducted to gather students' feedback on their behaviour and classroom engagement. Additionally, a brief survey was administered to collect demographic information as well as quantitative data on students' perception. Findings show that students' academic involvement was present through note-taking, viewing video lectures, active in-class learning and collaboration. Students cited peer-to-peer and student-faculty engagement as essential to relationship building, peer learning, and meaningful involvement with faculty.

Whitman and Wendy (2016) investigated the effectiveness of flipped classroom in higher education. The research compared students' success in American Federal Government in a flipped classroom, a traditional, lecture-based classroom, and an online class. The findings suggest that the flipped methodology improves students' perceptions and attitudes on the class, both of which can be important in stimulating student learning. While all groups demonstrated a significant increase in performance over the semester, students' grades were higher in both the traditional and flipped classes as compared to the online section.

Ahmad (2016) investigated the effect of the flipped classroom model on Egyptian EFL students' listening comprehension. A one-group pre-posttest design was adopted. Thirty-four 3rd-year EFL students at the Faculty of Education, Suez University, were pretested on listening comprehension before the experiment and then posttested after it.

The use of flipped classroom model went through three successive stages: planning (where content was prepared and participants were oriented to the flipped classroom process), implementation (that included the pre, during, and after class parts of the flipped classroom model), and evaluation (where group projects were presented and evaluated). Paired-samples t-test revealed a statistically significant improvement in participants' listening comprehension between the pretest and the posttest in favour of the posttest. Therefore, it was concluded that the flipped classroom had a significant effect on the listening comprehension of Egyptian EFL students.

Webb and Doman (2016) investigated whether the flipped classroom can lead students to increased gains on learning outcomes in 2 ESL/EFL contexts in Macau, China, and the US. A pretest posttest quasi-experimental mixed-methods design was used to determine any difference in students' performance that might be associated with the flipped approach (FA). The effectiveness of the FA on students' performance with grammar-student learning outcomes was evaluated with a pretest and posttest grammar test, along with students' perceptions of their increased comfort and confidence using English grammar through a grammar survey. These data were triangulated with student focus groups and means of completed grammar assignments. The findings revealed that both the control and experimental groups showed increased comfort in the self-report data, gains on actual performance were significant only for the experimental groups.

Danker (2015) investigated the effects of two Flipped Classroom approaches to stimulate deep learning in large classrooms during the teaching of a film module as part of a Diploma in Performing Arts course at Sunway University, Malaysia. The flipped classes utilized either a blended learning approach where students first watched online

lectures as homework, and then completed their assignments and practical work in class; or utilized a guided inquiry approach at the beginning of class using this same process. During the class, the lecturers were present to help the students and the students were advantaged by being able to help one another. The in-class learning activities also included inquiry-based learning, active learning, and peer-learning. This study used an action research approach to improve the in-class instructional design progressively to achieve its impact of deep learning among the students. The in-class learning activities that were included in the later flipped classes merged aspects of blended learning with an inquiry-based learning cycle which focused on the exploration of concepts. Data was gathered from questionnaires filled out by the students and from short interviews with the students, as well as from the teacher's reflective journals. The findings verified that the flipped classrooms were able to remodel large lecture classes into active-learning classes. The results also support the possibility of individualised learning for the students as being high as a result of the teacher's ability to provide one-on-one tutoring through technology-infused lessons. It is imperative that the in-class learning activities are purposefully designed as the inclusion of the exploratory learning through guided inquiry-based activities in the flipped classes was a successful way to engage students on a deeper level and increase the students' curiosity as well as engage them to develop higher-order thinking skills.

Demirci and Düzenli (2017) conducted formative assessment in a time-efficient way in which a TPS activity was designed on an online platform along with an assessment rubric for students' products. In 60 minutes, students thought individually on the topic provided, discussed and collaborated in groups and finally wrote down their

paragraphs on the online tool. Each group shared paragraphs simultaneously. The teacher examined the paragraphs in terms of the predefined learning outcomes and determined the points to be revised. The students answered an open-ended online questionnaire a day later and the qualitative data were analyzed through a coding system. The assessment results successfully showed the learning points to be revisited and the results of the questionnaire supported the assessments of the teacher. The majority of the students revealed that they were satisfied and willing to do the activity again in the future.

### **2.3.3 Empirical Studies on Flipped Classroom Strategy and Students'**

#### **Retention**

NematTabrizi and Saber (2016) conducted a study to measure the effect of critical reading strategies, namely; re-reading, questioning and annotating on recall and retention of collocations by intermediate Iranian EFL learners. To this end, Nelson proficiency test was administered on Iranian EFL learners studying at Zaban Sara language institute in Esfahan, Iran. Language learners were selected based on their scores on Nelson test. Next, the participants were divided into two groups as the control group and the experimental group. While the participants in the experimental group were taught how to use critical reading strategies prior to answering the reading comprehension questions, the participants in the control group were simply asked to read the text and answer the reading comprehension questions. Both groups took a researcher-made collocation test as the test of recall (after the treatment) and the test of retention (after a 2-week interval). The findings of the study through independent samples t-test revealed that teaching critical reading strategies has a positive effect on both recall and retention of collocations.

AminAfshar and Mojavezi (2017) discovered that EFL learners at all ages and proficiency levels are usually confronted with various problems in vocabulary learning and retention. Therefore, the effects of using aural/visual storytelling on Iranian EFL learners' vocabulary learning and retention were investigated. Intermediate female EFL learners were randomly assigned to two groups. After the administration of teacher made English Vocabulary Test as the pre-test, aural storytelling method was used for the control group, and visual storytelling method was used for the experimental group. After three months of instruction, the aforementioned teacher made English Vocabulary Test, as the post-test, was given to the students of both groups to assess their improvement. Two weeks after the post-test, they were given a delayed post-test to measure their retention of English vocabulary knowledge. Finally, Using ANCOVA, the results revealed that, the experimental group's participants outperformed those of control group in both learning and retention of English vocabulary. So, it can be noted that the training programme could have impressive impact on the learning and retention of vocabulary knowledge.

Akpinar and Bardakçi (2015) conducted a two-fold study firstly to determine the role of presenting collocations by organizing them based on the keyword, topic-related, and grammatical aspect on retention of collocations. Secondly, to investigate the relationship between participants' general English proficiency and the presentation types on retention of collocations. Each collocation was presented in a single glossed sentence and distributed among Turkish EFL learners and prospective English teachers majoring in English at a Language Teaching department. Participants were upper-intermediate, lower-intermediate and advanced level learners. A pre- and two recall (immediate post

and delayed post) collocation tests were administered to compare the effect of presentation types of collocations and their relationship between the participants' general English proficiency on retention. The results indicated a significant difference in grouping collocations based on grammatical aspect, especially for advanced and lower-intermediate learners. The result shows no significant difference in grouping collocations related to keyword and topic between the learners of any level on retention of collocations.

Diris (2017) carried out a study to analyze the effect of age-based retention on school performance at different stages of education. Estimate of an instrumental variable model, using the predicted probability of retention instrument, while simultaneously accounting for the effect of month of birth on maturity at the time of testing. The analysis further assessed heterogeneity in retention effects by performance, by background characteristics, and by type of skill. Using international data from multiple waves of the PISA international assessment test, it was found that grade retention in primary school harms student performance across the distribution, while delayed school entry can produce positive results for those at the lower end. The identified local average treatment effect indicates that retaining students in primary school because of a low relative age is harmful for their future school performance.

Martorell and Mariano (2018) examined the impact of grade retention on behavioural outcomes under a comprehensive assessment-based student promotion policy in New York City. To isolate the causal effect of grade retention, the researchers implement a fuzzy regression discontinuity (RD) design that exploits the fact that grade retention is largely determined by whether a student scores below a cutoff on a

standardized test score or not. Data used on students were subjected to the policy over a nine-year span to examine impacts on attendance and disciplinary event outcomes. No evidence of systematic effects of retention on behavioural outcomes in either direction was found.

Abbassi, Hassaskhah, and Tahriri (2018) conducted a study that targeted to explore the effect of memory strategy on EFL learners' vocabulary retention with a consideration of learners' multiple intelligence. In the study, the memory strategy consisted of three parts of grouping, acronym and images. The participants of this study were 80 male and female EFL learners of intermediate level who underwent 12 hours of instruction in a language institute. They were chosen through convenience sampling and then randomly divided into an experimental group and a control group. The experimental group was directly taught how to implement memory strategies in learning vocabulary. A pre-test post-test control group design was carried out to collect the required data through vocabulary tests, memory strategy and multiple intelligence questionnaires. The results showed that the experimental group's vocabulary retention statistically improved. Moreover, the relationship between MI and vocabulary retention of Iranian EFL learners was reported to be statistically significant. This positive relationship was particularly reported between existential MI, linguistic MI scores and spatial MI scores and vocabulary scores. The finding provided information on how to teach English vocabulary in EFL classes and also recommended that teachers exploit MI in the teaching process.

Eftekhari and Sotoudehnama (2018) investigated the impact of argument map construction and reading via computer versus pen and paper on English as a foreign language (EFL) majors' comprehension, recall, and retention of argumentative texts. To

this end, Iranian EFL undergraduates were divided into low and high proficiency levels after taking a language proficiency test. Next, they were randomly assigned to two experimental groups; each group received 12 sessions of argument mapping instruction, one via computer and the other via pen and paper. At the end of the term, participants randomly received two argument map sizes (small vs. large) and were given 15 minutes to read the maps. Then tests of recall and comprehension relevant to the maps were administered, followed by a test of retention within a two-week interval. The results revealed that after controlling for spatial and verbal covariates, the type of treatment had a significant effect on recall, retention, and comprehension, with the software group outperforming the pen-and-paper group; however, proficiency level and argument size did not show any significant effect.

Negari, Azizi and Arani (2018) investigated the effects of audio input enhancement on EFL learners' retention of intensifiers. To this end, two research questions were formulated. In order to address these research questions, the study rejected two null hypotheses. Pretest-posttest control group quasi-experimental design was employed to determine the extent to which audio input enhancement could have an effect on the retention of intensifiers by EFL learners. Students were assigned into two groups: an audio input enhancement group and a control group. A multiple choice test of English intensifiers was used during three phases of the study to collect the required data. At the initial stage, English-Beginner Test was administered to ensure the students' homogeneity. Before implementing the treatment, a pre-test consisting of 20 multiple-choice items on intensifiers was administered to ensure that the participants' knowledge of the target forms was more or less the same. English intensifiers were taught through

audio input enhancement in the experimental group; however, no input enhancement was applied in the control group.

Sun (2017) investigated the effects of three instructional modes: Picture-book reading-only (PRO), picture-book reading plus vocabulary instruction (PRVI), and picture-book reading plus reading-based collaborative output activity (PRCOA) on young adult EFL (English as a foreign language) learners' vocabulary acquisition and retention. Taiwanese University students with low to intermediate level English proficiency from three English reading classes participated in each of the three modes once during three weekly 100-minute sessions. Vocabulary knowledge was tested through two post-tests using a modified Vocabulary Knowledge Scale. The results showed that the PRVI mode was the most helpful for immediate word learning. However, the PRCOA mode was the most effective for word retention and most conducive to bettering students' productive knowledge in both acquisition and retention. The study suggests that explicit learning from vocabulary instruction that directs students' attention to the words to be learned did not guarantee greater vocabulary gains than incidental learning where new words can be learned as by-products of classroom collaborative output activities. Without trying to memorize words, students learned vocabulary through mental investment in group discussions and generative activities, leading to their mastery of productive word knowledge.

Schroeder, McGivney-Burelle, and Xue (2015) explored mixed-methods study to compare student performance in flipped and non-flipped sections of Calculus I. The study also examined students' perception of the flipping pedagogy. Students in the flipped courses reported spending, on average, an additional 1-2 hours per week outside of class

on course content. Students enrolled in the flipped sections also performed better than students from the non-flipped sections on the common final exam. A follow-up examination of Calculus II grades revealed a statistically significant difference in course grades between these two groups of students.

### **2.3.6 Empirical studies on Influence of Gender in Collaborative Learning**

Iranmanesh and Darani (2018) examined the effects of movies and gender on learning English idiomatic and everyday expressions among Iranian EFL learners. The sample composed of English major students of Islamic Azad University, Isfahan (Khorasgan) Branch. Their first language was Persian and their age ranged between 25 to 45. The participants were 30 male and female students who were chosen based on their scores on a placement test which was taken to make sure that they were in the same level of English language proficiency. A true experimental design was used in which pretest-treatment-posttest was utilized. Data collection tools were: Oxford Quick placement test, a pretest, a posttest, and the teaching material. There was a pretest on vocabulary which was followed by the treatment, the participants watched movies and vocabularies were explained by the teacher through asking the students to guess the meaning or get help from the texts they had. The posttest was administered after the treatment. Paired-samples t-test and independent-samples t-test were run on the data. Results showed that movies had significant effects on learning English idiomatic and everyday expressions among Iranian EFL learners and it improved learning. Moreover, gender had no significant effects on learning English idiomatic and everyday expression among Iranian EFL learners.

Ustuk (2018) investigated how important the Turkish EFL teachers perceive the ELT motivational strategies that are implemented in adult EFL teaching. EFL instructors working in preparatory schools of foreign languages in four state universities in Turkey participated in the study. The perceived importance of ELT motivational strategies was found in relation to various pre-selected independent variables to see the effects of some demographic aspects on the perception of ELF teachers. These variables were gender, educational background, and year of teaching experience. The findings indicate several results regarding the relationship between the perceived importance of EFL teaching motivational strategies and the selected variables. Gender has a fairly limited significant effect on the perceived importance of the strategies whereas educational background and year of teaching experience show more effects respectively.

Ichinose and Clinkenbeard (2016) compared student engagement and achievement levels between students enrolled in a traditional college algebra lecture course and students enrolled in a "flipped" course. Results showed that students in the flipped class had consistently higher levels of achievement throughout the course than did students in the traditional course, though no difference in demographics. Moreover, students in the flipped course reported greater gains in affective variables related to mathematics than did students in traditional courses. In addition, this study found evidence that the flipped course experience was especially impactful for Hispanic women.

Chen, Yang and Hsiao (2016) investigated two main students' perceptions in a flipped precalculus course, namely, situational interest and course satisfaction. By the self-developed perception measures, situational interest contained feeling, value and topic

interest (three factors), while course satisfaction contained course design, system quality, course arrangement and online assessment (four factors). To respectively determine factors on final grades, we assessed the predicting power among those factors. Students' feedback and gender differences were also evaluated to provide a holistic profile of this flipped course. Results showed that feelings predict the final grades in males, while course design predicts the final grades in females. Moreover, the result also shows that even if females and males showed different topic interest in this course, they performed equally well. Some suggestions to effectively implement a flipped course were also provided from students' feedback. Finally, the study concluded that students' perceptions may be considered as motivational strategies in teaching and learning process to involve students in academic activities for improving their grades in flipped course.

Nematollahi and Maghsoudi (2015) investigated the possible effect of authentic and non-authentic texts on Iranian EFL learners' vocabulary retention. Despite the great deal of studies conducted in the area of EFL/ESL learning, the effect of authentic versus non-authentic texts have almost gained little attention and have been underresearched. To this end and to fill this gap, the sample selection was done by a proficiency PET (Preliminary English Test). Male and Female EFL learners were chosen as the participants to take part in the research. The findings from repeated measurement tests reveal that authentic versus non-authentic texts and also the learners' gender have no impact on EFL learners' vocabulary retention ability.

Gambari and Yusuf (2015) investigated the effectiveness of computer-assisted Students' Team Achievement Division (STAD) cooperative learning strategy on physics problem solving, students' achievement, retention and gender. Two senior secondary

schools year two physics students (SS II) were purposively sampled. The schools were assigned into computer-assisted STAD and Individualized Computer Instruction (ICI) groups. Students from two intact classes participated in the study. The Computer-Assisted Learning Package (CALP) on physics and the Physics Achievement Test (PAT) were used as treatment and test instruments respectively. The findings indicate that gender has no influence on students' performance.

Gambari, Shittu, Daramola and James (2016) examined the effects of video-based cooperative, competitive and individualized instructional strategies on the performance of senior secondary schools' students in geometry in Nigeria. It also examined the influence of gender on students' achievement. Second year mathematics students were randomized from four co-educational schools in Minna, Nigeria. The students were assigned into cooperative, competitive, individualized, and conventional groups. Video-based instructional package on Geometry concept in Mathematics was used as treatment instrument, while Geometry Achievement Test (GAT) was employed as test instrument. Findings revealed that students' gender had no influence on students' performance in cooperative and individualized groups.

Nwachukwu (2014) compared the effects of the two learning strategies on the academic performance of students in economic achievement test. Students from five secondary schools were selected in Lagos state. Instrument used was Economic Achievement Test (ECOAT) and data collected were analysed using t-test. The result shows a significant difference between academic performance of male and female students exposed to group learning.

#### **2.4 Summary of the Literature Reviewed**

English language is a medium of instructional delivery in Nigerian schools. Students will not be admitted into university for further education without credit pass in English language. Based on this fact, the Federal Republic of Nigeria in the national policy of education made English language one of the other core courses in Nigeria post-primary education. English Language Curriculum includes arts of listening, speaking, reading and writing. Oral English is the language art of speaking.

Oral-English is the scientific study of speech sounds and how they are produced. It can equally be described as an art of communication that has to deal with speaking of the language in the right manner of the native speaker. Researchers identified various factors contributing to poor teaching and learning of Oral-English in both Junior and Senior Secondary Schools in Nigeria. These include influence of mother tongue, lack of Language laboratory and instructional materials, among others. Researchers emphasised the roles of technology in enhancing effective teaching and learning of Oral-English Language.

Digital Video Instruction was identified as an instructional tool for teaching English language at secondary schools. This can be used to support flipped classroom models and other instructional strategies. Flipped classroom is teacher-centred instruction that shift the focus from teacher-centred to student-centred approach. In this context, students are taught the contents before class via videos or reading the text to attain deeper knowledge before the class and turn the class to activities. Researchers identified some potentials of flipped classroom as a mean of reducing the amount of time spent in class on lecturing, opening up class time for the use of active learning strategies, and providing students with more control over their own learning, among others. The use of flipped

classroom cut across all areas of disciplines. Flipped classroom can be used on individualized and groupbasis.

Collaborative learning in a classroom can take the form of discussion among the whole class or within smaller group. Five major collaborative learning techniques were identified; Think-Pair-Share, (TPS), Reciprocal Peer Tutoring (RPT), Think-Aloud Pair Problem Solving (TAPPS), Group Grid (GG), and Collaborative Writing Strategy (CWS). Each of these collaborative groups has its dynamics and extent of collaboration mode.

Theories of learning that related to this study were reviewed and discussed. This study also leaned on behaviourism theory, collaborative learning theories, and technologies implementation in collaborative learning. The study also related to social constructivism theory by Vygostsky (1978). Vygostsky believes that learning takes place through social interaction. The present study encourages collaboration which supports the belief of collaboration theory that children learn when they are constantly interacting with their peers.

Think-Paire-Share and Reciprocal Peer Tutoring Flipped Classroomstrategies were empirically reviewed. The findings from these studies were inconclusive. Also, studies on adoption of these two strategies for flipped classroom were uncommon. It was also discovered that studies on English as a Foreign Language (EFL) on flipped classroom in collaborative learning were very scanty. Very few on flipped classroom reviewed from Africa and none was found from Oral-English. Contrarily, many studies supported that flipped classroom enhanced students' achievement and retention but very

scanty study investigated the influence of gender on students' performance in EFL using flipped classroom.

From the literatures, it was established that there is need to determine a suitable or improved strategy to solving students' poor performance in Oral-English language. Though there were literatures on the effects of flipped classroom on students' achievement in English as a Foreign Language (EFL) and other subjects but most of them were not in Oral-English language and not carried out in Nigeria. Studies on influence of gender on instructional strategies were inconclusive, some favour male while others favour female students. Similarly, studies on types of Flipped Classroom strategies using video instructional media in collaborative setting are very scanty.

## **CHAPTER THREE**

### **RESEARCH METHODOLOGY**

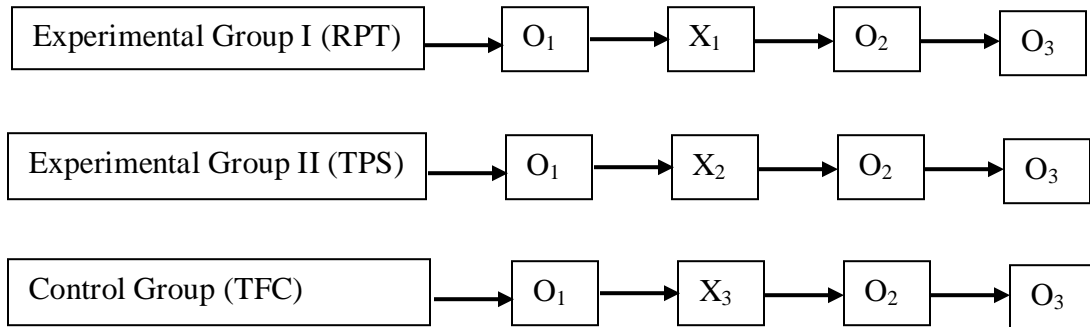
#### **3.1 Introduction**

This chapter discusses the research procedures and techniques employed in this study under the following sub-headings: Research design, population, sample and sampling techniques, instrumentation, validation, reliability of research instruments, procedure for data collection, and procedure for data analysis.

#### **3.2 Research Design**

The research design adopted for this study is a quasi-experimental design. It is a pretest, posttest, non-randomized, non-equivalent control group design. Three levels of independent variables (three experimental groups), two levels of moderating independent variable of gender (male and female), and two dependent variables (performance, and retention) were employed in the study. The three groups were subjected to the pretest, posttest and retention test using Oral-English Video Instructional Package in different flipped classroom settings. Experimental group one was subjected to treatment using Reciprocal Peer Tutoring Flipped Classroom (RPTFC) with Flipped Classroom Oral-English Video Instructional Package (OVIP), Experimental group two was also subjected to treatment using Think-Pair-Share Flipped Classroom (TPSFC) with Flipped Classroom Oral-English Video Instructional Package, while the Control Group was taught using Traditional Flipped Classroom with Oral-English Video Instructional Package. An important component of the quasi-experimental study is the use of pre-testing or the analysis of prior performance to establish group equivalence (Wachanga, Githae & Keraro, 2015). It was not feasible to randomly compose and group students, or to disrupt

classes already in existence as the experiment lasted for six weeks. Figure 3 shows the Design Layout of the study.



**Figure 3: Research Design Layout**

The following are the schematic representation of the research layout:

O<sub>1</sub>    O<sub>2</sub>    O<sub>3</sub>

O<sub>1</sub>    O<sub>2</sub>    O<sub>3</sub>

O<sub>1</sub>    O<sub>2</sub>    O<sub>3</sub>

X<sub>1</sub>    X<sub>2</sub>    X<sub>3</sub>

Where:

O<sub>1</sub>, O<sub>1</sub> and O<sub>1</sub>: are pre-test scores for experimental group one, two and three

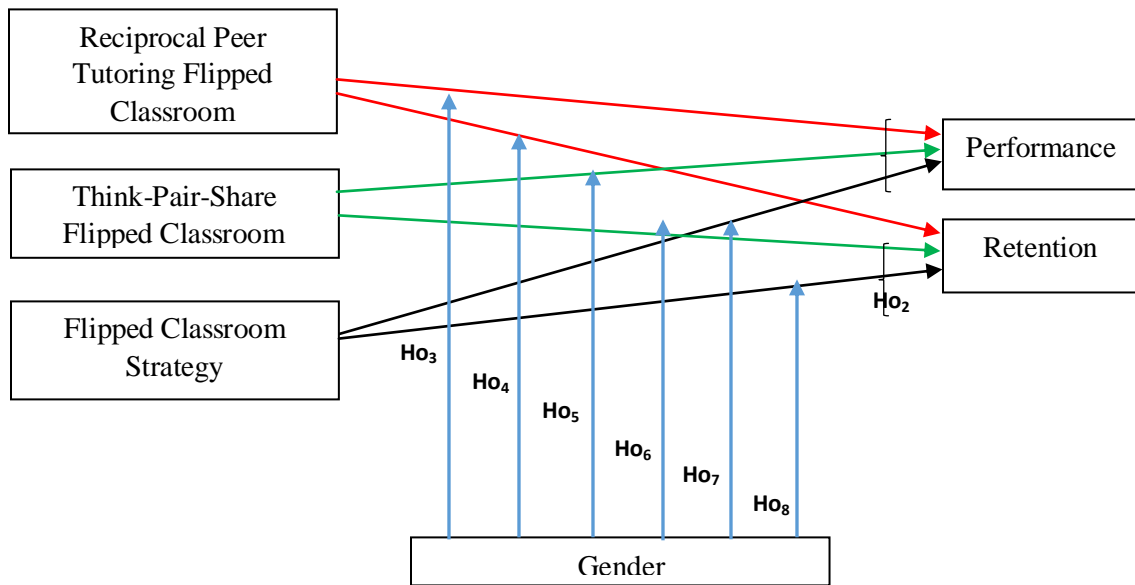
O<sub>2</sub>, O<sub>2</sub> and O<sub>2</sub>: are post scores for experimental group one, two and three

O<sub>3</sub>, O<sub>3</sub> and O<sub>3</sub>: are retention test scores for experimental group one, two and three

X<sub>1</sub>, X<sub>2</sub>, and X<sub>3</sub>: are treatments for experimental groups respectively.

The independent variable of this study is: Reciprocal Peer Tutoring Flipped Classroom (RPTFC), Think-Pair-Share Flipped Classroom (TPSFC) and Flipped Classroom Strategy (FCS). The dependent variables are post-test performance scores and retention test scores of students in the three groups, while the moderating variable is gender.

Furthermore, a hypothetical model was derived from the conceptual framework presented in Figure 3. The hypothetical model of the hypotheses formulated in this study is as shown in Figure 5 to explain the interactivity effect of the independent variables, moderating variable and dependent variables.



**Figure 4: Hypothetical Model for the Study**

From the figure, the three independent variables (RPTFC, TPSFC, & FCS) were manipulated to provide a causation effect of performance in hypothesis one. The manipulation of RPTFC, TPSFC, and FCS after retention test resulted in hypothesis two. Reciprocal Peer Tutoring Flipped Classroom effect on male and female (gender) performance led to hypothesis three. Think-Pair-Share Flipped Classroom (TPSFC) manipulated effect on gender performance produced hypothesis four, while the administration of FCS on gender performance resulted in hypothesis five. Reciprocal Peer Tutoring Flipped Classroom effect on gender retention led to hypothesis six. Think-Pair-Share Flipped Classroom (TPSFC) manipulated effect on gender retention produced

hypothesis seven, while the administration of FCS on gender retention resulted in hypothesis eight.

### **3.3 Population of Study**

The population of the study was made up of all senior secondary school students in Minna Metropolis, Niger State. The target population was the senior secondary school class two (SSII) students whose population was 6,710 in 2018/2019 academic session.

### **3.4 Sample and Sampling Techniques**

Multi-stage sampling technique was employed. The sample was drawn from 36 co-educational senior secondary schools in Minna metropolis, Niger state. Firstly, purposive sampling technique was employed in selecting the three senior secondary schools and this was done based on criteria such as: equivalence (facilities and manpower), gender composition (mixed schools), infrastructure (computers and computer laboratories), exposure (students and teachers' exposure to the use of computer for teaching and learning), and candidates' enrolment (enrolling students for Secondary School Certificate Examination for a minimum of ten years). Ten senior secondary schools met the above criteria, therefore, simple random sampling technique was used in selecting three of the senior secondary schools.

Secondly, the selected schools were randomly assigned to experimental and control groups using simple random sampling technique. School A was assigned into experimental group I (RPTFC), Experimental group II (TPSFC) and Experimental group III (FCS).

Thirdly, in each school, one stream of SSII class was randomly selected from five streams using simple random sampling technique. However, an intact class was used for the study (students in each class were not randomized).

Finally, students in each class from each school selected were stratified into two strata along gender (male and female) using stratified sampling technique. Table 2 shows the sample distribution of the study.

**Table 2: Distribution of Sample of the Study**

Schools	Male	Female	Total
School A	19	16	35
School B	19	16	35
School C	31	24	55
<b>Total</b>	<b>69</b>	<b>56</b>	<b>125</b>

### 3.5 Instrumentation

Three instruments were used for data collection in this study and these are: Flipped Classroom Oral-English Video Instructional Package (FCOVIP), used for Treatment, Oral-English Performance Test (OPT) used for data collection, and Field Trial Validation Question (FTVQ) for pilot testing of FCOVIP.

Flipped Classroom Oral-English Video Instructional Package (FCOVIP) was used as a medium for instructional delivery in flipping the classroom settings. It comprised of five lessons from Oral-English language senior secondary school curriculum. These include monophthongs, diphthongs, triphthong, consonants, and consonant clusters. Each lesson was structured in courseware format containing introduction, objectives, main

contents, conclusion, summary, and tutor mark assignment. Each lesson was video recorded using a Sony SD 1000 camera, an attached Boom Microphone, a tripod, flood light in acoustic video studio. The recorded video was edited using editing software called Corel Video Studio Pr X3. Each lesson lasted for 40 minutes (Appendix I).

Oral-English Performance Test (OAT) is a researcher developed test instrument drawn from the National Curriculum of senior secondary school English language syllabus for SSI students. The test items were prepared according to an approved table of specification of Bloom's Taxonomy of educational Objectives which comprised: knowledge, comprehension, application, analysis, synthesis, and evaluation. The Oral-English Performance Test (OPT) consist of 40-item multiple choice objective questions with four options A – D, with one correct answer and three distracters. Students were required to indicate the correct answer by ticking the right answer that corresponds to each question (Appendix B). Table 3 shows the specifications based on Bloom's taxonomy.

**Table 3: Table of Specification for Oral-English Performance Test**

Concepts	Knowledge	Comprehension	Application	Interpretation	Synthesis	Evaluation	Total
Lesson 1	1	2	1	1	1	1	7
Lesson 2	1	2	1	1	2	1	8
Lesson 3	2	2	1	1	1	2	9
Lesson 4	2	2	1	1	1	1	8
Lesson 5	2	2	1	1	1	1	8
<b>Total</b>	<b>8</b>	<b>10</b>	<b>5</b>	<b>5</b>	<b>6</b>	<b>6</b>	<b>40</b>

This instrument was administered to the three groups as pre-test and later administered as posttest and retention test respectively. To reduce the pre-test effects, the questions were reshuffled and administered in a different random order in the posttest and retention test respectively. Each correct answer attracts one mark, after which the overall scores were converted into percentage by the researcher.

Field Trial Validation Questionnaire (FTVQ) is an instrument developed to determine the suitability and reliability of the Flipped Classroom Oral-English Video Instructional Package (FCOVIP). It comprised two sections. Section A dealt with students' biodata such as name of school, class, and gender. Section B comprised four sub-sections which include: (i) Content of the package which means students level of understanding the package, (ii) Screen design of the package in terms of background colour, audibility of the package, legibility of the text; (iii) Feedback from the package based on students' assessment on immediate feedback; (iv) Students' preferences towards the use of the package compared to conventional method of learning. Each sub-section contained five statements from which the respondents were free to make a choice based on their opinion on whether they strongly agreed, agreed, strongly disagreed or disagreed on each of the items (Appendix D).

### **3.5.1 Validation of the Research Instrument**

**Validation of the Treatment Instrument:** The validation of Flipped Classroom Oral-English Video Instructional Package (FCOVIP) was done in three stages: (i) Content Validation, (ii) Expert Validation, and (iii) Field Trial Validation.

**(i) Content validation:** The content of Flipped Classroom Oral-English Video Instructional Package was validated by subject specialists. Three senior English

Language lecturers from Communication Education Department, Federal University of Technology, Minna, Niger State validated the contents of Flipped Classroom Oral-English Video Instructional Package (FCOVIP) and Oral-English Performance Test (OAT). These instruments were also validated by three English Language secondary school teachers from Ahmadu Bahago Secondary School, Minna, Bosso Secondary School, Minna, and Government Secondary School, Tunga, Minna respectively. The specialists assessed the face and content validity of the FCOVIP and OAT. From the validation report, some typographic errors, formatting errors, structure of the contents among others were pointed out. All corrections were effected as reflected in the final copy of the instrument (Appendix C).

**(ii) Expert Validation:** The Flipped Classroom Oral-English Video Instructional Package (FCOVIP) was subjected to validation by group of experts. The validation was conducted by Educational Technology experts from Educational Technology Department, Federal University of Technology Minna, Niger State. The experts validated the appropriateness of the package in terms of clarity, and simplicity of the instrument, background colour, spelling errors, audio quality, font type and size of the texts on the screen among others. In addition, few mistakes were noticed and little comments and suggestions were made by the experts, these include technical quality of the package, the use of pointer to lead the students reading, and the use of the same dress throughout the recording. All these observations were noted and effected in the instrument (Appendix C).

**(iii) Field Trial Validation of Flipped Classroom Oral-English Video Instructional Package (FCOVIP):** The Oral-English Video Instructional Package was

trial tested on 39 senior secondary school students from a Senior Secondary School in Minna, Niger State which is part of the study population, but not among the sampled schools. The trial test took place during the school period when schools were on session. The students were exposed to Oral-English contents using the Flipped Classroom Oral-English Video Instructional Package (FCOVIP) for 40minutes duration for each lesson. The students watched the video during the class period and brainstormed on what they have watched. After four weeks of exposing them to Flipped Classroom Oral-English Video Instructional Package (FCOVIP), Field Trial Validation Questionnaire (FTVQ) was administered to determine the suitability and reliability of the package (See Appendix D).

### **3.5.2 Item Analysis**

Each of the test items were analyzed to obtain its facility and discrimination index. Facility index refers to the item difficulty level because if items are too easy or too difficult, then it is of no use in educational testing of attainment of students. Discrimination index refers to power or ability of a test item to distinguish between good student and a weak one. A good test item or test instrument should be able to clearly discriminate or differentiate between good and weak students.

The facility index of an item in a test is defined as the percentage of the entire candidates or students that responded correctly to the item (Furst, 1958; Wood, 1960). The facility index of all the PAT fell between 30-70%. Test item with facility indices in the range of 30-70% are usually recommended for use (Wood, 1960).

The discrimination index of a test is its ability to discriminate between high and low achievers in a test as a whole. The discrimination index of a test item can be

estimated from the difference between two percentages, one for the higher group and the other for lower group.

Discrimination index ranging from 0.30 to 0.49 are described as moderately positive, those above 0.59 to 0.70 are highly positive or has high positive value (Furst, 1958). Following the suggestion of Furst, the test item with discrimination index which falls between 0.30 and 0.70 was included in the OAT for this study.

The test blue print indicates that the cognitive levels of Knowledge, Comprehension, Application, Analysis, Synthesis and Evaluation are represented by the test items of the instrument. The knowledge area has 8 items, comprehension has 10, application has 5, analysis has 5, synthesis has 6 and evaluation has 6 respectively.

### **3.6 Pilot Testing**

A pilot test was conducted in the study to ascertain the reliability and suitability of the Oral-English Performance Test (OPT). The pilot test was carried out using 45 intact class students from a Senior Secondary School in Minna, Niger State. The OAT was administered once on the students. Although, the school was part of the population of this study, but was not used for the real study.

### **3.7 Reliability of the Instruments**

The data obtained from pilot testing was subjected to data analysis in order to determine the reliability of the instrument. The reliability of Oral-English Performance Test (OPT) was determined using Pearson Product Moment Correlation (PPMC) Coefficient and 0.961 reliability coefficient was obtained which was considered reliable (Appendix E).

### **3.7.1 Field Trial Testing**

Oral-English Video Instructional Package was trial tested on 39 intact class students from Limawa Model School, Minna, Niger state. The purpose of field trial testing is to ascertain the suitability of the treatment (OVIP) before use for the real study. OVIP was administered on a class of SS1 students in Limawa Model School which was part of the sample schools and within the target population for the study but was not used for the real study. The results of field trial testing on the Content of the Screen yielded 95.89%, Feedback from the Package yielded 98.97%, Screen Design of the Package yielded 97.44%, and Students' Preferences toward the Use of the Package Compared to Traditional Methods of Learning yielded 97.95% acceptability as shown in Appendix D.

### **3.8 Procedure for Data Collection**

The researcher visited the sampled schools with a written letter to seek for permission two weeks before carrying out the study. During the visit, the objectives of the study were discussed with the appropriate authorities. After obtaining permission to carry out the study, in the first week of study, the researcher trained the English teachers who stood as research assistants on how to use the Oral-English Video Instructional Package for Flipped Classroom Instruction. Pre-test was administered to the students in the three groups. The 2<sup>nd</sup> to 5<sup>th</sup> weeks were used to administer the treatment using Oral-English Video Instructional Package for teaching the students both in collaborative settings and traditional method of teaching. Oral-English Video Instructional Package was burnt on digital versatile disc (DVD) and presented to students on weekly basis. The students were given time frame to study the video before the class session. During the

English language class in each school, students were grouped into three-member team in Think-Pair-Share Flipped Classroom (TPSFC) group in school A, Reciprocal Peer Tutoring Flipped Classroom (PPTFC) group in school B, and Flipped Classroom Strategy group in school C. Teams from each school were exposed to the use of FCOVIP that contained the same concepts but used with different learning strategies. In addition, they were allowed to go home with Oral-English Video Instructional Package at the end of each week for more comprehension and mastery of the concepts in the video. After four weeks of treatment, OAT was administered to all the groups simultaneously to determine their cognitive performance of the concepts. The pre-test, posttest and retention test were marked according to the marking guide in Appendix B and the result obtained were subjected to analysis by the researcher.

The following are the procedures employed in implementing each of the strategies:

**Think-Pair-Share Flipped Classroom:**for each lesson, students were provided with Oral-English Video Instructional Package and watched by two members that pair to form a group.They were allowed to digest the content, think and explain based on their individual level of understanding and given thinking time (10-15 mins). The students were allowed to pair (this involved only two students) and discuss with each other and answer the questions from the topic studied. They were also allowed to share their views, conception, perception on the contents watched on video. During the real classroom session, they took the same quiz as a team and reached consensus with respect to the correct answers for all the test questions, because only one answer sheet was to be submitted by the team for which all team members received the same ‘team score’. The

teacher moderated and facilitated the class activities. Whenever students were confused and needed more clarification, the teacher went to their rescue. Furthermore, students were given the leverage to re-visit the Oral-English Video Instructional Package at any point during the experiment.

**Reciprocal Peer Tutoring Flipped Classroom:** In this strategy, Reciprocal Peer Tutoring was used. Students completed the watching of the Oral-English Video Instructional Package at home or school. Individually, they assigned small portion of the topic to each team member, watched the video and master the concepts. Each student took turns to explain the concept to other team member. During the real classroom session, they took the same quiz as a team, reached consensus with respect to the correct answers for all test questions because only one answer sheet was to be submitted by the team for which all team members received the same ‘team score’. The teacher only served as moderator and facilitator of the class activities.

**Flipped Classroom Strategy:** In this strategy, students learned the concepts using Oral-English and Video Package as a medium for flipping the class on individual basis at their various homes and at school using computer laboratory at free lecture hours. During the class period, they were subjected to question and answer by teachers after which each of them took written quiz based on the Oral-English Video Instructional Package (OVIP) watched before the class. In this group, students provided answers to the questions without peer’s interactions. The teacher facilitated the class activities and ensured strict compliance with instructions of non-interaction among members while taking the written quiz.

### **3.9 Procedure for Data Analysis**

The data obtained from the administration of OAT at the pre-test, post-test, retention test were collated, marked and subjected to data analysis. The research questions were answered using mean and standard deviation while the hypotheses were tested using ANCOVA with Statistical Package for Social Sciences (SPSS) version 21. Sidak post hoc test was used to determine where the differences exist among the variables. The significance of the various statistical analyses was ascertained at 0.05 alpha level of significance. The choice of ANCOVA was to control errors of initial non-equivalent arising from the use of intact classes as subjects for the study. Graphical representations were also used to indicate the mean gains in scores of the students at pretest, posttest and retention tests.

## **CHAPTER FOUR**

### **RESULTS AND DISCUSSION**

#### **4.1 Introduction**

This chapter discusses the results and discussion based on the data obtained from the administration of Oral-English Performance Test (OPT) to senior secondary school students in Minna metropolis, Niger state. The OAT was administered as a pretest, posttest and retention test after being reshuffled at every stage. The data obtained were analysed and the results presented according to the research questions and hypotheses.

#### **4.2 Analyses of Research Questions**

The study was guided by six research questions raised in chapter one of this study. These research questions are answered as follow:

**4.2.1 Research question one:** Would there be any difference in the posttest performance scores of secondary school students taught Oral-English in Reciprocal Peer Tutoring Flipped Classroom (RPTFC), Think-Pair-Share Flipped Classroom (TPSFC) and Flipped Classroom Strategy (FCS)?

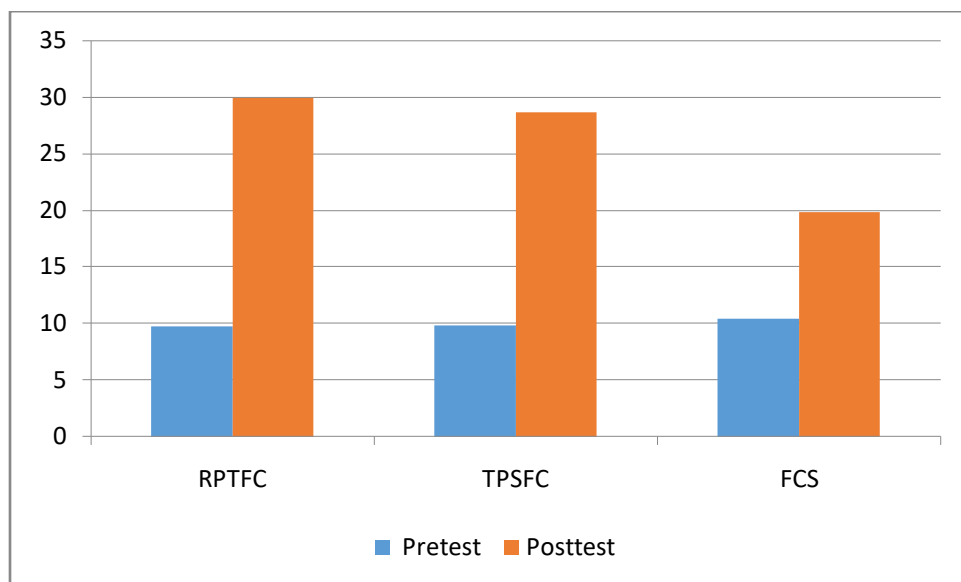
In answering the research question one, mean scores of students in experimental and control groups were analysed using mean and standard deviation and the result is as shown in Table 4.

**Table 4: Pretest and Posttest Mean Gain Scores of Students Taught Oral-English using RPTFC, TPSFC and FCS**

Group	N	Pretest		Posttest		Mean Gain
		Mean	SD	Mean	SD	
RPTFC	35	9.74	2.47	29.97	4.07	20.23
TPSFC	35	9.85	3.29	28.68	4.53	18.83
FCS	55	10.41	2.77	19.92	5.26	9.51

Table 4 shows the mean and standard deviation of the pretest and posttest scores of the students taught with Reciprocal Peer Tutoring Flipped Classroom (RPTFC), Think-Pair-Share Flipped Classroom (TPSFC) and those taught with Flipped Classroom Strategy (FCS). The result revealed that the students in the Reciprocal Peer Tutoring Flipped Classroom group had a mean score of 9.74, with standard deviation of 2.47 at pretest, and the mean score of 29.97 with standard deviation of 4.07 at posttest. This gives a mean gain of 20.23 for students in the Reciprocal Peer Tutoring Flipped Classroom (RPTFC) group. Similarly, the results also revealed that the students in Think-Pair-Share Flipped Classroom group have 9.85 as the mean score with 3.29 as the standard deviation at pretest, and 28.68 as the mean with standard deviation of 4.53 at the posttest. This gives a mean gain of 18.83 for students in the Think-Pair-Share Flipped Classroom group. In addition, the results also revealed that the students in Flipped Classroom Strategy group had 10.41 mean score with standard deviation of 2.77 at pretest, and 19.92 as the mean score with standard deviation of 5.26 was obtained at posttest. This gives a mean gain of 9.51 for students in the Flipped Classroom Strategy

group. From the result; it can be deduced that there is difference between the pretest and posttest mean scores which accounted for mean gain scores for the three groups in favour of the posttest. This implies that students in all the groups performed better at posttest than pretest. However, students in the Reciprocal Peer Tutoring Flipped Classroom group had highest posttest mean score and mean gain score than those in other groups. The graphical representation of the student performances in various groups is illustrated in Figure 5.



**Figure 5: Graphical Illustration of Performance of Students Taught Oral-English Using RPTFC, TPSFC, and FCS**

**4.2.2 Research question two:** Would there be any difference in the retention test scores of secondary school students taught Oral-English in Reciprocal Peer Tutoring Flipped Classroom (RPTFC), Think-Pair-Share Flipped Classroom (TPSFC) and Flipped Classroom Strategy (FCS)?

In answering the research question two, mean scores of students in Reciprocal Peer Tutoring Flipped Classroom (RPTFC), Think-Peer-Share Flipped Classroom

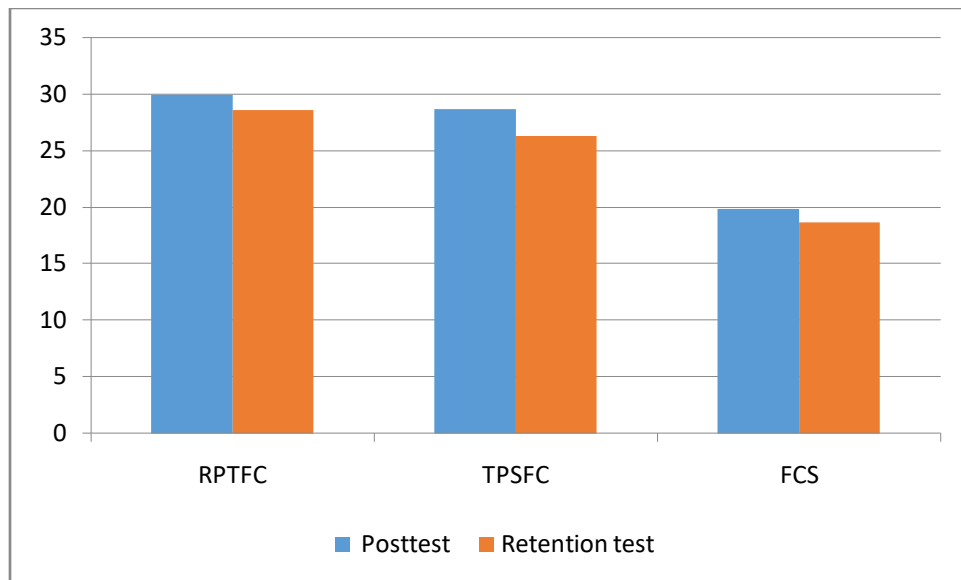
(TPSFC) and Flipped Classroom Strategy (FCS) were analysed using mean and standard deviation as shown in Table 5.

**Table 5: Posttest and Retention Mean Loss Scores of Students Taught Oral-English using RPTFC, TPSFC and FCS**

Group	N	Posttest		Retention test		Mean Loss
		Mean	SD	Mean	SD	
RPTFC	35	29.97	4.07	28.65	4.07	1.32
TPSFC	35	28.68	4.53	26.34	4.65	2.34
FCS	55	19.92	5.26	18.70	5.16	1.22

Table 5 shows the mean and standard deviation of the posttest and retention scores of students taught with Reciprocal Peer Tutoring Flipped Classroom (RPTFC), Think-Pair-Share Flipped Classroom (TPSFC) and those taught with Flipped Classroom Strategy (FCS). The result revealed that the students in the Reciprocal Peer Tutoring Flipped Classroom group had a mean score of 29.97 with standard deviation of 4.07 at posttest and mean score of 28.65 with standard deviation of 4.07 at retention test. This gives a mean loss of 1.32 for the students in the Reciprocal Peer Tutoring Flipped Classroom group. Similarly, the results also revealed that the students in the Think-Pair-Share Flipped Classroom group had the mean score of 28.68 with standard deviation of 4.53 at posttest, and 26.34 as the mean score with standard deviation of 4.65 at the retention test. This gives a mean loss of 2.34 for students in the Think-Pair-Share Flipped

Classroom group. In addition, the results also revealed that the students in the Flipped Classroom Strategy had 19.92 as mean score, with standard deviation of 5.26 at posttest, and 18.70 mean score with standard deviation 5.16 at the retention test. This gives a mean loss of 1.22 for students in the Flipped Classroom Strategy group. From the result, it can be deduced that there is difference between the posttest and retention mean scores which accounted for mean loss scores for the three groups in favour of the posttest. This implies that the performance of students in all the groups dropped after three-week posttest administration. However, students in the Think-Pair-Share Flipped Classroom had highest retention mean loss scores than other groups. The graphical representation of the student performances in various groups is illustrated in Figure 6.



**Figure 6: Graphical Illustration of Retention of Students Taught Oral-English**

**Using RPTFC, TPSFC, and FCS**

**4.2.3 Research question three:** Could there be any difference in the posttest performance scores of male and female students taught Oral-English in Reciprocal Peer Tutoring Flipped Classroom (RPTFC)?

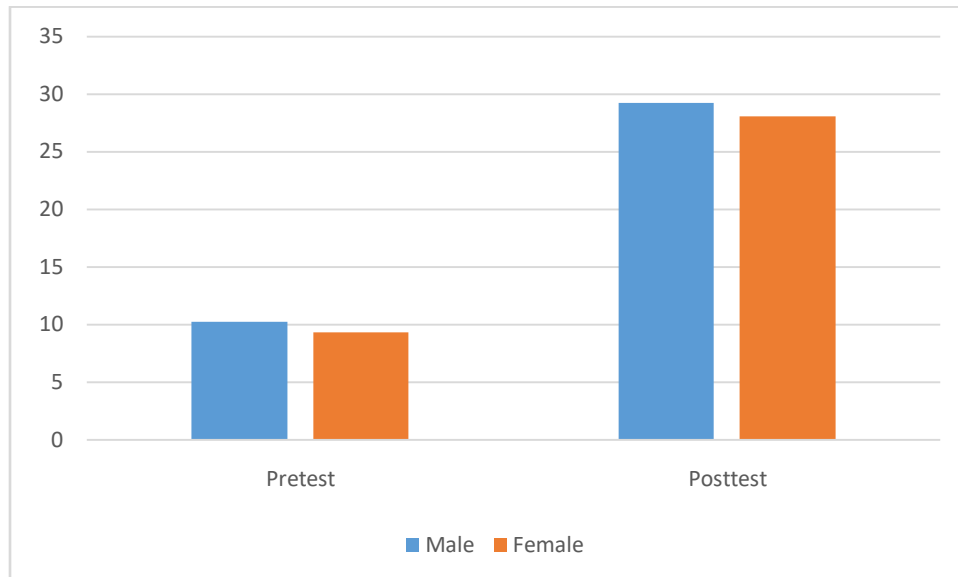
In answering the research question three, the mean scores of the male and female students taught Oral-English in Reciprocal Peer Tutoring Flipped Classroom (RPTFC) were analysed using mean and standard deviation as shown in Table 6.

**Table 6: The Mean and Standard Deviation of Male and Female Students taught Oral-English in Reciprocal Peer Tutoring Flipped Classroom (RPTFC)**

Group	N	Pretest		Posttest		Mean Gain
		Mean	SD	Mean	SD	
Male	19	10.26	3.82	29.21	9.98	18.95
Female	16	9.37	2.55	28.06	5.55	18.69

Table 6 shows the mean and standard deviation of the pretest and posttest scores of students taught Oral-English with Reciprocal Peer Tutoring Flipped Classroom. The result revealed that male students had mean scores of 10.26 with standard deviation of 3.82 at pretest, and 29.21 as the mean score of female students at posttest with standard deviation of 9.98 respectively. The mean gain for male students was 18.95. Similarly, the mean scores of female students was 9.37 with standard deviation of 2.55 at pretest, while at posttest the mean score of 28.06 with standard deviation of 5.55 was obtained by female students. The female students in the Reciprocal Peer Tutoring group had mean gain of 18.69. This implies that that, male students had higher mean than the female students in the same group. The graphical representation of the student performances in

various groups is illustrated in Figure 7.



**Figure 7: Graphical Illustration of Performance of Male and Female Students**

#### **Taught Oral-English Using RPTFC**

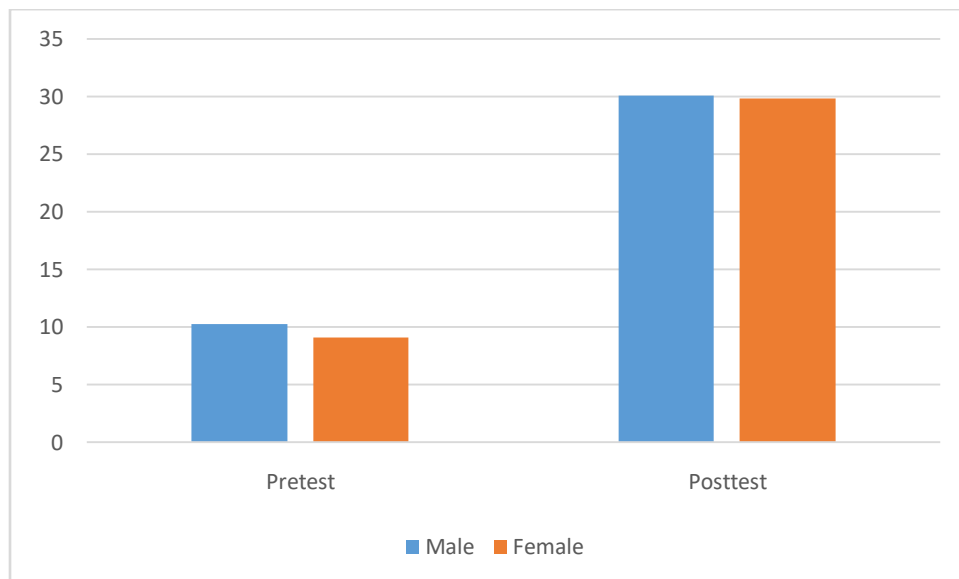
**4.2.4 Research question four:** Do students' gender influence their posttest performance when they are taught Oral-English in Think-Pair-Share Flipped Classroom (TPSFC)?

In answering the research question four, mean scores of the male and female students in Think-Pair-Share Flipped Classroom group were analysed using mean and standard deviation as shown in Table 7.

**Table 7: Pretest and Posttest Mean Scores and Standard Deviation of Male and Female Students Taught Oral-English RPTFC**

Group	N	Pretest		Posttest		Mean Gain
		Mean	SD	Mean	SD	
Male	19	10.26	2.97	30.05	3.86	19.79
Female	16	9.12	1.58	29.87	4.44	20.75

Table 7 shows the mean and standard deviation of the pretest and posttest scores of male and female students taught Oral-English with Think-Pair-Share Flipped Classroom (TPSFC). The result revealed that male students had 10.26 mean scores with standard deviation of 2.97 at pretest, and mean score of 30.05 with standard deviation of 3.86 at posttest respectively. The male students in Think-Pair-Share Flipped Classroom had mean gain of 19.79. Similarly, the mean scores of female students was 9.12 with standard deviation of 1.52 at pretest, and posttest mean score of 29.87 with standard deviation of 4.44. The female students in Think-Pair-Share group had a mean gain of 20.75. This implies that the female students had higher mean gain than male students in the same group. The graphical representation of the student performances in this group is illustrated in Figure 8.



**Figure 8: Graphical Illustration of Performance of Male and Female Students Taught Oral-English Using TPSFC**

**4.2.5 Research question five:** How do male and female students differ in the performance test scores in Oral-English when taught using Flipped Classroom Strategy (FCS)?

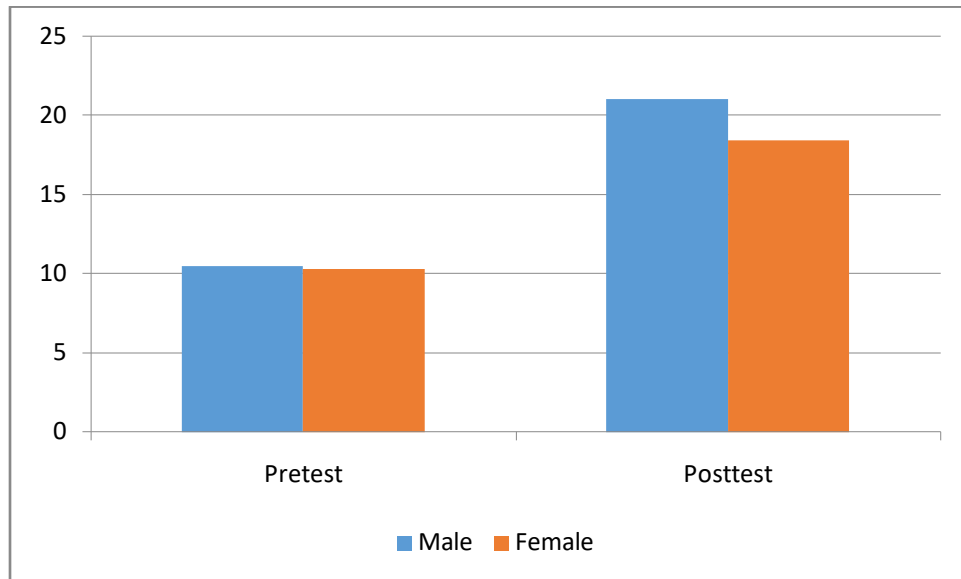
In answering the research question five, mean scores of the male and female students in Flipped Classroom Strategy (FCS) group were analysed using mean and standard deviation as shown on Table 8.

**Table 8: Pretest and Posttest Mean Scores and Standard Deviation of Male and Female Students taught Oral-English with FCS**

Group	N	Pretest		Posttest		Mean Gain
		Mean	SD	Mean	SD	
Male	31	10.52	3.19	21.06	5.22	10.54
Female	24	10.29	2.18	18.46	5.06	8.17

Table 8 shows the mean and standard deviation of the pretest and posttest scores of male and female students taught Oral-English with Flipped Classroom Strategy (FCS). The result revealed that male students had the mean scores of 10.52 with standard deviation of 3.19 at pretest, and the mean score of 21.06 with standard deviation of 5.22 at posttest. The male students in the Flipped Classroom Strategy group had the mean gain of 10.54. Similarly, the mean scores of female students was 10.29 with standard deviation of 2.18 at pretest, and posttest mean score of 18.46 with standard deviation of 5.06 was obtained by female students at posttest respectively. The female students in the Flipped Classroom Strategy group had mean gain of 8.17. This implies that the male students had higher mean gain than female students in the same group. The graphical representation of

the male and female students' performance in this group is illustrated in Figure 9.



**Figure 9: Graphical Illustration of Performance of Male and Female Students**

#### **Taught Oral-English Using FCS**

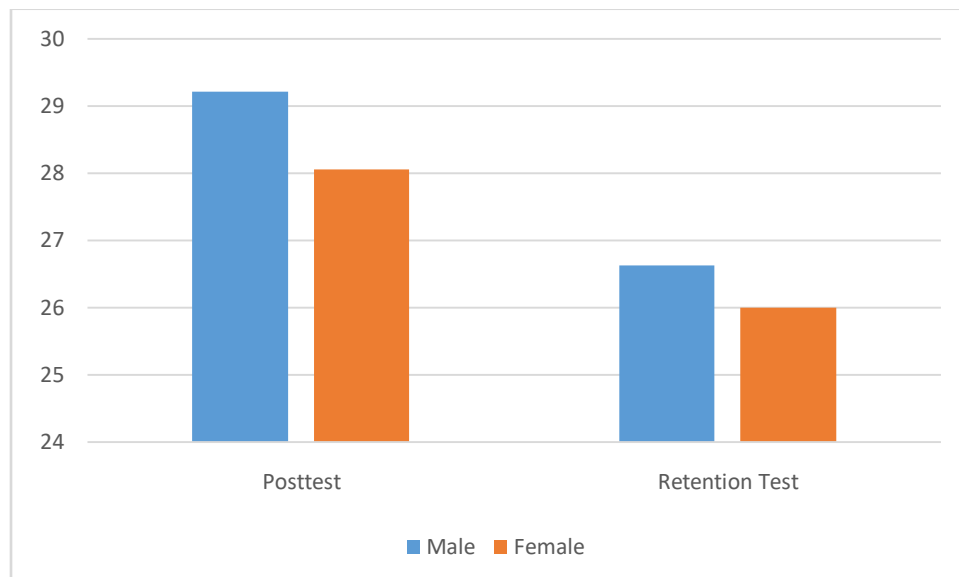
**4.2.6 Research question six:** Would there be difference in the retention test scores of male and female students taught Oral-English in Reciprocal Peer Tutoring Flipped Classroom (RPTFC)?

In answering the research question five, mean scores of the male and female (low, medium and high level) students in experimental group were analysed using mean and standard deviation as shown in Table 9.

**Table 9: Posttest and Retention Mean Scores and Standard Deviation of Male and Female Students Taught Oral-English with RPTFC**

Group	N	Posttest		Retention Test		Mean Loss
		Mean	SD	Mean	SD	
Male	19	29.21	3.53	26.63	3.70	2.58
Female	16	28.06	5.55	26.00	5.69	2.06

Table 9 shows the mean and standard deviation of the posttest and retention test scores of students taught Oral-English with Reciprocal Peer Tutoring Flipped Classroom (RPTFC). The result revealed that the mean score of male students was found to be 29.21 with standard deviation of 3.53 at posttest, and the mean score of 26.63 with standard deviation of 3.70 at retention test respectively. The male students in the Reciprocal Peer Tutoring Flipped Classroom group had the mean gain score of 258. Similarly, the mean scores of female students was found to be 28.06 with standard deviation of 5.55 at posttest, and retention mean score of 26.00 with standard deviation of 5.69 was obtained by female students. The female students in the Reciprocal Peer Tutoring Flipped Classroom group had mean gain score of 2.06. This implies that male students had higher mean gain than those female students in the same group. The graphical representation of the students' performance in the groups is illustrated in Figure 10.



**Figure 10: Graphical Illustration of Retention of Male and Female Students**

**Taught Oral-English Using RPTFC**

**4.2.7 Research question seven:** How do male and female students differ in the retention test scores in Oral-English when taught using Think-Pair-Share Flipped Classroom (TPSFC)?

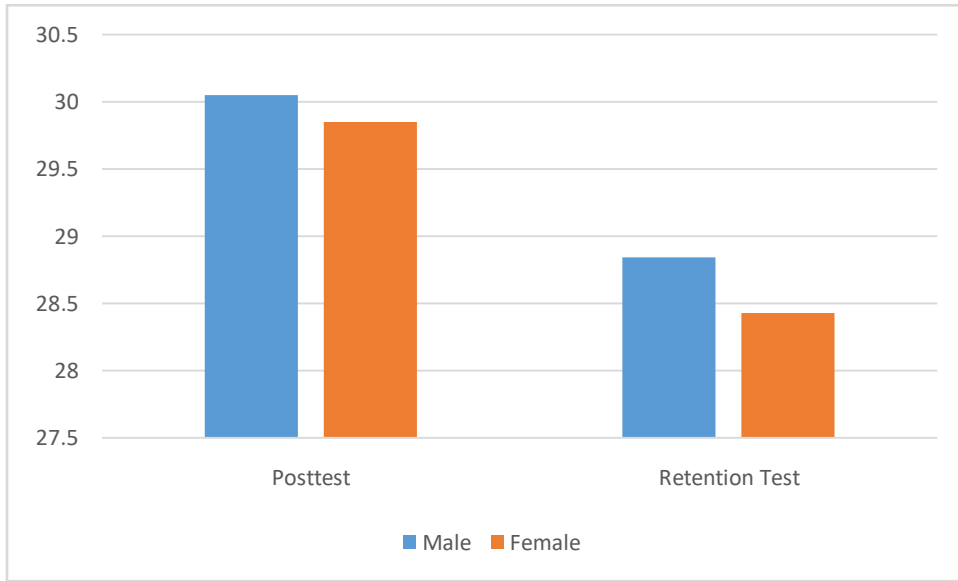
In answering the research question six, mean scores of male and female students in Think-Pair-Share Flipped Classroom (TPSFC) group were analysed using mean and standard deviation as shown on Table 10.

**Table 10: The Mean and Standard Deviation of the Posttest and Retention Scores of Male and Female Students in TPSFC**

Group	N	Posttest		Retention Test		Mean Gain
		Mean	SD	Mean	SD	
Male	19	30.05	3.86	28.84	4.07	1.21
Female	16	29.85	4.44	28.43	4.19	1.42

Table 10 shows the mean and standard deviation of the posttest and retention test scores of students taught Oral-English with Think-Pair-Share Flipped Classroom (TPSFC). The result revealed that male students had the mean score of 30.05 with standard deviation of 3.86 at posttest, and a mean score of 28.84 with standard deviation of 4.07 was obtained in retention test. The male students in the Think-Pair-Share Flipped Classroom group had mean gain of 1.21. Similarly, the mean scores of female students was found to be 28.85 with standard deviation of 4.44 at posttest while retention test mean score of 28.43 with standard deviation of 4.19 was obtained by female students. The female students in the Think-Pair-Share Flipped Classroom group had mean gain of 1.42. This implies that the female students had higher mean gain than male students in

the same group. The graphical representation of the students' performance in the groups is illustrated in Figure 11.



**Figure 11: Graphical Illustration of Performance of Male and Female Students**

**Taught Oral-English Using TPSFC**

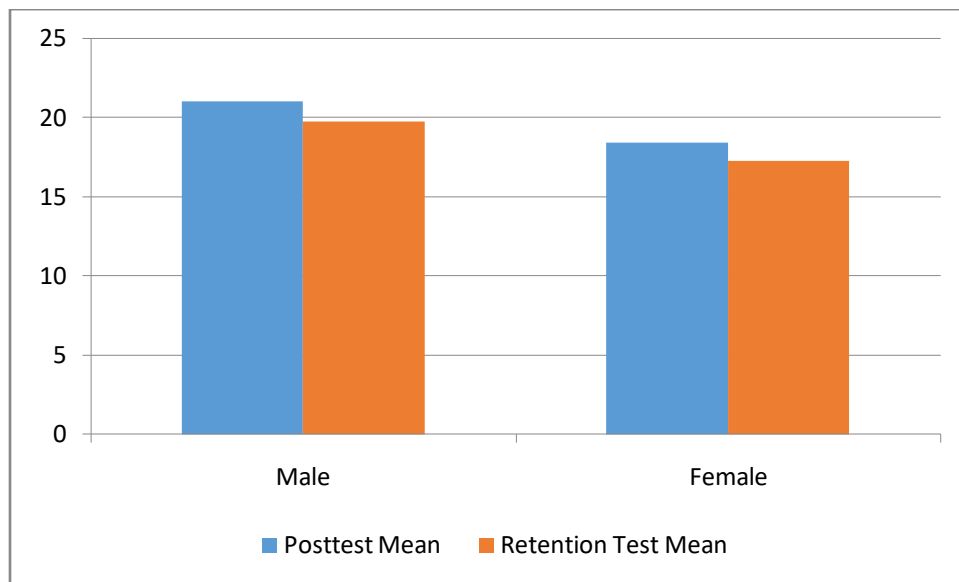
**4.2.8 Research question eight:** Do students' gender influence their retention test scores when they are taught Oral-English in Flipped Classroom Strategy (FCS)?

In answering the research question eight, mean scores of male and female students in Flipped Classroom Strategy (FCS) group were analysed using mean and standard deviation as shown in Table 11.

**Table 11: The Mean and Standard Deviation of the Posttest and Retention Scores of Male and Female using FCS**

Group	N	Posttest		Retention Test		Mean Gain
		Mean	SD	Mean	SD	
Male	31	21.06	5.21	19.80	5.05	1.26
Female	24	18.45	5.06	17.29	5.06	1.16

Table 11 shows the mean and standard deviation of the posttest and retention test scores of students taught Oral-English with Flipped Classroom Strategy. The result revealed that male students had mean scores of 21.06 with standard deviation of 5.21 at posttest, and 19.80 as the mean score with standard deviation of 5.05. The male students in the Flipped Classroom Strategy group had mean gain of 1.26. Similarly, the mean scores of female students in the Flipped Classroom Strategy group was found to be 18.45 with standard deviation of 5.06 at posttest, and retention mean score of 17.29 with standard deviation of 5.06. Therefore, the female students had mean gain of 1.16. This implies that the male students had higher mean gain than female students in the same group. The graphical representation of male and female students' performance in Flipped Classroom Strategy group is illustrated in Figure 12.



**Figure 12: Graphical Illustration of Performance of Male and Female Students Taught Oral-English Using FCS**

#### **4.3 Testing of Hypotheses**

### 4.3.1 Hypothesis one

There is no significant difference in the posttest performance of secondary school students taught Oral-English using Reciprocal Peer Tutoring Flipped Classroom (RPTFC), Think-Pair-Share Flipped Classroom (TPSFC) and Flipped Classroom Strategy (FCS).

In testing hypothesis one, the performance scores of students exposed to RPTFC, TPSFC and those taught with FCS were analysed using ANCOVA as shown in Table 12.

**Table 12: ANCOVA Results of Students Performance Scores in RPTFC, TPSFC and FCS Groups**

Source	Type III Sum of Squares	df	Mean Square	F	p-value
Corrected Model	2752.066	3	917.355	40.198	.000
Intercept	6136.554	1	6136.554	268.901	.000
Pretest	.898	1	.898	.039	.843
Treatment	2729.145	2	1364.572	59.795	.000*
Error	2761.326	121	22.821		
Total	84843.000	125			
Corrected Total	5513.392	124			

\*: Significant at  $p < 0.05$

Table 12 shows the ANCOVA results of the performance scores of the groups taught using Reciprocal Peer Tutoring Flipped Classroom (RPTFC) and Think-Pair-Share Flipped Classroom (TPSFC) and Flipped Classroom Strategy (FCS). From the table, the  $F(1,121) = 59.795$ ,  $p < 0.05$ . This indicates that there is significant difference in the performance scores of students in RPTFC, TPSFC, and FCS. Hence, hypotheses one is

rejected. This reveals that the treatment has effect on the students' academic performance in the three groups. Moreover, Sidak's post-hoc analysis was done to identify the direction of the difference among the treatment groups as shown in Table 13.

**Table 13: Sidak Analysis of Significant Difference on Posttest of Students Taught Using RPTFC, TPSFC, and FCS**

Treatment (i)	Treatment (j)	Mean Difference (i-j)	p-value	Lower Bound	Upper Bound
RPTFC	TPSFC	1.285	.596	-1.468	4.039
	FCS	10.044	.000	7.553	12.535
TPSFC	RPTFC	-1.285	.596	-4.039	1.468
	FCS	8.758	.000	6.267	11.249
FCS	RPTFC	-10.044	.000	-12.535	-7.553
	TPSFC	-8.758	.000	-11.249	-6.267

From the Sidak post hoc analysis on posttest of the three groups in Table 13, there was no significant difference in the performance mean scores of students in the Reciprocal Peer Tutoring Flipped Classroom (RPTFC) group and Think-Pair-Share Flipped Classroom (TPSFC) groups with mean diff = 1.285,  $p > 0.05$  and upper bound of 4.039. There was statistically significant difference in the performance mean score of students in the Reciprocal Peer Tutoring Flipped Classroom (RPTFC) group with Flipped Classroom Strategy (FCS) group with mean difference of 10.044 and upper bound of 12.535 in favour of students in Reciprocal Peer Tutoring Flipped Classroom (RPTFC)

group. This implies that students taught Oral-English with Reciprocal Peer Tutoring Flipped Classroom (RPTFC) and Think-Pair-Share Flipped Classroom Strategy (TPSFC) groups performed better than those taught using Flipped Classroom Strategy (FCS) group.

#### 4.3.2 Hypothesis two

There is no significant difference in the retention test performance of secondary school students taught Oral-English using Reciprocal Peer Tutoring Flipped Classroom (RPTFC), Think-Pair-Share Flipped Classroom (TPSFC) and Flipped Classroom Strategy (FCS).

In testing hypothesis two, the retention mean scores of students in the RPTFC, TPSFC and FCS groups were analysed using ANCOVA as shown in Table 14.

**Table 14: ANCOVA Results of Students Retention Scores in RPTFC, TPSFC and FCS Groups**

Source	Type III Sum of Squares	df	Mean Square	F	p-value
Corrected Model	2477.501	3	825.834	36.528	.000
Intercept	5259.242	1	5259.242	232.627	.000
Pretest	3.546	1	3.546	.157	.693
Treatment	2464.857	2	1232.429	54.513	.000*
Error	2735.571	121	22.608		
Total	75022.000	125			

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Corrected Total	5213.072	124
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\*: significant at  $p > 0.05$

Table 14 shows the ANCOVA results of the retention scores of students taught Oral-English using Reciprocal Peer Tutoring Flipped Classroom (RPTFC), Think-Pair-Share Flipped Classroom (TPSFC) and Flipped Classroom Strategy (FCS) groups. From the table, there is significant difference in the retention mean scores of the students in RPTFC, TPSFC and FCS groups at 0.05 level of significance,  $F(1,121) = 54.513$ ,  $p < 0.05$ . This indicates that there is significant difference in the retention mean scores of students taught Oral-English using Reciprocal Peer Tutoring Flipped Classroom (RPTFC), Think-Pair-Share Flipped Classroom (TPSFC) and Flipped Classroom Strategy (FCS) groups. Hence, hypothesis two is rejected. Moreover, Sidak's post-hoc analysis was done to determine the direction of the difference among the three groups and the result is shown in Table 15.

**Table 15: Sidak Analysis of Significant Difference on Retention of Students**

**Taught Using RPTFC, TPSFC, and FCS**

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Treatment	Treatment	Mean	p-value	Lower	Upper
(i)	(j)	Difference		Bound	Bound
		(i-j)			
RPTFC	TPSFC	2.321	.124	-.431	5.073
	FCS	9.988	.000	7.877	12.490
TPSFC	RPTFC	-2.321	.124	-5.073	.431
	FCS	7.667	.000	5.170	10.165
FCS	RPTFC	-9.988	.000	-12.490	-7.487

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TPSFC	-7.667	.000	-10.165	-5.170
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Table 15 shows the Sidak post hoc analysis on retention of students taught Oral-English with Reciprocal Peer Tutoring Flipped Classroom (RPTFC), Think-Pair-Share Flipped Classroom (TPSFC) and Flipped Classroom Strategy (FCS). From the Table, there was no significant difference established between the mean retention scores of RPTFC and TPSFC because the mean difference of 2.321,  $p > 0.05$ ) with an upper bound of 5.073 was obtained. However, there was statistically significant difference in the mean retention scores of RPTFC with FCS with mean difference of 9.988 with upper bound of 12.490 in favour of RPTFC. Similarly, there was no statistically significant difference in the mean retention scores of TPSFC with FCS with mean difference of -2.321,  $p > 0.05$  with upper bound of .431. This implies that students taught Oral-English with Reciprocal Peer Tutoring Flipped Classroom and Think-Pair-Share Flipped Classroom retained better than those taught with Flipped Classroom Strategy.

### 4.3.3 Hypothesis three

There is no significant difference in the posttest performance of male and female students taught Oral-English in Reciprocal Peer Tutoring Flipped Classroom (RPTFC).

In testing hypothesis three, the mean performance scores of male and female students taught Oral-English using Reciprocal Peer Tutoring Flipped Classroom (RPTFC) were analysed using ANCOVA as shown in Table 16.

**Table 16: ANCOVA Results Performance Scores of Male and Female Students in RPTFC Group**

Source	Type III Sum	df	Mean	F	p-value
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	<b>of Squares</b>		<b>Square</b>		
Corrected Model	14.948	2	7.474	.349	.708
Intercept	2590.653	1	2590.653	121.095	.000
Pretest	3.501	1	3.501	.164	.689
Gender	9.589	1	9.589	.448	.508 <sup>ns</sup>
Error	684.594	32	21.394		
Total	29500.000	35			
Corrected Total	699.543	34			

ns: not significant at  $p < 0.05$

Table 16 shows the ANCOVA results of performance scores of male and female students taught Oral-English using Reciprocal Peer Tutoring Flipped Classroom (RPTFC). From the table, there is no significant difference in the mean performance scores of the male and female students at 0.05 level of significance  $F(1,32) = .448, p > 0.05$ . The results of the analysis indicate that this hypothesis should not be rejected on the basis that the univariate effect of gender was not statistically significant on the posttest mean score of male and female students taught Oral-English using Reciprocal Peer Tutoring Flipped Classroom (RPTFC). On this basis, hypothesis three is therefore not rejected. This implies that male and female students performed equally well when Reciprocal Peer Tutoring Flipped Classroom (RPTFC) was used in teaching Oral-English at Senior Secondary Schools.

#### **4.3.4 Hypothesis four**

There is no significant difference in the posttest performance of male and female students taught Oral-English in Think-Peer-Share Flipped Classroom (TPSFC).

In testing hypothesis four, the performance scores of male and female students in the Think-Peer-Share Flipped Classroom (TPSFC) group were analysed using ANCOVA as shown in Table 17.

**Table 17: ANCOVA Results of Performance Scores of Male and Female Students in TPSFC Group**

Source	Type III Sum of Squares	df	Mean Square	F	p-value
Corrected Model	3.443	2	1.722	.098	.907
Intercept	1927.508	1	1927.508	109.844	.000
Pretest	3.169	1	3.169	.181	.674
Gender	.851	1	.851	.049	.827 <sup>ns</sup>
Error	561.528	32	17.548		
Total	32005.000	35			
Corrected Total	564.971	34			

ns: not significant at  $p > 0.05$

Table 17 shows the ANCOVA results of the performance scores of male and female students taught Oral-English using Think-Pair-Share Flipped Classroom (TPSFC). From the table, there is no significant difference in the mean performance scores of the male and female students at 0.05 level of significance  $F(1,32) = .049, p > 0.05$ . The results of the analysis indicate that hypothesis four should not be rejected on the basis that the univariate effect of gender was not statistically significant on the posttest mean score of male and female students taught Oral-English using Think-Pair-Share Flipped Classroom (TPSFC). On this basis, hypothesis four is therefore not rejected. This implies that male and female students performed equally well when Think-Pair-Share Flipped Classroom was used in teaching Oral-English at Senior Secondary Schools.

#### 4.3.5 Hypothesis five

There is no significant difference in the posttest performance of male and female students taught Oral-English in Flipped Classroom Strategy (FCS).

In testing hypothesis five, the performance scores of male and female students in the Flipped Classroom Strategy were analysed using ANCOVA as shown in Table 18.

**Table 18: ANCOVA Results of Performance Scores of Male and Female**

<b>Students in FCS Group</b>					
<b>Source</b>	<b>Type III Sum of Squares</b>	<b>df</b>	<b>Mean Square</b>	<b>F</b>	<b>p-value</b>
Corrected Model	91.881	2	45.941	1.699	.193
Intercept	1394.537	1	1394.537	51.582	.000
Pretest	0.001	1	0.001	.000	.994
Gender	91.700	1	91.700	.3302	.071 <sup>ns</sup>
Error	1405.828	52	27.035		
Total	23338.000	55			
Corrected Total	1497.709	54			

ns: not significant at  $p > 0.05$

Table 18 shows the ANCOVA results of the performance scores of male and female students taught Oral-English with Reciprocal Peer Tutoring Flipped Classroom. From the table, there is no significant difference in the mean performance scores of the male and female students at 0.05 level of significance  $F(1,52) = .3302$ ,  $p > 0.05$ . The results of the analysis indicate that the hypothesis should not be rejected on the basis that the univariate effect of gender was not statistically significant on the posttest mean score

of male and female students taught Oral-English using Flipped Classroom Strategy (FCS). On this basis, hypothesis five is therefore not rejected. This implies that male and female students performed equally well when Flipped Classroom Strategy was used in teaching Oral-English.

#### 4.3.6 Hypothesis six

There is no significant difference in the retention test performance of male and female students taught Oral-English in Reciprocal Peer Tutoring Flipped Classroom (RPTFC).

In testing hypotheses six, the mean retention scores of male and female students taught Oral-English using Reciprocal Peer Tutoring Flipped Classroom (RPTFC) were analysed using ANCOVA as shown in Table 19.

**Table 19: ANCOVA Results of Retention Scores of Male and Female Students in RPTFC Group**

Source	Type III Sum of Squares	df	Mean Square	F	p-value
Corrected Model	652.876	2	326.438	125.841	.000
Intercept	1.854	1	1.854	.715	.404
Posttest	649.412	1	649.412	250.347	.000
Gender	1.999	1	1.999	.771	.387 <sup>ns</sup>
Error	83.010	32	2.594		
Total	25024.000	35			
Corrected Total	735.886	34			

ns: not significant at  $p > 0.05$

Table 19 shows the ANCOVA results of retention scores of male and female students taught Oral-English using Reciprocal Peer Tutoring Flipped Classroom (RPTFC). From the table, there is no significant difference in the mean retention scores of the male and female students at 0.05 level of significance  $F(1,32) = .771, p > 0.05$ . The results of the analysis indicate that the hypothesis should not be rejected on the basis that the univariate effect of gender was not statistically significant on the mean retention scores of male and female students taught Oral-English using RPTFC. On this basis, hypothesis six is therefore not rejected. This implies that male and female students retained the contents of Oral-English equally well when Reciprocal Peer Tutoring Flipped Classroom (RPTFC) was used for teaching Oral-English at Senior Secondary Schools.

#### 4.3.7 Hypothesis seven

There is no significant difference in the retention test performance of male and female students taught Oral-English in Think-Peer-Share Flipped Classroom (TPSFC).

In testing hypothesis seven, the retention scores of male and female students in the TPSFC group were analysed using ANCOVA as shown in Table 20.

**Table 20: ANCOVA Results of Retention Scores of Male and Female Students in**

**TPSFC Group**

Source	Type III Sum of Squares	df	Mean Square	F	p-value
Corrected Model	500.797	2	250.399	127.008	.000
Intercept	.132	1	.132	0.067	.797
Posttest	499.375	1	499.375	253.295	.000

Gender	.490	1	.490	.249	.622 <sup>ns</sup>
Error	63.088	32	1.972		
Total	29307.000	35			
Corrected Total	563.886	34			

ns: not significant at  $p > 0.05$

Table 20 shows the ANCOVA results of retention scores of male and female students taught Oral-English using Think Peer Share Flipped Classroom (TPSFC). From the table, there is no significant difference in the mean retention scores of the male and female students at 0.05 level of significance  $F(1,32) = .249, p > 0.05$ . The results of the analysis indicate that the hypothesis should not be rejected on the basis that the univariate effect of gender was not statistically significant on the mean retention scores of male and female students taught Oral-English using Think-Pair-Share Flipped Classroom (TPSFC). On this basis, hypothesis seven is therefore not rejected. This implies that male and female students retained the contents of Oral-English equally better when taught Oral-English with Think-Pair-Share Flipped Classroom (TPSFC).

#### **4.3.8 Hypothesis eight**

There is no significant difference in the retention test performance of male and female students taught Oral-English in Flipped Classroom Strategy (FCS).

In testing hypothesis eight, the retention scores of male and female students in the Flipped Classroom Strategy (FCS) were analysed using ANCOVA as shown in Table 21.

**Table 21: ANCOVA Results of Retention Scores of Male and Female Students in Flipped Classroom Strategy**

<b>Source</b>	<b>Type III Sum of Squares</b>	<b>df</b>	<b>Mean Square</b>	<b>F</b>	<b>p-value</b>
Corrected Model	1376.524	2	688.262	569.699	.000
Intercept	.508	1	.508	0.420	.520
Posttest	1290.975	1	1290.975	1068.587	.000
Gender	.004	1	.004	.003	.955 <sup>ns</sup>
Error	62.822	52	1.208		
Total	20691.000	55			
Corrected Total	1439.345	54			

ns: not significant at  $p > 0.05$

Table 21 shows the ANCOVA results of the mean retention scores of male and female students taught Oral-English using Flipped Classroom Strategy (FCS). From the table, there is no significant difference in the mean retention scores of male and female students at 0.05 level of significance  $F(1,32) = .003, p > 0.05$ . The results of the analysis indicate that this hypothesis should not be rejected on the basis that the univariate effect of gender was not statistically significant on the mean retention scores of male and

female students taught Oral-English using Flipped Classroom Strategy (FCS). On this basis, hypothesis eight is therefore not rejected. This implies that male and female students retained the contents of Oral-English equally better when Flipped Classroom Strategy (FCS) was used in teaching Oral-English at Senior Secondary Schools.

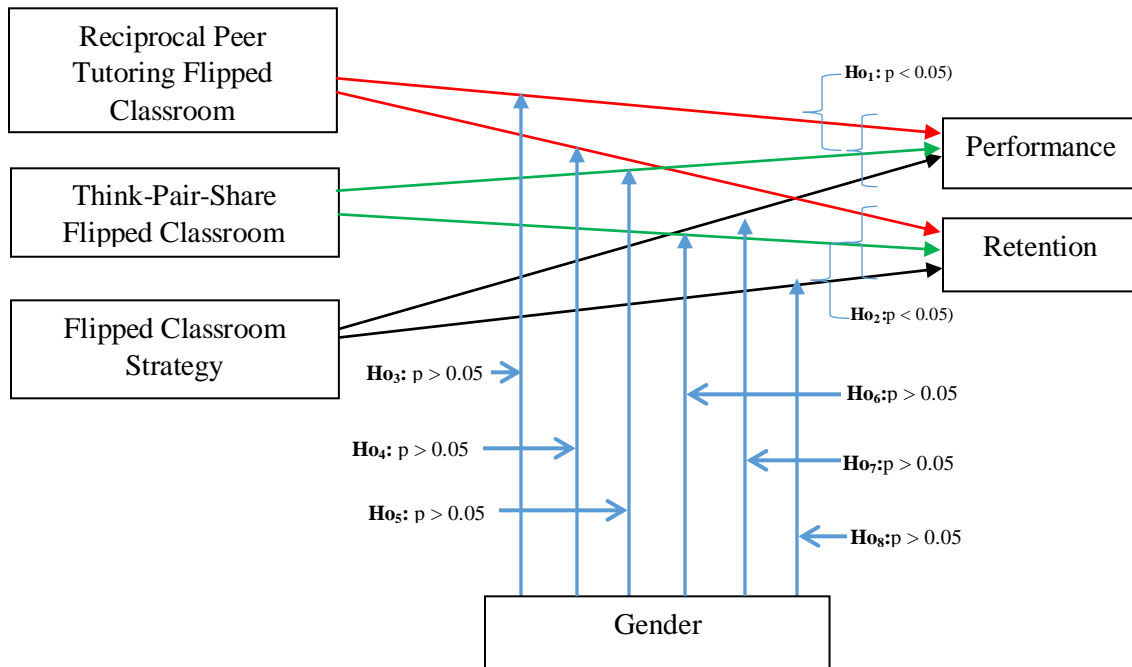
### **4.3 Summary of Findings**

The findings of the study were that:

- (i) Students taught Oral-English with Reciprocal Peer Tutoring Flipped Classroom (RPTFC) and Think-Pair-Share Flipped Classroom (TPSFC) performed better than those taught using Flipped Classroom Strategy (FCS).
- (ii) Students taught Oral-English with Reciprocal Peer Tutoring Flipped Classroom (RPTFC) and Think-Pair-Share Flipped Classroom (TPSFC) retained better than those taught using Flipped Classroom Strategy (FCS).
- (iii) Reciprocal Peer Tutoring Flipped Classroom (RPTFC) enhanced equal performance of male and female students.
- (iv) The male and female students taught Oral-English using Think-Pair-Share Flipped Classroom (TPSFC) performed equally well.
- (v) The students taught Oral-English using Flipped Classroom Strategy (FCS) performed better irrespective of gender.
- (vi) The male and female students taught Oral-English using Reciprocal Peer Tutoring Flipped Classroom (RPTFC) retained the concepts in equal manner without any significant difference.

- (vii) The male and female students taught Oral-English using Think-Pair-Share Flipped Classroom (TPSFC) displayed high retention of the contents equally.
- (viii) The retention level of male and female students taught Oral-English using Flipped Classroom Strategy was high without discrimination.

The findings of the study are summarised into a resulting model presented in Figure 13 to diagrammatically explain the results obtained from the hypotheses tested at 0.05 level of significance.



**Figure 13: Resulting Model for the Study**

Figure 13 shows the resulting model for the study. Based on the diagram, it is clear that significant difference existed in students' posttest and retention among the students exposed to Oral-English using (RPTFC, TPSFC, and FCS. However, no significant difference was observed between male and female students when exposed to RPTFC, TPSFC, and FCS during performance and retention tests. . Given the result of this

study as highlighted in the resultant model, the derived model of the study is as presented in Chapter Five.

#### **4.4 Discussion of the Findings**

One of the findings of this study revealed that students taught Oral-English using Reciprocal Peer Tutoring Flipped Classroom (RPTFC) and Think-Pair-Share Flipped Classroom (TPSFC) performed better than those taught using Flipped Classroom Strategy (FCS). This finding is in agreement with that of Ofodu and Lawal (2011) who found that using Reciprocal Teaching Method (RTM) was the most effective method of teaching reading comprehension and this was closely followed by the Think-Pair-Share Method (TPSM), while the Conventional Instruction Method (CIM) was the least. It also agrees with the finding of Al-Harby (2016)'s study that the reciprocal-teaching strategy enhanced students' performance and attitude than those taught with conventional method. Similarly, it agrees with that of Egbujuo (2012) who found that students taught with reciprocal peer tutoring performed better in Chemical Equilibrium Achievement Test (CEAT) than those taught with the traditional method of teaching. Furthermore, the finding agrees with that of Izadi and Nowrouzi (2016) who found that reciprocal instruction significantly improved learners' reading comprehension than conventional method. It also in agreement with the finding of Ghorbani, Gangeraaj and Alavi (2013) who reported that reciprocal peer teaching of comprehension improved the learners' writing ability. Similarly, Okkinga, van Steensel, van Gelderen, and Slegers (2018) reported that reciprocal peer teaching enhanced adolescent low achievers' reading comprehension than their counterparts in conventional method. Furthermore, Gomaa (2015)'s study supported the present finding that using reciprocal teaching intervention

strategy improved reading comprehension of disabled students than conventional method. It also agrees with the finding of Shadiey, Hwang, Yeh, Yang, Stephen, Wang, Han and Hsu (2014) who found that students who used reciprocal teaching strategies outperformed students who used unidirectional teaching strategy on level of cognition of programme concept and programme writing. The finding concurred with that of Kolovelonis, Goudas and Gerodimos (2011) who reported that Reciprocal Peer Tutoring group outperformed the control group in basketball chest pass performance.

The finding of this study is also in agreement with that of Amin and Raba (2017) who found that think-pair-share strategy plays a positive role in improving students' oral communicative skills, creating a cooperative learning environment and enhancing students' motivation to learn better. It also supports the finding of Amelia (2016) who reported that Think-Pair-Share improved eighth graders' vocabulary achievement, reading comprehension achievement between the students taught using Think-Pair-Share strategy and those taught with conventional method. The finding is also in line with that of AL-Madani (2015) who found that students taught Arabic language skills course using Think-Pair-Share strategy outperformed those taught with traditional teaching method. Furthermore, the study concurred with that of M.afan and Marhaeni (2013) who revealed that there was a significant effect of using Think-Pair-Share Strategy on students' reading comprehension achievement. The finding is also in agreement with that of Handayani (2014) who revealed that Think-Pair-Share strategy was successful in improving students' reading comprehension. It also revealed that Think-Pair-Share strategy was effective in enhancing the students' participation, especially in term of sharing ideas, asking and answering questions. It also agrees with the finding of Utama, Permadi, Putra,

and Nyoman (2013) who reported a significance effect of Think-Pair-Share on students' self-confidence and speaking competence than those taught with conventional method. Moreover, the finding of the study supports that of Susanti (2011) who found that students taught reading comprehension using Think-Pair-Share strategy outperformed those taught by using conventional strategy. The finding agrees with that of Sumarsih and Sanjaya (2013) who reported Think-Pair-Share Technique enhanced students' achievement when taught writing descriptive text than those taught the same concept using conventional teaching method.

The finding from this study also revealed that students taught Oral-English using Reciprocal Peer Tutoring Flipped Classroom (RPTFC) and Think-Pair-Share Flipped Classroom (TPSFC) retained the concepts better than those taught using Flipped Classroom Strategy (FCS). This finding is in agreement with that of Lin (2018) who reported that collaborative learning strategy enhanced overall students' performance and retention in vocabulary knowledge than their counterpart taught using individualized learning strategy. This is supported by the finding of NematTabrizi and Saber (2016) whose study revealed that reciprocal peer tutoring strategy has a positive effect on both recall and retention of collocations. It also agrees with the finding of AminAfshar and Mojavezi (2017) who revealed that, the reciprocal peer tutoring group outperformed those of control group in both learning and retention of English vocabulary. Similarly, it agrees with that of Abbassi, Hassaskhah, and Tahriri (2018) whose finding revealed that the experimental group's vocabulary retention statistically improved than control group. It also agrees with the finding of Sun (2017) who reported that reading-based collaborative

output activity enhanced young adult EFL (English as a foreign language) learners' vocabulary acquisition and retention.

The study also revealed that Reciprocal Peer Tutoring Flipped Classroom (RPTFC), Think-Pair-Share Flipped Classroom (TPSFC) and Flipped Classroom Strategy (FCS) enhanced male and female students' performance equally. These findings are in agreement with that of Iranmanesh and Darani (2018) who revealed that gender had no significant effects on learning English idiomatic and everyday expression among Iranian EFL learners. Similarly, the findings are in agreement with that of Gambari and Yusuf (2014), Ajaja and Eravwoke (2010) who reported that students' gender had no influence on their performance using collaborative learning strategies. This is supported by the finding of Ustuk (2018) who reported that gender had a fairly limited significant effect on the perceived importance of the strategies. Furthermore, Ichinose and Clinkenbeard (2016) reported that the flipped course experience was especially impactful for women. The findings of this study concerning gender is supported by that of Chen, Yang and Hsiao (2016) who found that females and males performed equally well in different topics of their interest. In addition, the findings agree with that of Nematollahi and Maghsoudi (2015) that learners' gender had no impact on EFL learners' vocabulary retention ability. These findings were in line with that of Gambari and Yusuf (2015) who found that gender had no influence on students' performance using Students' Team Achievement Division Cooperative Learning in Physics classroom. Similarly, in Gambari, Shittu, Daramola and James (2016) gender had no influence on students' performance in cooperative and individualized groups when taught Geometry using collaborative and individualized learning strategies. In addition, the findings support that

of Egbujuo (2012) who reported that gender had no effect on the academic performance of students when taught using Reciprocal Peer Tutoring.

However, the findings of these studies on gender in RPT and TPS contradict the findings of Nwachukwu (2014) who found significant difference between academic performance of male and female students exposed to group learning. It also contradicts the results of Andrew *et al.* (2007) which revealed that females performed better than males with Web-based learning and traditional method. This study also disagrees with the result of Richards-Babb and Jackson (2011) which showed that male students' average success rate improvement double that of female students. It also disagrees with the results of Murray (2016) which revealed that male students outperformed female students in the STEM disciplines. It is in disagreement with Daluba (2013) study that male students performed better than their female counterparts. Anagbogu and Ezeliora (2007) reported that girls performed better than boys. It also contradicts that of Jafari and Ansari (2012) and Farrah (2011) who found that female students performed better than male counterparts in a collaborative writing activity. On the same note, Nwaubani, Ogbueghu, Adeniyi and Eze (2016) submitted that female students achieved better than their male counterparts when exposed to TPS and STAD in economic class.

This study also revealed that there was no significant difference in the retention of Oral-English between male and female students using Flipped classroom instruction in Reciprocal Peer Tutoring, Think-Pair-Share Collaborative settings and Flipped Classroom Strategy. These finding are in agreement with that of Atadoga, Mari and Danjuma(2016) which also observed that there was no significant difference in performance, attitude and retention between male and female students. Oludipe (2012)

reported no significant difference in academic performance of male and female students at the pretest, posttest, and delayed posttest levels respectively. This study further agrees with the findings of Dhindsa and Shahrizal-Emran (2011) and Kost-Smith *et al.* (2010) which showed males and females did not significantly differ in recall and retention when taught using constructivist approach.

However, the finding contradicts that of the results of Andrew *et al.* (2007) which revealed that females performed and retained better than males with Web-based learning and traditional method. This study also disagrees with the result of Richards-Babb and Jackson (2011) which showed that male students' average success rate improvement double that of female students. On the same note, it disagrees with the results of Murray (2016) which revealed that male students outperformed female students in the STEM disciplines. Furthermore, it contradicts the finding of Shakerian, Rezaei, Murnani, and Moeinmanesh (2016) that male learners performed better than the females both in musical group and non-musical group on vocabulary recall and retention.

However, the study also disagrees with that of Alipour, Gorjian, and Zafari (2012) which reported that female students in musical mode group outperformed their male counterparts both in vocabulary recall and retention. In addition, it contradicts the finding of Köksala, Yağışan and Çekiç. (2012) which found that female students in the musical-mode group memorized the new vocabulary significantly better, enhanced their vocabulary retention and their attitudes towards the instruction were to a large extent positive compared to their male counterparts.

## **CHAPTER FIVE**

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

#### **5.1 Introduction**

This chapter presents the summary of the study, conclusion drawn from the findings and recommendations based on the findings of the study.

#### **5.2 Summary**

In the study, two collaborative learning strategies (Reciprocal Peer Tutoring Flipped Classroom, RPTFC, and Think Peer Share Flipped Classroom, TPSFC) and Flipped Classroom Strategy were explored. In addition, the influence of gender on students' performance and retention in Oral-English when taught using Reciprocal Peer Tutoring Flipped Classroom (RPTFC) and Think-Pair-Share Flipped Classroom (TPSFC) were also determined. To give a sense of direction to the study, eight research objectives and eight research questions were raised with eight corresponding hypotheses formulated and tested at 0.05 level of significance.

Related literatures were reviewed under conceptual framework, theoretical framework and review of empirical studies. The review showed among other things, that most of the works done using Flipped Classroom Instruction for teaching English language especially Oral-English were carried out outside the country of the present study. Similarly, studies comparing flipped classroom in collaborative settings are very scanty. Likewise, most studies did not cater for gender disparity in English language using flipped classroom in collaborative settings.

A quasi-experimental, non-randomized and non-equivalent control group design was used. One hundred and twenty-five students from three senior secondary schools

were used as the sample for the study. The students in their intact classes were randomly assigned to the two experimental groups and a control group, and separately taught by the English language teachers who had earlier been trained for the purpose of this research. Identified extraneous variables which could pose potential threat to the validity of the study were controlled. All the groups were pre-tested before the experiment, post-tested after four weeks of treatment and retention test administered two weeks after the posttest.

The instrument used for data collection was the Oral-English Performance Test (OPT). This instrument was developed by the researcher and validated by English language specialists from University and Secondary schools. The contents of Oral-English language were developed, video recorded, edited and packaged by the researcher and studio manager. The package was validated by educational technology experts, English language lecturers and secondary school English teachers. The package was field tested with 39 students from a secondary school in Minna, Niger State to determine its reliability. Similarly, OAT was also pilot tested on 45 students from another secondary school in Minna metropolis to determine its reliability. The data obtained from Field trial testing was analysed using simple percentage while Pearson Product Moment Correlation (PPMC) was used to analyse the data obtained from pilot testing. The data obtained from pretest, posttest and retention test were analyzed using mean and standard deviation (SD) to answer the research questions and Analysis of covariance (ANCOVA) was used to test all the hypotheses at 0.05 probability level.

### **5.3 Conclusion**

From the findings of this study, it was deduced that the use of flipped classroom instruction in collaborative (Reciprocal Peer Tutoring Flipped Classroom, RPTFC and

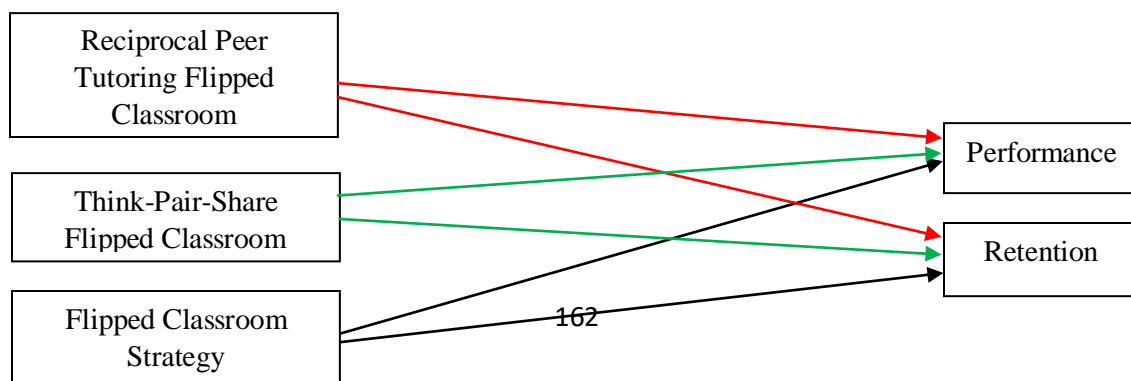
Think-Pair-Share Flipped Classroom, TPSFC) settings is effective for teaching and learning of Oral-English at senior secondary schools in Minna, Niger State. Students taught using the Reciprocal Peer Tutoring Flipped Classroom and Think-Pair-Share Flipped Classroom outperformed their counterparts taught using Flipped Classroom Strategy.

Students' ability to retain what was learned after certain period of time could be influenced by the nature of instructional media and strategies employed for teaching and learning. Therefore, students taught Oral-English using Reciprocal Peer Tutoring Flipped Classroom and Think-Pair-Share Flipped Classroom retained the contents of Oral-English than those taught using Flipped Classroom Strategy.

Reciprocal Peer Tutoring Flipped Classroom (RPTFC), Think-Pair-Share Flipped Classroom (TPSFC) and Flipped Classroom Strategy (FCS) were gender friendly. Therefore, the gender gap between students' performance and retention in Oral-English at senior secondary schools in Minna metropolis, Niger state, Nigeria was bridged.

Therefore, it can be deduced from this study that Flipped Classroom Instruction in collaborative learning settings is more effective than Flipped Classroom Strategy (FCS) in improving students' performance and retention of concepts in Oral-English, irrespective of gender.

The Derived Model of this study is shown in Figure 14 to diagrammatically explain the model derived from the conceptual framework of the study.



#### **Figure 14: Derived Model for the Study**

Figure 14 shows the derived model for the study after the moderating variable of gender was found not significant across the three independent variables (RPTFC, TPSFC, & FCS). The moderating variable of gender was deleted from the conceptual framework to generate the derived model for the study.

#### **5.4 Recommendations**

In light of the findings of the research, the following recommendations were made:

- (i). Flipped classroom instruction in collaborative learning settings; particularly Reciprocal Peer Tutoring Flipped Classroom (RPTFC) and Think-Pair-Share Flipped Classroom (TPSFC) should be used for teaching Oral-English at secondary schools. This will enable the students to learn at any location they want, at their convenient time and repeatedly before coming to the class and collaborate with their peers during the class period. This could eliminate the problem of poor performance that is due to attention deficit, poor teaching strategies and over-populated classes.
- (ii) Students should be exposed to the use of Reciprocal Peer Tutoring Flipped Classroom (RPTFC) and Think-Pair-Share Flipped Classroom (TPSFC) with video package media to enhance their retention in order to improve their performance at senior secondary school certificate examination and for future application of the acquired knowledge.

- (iii) The use of Flipped Classroom Strategy whether in Reciprocal Peer Tutoring or Think-Pair-Share collaborative settings is gender friendly, therefore, it should be encouraged in the classroom to enhance male and female performance and retention in Oral-English at senior secondary school level. This will make learning interesting and also improve the male and female students' participation in Oral-English class.
- (vi) Inclusion and use of flipped classroom instruction in collaborative learning settings in teacher education should be urgently encouraged. This will help in producing teachers who will help the shift from teacher-centered to student-centered approach of learning to enable students take charge of their learning and gather experiences that can help them retain what have been learnt.

## **5.5 Contribution to Knowledge**

The findings of this study have added the following to the already existing body of knowledge:

- (i) the study has established that Oral-English Video Package developed for Flipped Classroom can bridge the gap among learners of different levels;
- (ii) most studies use flipped classroom in all disciplines but not used it in collaborative learning. The study has established that collaborative learning strategies can be used with flipped classroom strategies. There is a successful handshaking in the use of collaborative learning for teaching and learning;
- (iii) the study has established the potential of technology-based learning tool which can be used to improve teaching and learning in Nigerian schools.

## **5.6 Limitations of the Study**

The following limitations were observed regarding this study:

- (i) number of lessons and weeks covered, if the number of weeks and topics were increased, it would have increased the effectiveness of the teaching strategies employed;
- (ii) the curriculum content was limited to six topics in Oral-English concepts meant for senior secondary school class two (SSSII) students, therefore, the entire Oral-English curriculum were not covered;
- (iii) the study did not examine other alternative medium of instructional delivery like Internet for delivering the course content;
- (iv) the nature of the schools sampled for the study were privileged institutions (equipped with computer facilities, standby generator, manpower, etc), the generalization of the studies to other schools which have no such privilege may not be possible;
- (v) computer use was limited to the presentation of curriculum contents only, as the three groups were exposed to pre-test and post-test using paper and pencil approach.

Despite these limitations the findings are significant, particularly in the use of flipped classroom in collaborative settings for instructional strategy in the Nigerian school system.

## **5.7 Suggestions for Further Study**

Based on the scope and findings of this study, it is suggested that:

- (i). Research should be carried out on the effects of Flipped Classroom Instruction in collaborative settings in other subject areas to authenticate the validity and effectiveness of its use.
- (ii) Similar studies on the effects of Flipped Classroom Instruction in collaborative settings in other part of the country should be carried out to corroborate the findings of this study.
- (iii). Studies should be carried out on the students' motivation, level of satisfaction and attitude towards the use of Flipped Classroom in collaborative settings.
- (iv). Studies on variables such as the influence of school location (Rural, Urban and Semi-Urban), School Types (Private and Public) among others should be carried out on the effects of Flipped Classroom Instruction in Collaborative Environments.
- (v) Effects of Flipped Classroom Instruction using different modes of media for flipping should be carried out to determine whether mode of flipping has any influence on students' performance and retention.

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## APPENDIX A

### LESSON PLAN FOR EXPERIMENTAL AND CONTROL GROUPS

#### Module One

- i. Unit One  
Teaching of vowel sound monophthongs (part 1)
- ii. Unit Two  
Teaching of vowel sounds monophthongs (part 2)

#### Module Two

- i. Unit One  
Diphthongs
- ii. Unit two  
Triphthongs

#### Module Three

- i. Unit One  
Consoncounts  
  
[/p/, /b/, /t/, /d/, /k/, /g/, /f/, /v/]
- ii. Unit Two  
Consonants continue  
  
[/s/, /z/, /θ/, /ð/, /a/dʒ/, /ʃ/ʒ/,/]
- iii. Unit three  
Consonants continue  
  
[/h/, /l/, /r/, /w/, /j/, /m/, /nŋ/,]
- iv. Unit four  
Consonant cluster (sequence of two initials)
- v. Unit five  
Clusters of three consonants or sequence of three initials
- vi. Unit six  
Consonant cluster: cluster of four consonants

## MODULE ONE – UNIT ONE

**NAME: AMINA USMAN KUTIGI**

**SUBJECT ENGLISH LANGUAGE**

**CLASS: SS II**

**TOPIC: VOWEL SOUNDS (MONOTHONGS PART I)**

**DURATION: 40 MINUTES**

**INSTRUCTIONAL MATERIAL – VIDEO TAPE RECORDING ON THE ABOVE VOWEL SOUNDS**

### **TEACHING OF VOWEL SOUNDS (MONOTHONGS PART I)**

There are 25 vowel sounds in English 12 are classified as pure vowel sounds 8 are diphthongs (referred to as two in one vowel sound ) 5 triphthongs (referred to as three in one vowel sounds

The twelve (12) pure vowel sound are as in

1. /ɪ:/ seat
2. /ɪ / sit
3. / e / set
4. /a / cat
5. /a: / cart
6. /ɔ / pot
7. /ɔ:/ port
8. /u / book
9. /u: / as in cool
10. /ʌ / as in blood
11. /ɜ:/ an in serve
12. /ə / as in sailors

The eight (8) Diphthongs are a combination of vowels sounds and the are

1. /ei/ as in day
2. /ai / as in like
3. /au/ as in found
4. /ɔi / as in boy
5. /θu / as in gold
6. /iθ / as in dear
7. /uθ / as in poor
8. / eθ / as in chair

The five triphthongs are:

1. /eið / as in player
2. /ajð / as in higher
3. /ɔið / as in employer
4. /aʊð / as in power
5. /ðu / as in sower

Consonants

1. /p/ as in people
2. /b / as in bread
3. / t / as in tea
4. / d/ as in duck
5. /k / as in kite
6. / g/ as in goal
7. / f / as in fish
8. / v/ as in van
9. /s / as in sack
10. /z / as in zip
11. / θ/ as in thanks
12. / tʃ / as in chain
13. / dʒ / as in jug
14. / ʃ / as in shine
15. / ʒ / as in vision
16. / h/ as in house
17. /L/ as in laugh
18. / r / as in right
19. / w/ as in wall
20. / j / as in you
21. /m/ as in man
22. /n / as in nose
23. /ŋ / as in king

## CONSONANT CLUSTERS

Consonant clusters could be of two places, four places and sometimes in the middle position or final position as indicated in the lesson notes

## MODULE ONE – UNIT ONE

**NAME:** AMINA USMAN KUTIGI

**SUBJECT** ENGLISH LANGUAGE

**CLASS:** SS II

**TOPIC:** VOWEL SOUNDS (MONOTHONGS PART I)

**DURATION:** 40 MINUTES

**INSTRUCTIONAL MATERIAL – VIDEO TAPE RECORDING ON THE ABOVE VOWEL SOUNDS**

**TEACHING OF VOWEL SOUNDS (MONOTHONGS PART I)**

**Behavioural Objective:** At the end of the lesson, the students should be able to identify and distinguish the long vowel sound from the short ones within the sentence.

**Vowels:** /ɪ:/ /ɪ/ /e/ /æ//ɑ:/, /ə/, /ɔ:/ /u/ /u:/ /ʌ//ʒ:/ /ɔ/

### **Introduction**

There are 25 vowel sound of English they are classified as follows:

- 12 monophthongs referred to as pure – vowel sound
- 8 diphthongs referred to as two – in – one vowel sound
- 5 triphthongs referred to as three – in – one vowel sound

The above names originated from the greek words, mono means one, Di means two, Tri means three while phthongs means “sounds”. But mostly monothongs and diphthongs are taught in schools while triphthong are silent because of the reason given above.

### **Presentation**

Step 1: The teacher goes over the pure – vowel sounds.

### **EXERCISES 1:1**

1. /i:/ as in seat . /siit/
2. /ɪ/ as in sit /sit/
3. /c/ or // as in set
4. /æ/ as in cat
5. /ɑ:/ as in cart
6. /ɔ/ as in pot

Long vowels sounds are 5: /i:/, /ɑ:/, /ɔ:/, /u:/ and /ʒ:/

Short vowels sounds are 7: /ɪ/, /e/, /æ/, /ɜ/, /ʊ/ and /ə/

Step ii: The teacher constructs sentences with the vowel sound

### Exercise 1:2

/i:/

1. The BEE stung her FEET  
/si: bi: stn η
2. She SLEEPS on the SEAT  
/fi: sli: pz σ η σ θ si:t/

/ɪ/

1. He SIT the KID on the floor  
/ni sit σ kit σ n σ fi: /
2. He FITS the key in the hole  
/hi: fits σ ki: in its θ ui/

/ɛ/ or /e/

1. The HEN laid her EGG in the NEST  
/ði: hen leid h ə eg in ði: nest/
2. The man bent the cow's leg  
/ði: m ə en bent ði: k ə u leg/

/æ/

1. The MAD MAN killed the CAT  
/ði: m ə d m ə n kill ði: k æ t/
2. Come and catch the BAT  
/k n m ə n k æ t f ði: b æ t/

### Step III

#### Exercise 1:3

/ɑ:/

1. The CAR hit the Cart on the road  
/ði: k ə: hit ði: k ə: t ə n ði: r ə u d/
2. The park is very dark in the night  
/ði: p ə: k is t u: d ə: k in ði: n aɪ t/

/ɔ/ or /ɒ/

1. I like to eat my food HOT

/a: laik tu i:t mai fud hət/

2. The dog licks the water from the POT

/ði: dɒg lɪkz ði: wɔ:tə frəm ði: pɒt/

## START QUIZ

### CLASS ACTIVITY

Listen to the teacher and fill the blank space with the appropriate vowel sound from options A – D.

- Q1. He \_\_\_\_\_ on the seat (a) sees (b) sits (c) seats (d) seas
- Q2. Keep the bag on the \_\_\_\_\_ (a) table (b) seat (c) ground (d) cupboard
- Q3. Dog is her \_\_\_\_\_ (a) guard (b) favorite (c) pet (d) let
- Q4. The \_\_\_\_\_ man hit the car (a) Angry (b) Hungry (c) proud (d) mad
- Q5. The farmer admired the banana \_\_\_\_\_ (a) peel (b) field (c) pill (d) peak
- Q6. Which of the following represent English vowel sounds? (a) ( ə, b, c, d, e) (b) (ə, i, e, o, u) (c) (ə, v, e, f, s) (d) (ə, ɪ, ʊ, o, u)
- Q7. Diphthongs are \_\_\_\_\_ in number? (a) 5 (b) 6 (c) 8 (d) 7
- Q8. Diphthongs are divided into \_\_\_\_\_ parts (a) front, central and back (b) closing and central (c) central, front and closing (d) central, back
- Q9. Vowel sounds are characterized by \_\_\_\_\_ (a) free and flow of air from the lungs at production (b) obstruction of air from the lungs at production (c) A and B (d) A and C
- Q10. Which vowel sound is the word “blood”? (a) 6 (b) 7 (c) 10 (d) 12

## END OF QUIZ

**MODULE ONE: UNIT TWO:**

**NAME:** AMINA USMAN KUTIGI  
**SUBJECT** ENGLISH LANGUAGE  
**CLASS:** SS II  
**TOPIC:** VOWEL SOUNDS (MONOTHONGS PART 2)  
**DURATION:** 40 MINUTES

**INSTRUCTIONAL MATERIAL – VIDEO TAPE RECORDING ON THE ABOVE VOWEL SOUNDS**

**TEACHING OF VOWEL SOUND MONOPHTHONGS (PART 2)**

**Behavioral Objectives:** At the end of the lesson the students should be able to construct simple sentences using the vowel sounds.

**Vowels** /i:/, /ɪ/, /e/, /æ/, /ɑ:/, /ɔ:/, /ɒ/, /u/, /ʊ:/, /ʌ/, /ɜ:/, /ə/

**Introduction**

The students have learnt the first six vowel sounds and these have served as foundation to learning of the remaining six vowel sounds: which are

7. /ɔ:/ as in port
8. /u/ as in book
9. /ʊ:/ as in cool
10. /ʌ / as in blood
11. /ɜ:/ as in serve
12. /ə/ as in sailor

**Presentation**

Step 1

**Exercise 2:1**

/ɔ:/

1. The PORTS case is in the COURT  
/ðɪ: pɔ:t'z keɪz ɪz ɪn ði: kɔ:t/
2. The airport security SORTS out the passengers' luggage
3. / ði: eðpɔ:t sikwɪrɪti sɔ:tz aʊt ðə pæsiŋəz lʌgeɪdʒ/

/ʊ/

1. He LOOK down on the BOOK  
/hi: luks daun ðn ði: kuk/
2. The BOOK is GOOD for woman  
/ ði: BUK iz GUD fɔ: wuman/

Step ii

**Exercise 2:2**

/μ:/

1. He moves to COOL environment for convenient sake  
/hi: mu:vz tu ku:l invalrðmðnt fɔ: knnvinient selk/
2. He fought tooth and nail to RULE the country  
/hi: fɔ:t tuiθ and neil tu ru:l ði:k Λ ðuntri/

/Λ/

1. He shuts the door at the DUCK  
/hi: ʃ Λ tz σð dɔ: æt dʌk/
2. He LUST after the world but he funds the gospel  
/hi: lʌst ðftðσð wɜ:ɪd bʌt hi: fʌndz σð gɔspil/

Step iii

**Exercise 2:3**

/ʒ:/

1. He served to SEARCH for the work  
/hi: sɜ:vz tu sɜ:tʃ fɔ: σð wɜ:k/
2. The early CHURCH gave birth to Christianity  
/ ði: ʒili tʃɜ:tʃ geiv bɜ:θ tu krist'ænaʃi/

/ə/

1. The sailor is my BROTHER  
/ ði: sellə is mal brʌθə/
2. Nature permits man to be brother and SISTER  
/Neitʃə pəmitz mæn tu bi brʌθə ænd sistə/

**END OF MODULE ONE UNIT TWO LESSON**



## START QUIZ

### CLASS ACTIVITY

Listen to the teacher and choose from the options A – D the one that transcribes the given word correctly.

- Q1. LOOK (a) /Lu:k/ (b) /Luk/ (c) /LΛK/ (D) /Look/  
Q2. Court (a) /cat/ (b) /kat/ (c) /kɔt/ (d) /kɔ:t/  
Q3. Soup (a) /sup/ (b) /zup/ (c) /su:p/ (d) /zu:p/  
Q4. Hut (a) /st/ (b) /Hst / (c) /hΛt/ (d) /Λt/  
Q5. Nurse (a) /nΛs/ (b) /nʒ:s/ (c) /Nɔ:s/ (d) /nσs/  
Q6. Mother (a) /mΛσθ/ (b) /mσσθ/ (c) /mσσα/ (d) /mɔda/  
Q7. Port (a) /pσt/ (b) /pɔ:t/ (c) /pσrt/ (d) /pΛt/  
Q8. Word (a) /wσd/ (b) /wɔid/ (c) /wΛd/ (d) /wʒ:d/  
Q9. Again (a) /ægein/ (b) /a;gein/ (c) /θgeln/ (d) /ægen/  
Q10. Lucky (a) /Λki/ (b) /ɔ:ki/ (c) /IσkI/ (d) /IaɰI/

**END OF QUIZ**

## MODULE TWO: UNIT ONE

**NAME:** AMINA USMAN KUTIGI

**SUBJECT** ENGLISH LANGUAGE

**CLASS:** SS II

**TOPIC:** DIPHTHONGS

**DURATION: 40 MINUTES**

**INSTRUCTIONAL MATERIAL – VIDEO TAPE RECORDING ON THE ABOVE VOWEL SOUNDS**

### **Diphthongs**

#### **Behavioural objectives**

At the end of the lesson the students should be able to.....

1. Pronounce the dipthongs in between sentences correctly.
2. Identify and distinguish the diphthongs sounds from other vowel sounds found within the sentences.

Diphthongs: /ei/ /aj/ /aɪ/ /ɔi/ /ɒu/ /ið/ /eə/ /eð/

#### **Introduction**

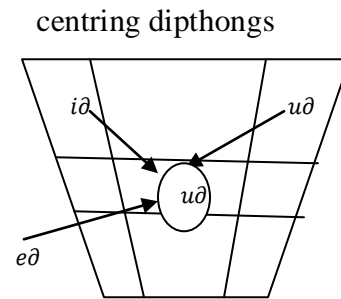
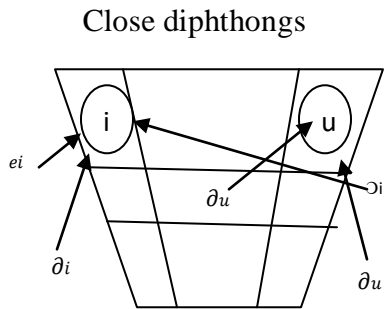
The students have been using pure-vowel sounds consciously and un-consciously in their day to day conversation. E.g names of objects and things used at home and schools, food and other abstract and physical things such as ..... Apple /æpl/, fish /fiʃ/, school /skwu:l/ etc the bold letters and phonetic symbols signified the vowel sounds which bring out the meaning of each word.

#### **Presentation**

##### **Step 1:**

Diphthongs are the combinations of two vowels sounds to produce one sound. It starts with one vowel sound and immediately glides on another vowels sound eight (8) diphthongs of English and also divided into two part /eɪ/, /aɪ/, /aʊ/, /ɔi/, /ɒu/, /ið/, /eə/, and /uð/

### Exercises 3:1



### Step II

#### Exercises 3:2

**/ei/**

1. The meeting on till day break  
/di: mi:tin wɔzɔn till del breɪk/
2. The sick man is in a state of comma  
/ði: sik mæn iz ei steɪtθv kθumæ/

**/θi/**

1. She likes rice for dinner  
/ʃi lθɪkz rɪs fɔ: dɪnθ/
2. He gave the child a free ride  
/hi geɪv t̩ θɪd ei fri: rɪd/

**/θu/**

1. She has found her lost cow  
/ʃi: hæz fθund hθ lɔst kθu/
2. He just moved down to his new house  
/hi: dʒʌst mu:vθ daun tu hiz nju hθus/

### Step iii

#### Exercise 3:3

**/ɔi/**

1. The boy toils with fire  
/ði:bɔɪ tɔɪz wiθ fɔɪe/
2. She enjoys playing with her toy

/ʃi: indzɔiz plein wiσ hð tɔi/

**/θu/**

1. He got the job on a platter of gold  
/hi: gɔtði: dzɔbɔn el plætððv gðuld
2. My mother bought coat and boat for me  
/mðl mʌσð bɔ:t kðut and bðut fɔi mi/

**/lð/**

1. The old man's beard is so dear to him  
/ði:ðuld mæn'z biðdiz sðu dlð tu him/
2. Don't be weary; you will soon hear a good news with your ear  
/dðun' t bi wiðri. ju: wll sʌ:n hiə, æ gud nju:z wiσ jɔ:ið/

#### Step iv

**/eð/**

1. He came there with his chair  
/hi: kelm seəwiσ hiz tʃeð/
2. He dare not tear the paper  
/hi: deð nɔt teðsi: peipð

**/uð/**

1. He is as poor as church rat  
/hi: iz ðzpuð tʃðts ræt/
2. Though he is poor but he is sure of making it in life  
/ðuhiiizpuð bʌt hi: iz sua ðv meikin it in lðiv/

**END OF MODULE TWO UNIT ONE LESSON**

## START QUIZ

### CLASS ACTIVITY

Listen to the teacher and choose the correct sound from the option A – D below that matches the sound of the underline words.

- Q1. The boy spoils the toy (a) Bite (b) car (c) soil (d) fall
- Q2. You've found the lost coin (a) vow (b) go (c) sand (d) count
- Q3. He loves playing volley ball (a) fall (b) wild (c) employ (d) game
- Q4. She sows seed of discord (a) ball (b) ago (c) world (d) purge
- Q5. The child loves the dress (a) stake (b) cook (c) sight (d) boil
- Q6. My father celebrated his birthday last year(a) fair (b) car (c) rare (d) career
- Q7. Where there is air there is life. (a) fair (b) tide (c) her (d) cheer
- Q8. The poor man work gently (a) shake (b) sure (c) stand (d) touch
- Q9. He roped himself with his words (a) Baked (b) cap (c) cope (d) cup
- Q10. She bears grudges against him (a) pear (b) tare (c) bare (d) meek

**End of quiz**

## MODULE TWO: UNIT TWO

**NAME:** AMINA USMAN KUTIGI

**SUBJECT** ENGLISH LANGUAGE

**CLASS:** SS II

**TOPIC:** TRIPHTHONGS

**DURATION:** 40 MINUTES

**INSTRUCTIONAL MATERIAL – VIDEO TAPE RECORDING ON THE ABOVE VOWEL SOUNDS**

### TRIPHTHONGS

#### Behavioral objectives

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

1. Pronounce the sound correctly.
2. Construct and identify it within the sentences.

Triphthongs: /eið/ /ajə/ /ɔiə/ /aʊə /əuə/

#### Introduction

The students have been using triphthongs in their day to day conversation, though consciously and unconsciously. This learning will however make him to be more conscious of it than before.

#### Presentation

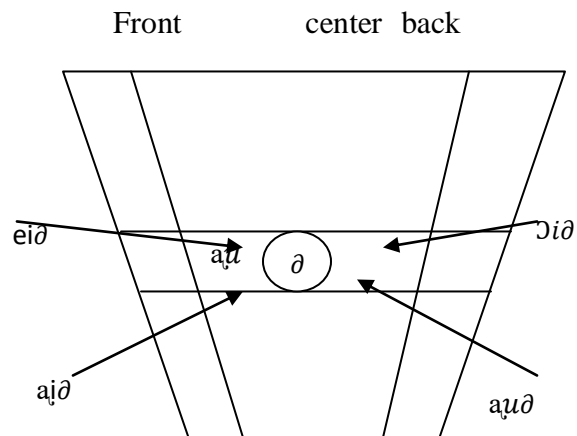
##### Step 1:

Triphthongs can be defined as combination of three vowel sounds to produce one sound. It starts with one vowel sound and consecutively glides into the middle and final vowel sound at production e.g

##### Example 4:1

1. /eið/ as in player
2. /ajə/ as in higher
3. /ɔiə/ as in employer
4. /aʊə/ as in power
5. /əuə/ as in sower

Below chart illustrate further



### Presentation

The initial sound is weak followed by the middle one and the final sound is voiced more clearly than the first two sound, there are only five triphongs and they are not usually given attention in the secondary school syllabus. They should be taught for student's awareness.

### Exercise 4:2

#### /eɪð/

1. Eleven football players make up a team  
/ɪlevn futbəl pleɪəzmeɪk ʌp a ti:m/
2. He gave her loan on condition that is payable  
/hi: geɪv hɑː laʊn ɒn kənˈdɪʃən daɪt ɪz peɪəbəl/

#### /əʊə/

1. She got the house at lower rate  
/si: gɒt ðɪ: haʊs at d ləʊəreɪt
2. The sower found a fertile land for his cash-crops  
/ðɪ: səʊə faʊnd æ fɜ:taɪl lænd fɔ: hɪz kæʃ-krɒps/

#### /aɪə/

1. It is my desire to go higher  
/ɪt ɪz maɪ dɪzəɪə tu goʊ haɪə/
2. The shop was engulfed with fire  
/ðɪ: ʃɒp wəz ɪnˈgʌlfd wɪð faɪə/

**/aʊə/**

1. The power-man flew on the air  
/ ði: paʊə- maen flu: on di ea/
2. This is hours of decision  
/ ðis is haʊə ev disiʃn/

**/ɔɪə/**

1. I am not buoyant to be able to make the journey  
/ ai am not bɔɪənt tu bi eɪbl̩ tu meɪk ði: dzɜ:ni/
2. Grasshopper is a destroyer of food crops  
/grasʃhɒpə ɪz ei dɪstrɔɪiəv fud- kɒpz/

**START QUIZ**  
**CLASS ACTIVITY**

Listen to the teacher and choose the options A – D the one that has the same sound with underlined word

- Q1. The house was decorated with flowers  
(a) grew (b) power (c) tyre (d) steer
- Q2. The bigger the engine, the slower the work  
(a) desire (b) emperor (c) prohibit (d) sower
- Q3. Empower your business with money  
(a) Enthroned (b) Enlarge (c) Embryo (d) Brower
- Q4. The higher you go the cooler it becomes.  
(a) Fire (b) purer (c) fairer (d) final
- Q5. Gold is found at the third layer of the ground  
(a) Parker (b) tracer (c) steam (d) baker
- Q6. There are \_\_\_\_\_ triphthongs sound in English  
(a) 3 (b) 6 (c) 5 (d) 4
- Q7. Which sound is common to all the triphthong sounds.  
(a) /a/ (b) /u/ (c) /i/ (d) /ə/
- Q8. All the following are triphthongs except one  
(a) /əuə/ (b) /aɪə/ (c) /eəu/ (d) /eɪə/
- Q9. Pur \_\_\_ water is common the underlined word is  
(a) Vowel (b) triphthongs (c) diphthongs (d) a and c
- Q10. The player of the faithful availed not.  
(a) Grower (b) wailer (c) stable (d) rover

**End of quiz**

### MODULE THREE: UNIT ONE:

**NAME:** AMINA USMAN KUTIGI

**SUBJECT** ENGLISH LANGUAGE

**CLASS:** SS II

**TOPIC:** CONSONANTS

**DURATION:** 40 MINUTES

**INSTRUCTIONAL MATERIAL – VIDEO TAPE RECORDING ON THE ABOVE CONSONANTS SOUNDS**

**Consonants** [/p/, /b/, /t/, /d/, /k/, /g/, /f/, /v/]

#### **Behavioural objectives**

At the end of the lesson the student should be able to:

1. Identify the above consonants within sentences be it at the initial, middle or final stage in words or sentences.
2. Construct with it and identify voiced and voiceless consonants.

**Consonant:** /p/ /b/ /t/ /d/ /k/ /g/ /f/ /v/ /θ/ /σ/ /s/ /z/

/ ʃ / /ʒ/ /h/ /tʃ/ /dʒ/ /l/ /r/ /w/ /j/ /m/ /n/ /ŋ/

#### **Introduction**

The student have been using it often in their day to day conversation for example:

/p/ as in park

/b/ as in bread

/t/ as in tea

/d/ as in duck

/k/ as in kite

/g/ as in goat

/f/ as in fish

/v/ as in van

**Consonant are characterized by:**

- Obstruction of air from the lungs at production otherwise called partial or complete construction.
- Voiced and voiceless manner
- There are 24 consonant sounds in English language

The chart below is the consonants sounds

**Exercise**

Manner of articulation	State of the Glottis		Place of articulation
	<u>Voiceless</u>	<u>Voiced</u>	
Stop (plosive)	p	b	Bilabial
	t	d	Alveolar
	k	g	Velar
Fricative	F	V	Labio –dental
	θ	ð	Dental
	S	Z	Alveolar
	ʃ	ʒ	Palato-Alveolar
	H		Glottal
Affricate	tʃ	dʒ	Palate-Alveolar
Lateral		L	Alveolar
Liquid		R	Alveolar
Semi-vowel		W	Bilabial
		j	Palatal
Nasal		M	Bilabial
		n	Alveolar
		ŋ	Velar

**Presentation**

**Step 1**

### Exercise 5:2

/p/	/b/	/t/	/d/
Voiceless	Voiced	Voiceless	Voiced
Pen/pen/	Book /buk/	Tick /tik/	Dog /dɔg/
Pin/pin/	Bag /bæg/	Light /lait/	Donkey /dɔŋki/
Cup/kʌp/	Boutique /buiti:k/	Sit /sit/	Daniel /dæniel/
Pap/pæp/	Betty /beti/	Report /r/pɔit/	Domestic /dðmestɪk/
Paul /pɔ:l/	Bought /bɔ:t/	Write /rajt/	Den /den/
Petter/pitð/	Benjamin /bendzæmin/	Tade /tædi/	Duck /dʌk/

### Step II

#### Exercise 5:3

Voiceless /p/

bilabial plosive – 2 lips involved

D paul tap the palm – tree from the top

/pɔ:/ tæp ði: pælm – tri: frɔmði: top/

ii. Peter pour pap in patrick's cup

/pitð pɔ: pæp in pætrɪk's kʌp/

voice bilabial plosive /b/

i. Benjamin bought book for Betty

/bendzðmin bɔ:t buk fɔ: beti:/

ii. Bode bought her bag at the boutique

/Bɔdeɪbɔɪt hðbægətði: bu: ti: k/

voiceless alveolar plosive /t/

i. Titus sits to light the candle

/tʌɪtuz sɪt tu laɪt ði: kandle/

ii. Tick says the clock tick tick what you have to do, do qick

/tik seɪz ði: klɔk, tik, wɔt ju: ðv tu du, du kwɪk/

voiced /d/

- i. Dogs are the most loyal domestic animal  
/dɔgz a:ði: maʊst iɔið dðumestlk ænimðl/
- ii. Donkeys are beast of burden  
/dðŋ klzɑ: bi:stzðy bʒ:dðn/

**STEP III EXERCISE 5:4**

/k/	/g/	/f/	/v/
Come /kʌm/	Goat /gðut/	Fast /fæst/	Van /væn/
Kick /kik/	Go /gð/	Staff //stæf	Save /selv/
Pack /pæk/	Rag /ræg/	Gift /glft/	Serve /sʒ:v/
Mark /mɑ:k/	Mug /mʌg/	Engulf /ingʌlf/	Verse /vʒ:s/
Keep /ki:p/	Targ/taɪget/	Foot /fu:d/	Give /giv/

**/k/ & /g/**

- i. Keep the cat in the cargo  
/kip ði: kæt in ði: kaɪgðu/
- ii. Gather the goats together  
/gæσðði: gðutz tð'ge'cð/
- iii. The rag is on the floor  
/ði: ræg ðnði: flɔ:/

**/f/ & /v/**

- iv. Felix breaks the mug  
/fellx brekz ði: mʌg/
- v. Go and pack the food in the flask  
/gðu ænd pæk ði: fuid in ði: flæsk/
- vi. She served their staff a dinner  
/si: sʒvd seð stæf ð dɪnd/
- vii. He gave a gift of cash  
/hi: gelv el gift ðv kæʃ/

**END OF MODULE THREE: UNIT ONE LESSON**

## START QUIZ

### CLASS ACTIVITY

Choose from the options letter A – D they transcribe represented by the word underlined in each of the following sentences:

- Q1. He doesn't know about the band  
(a) /ba:nd/ (b) /bɒnd/ (c) /bænd/ (d) /bðund/
- Q2. I see, you have a new car player  
(a) /plelə/ (b) /pləuya/ (c) /plæya/ (d) /pləʊə/
- Q3. They couldn't find their way in the dark  
(a) /dæk/ (b) /dɑ:k/ (c) /deðk/ (d) /dʒik/
- Q4. The goats ate everything in the garden  
(a) /gəʊtʒ/ (b) /gəʊtʃ/ (c) /gəʊtlz/ (d) /gəʊts/
- Q5. He was actually caught stealing the mangoes  
(a) /kɒt/ (b) /kɔ:t/ (c) /kæt/ (d) /kɔ:t/
- Q6. The man tap the water from the source.  
(a) /tɑ:p/ (b) /tæp/ (c) /tɒp/ (d) /tɒp/
- Q7. My sister is fifty-five years old  
(a) /fɪvti-faɪv/ (b) /fɪvti - fɪv/ (c) /fɪftɪ - fɪv/ (d) /flvti-faɪf/
- Q8. I have a beautiful flower verse  
(a) /vɒsl/ (b) /vɜ:s/ (c) /væz/ (d) /ves/
- Q9. Kenny gave the bone to the dog  
(a) /bɒn/ (b) /bðn/ (c) /bæn/ (d) /bðun/
- Q10. She left the banana in the fridge  
(a) /frɪdʒ/ (b) /frɪdʒl/ (c) /frɪdʒe/ (d) /frɪʒl/

**END OF QUIZ**

## MODULE THREE: UNIT TWO

**NAME:** AMINA USMAN KUTIGI  
**SUBJECT** ENGLISH LANGUAGE  
**CLASS:** SS II  
**TOPIC:** CONSONANTS CONTINUE  
**DURATION:** 40 MINUTES

**INSTRUCTIONAL MATERIAL – VIDEO TAPE RECORDING ON THE ABOVE VOWEL SOUNDS**

**CONSONANTS CONTINUE [ /s/, /z/, /σ/, /dʒ/, /tʃ/, /ʒ/ ]**

### **Behavioral objectives**

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

1. Identify the above consonants within sentences, be it at the initial, middle or final stage in word or sentences.
2. Construct within and identify the voiced and voiceless consonants.

**Consonant:** /p/ /b/ /t/ /d/ /k/ /g/ /f/ /v/ /θ/ /σ/ /s/ /z/ /tʃ/ /ʒ/

/h/ /tʃ/ /dʒ/ /l/ /r/ /w/ /j/ /m/ /n/ /ŋ/

### **Introduction**

The students have been using often in their day to day conversation e.g

/s/ as in sack

/z/ as in zip

/θ/ as in thank

/tʃ/ as in chin

/dʒ/ as in joy

/ʃ/ as in shine

/ʒ/ as in vision

## Presentation

**Voiceless /VL/ voiced /v/**

### Step 1

#### Exercise 6:1

/s/cvI/	/z/ (v)	/ʃ/ (vi)	/ʒ/ (v)
Cease/si:s/	Visit/vizit/	Cash/kæs/	Measure/meʒe/
Sues/sju:is/	Zeal/zi:l/	Shop/ʃɒp/	Vision/vizen/
Sear/sið/	Zip/zip/	Nation/neiʃən/	Visual/vizuel/
Sip/sip/	Busy/bizi/	Mission/misʃən/	Decision/desizen/
Vice/vaɪs/	Bags/bægz/	Shoes/ʃu:s/	Dimension/dimesnzen/

### Step II

#### Exercises 6:1

- i. He sues people for stealing his shoes  
/hi: sju:s pi:pl fɔ stɪ:li η hiz ʃ uis/
- ii. They are too busy to sip their drink  
/seɪ ɑ: tu: bɪzi tu sip seð drink/
- iii. The lawyer will seal the agreement within all zeal  
/si lɔie wil si:lði:ɑgrl: mðnt wiɔ ɔil zi:l/
- iv. He was on mission to fulfill a vision  
/hi: wɔzɔn misðn tu fulfil el vizðn/
- v. The success of her business is measured by quantity and quality of commodity in her shop  
/si:sæk 'sesðv hð biznid iz mezð bæɪsi: kwɔntiti ænd kwɔliti ðv kðmɔditi in hð sɔp/

#### Step iii Exercise 6:2

/θ/ (vi)	/σ/ (v)	/tʃ/ (vi)	/dʒ/ (v)
----------	---------	-----------	----------

Thank/ <i>θæŋk</i> /	Them/ <i>sem</i> /	Charles/ <i>tʃ:lz</i> /	Judge / <i>dʒʌdʒ</i> /
Think/ <i>θiŋk</i> /	The / <i>ði:/</i> or <i>/ðə/</i>	Rich/ <i>ritʃ</i> /	Joy / <i>dʒɔi</i> /
Strength/ <i>strŋθ</i> /	They / <i>sei</i> /	Watch/ <i>wɔtʃ</i> /	Gem/ <i>dʒem</i> /
Three / <i>θri:/</i>	There/ <i>seð</i> /	March/ <i>mɑ:tʃ</i> /	Large/ <i>lɑ: dʒ</i> /
Thirst. / <i>θɜ:st</i> /	That/ <i>sæt</i> /	Chalk/ <i>tʃɔ:k</i> /	Gin/ <i>dʒɪn</i> /

**Step iv**

**Exercise 6:2**

- i. Charles thanks the judge for job well done.  
/tʃɑ:lz θæŋkz si: dʒʌdʒ fɔi dʒɔb wel dʌn/
- ii. The rich man shared three quarter of his wealth to empower the poor  
/si:ritʃ mæn ʃeðdθri: kwɔ:tθɔv hlz welθ tu impaʊəsi: puə/
- iii. Large number of students were financially strengthen to pay for their exam  
/lɑ: dʒ nʌmbəzðv stju:dnt wɪð finæʃəl strɪŋθən tu pel fɔi seð igzæm /
- iv. Joy badge her first degree in March, 2000  
/dʒɔɪ bædʒ hɜ: fɜ:st diɡri: in mɑ:tʃ, tu:θaʊzənd/

**END OF MODULE THREE: UNIT TWO LESSON**



**START QUIZ**  
**CLASS ACTIVITY**

From the options lettered A-D, choose the word that phonetic sound represented by the phonetic symbol indicated in each case

- Q1. /s/ (a) cure (b) verse (c) shear (d) voice
- Q2. /σ/ (a) teach (b) thirst (c) they (d) tick
- Q3. /z/ (a) course (b) rise (c) force (d) loose
- Q4. /dʒ/ (a) wedge (b) mature (c) ritual (d) marshal
- Q5. /θ/ (a) bash (b) though (c) sheath (d) wreath
- Q6. /ʒ/ (a) sure (b) usual (c) mission (d) censure
- Q7. /ɪ/ (a) Evasion (b) confusion (c) passion (d) beige
- Q8. /tʃ/ (a) gin (b) ridge (c) purge (d) batch
- Q9. /k/ (a) quantity (b) tomb (c) beach (d) cease
- Q10. /ŋ/ (a) think (b) this (c) thin (d) tin

**End of quiz**

### MODULE THREE: UNIT THREE

**NAME:** AMINA USMAN KUTIGI

**SUBJECT** ENGLISH LANGUAGE

**CLASS:** SS II

**TOPIC:** CONSONANT CONTINUE

**DURATION: 40 MINUTES**

**INSTRUCTIONAL MATERIAL – VIDEO TAPE RECORDING ON THE ABOVE VOWEL SOUNDS**

**CONSONANTS CONTINUES** [ /h/, /i/, /r/, /w/, /j/, /m/, /n/, /ŋ/ ]

#### **Behavioural objectives**

The students should be able to:

1. Identify the above consonant within sentences be it at the initial, middle or final stage in word or sentences.
2. Construct with it and identify the voiced and voiceless consonants.

**Consonant:** /p/ /b/ /t/ /dɪ/, /k/ /g/ /f/ /v/ /θ/ /σ/ /s/ /z/ /ʃ/ /ʒ/ /h/ /tʃ/ /dʒ/ /i/  
/r/ /w/ /j/ /m/ /n/ /ŋ/

#### **Introduction**

The students are familiar with the consonant in their day to day conversation for example.

/h/ as in house

/l/ as in laugh

/r/ as in right

/w/ as in wall

/j/ as in you

/m/ as in man

/n/ as in nose

/ŋ/ as in king

## Presentation

### Step 1

#### EXERCISE 7:1

/h/ vL	/l/ v	/r/ v	/w/ v
House /haus/	Lip/Lip/	Rag/ræg/	Wash/w ʃ /
Behold/bihðuld /	Play/plei/	Pray/prei/	Woo/wu:/
Hat/hæt/	Little/Litl/	Bread/bred/	Away/ðwel/
Rehearse/rihʒ:s/	Blade/bleld/	Room/ruim/	Swell/swel/
How/haʊ/	Flesh/fleʃ /	Break/brelk/	Swim/swim/

### Step II Exercise 7:2

- i. The artists rehearsed the play before the final recording takes place  
/ si: a; tistzrihʒsdɔi: plei blf ɔ: si: finðl rikɔ:dl η telkz plels vv/
- ii. The man woos the girl to be his wife  
/ si:mæn wuiz si: gʒ:l tub l hiz wəiv/
- iii. She kept the rag on the floor of the house  
/ ʃi: kept si: ræg on σð flɔ: ðvsi: haʊs /
- iv. Behold, the little girl has a room of her own  
/ bihðuld, si: litl gʒ:l haz a ru:m əv hɑ: əʊn/
- v. The students was away during break to go and eats bread and tea.  
/ si:stju:dəntz wðz ðwel djuðrin breðk tu gðuðend iitz bred ðen ti:/

### Step III Exercise 7:3

lj/v	/m/	/ŋ/	/ŋ/
argue/ðiɡu:/	man/mðen	nose/nðuz/	bang/bðeŋ/
Stew/Stju:/	bomb/bom	knok/nσk/	king/kiŋ/
you/ju:/	comb/kðum/	train/trein/	anger/ðenð/
Use/ju:z	mark/mð: k/	dinner/dinð/	hunger/hʌŋð/

View /vju:/'

meal /mi:/'

nine /nain/'

strong /strɒŋ/'

#### Step IV Exercise 7:4

- i. The man argues on the truths.  
/σ/: mænðigju: zɒnsi: truð/
- ii. Rice and stew is the best meal for dinner  
/rðlsðendstju: is si: best mi:l fɔ: dinð/
- iii. Did you comb your hair today?  
/did ju: kðum jɔ: heðtudel?/'
- iv. We are able to have a wonderful view of the ocean as we cross over river Niger with train.  
/wi: ð: elbl tuhðevðwλndðflvju: ðvσððuʃnðz wii krosðuvðrivðwλσ trein/'
- v. He banged the door with anger.  
/hi: bændσð dɔ: wλσðeŋð/'
- vi. The king used wine to mark his 10<sup>th</sup> enthronement anniversary  
/si:klŋjust wain tu maɪn hlz tenti i ŋθrðnt ænlvðisðrl/'

**END OF MODULE THREE: UNIT THREE LESSON**

**START QUIZ**  
**CLASS ACTIVITY**

From the options lettered A-D below, choose the word that contains the same consonant sounds with the highlighted word from the sentences.

- Q1. The wedding reception will take place in the hall  
(a) /ɔ:l/ (b) /hσl/ (c) /hɔ:l/ (d) /hσll/
- Q2. She looks straight into my eyes without blinking for the minutes  
(a) /bli η k η / (b) /bll η ki η / (c) /bl η k η / (d) /bllnk η /
- Q3. Make sure that you knock at the door, wait for response before you open it.  
(a) /knσk/ (b) /knok/ (c) /knɔk/ (d) /nσk/
- Q4. Sing to the glory of God  
(a) /si η / (b) /s η / (c) /sing/ (d) /sin η /
- Q5. Help me to weave my hear  
(a) /wiv/(b) /wi:v/ (c) /wIf/ (d) /wl:v/
- Q6. The terrorist bombed the camp of their opponent a day before election  
(a) /bombd/ (b) /bomet/ (c) /bomd/ (d) /bomt/
- Q7. You dare not call me  
(a) /ju:/ (b) /yu/ (c) /jyu:/ (d) /yu:/
- Q8. Rock of ages, cleft for me  
(a) /rσk/ (b) /rɔik/ (c) /rθuk/ (d) /rλk/
- Q9. My father is a sailor  
(a) /sellσ/ (b) /sellɔi/ (c) /seilθ/ (d) /sajlor/
- Q10. When will you pay us a visit?  
(a) When (b) /wen/ (c) /wλn/ (d) /wσn/

**END OF QUIZ**



**MODULE THREE: UNIT FOUR**

**NAME: AMINA USMAN KUTIGI**

**SUBJECT ENGLISH LANGUAGE**

**CLASS: SS II**

**TOPIC: CONSONANT CLUSTER**

**DURATION: 40 MINUTES**

**INSTRUCTIONAL MATERIAL – VIDEO TAPE RECORDING ON THE ABOVE CONSONANT CLUSTER**

**CONSONANT CLUSTER (SEQUENCES OF TWO INITIALS)**

**BEHAVIOURAL OBJECTIVE**

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

1. Pronounce words with sequence of two initials correctly without dropping any of the consonants or inserting any vowel between cluster.
2. Identify it within sentences and construct simple sentences with it.

**Consonant:** /p/ /b/ /t/ /d/ /k/ /g/ /f/ /v/ /θ/ /σ/ /s/ /z/ /ʃ/ /ʒ/ /h/ /tʃ/ /dʒ/ /i/ /r/ /w/ /j/ /m/ /n/ /ŋ/

**Introduction**

In the group of sentences the end consonants is firm mostly often, while the first one is being pronounced, for example in /pr/ or /pl/ the tongue is a place in position of /r/ and /l/ while the lips are still close for /p/ sound so that as soon as they are open the /r/ or /l/ is heard. Students should understand that

m ..... is a nasal bilabial

n ..... is alveolar

ŋ ..... velar

w ..... semi – vowel bilabial

r ..... Alveolar

j ..... Without friction

## **PRESENTATION**

### **STEP I**

Teacher explains that when consonant /s/ is followed by the following by the following /p, t, k, f, m, n, l, w, j,/ as in sleep/sli:p/, sphere /sflð/, spy /spaj/, swear /sweð/, stay /stei/, small /smɔi/. the second consonant is more voiced than the first.

### **Exercise 8:1**

- i. The man sleeps on the bed  
/si: mæn sli:pzɒn si: bed/
- ii. She stays up stairs  
/ʃi: steiz ʌp steðz/
- iii. The woman swears with her bible  
/si: wʊmðwiθ hɜ biəbl/

### **STEP II**

She further explains that some consonants such as /p, t, k, b, g, f, θ, ʃ, v, m, n, h/ can be followed by one or two of the following /l, r, w, j/ but do not take or go with /w/ and /j/ but /p/ sound can be followed by /l, r and j/ as follows.

### **EXERCISE 8:2**

- (a) /p/ can be followed by /l, r and j/ as in play /plei/, pray/prei/, pure/pju:ð/, puzzle/pʌzI/
- (b) It can be followed by /r, w, j/ as in tree /tri:/ twice/twðis/, tune/tju:n/
- (c) /k/ can be followed by /l, r, w, j/ as in cream /kri:m/ Clean /kli:n/cue/kju:/ quite/kwðit/
- (d) /sw/ lips become rounded at production. The lower lip moves up to join the upper teeth for /f/  
/sm/ the /s/ continues until lips meet for /m/

### **STEP III**

### **EXERCISE 8:3**

The teacher constructs sentences with few consonant clusters

- (i) Give me one sachet of pure water  
/Giv mi wʌn sætʃet ðv pju:ð wɔ:tə/

(ii) My lessons are twice a week

*/mði lesnz θ: twθis ei wi:k/*

(iii) Go and sweep the class

*/gðuænd swi:pɔi: klðes/*

(iv) The small girl cream her body by herself

*/ ɔi:smj:l gɜ:l kri:m hθ bθdi: bθi hθself*

(v) She left the class quietly

*/ʃi: levt ɔi: klðskwaiθtli/*

**START QUIZ**  
**CLASS ACTIVITY**

From the words lettered A-D, Chose the word which has the same initial clusters as the one represented by the words given.

(Q1) Twin

- (a) swims      (b) sweet      (c) twelve      (d) trip

(Q2) Phrase

- (a) Phase      (b) flame      (c) frame      (d) flee

(Q3) Shark

- (a) Hew      (b) hunter      (c) horse      (d) shame

(Q4) Skill

- (a) Sceptical      (b) scent      (c) schism      (d) scene

(Q5) Smash

- (a) smell      (b) scheme      (c) slash      (d) span

(Q6) Stew

- (a) span      (b) smite      (c) student      (d) stand

(Q7) Skull

- (a) scam      (b) psychology      (c) scream      (d) sink

(Q8) Bridge

- (a) wage      (b) brag      (c) joy      (d) grade

(Q9) Whole

- (a) heir      (b) whore      (c) whome      (d) house

(Q10) Gnaw

- (a) thing      (b) Damn      (c) Bang      (d) Gnat



### MODULE THREE UNIT FIVE:-

**NAME:** AMINA USMAN KUTIGI

**SUBJECT** ENGLISH LANGUAGE

**CLASS:** SS II

**TOPIC:** CLUSTERS OF THREE CONSONANTS OR SEQUENCE OF THREE INITIALS

**DURATION:** 40 MINUTES

**INSTRUCTIONAL MATERIAL – VIDEO TAPE RECORDING ON THE ABOVE VOWEL SOUNDS**

**CLUSTERS OF THREE CONSONANTS OR SEQUENCE OF THREE INITIALS**

**BEHAVIOURAL OBJECTIVES**

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

1. Pronounce the consonants as it is written without dropping any of the letters or inserting any vowel between the clusters
2. Identify and construct sentences with the clusters without any difficulty.

#### **INTRODUCTION**

The students are familiar with words of three consonants clusters and they use it unconsciously in their day to day conversation and writing e.g spread/spred/=cccvc

#### **PRESENTATION**

##### **STEP I:**

#### **EXERCISE 9:1**

The teacher explain to the students that these are words of three consonants initials. They form at initial stage of pronunciation such as [spr], [spi], [skj], [skr], [str], [stj] and [skw]. E.g spread /spred/ = [cccvc], straight/streit/= [cccvc], stupid/stju:pid/= [cccvc], square/skweð/= [cccvc], screw/skrui/= [cccvc]

C = consonant, v = vowels

#### **EXERCISE 9:2**

Clusters at the initial position

- i. She spread tentacles to places of influence  
/ʃi: spred hð tɒntæklztu pleisiz ðv influens/

- ii. It is straight road that leads to heaven  
/it iz a streit rθudσðet liidz tu hʒ:vn/
- iii. The mechanic un-screw the knot of the boot  
/si:mekðenikðn – skru: si: nσtðvσε bu:t/

## STEP II

### EXERCISE 9:3

#### Clusters at the middle position

- i. Redcoat/redkðut/
- ii. Blackberry/blækberi/
- iii. Bad cold/bædkðuld/
- iv. Zig-zag/zig-zæg/
- v. Pop-corn/pσp – kɔin/
- vi. Jig – saw puzzle/jig-zɔ:pʌʒl/

### EXERCISE 9:4

- i. My mother bought a redcoat for me  
/mði mʌσð bɔ:t ei red – kðut fɔ: mi/
- ii. The baby had a bad cold  
/si: beib hðeeibðedkðuld/
- iii. The head-teacher had a blackberry hand set  
/si hed-ti:tʃðhðez ei blðekberihðend – set/
- iv. Jig-zaw puzzle is an educative game  
/jig-zɔ: pʌʒle iz ðn edju:ketiv geim/

## STEP III

The teacher explains that it could also occur at the final position e.g it is more frequent to have it at the final position than initial position. e.g plural “s” or “z” use to come at the final position.

### EXERCISE 9:5

#### Clusters at the final position

Cats/kæts/, dogs /dσgz/, facts/ fæktz/, fields/fi:ilz/

/t/ or /d/ used to be added at the final position e.g past tense

- i. twisted/twisted/
- ii. raised/reizd/
- iii. risk/riskt/
- iv. plunged/plʌdʒd/

v. asked/askt/

**EXERCISE 9:6**

- i. She twisted his hand  
/ʃi: twisted hiz hænd/
- ii. He asked me of my name  
/hi: əeskt mi ðv mai neim/
- iii. The news of his father's raised his blood pressure  
/si:nju:z ðv hiz fæθə'z dʒ; σ reizd his blʌd preʒð/

**END OF MODULE THREE UNIT FIVE LESSON**

**START QUIZ**  
**CLASS ACTIVITY**

From the words lettered A-D choose the word that has the same consonant clusters with one given.

(Q1) Tempt

(a) bombed    (b) jumped    (c) exempts    (d) point

(Q2) Kept

(a) Rest    (b) Spent    (c) Shift    (d) Stopped

(Q3) Jumped

(a) Prompt    (b) wept    (c) Accept    (d) Cramp

(Q4) Throng

(a) True    (b) Through    (c) Though    (d) Thought

(Q5) Srabble

(a) School    (b) scurvy    (c) cycle    (d) Scrutiny

(Q6) Stupid

(a) Spell    (b) Street    (c) Stew    (d) Strip

(Q7) Facts

(a) Asked    (b) Apt    (c) Lacks    (d) Laps

(Q8) Mixed

(a) Lets    (b) Tasked    (c) Based    (d) Pets

(Q9) Middle

(a) buckle    (b) wheel    (c) little    (d) feel

(Q10) Screw

(a) Scraps    (b) Stray    (c) Street    (d) Spray

**END OF QUIZ**



## MODULE THREE: UNIT SIX

### LESSON PLAN FOR EXPERIMENTAL GROUP

**NAME:** AMINA USMAN KUTIGI  
**SUBJECT** ENGLISH LANGUAGE  
**CLASS:** SS II  
**TOPIC:** CONSONANTS CLUSTERS OF FOUR CONSONANTS  
**DURATION:** 40 MINUTES

**INSTRUCTIONAL MATERIAL – VIDEO TAPE RECORDING ON THE ABOVE VOWEL SOUNDS**

**CONSONANT CLUSTERS OF FOUR CONSONANTS**

**BEHAVIOURAL OBJECTIVES**

At the end of the lesson students should be able to

1. Recognize such clusters where ever the occur and also recognize silent letters that should not be pronounced.
2. Pronounce them correctly without inserting a vowel between the clusters.

**Consonant:** /p/ /b/ /t/ /d/ /k/ /g/ /f/ /v/ /θ/ /σ/ /s/ /z/ /ʃ/ /ʒ/ /h/ /tʃ/ /dʒ/ /i/ /r/ /w/ /j/ /m/  
/n/ /ŋ/

**Introduction**

The students have learnt clusters of two and three consonants and they are recognized within sentences or wherever they are found used.

**STEP I Presentation**

Below are the example of consonants that occurred at the initial, middle, and final positions but they are silent, not pronounced for consonants clusters.

**Exercise 10:1**

(H) our(H)onest

(k) now (k) nit

(G) nat (G) nash

Bom(b) Lam(b)

Cas(t) lesub(t)le

Lis(t)en (w)res(t)le

Si(g)n yo(l)k

of(t)en em(p)ty

to be able to use the given words correctly like the native speaker the silent letters must be strictly adhered to during production.

### Step II exercise 10:2

Another important thing that is common to clusters are the following inflection endings, which normally take the plural marker by adding the suffix 's' to the regular noun, the plural marker may be letter pronounced as (-s), (-z) or (-iz) e.g. example /ɪgzemptz/, /glimpsed/glɪmpst/. Other similar point is past-tense marker. The past-tense from the regular verb is derived by adding "ed" to the verb. There are three forms recognized they are (-d), (-t) or (-id) e.g. talked /tɔlkt/, waited/weɪtɪd/ loved/lʌvd/, faded/feldɪd/

### STEP III EXERCISE 10:3

The teacher now explains to them by illustrating with the following examples.

Tempts /temptz/ cvccccc

Sixs /sɪksθs/ cvccccc

Prompts/prɒmptz/ ccvccccc

Glimpsed/glɪmpst/ ccvccccc

Texts /tekstz/ cvccccc

Sculpts/skʌlptz/ ccvccccc

- i. His position as a banker tempts him to fraud.  
/hɪz pəʊzɪʃn̩ ðz eɪ bæŋkə təmptz hɪm tu frɔ:d/
- ii. She took the sixth position in the promotion examination  
/ʃi: tuk sɪ: sɪksθ pəʊzɪʃn̩ ɪn sɪ: prɒmɔ:ʃn̩ ɪgzæm/
- iii. My uncle texts a message of congratulations to me.  
/mɪ ʌŋkl̩ tekstz eɪ məsɪdʒ əv kɒŋgrætʃuleɪʃnz tu mi/

### Step iv

The teacher further explains to them of what to note before adding the plural marker and past tense marker.

### EXERCISE 10:4

Add (-s) if the sound preceding the plural element is any of these /p, t, f, θ/ as in cups /kʌps/, pots/ pɒts/ breaths/ breθs/ etc.

Add (-z) if the sound preceding the plural element is a vowel or any of the voiced consonants as follow: /b, dm g, v, ŋ, m, n, σ/ as in dogs /dogz/, bells /belz/ /combs/ comz/ etc.

Add (lz) if the sounding proceeding the plural element is any of the consonants /s, z, ʃ, tʃ, dʒ/ as in hisses/hisiz/, churches/ tʃəʃtʃlz/ etc.

Add (-d) if the sound preceding the past tense marker is a vowel or a voiced consonants as in “agreed/agri:d/ or begged/begd/.

Add (-t) if the sound proceeding past tense marker is a voiceless consonants as in passed /pəst/, picked /plkt/

Add (-ld) if the consonant before the past marker is either /t/ or /d/ as in lifted /lɪftld/, mended /mendld/

**END OF MODULE THREE UNIT SIX LESSON**

## START QUIZ

### CLASS ACTIVITY

Choose from option A-D the one that correctly have the same consonant cluster structure with the word given.

- Q1. Twelfths (a) ccvccv (b) ccvccvcc (c) ccvccccc (d) ccvccccc
- Q2. Faction (a) cvccc (b) ccvcc (c) cvcc (d) vccc
- Q3. Shrink (a) cccvcc (b) ccvcc (c) cvccc (d) cccvcc
- Q4. Thanks (a) ccvccc (b) cvccc (c) ccvccv (d) ccvccv
- Q5. Symbol (a) ccvccc (b) cccvc (c) cvccc (d) cccvcc
- Q6. Sculpt (a) ccvccvcc (b) vccvccvcc (c) cccvccc (d) ccvccccc
- Q7. Pinched (a) cvcccv (b) cvccc (c) cvccvc (d) cvccccc
- Q8. Strong (a) cccvc (b) cccvcc (c) ccvccc (d) cccvccc
- Q9. Flame (a) ccvcc (b) cccvcc (c) ccvccc (d) ccvc
- Q10. Texts (a) cvccccc (b) cvccc (c) cvccvcc (d) cvccccc

## APPENDIX B

### MARKING SCHEME FOR ORAL-ENGLISH ACHIEVEMENT TEST

#### SECTION ONE

From the words lettered A to D, choose the word that has the same vowel sound as the one represented by the letters underlined

1. Fussy  
A. buffalo    B. burn    C. could    D. Bout
2. guard  
A. Slack    B. gourd    C. father    D. haven
3. Ship  
A. peep    B. feast    C. wine    D. brick
4. Purpose  
A. kernel    B. pun    C. mustache    D. sage
5. Flee  
A. Sway    B. creative    C. breaches    D. dread
6. Lad  
A. palm    B. format    C. Squat    D. wonder
7. Troupe  
A. cook    B. paw    C. push    D. who
8. Afford  
A. earn    B. fern    C. lead    D. matter
9. Dent  
A. leopard    B. germ    C. legal    D. she
10. Spot  
A. court    B. probe    C. nod    D. snort
11. Over  
A. brush    B. Burn    C. lock    D. load
12. Brow  
A. slush    B. know    C. now    D. show
13. Tray  
A. straw    B. tyre    C. sleigh    D. fear
14. Heir  
A. pee    B. liar    C. dire    D. chair
15. Spear  
A. feat    B. heat    C. weird    D. where

## SECTION TWO

From the words lettered A to D, choose the word that has the same consonant sounds as the one represented by the letters underlined

16. Sober

- A. climb      B. plumber      C. Iumber      D. lamb

17. mate

- A. funny      B. comb      C. Knew      D. bran

18. chaos

- A. chiffon      B. match      C. Clinic      D. smash

19. note

- A. design      B. Song      C. solemn      D. bring

20. dose

- A. debris      B. goes      C. goose      D. lose

21. days

- A. freeze      B. island      C. face      D. thanks

22. cheat

- A. joggle      B. sober      C. sachet      D. culture

23. insure

- A. pleasure      B. cheap      C. vision      D. ocean

24. mixed

- A. pumped      B. thronged      C. climbed      D. sponged

25. gear

- A. gesture      B. germ      C. ghetto      D. neighbour

26. drink

- A. Sting      B. dent C. snag      D. singe

27. axe

- A. Sacks      B. slumped      C. school      D. bask

28. whole

- A. Whale      B. hour      C. hide      D. heir

29. grip

- A. Cart      B. fearing      C. burnt      D. courting

30. thrive

- A. wreathe      B. thus C. though      D. tooth

### SECTION THREE

From the words lettered A to D, choose the word that contains the sound represented by the given phonetic symbol.

31. / i /  
A. dream    B. seize    C. fee    D. funny
32. / ə /  
A. coral    B. draft    C. then    D. spleen
33. / ʊ /  
A. cook    B. dew    C. blunt    D. bloom
34. / ʌ /  
A. council    B. fulfil    C. plung    D. wiles
35. / i: /  
A. early    B. pile    C. putrid    D. cleave
36. / f /  
A. measure    B. huge    C. pressure    D. church
37. / I /  
A. helm    B. calm    C. palm    D. alms
38. / s /  
A. Purse    B. bees    C. whose    D. ways
39. / dʒ /  
A. gauge    B. match    C. gear    D. wag
40. / ʒ /  
A. them    B. smooth    C. method    D. bath

### ANSWERS

1. A    2. C    3. D    4. A    5. C    6. B    7. D    8. D    9. A    10. C  
41. D    12. C    13. C    14. D    15. C    16. C    17. B    18. C    19. A    20. A  
21. A    22. D    23. D    24. A    25. C    26. A    27. A    28. C    29. B    30. D  
31. D    32. A    33. A    34. C    35. D    36. C    37. D    38. A    39. A    40. B



The independent variable of this study is: Jigsaw Cooperative learning Strategy and Traditional Method of Teaching. The dependent variable is post-test performance scores of students in the two groups, while the moderating variables are gender, age and school location. Six secondary schools (two will be urban schools another two schools will be under semi-urban while the last two schools will be in the rural area.

All the two groups (Experimental and the Control groups) will be intact classes in the secondary schools selected for the study by simple random sampling. Experimental groups shall be three schools which are one each from the urban, semi-urban and rural government secondary schools. These schools are: Ahmadu Bahago Secondary School, Minna, Government Day Secondary School, Maitumbi- Minna and Abdullahi Dada Government Secondary School, Maikunkele respectively while the control groups will be one each from the urban, semi-urban and rural government secondary schools namely Father O' Connel Science College, Minn; Bosso Secondary School, Bosso and Government Science Secondary School Chanchaga, Chanchaga respectively. The students in the experimental groups will be taught the concept of electrolysis in chemistry using cooperative instructional strategy while the control groups on the other hand will be taught the same concept using conventional strategy. Before treatment commences, both groups will be pretested to determine the entry behavior of the students. The design layout is as shown in table 3.1.

**Table 3.1 Research Groups Treatment Layout (Design)**

Group	Pretest	Treatment	Posttest
Experimental	O <sub>1</sub>	X <sub>1</sub>	O <sub>2</sub>
Control	O <sub>3</sub>	-	O <sub>4</sub>

**Key:**

O<sub>1</sub> = Experimental group pretest

O<sub>2</sub> = Experimental group posttest

O<sub>3</sub> = Control group pretest

O<sub>4</sub> = Control group posttest

X<sub>1</sub> = Treatment for Experimental and Control groups

**APPENDIX C**

**EXPERTS VALIDATION REPORTS  
ENGLISH LANGUAGE EXPERTS VALIDATION REPORTS**

### CONTENT EXPERT VALIDATION REPORT

Dear Sir/Ma,

I, Amina Usman Kutigi, a PhD student in the Department of Education Foundations and Curriculum, Ahmadu Bello University Zaria, do hereby humbly request your assistance in validating this research instrument. I have designed a flipped classroom instruction for teaching Oral English at Senior Secondary Schools in Niger State, Nigeria. The validation of this Oral English contents is to ascertain its suitability for classroom instructional standard. Your constructive criticism will be appreciated. Thank you.

Please, comment on the following:

1. Appropriateness of the content for teaching the chose topics: The Content is appropriate for the topics chosen.
2. Clarity and simplicity of the Oral English contents: the content is very clear and simple for the learner
3. Suitability of the instrument for Senior Secondary School Students: It is very suitable.
4. The extent to which the contents cover the topics they are meant to cover: The Content apply covers the required topics
5. Possible errors in the suggested answers: None
6. The structuring of the Questions: properly structured
7. Others (Sentence errors, spelling mistakes and misrepresentation of some symbols in the contents): Very few and have been taken into consideration

#### Suggestions for improving on the Content

1. Satisfactory Content
2. \_\_\_\_\_

Name of the Expert: Dr Annis Tafio Area of Specialization: Language Educator

Rank: Senior Lecturer Institution/ Establishment: Federal University of Technology, Minna

Signature: Affide Date: 18th Dec 2017

Thank you for validating this instrument

### CONTENT EXPERT VALIDATION REPORT

Dear Sir/Ma,

I, Amina Usman Kutigi, a PhD student in the Department of Education Foundations and Curriculum, Ahmadu Bello University Zaria, do hereby humbly request your assistance in validating this research instrument. I have designed a flipped classroom instruction for teaching Oral English at Senior Secondary Schools in Niger State, Nigeria. The validation of this Oral English contents is to ascertain its suitability for classroom instructional standard. Your constructive criticism will be appreciated. Thank you.

Please, comment on the following:

1. Appropriateness of the content for teaching the chose topics: The Content is appropriate for the topics chosen.
2. Clarity and simplicity of the Oral English contents: The content is very clear and simple for the learner
3. Suitability of the instrument for Senior Secondary School Students: It is very suitable
4. The extent to which the contents cover the topics they are meant to cover: The Content apply covers the required topics
5. Possible errors in the suggested answers: Nil
6. The structuring of the Questions: properly structured
7. Others (Sentence errors, spelling mistakes and misrepresentation of some symbols in the contents): Very few and have been taken into consideration

#### Suggestions for improving on the Content

1. Satisfactory Content
2. \_\_\_\_\_

Name of the Expert: Dr Amina Tafida Area of Specialization: Language Education

Rank: Senior Lecturer Institution/ Establishment: Federal University of Technology, Minna

Signature: A Tafida Date: 12th Dec. 2017

Thank you for validating this instrument



### CONTENT EXPERT VALIDATION REPORT

Dear Sir/Ma,

I, Amina Usman Kutigi, a PhD student in the Department of Education Foundations and Curriculum, Ahmadu Bello University Zaria, do hereby humbly request your assistance in validating this research instrument. I have designed a flipped classroom instruction for teaching Oral English at Senior Secondary Schools in Niger State, Nigeria. The validation of this Oral English contents is to ascertain its suitability for classroom instructional standard. Your constructive criticism will be appreciated. Thank you.

Please, comment on the following:

1. Appropriateness of the content for teaching the chose topics: *The content is appropriate.*
2. Clarity and simplicity of the Oral English contents: *The contents are clear and not beyond SS Three students*
3. Suitability of the instrument for Senior Secondary School Students: *Suitable, similar to what they should expect in the WAEC examination.*
4. The extent to which the contents cover the topics they are meant to cover: *The materials cover the topics to a reasonable extent.*
5. Possible errors in the suggested answers: .....
6. The structuring of the Questions: *The questions should be varied - choice, fill in the gap, transcription, etc.*
7. Others (Sentence errors, spelling mistakes and misrepresentation of some symbols in the contents): *Construction instead of "Obstruction"; give instead of 'quack', etc. Go through your exemplar again and make some amendments.*

Suggestions for improving on the Content

1. *Put varieties into your assignments*
2. *Check your exemplar and transcriptions, e.g. rich/nitl; bought/boist, etc.*

Name of the Expert *Prof. K. O. Sultin* Area of Specialization: *English*

Rank: *Professor* Institution/ Establishment: *Fed. Uni. of Technology Minna*

Signature: *[Signature]* Date: *07/12/2017*

Thank you for validating this instrument



### CONTENT EXPERT VALIDATION REPORT

Dear Sir/Ma,

I, Amina Usman Kutigi, a PhD student in the Department of Education Foundations and Curriculum, Ahmadu Bello University Zaria, do hereby humbly request your assistance in validating this research instrument. I have designed a flipped classroom instruction for teaching Oral English at Senior Secondary School in Niger State, Nigeria. The validation of this Oral English Contents is to ascertain its suitability for classroom instructional standard. Your constructive criticism will be appreciated. Thank you.

Please, comment on the following:

1. Appropriateness of content for teaching the chose topics: *The chosen topic is very appropriate*
2. Clarity and simplicity of the Woodwork content: .....
3. Suitability for the level of NCE II students: *Very much suitable*
4. The extent to which the contents cover the topics they are meant to cover. *Very much appropriate to the class mentioned.*
5. Possible errors in suggested answers: *None*
6. The structuring of the Questions: *The structure of the questions in line with the class meant for.*
7. Others (some sentence errors, spelling mistakes and misrepresentation of some symbols in the contents): *Only typographic errors. Rather than that the spelling & construction in order.*

Suggestions for improving on the Content

1. *Content & structure in line with the chosen class & most appropriate.*
2. ....

Name of the Specialists: *A. Babalola* Area of Specialization: *B.A (Ed) English*

Rank: *ACEO* Institution/ Establishment: *ABCS, MK*

Signature: *Amina* Date: *5th August, 2017*

Thank you for validating this instrument

## CONTENT EXPERT VALIDATION REPORT

Dear Sir/Ma,

I, Amina Usman Kutigi, a PhD student in the Department of Education Foundations and Curriculum, Ahmadu Bello University Zaria, do hereby humbly request your assistance in validating this research instrument. I have designed a flipped classroom instruction for teaching Oral English at Senior Secondary Schools in Niger State, Nigeria. The validation of this Oral English contents is to ascertain its suitability for classroom instructional standard. Your constructive criticism will be appreciated. Thank you.

Please, comment on the following:

1. Appropriateness of the content for teaching the chose topics: *Contents are appropriate*
2. Clarity and simplicity of the Oral English contents: *Okay except for some vowel symbols that have to be corrected.*
3. Suitability of the instrument for Senior Secondary School Students: *Suitable*
4. The extent to which the contents cover the topics they are meant to cover: *Contents are well covered*
5. Possible errors in the suggested answers: *I did not find one*
6. The structuring of the Questions: *Well structured*
7. Others (Sentence errors, spelling mistakes and misrepresentation of some symbols in the contents): *Check the presentation of symbols representing some vowels and yaws. Also articulation of some sounds eg Nos 11 and 12.*

### Suggestions for improving on the Content

1. *Check the vowel symbols again and*
2. *in places where they are used in diphthongs, etc*

Name of the Expert: *Dr. Chib-Okoli, FC* Area of Specialization: *TESOL*

Rank: *Senior Lecturer* Institution/ Establishment: *FUT Minna*

Signature: *[Handwritten Signature]* Date: *17/12/17*

Thank you for validating this instrument

## CONTENT EXPERT VALIDATION REPORT

Dear Sir/Ma,

I, Amina Usman Kutigi, a PhD student in the Department of Education Foundations and Curriculum, Ahmadu Bello University Zaria, do hereby humbly request your assistance in validating this research instrument. I have designed a flipped classroom instruction for teaching Oral English at Senior Secondary School in Niger State, Nigeria. The validation of this Oral English Contents is to ascertain its suitability for classroom instructional standard. Your constructive criticism will be appreciated. Thank you.

Please, comment on the following:

1. Appropriateness of content for teaching the chose topics: *The content is adequately in line with the chosen topics.*
2. Clarity and simplicity of the Woodwork content: .....
3. Suitability for the level of NCE II students: *Very suitable*
4. The extent to which the contents cover the topics they are meant to cover: *The contents dealt with reasonable aspects of the topics*
5. Possible errors in suggested answers: *They are error-free*
6. The structuring of the Questions: *The questions are appropriate*
7. Others (some sentence errors, spelling mistakes and misrepresentation of some symbols in the contents): *The typographical errors are minimal*

### Suggestions for improving on the Content

1. *The contents and the topics are very effective*
2. *Tests for Senior Secondary and tertiary institution*

Name of the Specialist: *S. A. Ballo* Area of Specialization: *B. Ed Language Arts*

Rank: *Deputy Director* Institution/ Establishment: *N. S. S. E. B. MA*

Signature: *Ballo* Date: *5th August, 2017*

Thank you for validating this instrument



## CONTENT EXPERT VALIDATION REPORT

Dear Sir/Ma,

I, Amina Usman Kutigi, a PhD student in the Department of Education Foundations and Curriculum, Ahmadu Bello University Zaria, do hereby humbly request your assistance in validating this research instrument. I have designed a flipped classroom instruction for teaching Oral English at Senior Secondary School in Niger State, Nigeria. The validation of this Oral English Contents is to ascertain its suitability for classroom instructional standard. Your constructive criticism will be appreciated. Thank you.

Please, comment on the following:

1. Appropriateness of content for teaching the chose topics: *Quite appropriate for the topic.*
2. Clarity and simplicity of the Woodwork content: *Woodwork content is simple and clear.*
3. Suitability for the level of NCE II students: *Very suitable for NCE II level.*
4. The extent to which the contents cover the topics they are meant to cover: *The topics were fully covered.*
5. Possible errors in suggested answers: *Not applicable.*
6. The structuring of the Questions: *Questions were unambiguous, clear and easily comprehensible.*
7. Others (some sentence errors, spelling mistakes and misrepresentation of some symbols in the contents): *None was noticed.*

### Suggestions for Improving on the Content

1. *There is need for a wider coverage.*
2. ....

Name of the Specialists: *Dr. Ahmad* Area of Specialization: *English*  
Rank: *Lecturer 1* Institution/ Establishment: *AT Minna*  
Signature: *[Signature]* Date: *10-07-2017*

Thank you for validating this instrument



### CONTENT EXPERT VALIDATION REPORT

Dear Sir/Ma,

I, Amina Usman Kutigi, a PhD student in the Department of Education Foundations and Curriculum, Ahmadu Bello University Zaria, do hereby humbly request your assistance in validating this research instrument. I have designed a flipped classroom instruction for teaching Oral English at Senior Secondary School in Niger State, Nigeria. The validation of this Oral English Contents is to ascertain its suitability for classroom instructional standard. Your constructive criticism will be appreciated. Thank you.

Please, comment on the following:

1. Appropriateness of content for teaching the chosen topics: *Very good*
2. Clarity and simplicity of the Woodwork content: *Good*
3. Suitability for the level of NCE II students: *Satisfactory*
4. The extent to which the contents cover the topics they are meant to cover: *Very good*
5. Possible errors in suggested answers: *See pg. 2*
6. The structuring of the Questions: *Done in a clear and straightforward manner*
7. Others (some sentence errors, spelling mistakes and misrepresentation of some symbols in the contents): *See feet - occasionally drops the article "a" in sentences - take note*

#### Suggestions for improving on the Content

1. *Overall the content is clear and to the point. Might need to make heading to the home assignments clearer.*
2. *Overall the content is clear and to the point. Might need to make heading to the home assignments clearer.*

Name of the Specialist: *Dr. Halima Shehu* Area of Specialization: *English*

Rank: *Senior Lecturer* Institution/ Establishment: *Fad'Ala of Fed, Minna*

Signature: *H Shehu* Date: *18/10/2017*

Thank you for validating this instrument



## CONTENT EXPERT VALIDATION REPORT

Dear Sir/Ma,

I, Amina Usman Kutigi, a PhD student in the Department of Education: Foundations and Curriculum, Ahmadu Bello University Zaria, do hereby humbly request your assistance in validating this research instrument. I have designed a flipped classroom instruction for teaching Oral English at Senior Secondary School in Niger State, Nigeria. The validation of this Oral English Contents is to ascertain its suitability for classroom instructional standard. Your constructive criticism will be appreciated. Thank you.

Please, comment on the following:

1. Appropriateness of content for teaching the chose topics: *The topics are appropriate for the Chosen title.*
2. Clarity and simplicity of the Woodwork content: *The Content is Simple and Clear.*
3. Suitability for the level of NCE II students: *The Content is suitable for the intended level.*
4. The extent to which the contents cover the topics they are meant to cover: *The topics are true reflection of the Content.*
5. Possible errors in suggested answers: *The errors have been corrected accordingly.*
6. The structuring of the Questions: *appropriate.*
7. Others (some sentence errors, spelling mistakes and misrepresentation of some symbols in the contents): *They have all been corrected.*

Suggestions for improving on the Content

1. *Words or Sentences given as examples should be based on the specific topic being taught.*

Name of the Specialist: *Dr. Amina S. Tafida* Area of Specialization: *English Education*  
Rank: *Senior Lecturer* Institut on/ Establishment: *Federal University of Tech Minna*  
Signature: *Afida* Date: *10<sup>th</sup> July, 2017*

Thank you for validating this instrument

### CONTENT EXPERT VALIDATION REPORT

Dear Sir/Ma,

I, Amina Usman Kutigi, a PhD student in the Department of Education Foundations and Curriculum, Ahmadu Bello University Zaria, do hereby humbly request your assistance in validating this research instrument. I have designed a flipped classroom instruction for teaching Oral English at Senior Secondary School in Niger State, Nigeria. The validation of this Oral English Contents is to ascertain its suitability for classroom instructional standard. Your constructive criticism will be appreciated. Thank you.

Please, comment on the following:

1. Appropriateness of content for teaching the chosen topics: *Quite appropriate for the topic.*
2. Clarity and simplicity of the Woodwork content: *Woodwork content is simple and clear.*
3. Suitability for the level of NCE II students: *Very suitable for NCE II level.*
4. The extent to which the contents cover the topics they are meant to cover: *The topics were fully covered.*
5. Possible errors in suggested answers: *Not applicable.*
6. The structuring of the Questions: *Questions were unambiguous, clear and easily comprehensible.*
7. Others (some sentence errors, spelling mistakes and misrepresentation of some symbols in the contents): *None was noticed.*

#### Suggestions for improving on the Content

1. *There is need for a wider coverage.*
2.

Name of the Specialist: *Dr. Ahmad* Area of Specialization: *English*

Rank: *Lecturer I* Institution/ Establishment: *AT Minna*

Signature: *[Signature]* Date: *10-07-2017*

Thank you for validating this instrument

### EDUCATIONAL TECHNOLOGY SPECIALISTS VALIDATION REPORTS

Dear Sir/Ma,

I, Amina Usman Kutigi, a PhD student in the Department of Education Foundations and Curriculum, Ahmadu Bello University Zaria, do hereby humbly request your assistance in validating this research instrument. I have designed a flipped classroom instruction for teaching Oral English at Senior Secondary School in Niger State, Nigeria. The validation of this Oral English Contents is to ascertain its suitability for classroom instructional standard. Your constructive criticism will be appreciated. Thank you.

#### Please, comment on the following:

1. Suitability of the package for instruction: *The package is well designed to be used for instruction on the targeted population.*
2. Clarity and simplicity of the package: *The package is very clear, vivid and is unambiguous terms.*
3. Unity among illustrations: *Good unity including harmony*
4. Emphasis on key concepts: *Very Good and well illustrated*
5. The use of colours (e.g. background colour): *Very harmonious with the background*
6. The legibility of the texts: *Good*
7. Other errors (such as audibility, distraction, etc): *NIL*

#### Suggestions for improving on the package:

1. *Name of the supervisor should be corrected*
2. *Chruch - should be church*
3. *Lesson two - Long and short-short - short written twice*
4. *Objective should be plural (s)*

Name of the Specialist: *Dr. Ibrahim, Ismail Kutis*, Area of Specialization: *Educational Technology*

Rank: *L I* Institution/Establishment: *FUT, Minna*

Signature: *[Signature]* Date: *5<sup>th</sup> Dec, 2017*

Thank you for validating the instrument



## CONTENT EXPERT VALIDATION REPORT

Dear Sir/Ma,

I, Amina Usman Kutigi, a PhD student in the Department of Education Foundations and Curriculum, Ahmadu Bello University Zaria, do hereby humbly request your assistance in validating this research instrument. I have designed a flipped classroom instruction for teaching Oral English at Senior Secondary School in Niger State, Nigeria. The validation of this Oral English Contents is to ascertain its suitability for classroom instructional standard. Your constructive criticism will be appreciated. Thank you.

Please, comment on the following:

1. Appropriateness of content for teaching the those topics: *the choosing topic is very etc.*
2. Clarity and simplicity of the Woodwork content: *—*
3. Suitability for the level of NCE II students: *Yes*
4. The extent to which the contents cover the topics they are meant to cover: *is appropriate to the given class.*
5. Possible errors in suggested answers: *Nil*
6. The structuring of the Questions: *the structure of the question is ok to the choosing class.*
7. Others (some sentence errors, spelling mistakes and misrepresentation of some symbols in the contents): *There are minor topographical errors but the spellings are ok.*

Suggestions for improving on the Content

1. *The choosing topic can be apply to SS2*
2. *Also the researcher should always draw the chart for easy learning and identification of sounds*

Name of the Specialist: *A. U. Jimade.* Area of Specialization: *B. A. Ed (Ed).*

Rank: *Master I* Institution/ Establishment: *C.P.E.S (FCT) Mx.*

Signature: *[Signature]* Date: *20-7-2017*

Thank you for validating this instrument



**EDUCATIONAL TECHNOLOGY SPECIALISTS VALIDATION REPORTS**

Dear Sir/Ma,

I, Amina Usman Kutigi, a PhD student in the Department of Education Foundations and Curriculum, Ahmadu Bello University Zaria, do hereby humbly request your assistance in validating this research instrument. I have designed a flipped classroom instruction for teaching Oral English at Senior Secondary School in Niger State, Nigeria. The validation of this Oral English Contents is to ascertain its suitability for classroom instructional standard. Your constructive criticism will be appreciated. Thank you.

**Please, comment on the following:**

- 1. Suitability of the package for instruction: *The package is suitable for instruction*
- 2. Clarity and simplicity of the package: *It is simple and clear enough for the intended purpose*
- 3. Unity among illustrations: *OK*
- 4. Emphasis on key concepts: *Key concepts are well emphasized in the package*
- 5. The use of colours (e.g. background colour): *The background colour is OK. There is contrast between the picture and the background*
- 6. The legibility of the texts: *OK*
- 7. Other errors (such as audibility, distraction, etc): *No distraction however, the sound can be boosted*

**Suggestions for improving on the package:**

- 1. ....
- 2. ....
- 3. ....

Name of the Specialist: *Dr. Sheth, A. I.* Area of Specialization: *Instructional Tech*

Rank: *L1* Institution/Establishment: *FUT Minna*

Signature: *[Signature]* Date: *18/12/2017*

**Thank you for validating the instrument**

## EDUCATIONAL TECHNOLOGY SPECIALISTS VALIDATION REPORTS

Dear Sir/Ma,

I, Amina Usman Kutigi, a PhD student in the Department of Education Foundations and Curriculum, Ahmadu Bello University Zaria, do hereby humbly request your assistance in validating this research instrument. I have designed a flipped classroom instruction for teaching Oral English at Senior Secondary School in Niger State, Nigeria. The validation of this Oral English Contents is to ascertain its suitability for classroom instructional standard. Your constructive criticism will be appreciated. Thank you.

### Please, comment on the following:

1. Suitability of the package for instruction: *The package is suitable for Oral English instruction.*
2. Clarity and simplicity of the package: *The package is simple to use and there is clarity of text and sound.*
3. Unity among illustrations: *The illustrations in form of tables - examples are cited.*
4. Emphasis on key concepts: *Well taken care of.*
5. The use of colours (e.g. background colour): *The background colour is too dull & ineffective.*
6. The legibility of the texts: *The texts are legible.*
7. Other errors (such as audibility, distraction, etc): *None was noticed.*

### Suggestions for improving on the package:

1. *The presenter needs to vary her attire in order*
2. *not to give an impression that all the*
3. *lessons were recorded in a day. Better <sup>background</sup> <sup>colours</sup> <sup>could be</sup>*

Name of the Specialist: *Dr. O. C. Falade* Area of Specialization: *Edu. Technology*

Rank: \_\_\_\_\_ Institution/Establishment: *FUT Minna*

Signature: *Amina* Date: *15/12/2017*

Thank you for validating the instrument



## EDUCATIONAL TECHNOLOGY SPECIALISTS VALIDATION REPORTS

Dear Sir/Ma,

I, Amina Usman Kutigi, a PhD student in the Department of Education Foundations and Curriculum, Ahmadu Bello University Zaria, do hereby humbly request your assistance in validating this research instrument. I have designed a flipped classroom instruction for teaching Oral English at Senior Secondary School in Niger State, Nigeria. The validation of this Oral English Contents is to ascertain its suitability for classroom instructional standard. Your constructive criticism will be appreciated. Thank you.

### Please, comment on the following:

1. Suitability of the package for instruction: *The package is suitable for instruction*
  2. Clarity and simplicity of the package: *The package is clear and simple for instruction*
  3. Unity among illustrations: *There is unity among illustrations*
  4. Emphasis on key concepts: *Okay*
  5. The use of colours (e.g. background colour): *Background Colours usage is in order*
  5. The legibility of the texts: *Texts legible*
  7. Other errors (such as audibility, distraction, etc): *You will need to add some observations of when you used the recorder a certain question*
- Suggestions for improving on the package:

1. *Should the word effects ~~not~~ be used or Effect*
2. *The concepts of discussion eg. three components cluster should come up and fade out in the middle of the lesson*
3. *suggest English language experts to be involved in the validation*

Name of the Specialist: *Dr. C.S. Tukur* Area of Specialization: *Edu Tech*

Rank: *Senior Lecturer* Institution/Establishment: *F.U.T Minna*

Signature: *[Signature]* Date: *29/11/2012*

Thank you for validating the instrument

## APPENDIX D

### FIELD TRIAL VALIDATION RESULTS (QUESTIONNAIRE – INDIVIDUAL/GROUP LEARNING)

Please use the experience acquired through the package to answer the questions as accurately as possible.

**Table 1: Content in the Package**

S/No	STATEMENT	RESPONSE (39 Students)			
		Strongly Agree	Agree	Disagree	Strongly Disagree
1	The messages in the package are easy to understand	28	10	1	0
2	The content of the package has been well organized (arranged in order)	23	13	2	1
3	The diagrams/illustrations in the package are very clear to me.	24	14	1	0
4	The examples used in the various sections of the lessons in the package are relevant.	21	17	1	0
5	It was easy to understand the lesson because information was presented from simple to more difficult one.	18	19	2	0
<b>Total</b>		<b>114</b>	<b>73</b>	<b>7</b>	<b>1</b>

From table 1, the overall total students' response to the statements =  $114 + 73 + 7 + 1 = 195$ .

Total response (Strongly agree) = 114

Percentage response (Strongly agree) =  $(114 \div 195) \times 100\% = 58.46\%$

Total response (Agree) = 73

Percentage response (agree) =  $(73 \div 195) \times 100\% = 37.44\%$

Total response (Disagree) = 7

Percentage response (Disagree) =  $(7 \div 195) \times 100\% = 3.59\%$

Total response (Strongly disagree) = 1

Percentage response (Strongly disagree) =  $(1 \div 195) \times 100\% = 0.51\%$

Total positive response (Strongly agree and agree) =  $114 + 73 = 187$

**Percentage positive response (Strongly agree and Agree) =  $(187 \div 195) \times 100\% = 95.89\%$ .**

Total negative response (Disagree and strongly disagree) =  $7 + 1 = 8$

**Percentage negative response (disagree and strongly disagree) =  $(8 \div 195) \times 100\% = 4.10\%$ .**

**Table 2: Feedback from the Package**

S/No	STATEMENT	RESPONSE (39 Students)			
		Strongly Agree	Agree	Disagree	Strongly Disagree
1	This package provides immediate feedback after selecting the option.	17	21	0	1
2	This package displays the correct or wrong answer chosen with some sound.	22	17	0	0
3	This package allows me to proceed to the next lesson only if the chosen answer is correct.	28	10	1	0
4	This package terminates my activities if after three attempts I got the answer wrong.	15	24	0	0
5	This package appreciates my efforts by congratulating me after completing the lesson correctly.	33	6	0	0
<b>Total</b>		<b>115</b>	<b>78</b>	<b>1</b>	<b>1</b>

From table 4, the overall total students' response to the statements =  $115 + 78 + 1 + 1 = 195$ .

Total response (Strongly agree) = 115

Percentage response (Strongly agree) =  $(115 \div 195) \times 100\% = 58.97\%$

Total response (Agree) = 78

Percentage response (Agree) =  $(78 \div 195) \times 100\% = 40.00\%$

Total response (Disagree) = 1

Percentage response (Disagree) =  $(1 \div 195) \times 100\% = 0.51\%$

Total response (Strongly disagree) = 1

Percentage response (Strongly disagree) =  $(1 \div 195) \times 100\% = 0.51\%$

Total positive response (Strongly agree and Agree) =  $115 + 78 = 193$

**Percentage positive response (Strongly agree and Agree) =  $(193 \div 195) \times 100\% = 98.97\%$ .**

Total negative response (Disagree and strongly disagree) =  $1 + 1 = 2$

**Percentage negative response (disagree and strongly disagree) =  $(2 \div 195) \times 100\% = 1.03\%$ .**

**Table 3: Screen Design of the Package**

S/No	STATEMENT	RESPONSE (39 Students)			
		Strongly Agree	Agree	Disagree	Strongly Disagree
1	The presentations of the information in the package attract my attention.	13	24	1	1
2	The use of proper lettering (fonts) in terms of style and size make the information legible.	18	19	2	0
3	The colours used for the various presentations are quite appealing.	22	16	1	0
4	The quality of the text, images, graphics and video are interesting.	21	18	0	0
5	The animations (moving picture) in the package assist in understanding the lessons better.	32	7	0	0
<b>Total</b>		<b>106</b>	<b>84</b>	<b>4</b>	<b>1</b>

From table 5, the overall total students' response to the statements =  $106 + 84 + 4 + 1 = 195$ .

Total response (Strongly agree) = 106

Percentage response (Strongly agree) =  $(106 \div 195) \times 100\% = 54.36\%$

Total response (Agree) = 84

Percentage response (Agree) =  $(84 \div 195) \times 100\% = 43.08\%$

Total response (Disagree) = 4

Percentage response (Disagree) =  $(4 \div 195) \times 100\% = 2.05\%$

Total response (Strongly disagree) = 1

Percentage response (Strongly disagree) =  $(1 \div 195) \times 100\% = 0.51\%$

Total positive response (Strongly agree and Agree) =  $106 + 84 = 190$

**Percentage positive response (Strongly agree and Agree) =  $(190 \div 195) \times 100\% = 97.44\%$ .**

Total negative response (Disagree and strongly disagree) =  $4 + 1 = 5$

**Percentage negative response (disagree and strongly disagree) =  $(5 \div 195) \times 100\% = 2.56\%$ .**

**Table 4: Students' Preferences toward the Use of the Package Compared to Traditional Methods of Learning**

S/No	STATEMENT	RESPONSE (39 Students)			
		Strongly Agree	Agree	Disagree	Strongly Disagree
1	I prefer to learn Oral-English using flipped classroom instruction via video package with a teacher acting as a facilitator.	28	9	1	0
2	Learning Oral-English with video instructional package is more preferable than using text books.	31	8	0	1
3	The activities provided in this package are more effective compared to normal classroom instruction.	27	11	0	1
4	I will suggest to my friends to use video instructional package in learning Oral-English instead of textbooks.	25	14	0	0
5	I prefer the use of this instructional method than normal classroom instruction.	29	9	1	0
<b>Total</b>		<b>140</b>	<b>51</b>	<b>2</b>	<b>2</b>

From table 6, the overall total students' response to the statements =  $140 + 51 + 2 + 2 = 195$ .

Total response (Strongly agree) = 140

Percentage response (Strongly agree) =  $(140 \div 195) \times 100\% = 71.79\%$

Total response (Agree) = 51

Percentage response (Agree) =  $(51 \div 195) \times 100\% = 26.15\%$

Total response (Disagree) = 2

Percentage response (Disagree) =  $(2 \div 195) \times 100\% = 1.02\%$

Total response (Strongly disagree) = 2

Percentage response (Strongly disagree) =  $(2 \div 195) \times 100\% = 1.02\%$

Total positive response (Strongly agree and Agree) =  $140 + 51 = 191$

**Percentage positive response (Strongly agree and Agree) =  $(191 \div 195) \times 100\% = 97.95\%$ .**

Total negative response (Disagree and strongly disagree) =  $2 + 2 = 4$

**Percentage negative response (disagree and strongly disagree) =  $(4 \div 195) \times 100\% = 2.051\%$ .**

**APPENDIX E**  
**PEARSON PRODUCT MOMENT CORELLATION (PPMC)**  
**ORAL-ENGLISH ACHIEVEMENT TEST**

**Correlations**

		test 1	test 2
test 1	Pearson Correlation	1	.9096**
	Sig. (2-tailed)		.000
	N	45	45
test 2	Pearson Correlation	.9096**	1
	Sig. (2-tailed)	.000	
	N	45	45

\*\* . Correlation is significant at the 0.01 level (2-tailed).

**APPENDIX F**

**PICTORIAL EVIDENCE OF FIELD TRIAL TESTING**



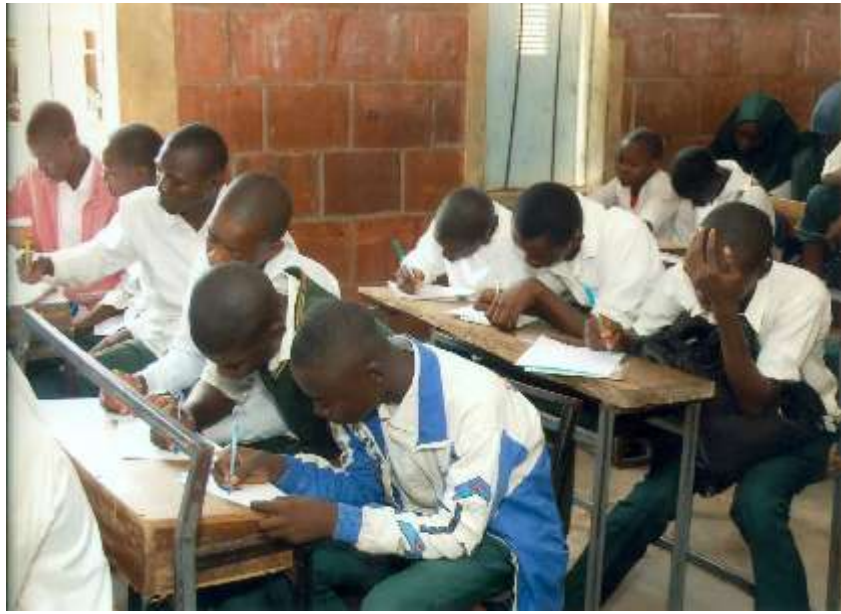




**APPENDIX G**

**PICTORIAL EVIDENCE OF PILOT TESTING**







**APPENDIX H**

**PICTORIAL EVIDENCE OF THE FIELD WORK**



**Pictures of Students in Experimental Group I**





Pictures of Students in Experimental Group II





**Pictures of Students in Control Group**

**APPENDIX I**  
**SNAPSHOTS OF ORAL-ENGLISH VIDEO PACKAGE**

