EFFECTS OF JIGSAW, NUMBERED-HEADS-TOGETHER AND GROUP INVESTIGATION COOPERATIVE LEARNING STRATEGIES ON SECONDARY SCHOOL STUDENTS' LEARNING OUTCOMES IN ENGLISH GRAMMAR, OGUN STATE, NIGERIA

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ABSTRACT

Low language proficiency, arising from poor instructional strategies and defective knowledge of English grammar, contributes to persistent decline in students' performance across school subjects. Past studies on cooperative learning strategies focused on oral language teaching and vocabulary development. However, little attention has been devoted to the use of these strategies in teaching and learning grammar. Consequently, this study investigated the effects of cooperative learning strategies (Jigsaw, Numbered-Heads-Together and Group Investigation) on secondary school students' learning outcomes in English grammar. It also explored the interaction effects of gender and parental educational support on the dependent variables.

The study employed pretest-posttest, control group, quasi-experimental design, using factorial matrix of 4X2X2. Intact classes comprising 350 students from eight secondary schools in Ijebu-Ode local government area of Ogun state were selected and randomly assigned to three treatment and one control groups. Three instruments were used: Achievement Test in English Grammar (r = 0.87); Attitude to English Grammar Questionnaire (r = 0.83); Parental Educational Support Questionnaire (r = 0.83). Instructional guides for each of the experimental and control groups; and an assessment guide for research assistants were applied. Seven hypotheses were tested at 0.05 level of significance. Data were subjected to Analysis of Covariance, Multiple Classification Analysis and Scheffe post-hoc.

There was significant main effect of treatment on students' achievement in English grammar ($F_{(3,333)} = 161.67$; $p < 0.05$). Participants in the Group Investigation Cooperative strategy group had the highest achievement score ($\bar{x} = 37.02$) followed by Jigsaw group ($\bar{x} = 33.97$); Numbered-Heads-Together group ($\bar{x} = 30.48$) cooperative strategies; and Modified lecture method ($\bar{x} = 25.77$). Also, there was significant main effect of treatment on students' attitude to English grammar ($F_{(3,333)} = 7.87$; $p < 0.05$). Participants in the Group Investigation cooperative strategy group had the highest attitude score ($\bar{x} = 13.67$) followed by those in the Numbered-Heads-Together group ($\bar{x} = 12.21$); Jigsaw ($\bar{x} = 12.19$) cooperative strategies; and Modified lecture method ($\bar{x} = 11.56$). Female students had higher achievement score ($\bar{x} = 32.35$) than their male counterparts ($\bar{x} = 31.46$). Gender and Parental Educational Support had no significant effect on students' attitude to English grammar. Students with high parental educational support had higher achievement score ($\bar{x} = 33.60$) than students with low parental educational support ($\bar{x} = 28.88$). There was significant interaction effect of gender and treatment on students' achievement ($F_{(3,333)} = 3.88$; $p < 0.05$) but no significant effect of gender and treatment on students' attitude. There was significant interaction effect of parental educational support and treatment on students' achievement ($F_{(3,333)} = 4.99$; $p < 0.05$) but no significant effect of parental educational support and treatment on students' attitude.

Cooperative learning instructional strategies have positive effect on students' learning outcomes in English grammar. Students' poor achievement and unfavourable attitude to grammar could be improved using cooperative learning strategy. It is, therefore, recommended that teachers should be encouraged to use the Group Investigation cooperative learning strategy to improve students' performance in English grammar.

Key words: Cooperative learning strategy, Learning outcome, English grammar, Secondary school

Word count: 498

DEDICATION

This research work is dedicated to the God Almighty who provided me with sustenance, good health and strength that saw me throughout the programme,

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All praises and adoration to the Almighty God - the beginning and the end- who protected and guided me throughout my studentship days at the University. It has been his power and grace that has kept me throughout the period of my programme,

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CERTIFICATION

I certify that this work was carried out by Olaitan Olayemi Mabekoje in the Department of Teacher Education, University of Ibadan, Nigeria.

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WAEC:	West African Examination Council	3
UNICEF:	United Nations International Children Education Fund	5
USA:	United States of America	14
ALM:	Audio-Lingual Method	23
TPR:	Total Physical Responses	25
L2:	Second Language Learning	26
LAD:	Language Acquisition Device	28
CDS:	Child Direct Speech	29
LASS:	Language Acquisition Support System	29
STAD:	Students Team-Achievement Division	33
TGT:	Team-Games-Tournament	33
TAI:	Team Assisted Individualizations	34
CIRC:	Cooperative Integrated Reading and Composition	34
LT:	Learning Together	35
NHT:	Numbered-Heads-Together	36
AC:	Academic Controversy	37
TSI:	Three-Step Interview	39
TPS:	Think-Pair-Share	39
CI:	Complex Instruction	43
CC:	Constructive Controversy	43
CS:	Cooperative Structures	44
CL:	Cooperative Learning	45
ESL:	English as a Second Language	54

CLS:	Cooperative Learning Strategy	63
SS1:	Secondary School One	65
SATEG:	Students' Achievement Test in English Grammar	66
SAEG:	Students' Attitude to English Grammar	66
PAES:	Parental Educational Support Questionnaire	66
SA:	Strongly Agree	69
A:	Agree	69
D:	Disagree	69
SD:	Strongly Disagree	69
ANCOVA:	Analysis of Co-variance	76
Sig:	Significant	80
MCA:	Multiple Classification Analysis	85
GI:	Group Investigation	87

CHAPTER ONE

INTRODUCTION

1.1 Background to the Study

The growth of nationalism and the birth of independence exposed Nigeria to increased roles and responsibilities in the national and international scenes. This demanded effective study of the English language by Nigerians in order to enhance international communication and transactions. The advent of colonialists and non-existence of a nation-wide indigenous language were some of the numerous factors that scaled the status of the English language to greater heights. Its study for inter-ethnic communication and eventual national integration thus started with renewed vigour. Ever since then, the English language has established itself firmly in Nigeria as probably the country's most important language. The importance of the English language in Nigeria is not necessarily in terms of the number of its speakers but in terms of the variety of functions that it performs. Functionally, the English language in Nigeria, outstrips all Nigeria's indigenous languages. For inter-ethnic and inter-tribal communications, it is a major medium. Thus, it serves as a unifying factor by providing a common medium of communication for the different ethnic groups in Nigeria.

English is the official language in Nigeria, and the language of education, at least, effectively from the third year of primary education for any child in the country (Ayodele, 2001). The English language, according to Adetugbo (1997), is the most international and academic of all languages. It is being used by more than eight hundred million people (Antil, 2008). It is also the language in which most textbooks are produced (Armstrong, 2006). Besides, it is the language in which a quarter of mankind communicate today; the language in which half of the world's mails are written; and indeed, the most used language at international fora such as the United Nations, World Health Organization and African Union, just to mention a few instances (Yule, 2002).

Based on the above invaluable roles of the English language in Nigeria and in the world at large, it becomes necessary to ensure that it is effectively taught and learnt in schools. The role of the English language in Nigerian society justified its being introduced into the school curricula at all levels of education (Artst, 2003). In spite of efforts made to improve students' performance in English through research and other measures, the high failure rate recorded annually persists. Armstrong (1998) observes that the performance of learners in this subject is intolerably low and

poor. Carroll (2001) carried out a survey of the proficiency in English language in West Africa and found, among other things, that the mean scores of European participants in all the tests he administered were higher than that of African participants. Also, Cooper (2002) studied the English proficiency of some overseas students in Britain and found that East and West African students in his sample were among the group that recorded the poorest performance, and therefore, the greatest deficiency in English. Arnes (2002), who conducted similar research on the same participants later, discovered that African students performed woefully in the test because of their inability to apply basic grammatical rules in their speech and in written forms. The African participants failed to demonstrate expertise in the language as a result of their inability to express themselves in what could be considered as grammatically acceptable sentences.

The results of the research discussed in the preceding paragraph should be expected. It must be noted that the ways and manners by which African students learned the English language are totally different from their European counterparts. A majority of the European students use the language as their mother tongue, thus, the language would have been acquired easily. On the contrary, majority of African students learn the language as a second language. Moreover, school factors, structural facilities, better instructional materials, and teacher-related factors, could have accounted for the results discussed above.

The concept of grammar, according to Yule (2002), involves what might be considered as 'linguistic etiquette', that is, the identification of the proper or best structure to be used in a language. Each speaker of a language clearly has some type of mental grammar, that is, a form of internal linguistic knowledge which operates in the production and recognition of appropriate structured expressions in that language. Thus, normal speech requires English language learners to conform to a complex system of rules governing the forms of words and how they are combined in sequence to produce meaningful utterances. Learners can be observed passing through clearly definable stages of grammatical development which provide valuable evidence into understanding the whole process of language learning.

The importance of grammar in language learning and acquisition is very essential. It is an aspect of language that is crucial and central to language learning and acquisition (Ayodele, 2001). Grammar is the study of the systematic account of the rules of sentence structure, syntax,

and semantics of a particular language. However, grammar has been observed as a problematic area of linguistic study (Ogunniyi, 2007). According to Carroll (2001), it is one of the most difficult aspects of language to teach. Consequently, the effect of its esoteric nature on the teaching and learning of English grammar has manifested in the communicative abilities of English language learners. Research has revealed that, unlike in the past, grammatical errors now frequently occur in written and spoken modes of communication of not only students in secondary schools but in Nigerian society at large - in all arms of the media, in the speech of high public figures such as lawyers, bankers, industrialists, politicians and worse still, some teachers (Adejare, Adejare 1998). Hardly can a secondary school leaver speak, write and make presentations in internationally acceptable English that is grammatical, fluent and appropriate for purpose, audience, context and culture. Even in the higher institutions of learning, teachers now spend a frustrating amount of time trying to teach grammatical concepts and its application to learners almost at the expense of the actual English language degree programmes (Adepoju, 1999).

It is worthwhile to recall the levels of students' performance in English language over the years in order to bring to light the state of performance in English language at the school certificate level. A report by the West African Examinations Council (1990) indicates that in two consecutive years – 1988 and 1989, the results in English language in the Senior Secondary Certificate Examination were consistently poor, with only 8% and 9% respectively passing at credit level. The results are a reflection of the low level of proficiency in English in Nigerian secondary schools. Similarly, the results of the Senior Secondary Certificate Examinations conducted by West African School Certificate Examinations Council in Nigeria have shown consistent unsatisfactory performance by students for some decades. Recent trend in students' performance in English language examinations has lent more credence to the reality of continued decline in students' performance. Besides, the WAEC Chief Examiners' reports of May/June 2000-2009, indicate poor performance of students in English language, as illustrated in table 1.1.

Table 1.1: Candidates' Performance in SSCE English Language from 2000- 2009

MONTH AND YEAR	ENROL-MENT	GRADE 1-6	% RATE	GRADE 7-8	% RATE	GRADE 9	% RATE	% RATE GRADE 7-9
May/Jun 2000	850479	125870	14.8	290863	34.2	433744	51.0	85.2
May/Jun 2001	1025027	267532	26.1	253181	24.7	421286	41.1	65.8
May/Jun 2002	909888	222922	24.5	290254	31.9	364865	40.1	80.0
May/Jun 2003	929271	269488	29.0	315022	33.9	343830	37.0	70.9
May/Jun 2004	833204	251627	30.2	2449619	29.4	317450	38.1	67.5
May/Jun 2005	1064587	273598	25.7	371540	34.9	392832	36.9	71.8
May/Jun 2006	353404	113442	32.1	140301	39.7	99659	28.2	67.9
May/Jun 2007	272114	75375	27.7	87348	32.1	109389	40.2	72.3
May/Jun 2008	384020	134407	35.0	106757	27.8	142855	37.2	65.0
May/Jun 2009	401890	160756	40.0	154325	38.4	61489	15.3	53.7

Source: Department of Statistics, West African Examinations Council, Lagos

From the table, it is evident that students' performance in English language in each of the years observed is unsatisfactory. The highest performance in respect of distinctions and credit passes was 40 percent which was recorded in 2009. This performance is also unsatisfactory, as it did not reach the average level of fifty percent. However, it is apparent from the table that the

failure rate in English Language is still very high, considering the number of students that failed the subject and also the percentage rates of failure in each of the years examined. For instance, 85.2 and 80.0 percentage rates were recorded in the years 2000 and 2002 respectively. Thus, the failure rate is extremely high.

Studies of Okpala (1998), Akinsola (1998), Adepoju (1999), Ayodele (2001) and Anuka (2002) attest to this failure rate in English language. Some researchers (Pica, 1996; Jibowo, 2007) indicate that lack of commitment to the language policy; the influence of the mother tongue; lack of instructional devices and poor students' attitudes towards the language are important factors influencing poor achievement and proficiency in English grammar. Other factors include: poor study habit, anxiety, poor self-concept, achievement need, heredity, reinforcement, intelligence, and poor motivation. Ayodele (2001) also observes that one important factor that has been continually responsible for perennial failure rate in English at the SSC examinations is students' inability to grasp the rudiment of the English grammar, which is tested under the guises of English comprehension, summary, lexis and structure, and essay writing at the school certificate level.

Furthermore, the WAEC's Chief Examiners' reports for the years 1990-2006 on performances of candidates in English language examinations reveal that 'students performed poorly due to lack of adequate preparation, lack of good school environment and structural facilities'. Other factors, according to the studies include: inability to understand questions that demand high level of thinking, fragrant breach of rubrics, thus answering more questions than required, and poor answers to questions due to poor command of English. Moreover, teacher-related factors are responsible for high failure rate in English language examinations (Cotton, 2007). According to Ayodele (2001), there is still a dearth of qualified teachers of English in many of our secondary schools. He further observes that language teachers, particularly the non-graduate ones, lack the necessary acumen of using instructional devices and methodology that could make teaching and learning of English not only an interesting but an easy one. Furthermore, according to a study conducted to assess factors associated with students' poor performance in English Language in Nigeria by UNICEF (2008), it discovers that 'poorly trained English language teachers and poor instructional delivery are most critical factors responsible for students' low achievement in English grammar'. Therefore, there is need to develop alternative effective teaching devices that can facilitate good instructional delivery. Sequel to the above,

most of our language teachers were hardly ever groomed to use alternative strategies and methods apart from the ones they have learnt over the years (Bryant, 1999). Thus, a lot of studies have commented on the quantity and quality of language teachers, some others have looked at the effects of different teaching strategies on students' learning outcomes.

The poor performance of learners of the English language has also been attributed to lack of effective teaching of English grammar. Astin (2003) observes that the standard of spoken and written English in Nigeria started declining since 1970. Many of our students often find it difficult to express themselves explicitly, fluently and lucidly in English. Baker (2007) supports the above observation by lamenting that despite the time devoted to the teaching and learning of basic English grammar and vocabulary, English language learners still find it difficult to apply simple grammatical rules to construct acceptable sentences to meet their practical needs.

The consequence of inability of learners of English language to apply simple grammatical rules is that a high percentage of students completing secondary school education can hardly or better still express themselves adequately in English. According to the WAEC's Chief Examiners' Report (1996), 'in the answers to the comprehension and summary questions, many candidates exhibited inability to express themselves correctly in their own words. Expressions not taken verbatim from the passage contained either a tense error or grammatical error'. Also, the WAEC's Chief Examiner's report, of 2009 observes that 'candidates' answers revealed ignorance of the rudiments of the English language. According to the report, most students lost substantial marks allotted to spellings, punctuation, grammar, and sequence of tenses because they were unable to handle these aspects adequately'. Thus, grammatical fallacies are easily observable in learners' spoken and written modes of communication. Consequently, the Chief Examiner's report (WAEC, Nigeria) for the years 2001-2004 stress the need to inculcate reading culture among secondary school learners in order to improve their communicative abilities both in oral and written English.

The inabilities of English language learners to use the language properly made Ogunniyi (2007) to conclude that the hue and cry about the fallen standard of education in Nigeria today is being measured by users' proficiency of the language of communication and instruction in Nigeria's educational sector, which is undoubtedly the English language. Also, Ayodele (2007) observes that the ability to communicate effectively in English language has remained an unwritten yardstick to measure literacy in Nigeria. If the situation on the state of the use of

English at the tertiary level is as bad as it was depicted by Adejare et al (1998), one could imagine what the situation will be like at the secondary school level. In a similar vein, Bearch (2002) in the World Bank report, scores Nigerian graduate low in English grammar. The report states that the 'high rate of unemployment in the metropolitan areas in Nigeria is as a result of poor quality of graduates, particularly in the communication skills'. According to the report, Nigerian graduates 'exhibit poor abilities in the oral and written expression in English language'. Although, lack of communication ability could be one of the other factors responsible for the unemployment rate as rightly observed above, other factors not mentioned in the report, that are equally responsible for high rate of unemployment in Nigeria are: shortage of employment opportunities, unfavourable government policies, dearth of manufacturing industries, location of some industries and companies, laziness on the part of our graduates, incompetency, and lack of self-dependence.

In spite of the importance of the grammatical aspect of any language in effective communication, it is regrettable that a large number of people who have received secondary school education, even up to tertiary education in Nigeria, express themselves in sentences that are usually marred with syntactic and morphological errors. A lot of reasons have been adduced for this. Experience and observations, according to Jibowo (2007), support the notion that secondary school students are generally apprehensive of their English grammar classes. Reasons for students' apprehension, as revealed by her study are: teacher-related factors, method and materials, and student-related factors. In spite of all these findings, students' performance has not improved significantly to justify the efforts of previous research studies. Ironically, to worsen the situation depicted by Jibowo above, most teachers of English language pay little or no attention to the mastery of English grammatical structures and lexis that are essential to high proficiency in English. Even some teachers have a form of phobia for English grammar to the extent that vital aspects of English grammar are neglected or not taught at all (Ayodele, 2001).

The Chief Examiner's report (WAEC, Nigeria) of 2007, observes that 'tests on oral English, lexis and structure and essay writing, are the three main aspects of language learning that have continually posed problem to students in English language examinations, and which have resulted in the perennial poor performance in the subject'. Jibowo (2005) also corroborates the above observation by reiterating that 'phonological, grammatical and lexical aspects are peculiar problematic areas for English language learners. Similarly, Carroll (2001) discovers that

'lexis and structure, comprehension, and letter writing are major areas that classroom teachers should pay greater attention to in language teaching'.

Consequent upon the observations in the preceding paragraphs particularly on students' inability to demonstrate proficiency in English language, which is largely due to their inability to master grammatical rules that is needed for effective communication, both in written and spoken modes, brought about the researcher's interest in selecting English grammar as an area of study in preference to other aspects of English studies such as reading, oral English, composition writing and comprehension. Moreover, the study of English grammar has been seen as 'an important aspect in the learning of the English language' (Frazer, 2001).

Various methods and approaches have been employed in the English language classroom to improve the communicative abilities of English language learners but it seems that the problem has defied all efforts as learners of English continue to express themselves in grammatically unacceptable sentences. Efforts have been made to systematically measure or evaluate the effectiveness of language teaching practices in promoting second language acquisition. Such studies have been undertaken for every level of language, from phonetics to pragmatics, and for almost every current teaching methodology. Research indicates that many traditional language-teaching techniques are extremely inefficient (Frazer, 2001). Research on this at different levels of language has produced quite different results. Traditional areas of explicit teaching, such as phonology, grammar and vocabulary, have had decidedly mixed results. Numerous notions have been used to describe learners' ability in the target language. The first of such influential notion was the competence-performance distinction introduced by Chomsky (1979). This distinguishes competence; a person's idealised knowledge of language rules, from performance, the realisation of these rules. Although this distinction has become fundamental to most work in linguistics today, it has not proved adequate by itself to describe the complex nature of learners' developing ability. Reacting against the perceived inadequacy of Chomsky's postulation, the notion of communicative competence was raised by Dell Hymes (1982). This notion has proven extremely popular in second language learning. The notion stresses the communicative competence that learners must have in order to communicate effectively. To achieve this goal, students need explicit instruction that connects grammar items with communication context. They do not need to master all aspects of grammar; only those that are relevant to the immediate communication situation need be learnt. A closely related concept

to the two schools of thought discussed above is language proficiency. Proficiency is usually distinguished from competence, which refers to knowledge. Proficiency refers to the learner's ability to use this knowledge in different tasks. It must be noted that any test of competence is a task of some sort; it may be argued that all measures of competence are in effect measuring some form of proficiency. Thus, grammar instruction has continued to receive a lot of attention from researchers and language teachers, and literature on this aspect points to the need for teaching grammar in meaningful contexts (Wittrock, 1990; Long, 1991; Adepoju, 1999; Dansereau, 2004; Morrison, 2006; Webb, 2008).

Errors in grammar play a key role in the study of English language teaching and learning in general and in second language learning. In linguistics, error occurrence in language learning is not seen as a discouraging event; rather learners and teachers study errors in second language activities in order to identify signposts for caution and remedial measures (Adejare, Adejare 1998). Ever since Pitt Corder (1967) highlights the importance of considering errors in the language learning process, there has been a shift in emphasis towards an understanding of the problems learners face in their study of a language. Errors are indispensable to learners since the making of errors can be regarded as 'a device learners use in order to learn' (Costa, 2002). The concern for error correction brought about the emergence of language theories for the handling of errors in language learning. Some of the theories are contrastive analysis and error analysis. The practical application of contrastive analysis lies in the prediction of errors through comparison of two languages to detect their similarities and differences. However, the failure of contrastive analysis to account for all learners' errors later led to the development of error analysis. While contrastive analysis emphasizes error avoidance, error analysis emphasizes error desirability. The knowledge of error analysis is required by every language teacher for tracking down the learners' errors and their causes thereby shortening the tortuous journey of error elimination. Arguably, one can say that the investigation of errors can be at the same time diagnostic and prognostic. It is diagnostic because it can inform the learners' state of the language at a given point during the learning process and prognostic because it informs teachers to re-organise language learning materials on the basis of the learners' current problems.

Besides, students' attitude and academic achievement in English grammar is another variable that was investigated in this study. It has been affirmed (Ayodele, 2001) that learners' attitude to learning significantly affects performance. Attitude formation and academic achievement as

responses to teaching and learning of English language are concepts that have been investigated variously. However, they apparently have not worked out well as anticipated. Attitude is a mental view, posture or disposition about something. It is predisposition of perceived feelings and behaviour towards specific objects or people in a particular manner. Attitude could only be seen through behaviour. Okoye (1983) says attitude is a learnt predisposition to react consistently in given manner either negatively or positively to situation, people or concept. Ezeokoli (1996) observes that learning and attitude involves experience and behaviour change. Solutions to the problems of students' poor attitude to and their achievements in schoolwork have not been totally attained. It has severally been noted (Cohen, 2003) that the kinds of attitude students have invariably affect schoolwork and learning. Students with positive attitude toward schoolwork will inevitably experience some successes and achievements in their schoolwork and through reinforcement will perform and achieve better than those students with negative attitude, who will achieve little or nothing.

Researchers have argued that attitude towards a subject affects achievement in that subject (Okpala, 1985; Abe 1995 and Olagunju 1996). In the same vein, Makanjuola (1996) asserts that students' keen interest in a particular subject will gear them up to devoting more time to the study of such subject. This will make them to perform better in that subject, but when the contrary is the case, students' performance becomes low. Further researches in language (Ezeokoli, 1986, Ayodele, 1988, Araromi, 1999) are pointers to the fact that students' attitude to English language influence achievement in the subject. Studies have identified variables such as age, status, gender, level of educational attainments, socio-economic status, and experience, psychological, cultural and religious factors as some of the factors that can affect or influence the development of attitude towards a goal or an object. Parajers and Johnson, (1996) tested the influence of writing self-efficacy, writing apprehension and writing aptitude on 181 ninth-grade students. Aptitude and self-efficacy had direct effects on performance. Girls and boys did not differ in aptitude as performance, but girls reported lower writing self efficiency. Native English speaking Hispanic students had lower aptitude and performance scores, lower self-efficacy and higher apprehension. Since attitude is very important in whatever one does in life, its importance cannot be overruled in teaching-learning situations. Although attitude can be learned or acquired, shaped or re-shaped and can as well motivate individuals toward achievement.

Students need to develop and sustain positive attitude towards teaching and learning of English Language.

Masquid (1969) believes that a learner's attitude to the language he or she is learning determines how he or she performs in such a language. Also, the attitude of teachers towards comprehension lessons determines the way it is learnt. Hence, the study of attitude as a variable is an essential and inevitable part of any pedagogical innovations (Adeosun 2000). Although attitude may be somehow resistant to change, the teacher in his/her appropriate selections of learning goal structures could be in a better position to effect appropriate changes in students attitude to English grammar.

One of the ways a language teacher can tackle this is to control effectively what happens within the classroom, more importantly the structuring of learning goals. The way the teacher structures the goals of learning specifies a lot of things and projects a lot into the cognitive and affective aspects of students' behaviour. A goal structure specifies the type of interdependence among students as they strive to achieve the instructional objectives. The teachers can structure students learning goals by making them work in pairs or small groups so that they can help each other master, or contest in a win-lose struggle to see who is best. Learners can also be structured to learn individually. Appropriately structured learning goal is an extremely powerful learning strategy and it has significant effect on a broad range of learning outcomes. Consequently, this researcher decided to examine other learning strategies that could help improve students' proficiency and achievement in English grammar, and of course in English language- as a subject in Nigeria's secondary school curriculum.

Over the past decades, cooperative learning has emerged as one of the leading new approaches in classroom instruction. One important reason for its advocacy is that numerous research studies have revealed that students completing cooperative learning group tasks tend to have higher academic test scores, positive self-esteem, greater comprehension of the content and skills they are studying, improved motivation, essential communication skills, social awareness, tolerance for individual differences, altruism and positive attitudes towards others, and more positive relationship among students, and healthier psychological adjustment than do competitive or individualistic experiences (Gunderson and Johnson, 1980; Jacob and Mattson 1987; Slavin 1991).

Cooperative learning is a generic term referring to numerous ways for organising and conducting classroom learning. It is used in many variations most of which have never been studied in-depth. It encompasses the following instructional models: Group Investigation (Sharan and Sharan, 1992); Jigsaw (Aronson, 1978); Learning Together (Johnson and Johnson, 1999); Student-Teams-Achievement-Divisions (Slavin, 1978), Team Assisted Individualisation (Slavin, 1982), Constructive Academic Controversy (Johnson & Johnson 1979); Cooperative Integrated Reading and Composition (Stephens, Madden, Slavin & Farnish 1987); Numbered-Heads-Together (Kagan, 1985); Complex Instruction (Cohen, 1984); Teams-Games-Tournaments; and Think-Pair-Share (Andrini, 1991).

In Think-Pair-Share, students pair with a partner to share their responses to a question. Students are then invited to share their responses with the whole class. However, in Student-Teams-Achievement Divisions, students who have been heterogeneously grouped together are asked to study together what has been initially taught by the teacher. The group study involves utilisation of worksheet and they study together to ensure that all their teammates make one hundred percent success in their assigned task. Students are then tested individually and scores computed. Teams with the highest scores are acknowledged and recognised by the teacher and reward given at times. On the other hand, Constructive Academic Controversy is a cooperative learning strategy which involves instructional use of intellectual conflicts to promote higher achievement and increase quality of problem-solving, decision making, critical thinking, reason, interpersonal relationships, and psychological well-being of participants. To engage in academic controversy, students will be asked to research and prepare a position, present and advocate their position, refute opposing positions on their own position, reverse perspective, and create a synthesis that everyone can agree to. For Complex Instruction to be carried out effectively, four criteria have to be met (Cohen, 1994). First, the task requires different abilities of group members for completion, e.g., reasoning ability, visual spatial ability and linguistic ability. Second, the task is open-ended or it consists of problems with ill-structured solutions so that it contributes to the development of rationale thinking. Third, each group works on a different task but all relate to a central intellectual theme. Finally, teachers delegate their authority by assigning roles to different group members, e.g., materials manager, facilitator, reporter and harmoniser so that learners can take care of the business of the group without constantly asking the teacher for assistance.

Also, Cooperative Integrated Reading and Composition, another variant of cooperative learning, is a comprehensive approach to reading and writing language materials. This cooperative model integrates the latest reading research findings with the essential components that make cooperative learning so successful. Team Accelerated Instruction, as a cooperative model, is an individualised programme that provides direct instruction within a cooperative setting, emphasising concepts and real-life problem. Learning Together model organises instruction according to the principles of positive interdependence, individual accountability, and promotive face-to-face interaction, social and collaborate skills, and group processing. The main difference between Learning Together and other cooperative learning instructions is that this model is less discrete and less prescriptive. Learning Together model provides a conceptual framework for teachers to plan and tailor cooperative learning instruction according to the students' needs and school context. The Structural Approach cooperative variant based its learning on "structures" which are defined as content-free ways of organising social interaction in the classroom. Structures usually involve a series of steps, with prescribed behaviour at each step (Kagan, 1990). These content-free structures provide teachers with frameworks to be applied to any subject matter. These structures have different learning outcomes. Teachers choose the appropriate structures to match their teaching objectives and apply to a given topic or lesson.

The effectiveness of cooperative learning in promoting higher achievement and greater productivity has been alluded to by many scholars (Gunderson and Johnson, 1980; Jacob and Mattson 1987; Slavin 1991). However, there has been a long history of research studying the effectiveness of cooperative structures with competitive and individualistic learning strategies, to the detriment of other research innovations. Hence, this research work evaluates the effects of specific cooperative learning strategies on academic achievement in English grammar, since there has never been research demonstrating the effectiveness of different cooperative learning strategies on academic achievement in English grammar. Moreover, the following cooperative strategies have received the most attention in research: Complex Instruction, Constructive Controversy, Cooperative Integrated Reading and Composition, and Cooperative Structures. Others include: Learning Together, Student Teams Achievement Divisions, Teams-Games-Tournaments, and Team Assisted Individualization.

The following variants of cooperative learning were selected by the researcher for experimentation: Group Investigation, Jigsaw Procedure, and Numbered-Heads-Together. While a number of people have reviewed the research supporting other cooperative learning strategies (Cohen and Lotan, 1992; Sharan and Sharan, 1992; Slavin, 2001), there has not been, to the knowledge of the researcher, a comprehensive and complete review of the effectiveness studies of all the different cooperative learning strategies. It is unknown, for instance, of how much of the existing research specifically focuses on cooperative learning strategies and achievement. Due to this fact, the cooperative strategies selected for this study were so picked for the fact that there have not been much research in this area, particularly when each of the specific cooperative strategies are contrasted the way they had been structured in this present experimentation.

In the Jigsaw cooperative strategy, which was developed by Aronson in 1978, students are assigned to eight member teams to work on academic material that has been broken into sections. Thus, the class is divided into small teams to work with materials that have correspondingly been divided by the teacher into sections as there are members in each team. Members of different teams, who have studied the same sections, meet in 'expert groups' to discuss their sections. Later, the students return to their teams and take turns to teach their teammates about their sections. In essence, student becomes a member of both a learning group and a research team. It should be noted that a lot of studies have researched on the use of this strategy in different subject areas such as in the sciences, social sciences, education, and vocational studies, just to mention a few instances. However, not much research has been recorded in language learning, particularly as it affects the communicative abilities of learners.

Another cooperative strategy that was experimented on in this study is the Group Investigation. This strategy was developed in Israel by Sharan Y. and Sharan S. in 1988. Group Investigation is a general classroom organisation plan in which students work in small groups using cooperative inquiry, group discussion, and cooperative planning and projects. Students are grouped into two to eight-member groups. Group Investigation is a collaborative model for classroom instruction and school learning that integrates interaction and communication in the classroom with the process of academic inquiry. According to Sharan and Sharan (1988), the implementation of Group Investigation had six stages: determining subtopics and organizing into groups; planning investigation; carrying out investigation; planning a presentation; giving a presentation, and evaluating achievement.

In Numbered-Heads-Together (Kagan, 1996), members of learning teams usually composed of eight individuals count off: 1, 2, 3, 4 till 8. Students coach each other on the materials to be mastered. The teacher poses some questions requiring higher order thinking skills. Students discuss the questions in order to solve the problem, making certain that every group member can summarise the group's discussion or can explain the problem. The instructor calls a specific number to respond as group spokesperson. Students become actively involved with the material and, since no one knows which number the teacher will call, each has a vested interest in being able to articulate the appropriate response.

A number of researches have also been carried out in the past on the effects of gender on academic achievement. Some revealed that male students tend to perform better than females especially in numerical problems; while females perform better than males in verbal task (Maitland, 2005). Many other studies (Morgan, 1998; Webb, 2008) revealed no significant cognitive differences between the two sexes. These conflicting responses on the effects of gender on learning outcome inform the need to carry out more researches on the relationship between gender and students' learning outcomes in language achievement. Gender has also been seen (Yu, 1996) as one of the variables likely to affect attitude to and achievement in English grammar. Ross (1985) observed that in spite of variations in methods of teaching, girls are superior to boys in practically every phase of language development. Moreover, researches confirmed the effect of gender on academic achievement, for example, Kinney (2008) in a study that involved English-dominant and Spanish-dominant students' perceptions of opportunities to communicate in language classrooms among other areas, the survey examined the frequency of various communication activities in language classroom. These activities included explaining one's thinking, giving oral reports, discussing current events, sharing ideas and asking questions. Results indicated that female students with Spanish as their primary language received opportunities to communicate at frequencies nearly equal to those of male and female English-dominant students. Male students, with Spanish as their primary language, reported lowest frequencies of participation in classroom discourse.

Steven (2007) carried out another investigation in four English speaking countries- Canada, England, Nigeria and USA. The students were tested in six areas: vocabulary, comprehension, initial consonant, variant consonant, vowel sounds and structural analysis. The findings revealed that in England and Nigeria, boys score better than girls on the majority of tests, while in USA and Canada, the reverse was the case. However, Ayodele (1978) and

Adegbile (1998) agreed to the general consensus that girls have been found in many Nigerian researches to have only a slight positive but statistically insignificant edge over boys in language performance. Interestingly, Jibowo (1997) found out that gender had no significant effect on performance of students in English language. Also, Jordan (2002) observed that the sex of the learner had nothing to do with his performance on a given course. Notwithstanding the various findings mentioned above, this study sought to find out whether there would be any sex differences in the achievement of students in English grammar, as gender was one of the variables that were considered in the study.

Another factor that is associated with the decline in proficiency of students in English is factors relating to parental educational support of learners (Lazarowitz, 1990). Factor that could bring about the academic differences include parental educational support such as: provision of educational materials at home and in school; payment of tuition and other fees, and other factors relating to learners' educational advancement that could positively and negatively affect academic performances in English grammar. The effect of parental educational support of participants was investigated as one of the variables likely to affect achievement in and attitude to English grammar.

1.2 Statement of the Problem

The rate at which secondary school students fail English language has been linked to their inability to master and apply grammatical rules correctly in speech and written modes. Besides, low language proficiency arising from defective knowledge of English grammar among students of English as a second language contributes to persistent decline in students' performance across school subjects. In addition, various methods and strategies being employed by classroom teachers and educational practitioners to tackle this problem have not produced satisfactory results.

Most studies focused on oral language teaching, listening and reading abilities, vocabulary development, and essay writing. However, little attention has been devoted to other linguistic aspects such as grammar. Against this background, the study determined the effects of cooperative learning strategies (Jigsaw, Numbered-Heads-Together and Group Investigation) on secondary school students' learning outcomes (achievement and attitude) in English grammar. It

also examined the moderating effects of gender and parental educational support on students' academic achievement in and attitude to English grammar.

1.3 Hypotheses

For the purpose of addressing the problem of the study, the following hypotheses were formulated:

Ho 1: There is no significant main effect of treatment on students'

(a) achievement in English grammar

(b) attitude to English grammar

Ho 2: There is no significant main effect of gender on students'

(a) achievement in English grammar

(b) attitude to English grammar

Ho 3: There is no significant main effect of parental educational support on students'

(a) achievement in English grammar

(b) attitude to English grammar

Ho 4: There is no significant interaction effect of treatment and gender on students'

(a) achievement in English grammar

(b) attitude to English grammar

Ho 5: There is no significant interaction effect of treatment and parental educational support on students'

(a) achievement in English grammar

(b) attitude to English grammar

Ho 6: There is no significant interaction effect of gender and parental educational support on students'

(a) achievement in English grammar

(b) attitude to English grammar

Ho 7: There is no significant interaction effect of treatment, gender and parental educational support on students'

(a) achievement in English grammar

(b) attitude to English grammar

1.4 Scope of the Study

In order to carry out the experiment, the study covered all public senior secondarchools in the Ijebu-Ode Local Government Area in Ogun East Senatorial District of Ogun State. The study focused on the effects of three modes of cooperative learning strategies (Jigsaw, Numbered-Heads-Together and Group Investigation) on secondary school students' learning outcomes (achievement and attitude) in English grammar. The study also examined the moderating effects of gender and parental educational support of participants' academic achievement in and attitude to English grammar. Three hundred and fifty (350) senior secondary one (SS 1) students were selected for the study.

1.5 Significance of the Study

It is expected that findings from this study would enable students improve their ability to apply learned rules of grammar in oral and written expressions in English. The study would likely improve students' attitude to the study of English grammar as well as reduce the magnitude of poor performance in English grammar. It would enable students to develop skills necessary for independent study of English and its grammar. Also, the study would likely contribute substantially to improve students' performance in English grammar and their proficiency in English. Furthermore, the study would be useful to teachers of English as a second language by exposing them to some effective alternative strategies for teaching English grammar.

The findings of this research would not only provide curriculum planners with knowledge and information about which cooperative strategy or strategies are best suited for classroom use in the Nigerian learning situation, but would also provide them with practical views of various learning strategies that could be adopted for effective teaching and learning of English grammar. Serving teachers and pre-service teachers would probably find the outcome of the study very useful, particularly in the identification and selection of language learning strategies that can be used for varieties of topics in English. In order to realise this, the findings and

recommendations of the study would be made available to all stakeholders in education through books, mimeographs and also at seminars and conferences.

1.6 Definitions of Terms

The following terms are operationally defined in the study:

Learning Strategies: These are plans, techniques, or purposefully contrived activities that are employed by a teacher to guide a class of students to understand a unit of instruction.

Cooperative Learning Strategy: This refers to learning device in which small teams, each with students of different levels of ability, use a variety of learning activities to enable their understanding of a subject matter.

Group Investigation Cooperative Learning Strategies: This refers to a device through which every member of a learning group has a sub-topic that he/she must learn and share his/her knowledge with the entire class.

Jigsaw Cooperative Learning Strategies: This refers to a learning device which structures members to both learning groups and research teams in order to carry out an academic task.

Numbered-Heads-Together Cooperative Learning Strategies: This refers to a learning device in which students are grouped together and numbered in order to complete an assigned task. The students use all their interpersonal and study skills and apply them to the planning of the specific learning goals.

CHAPTER TWO
REVIEW OF RELATED LITERATURE

The review of literature that is of importance to this study is provided in this chapter. For the purpose of the study, related literature is reviewed under the following subheadings:

(i) Theoretical framework
(ii) Approaches to second language teaching and learning
(iii) Methods for second language teaching and learning
(iv) Theoretical studies on cooperative learning
(v) Empirical studies on cooperative learning
(vi) Gender differences in language learning and English grammar
(vii) Studies on achievement in English language and grammar
(viii) Studies on attitude to English language and grammar
(ix) Gender differences in language learning and English grammar
(x) Appraisal of literature review

2.1. Theoretical framework of the study

This study has a strong base in two learning theories namely: motivational theory and social development theory.

Motivational Theory

Motivational theory holds that people are driven to satisfy a specific need when motivated. Prominent authorities on this theory include Abraham Maslow, McGregor, Frederick Herzberg, Atkinson, Alderfer and McClelland. The theory upholds that motivation to act or engage in any academic task depends on the attractiveness of the outcome. Generally, motivation is influenced not only by desirability of an outcome but an assessment of its achievability. Majority of people applying motivational psychology attested to the fact that it is highly beneficial.

Motivational perspective on cooperative learning focuses on the reward of goal structure under which students operate. From a motivational perspective, cooperative incentive structures

create a situation in which the only way group members can attain their own personal goals is if the group is successful. Therefore, to meet their personal goals, group members must both help their group mates to do whatever the group need to succeed, and, perhaps even more importantly, to encourage their group mates to exert maximum efforts. In other words, rewarding groups based on group performance, or the sum of individual performances, creates an interpersonal reward structure in which group members will give or withhold social reinforcers, such as praise, encouragement, in response to group-mates' task-related efforts. One intervention that uses cooperative goal structures is the contingency, in which group rewards are given based on group member' behaviours. The theory underlying group contingencies does not require that group members be able actually help one another or work together. The fact that their outcomes are dependent on one another's behaviour is enough to motivate students to engage in behaviours which help the group to be rewarded, because the group incentive induces students to encourage goal-directed behaviours among their group mates. A substantial literature in the behaviour modification tradition has found that group contingencies can be very effective at improving students' appropriate behaviours and achievement (Hayes, 1976; Litow and Pumroy, 1975).

Furthermore, the effects of cooperative learning on achievement are strongly mediated by the cohesiveness of the group, in essence that students will help one another learn because they care about one another and help one another to succeed. Thus, this emphasizes primarily motivation rather than cognitive explanations for the instructional effectiveness of cooperative learning. Also, motivational theorists hold that students help their group mates learn at least in part because it is in their own interests to do so. This emphasises the idea that students help their group mates learn because they care about the group.

Social Development Theory

Social Development Theory holds that students' ability to communicate with one another is crucial for learning to take place. Behind this belief is Vygotsky's theory of social development. Vygotsky (1978) conducted a series of studies that focused on the development of cognition in children. His study proved that there are crucial links between the social and individual levels of cognition. This theory holds that learning begins at a social level, and then develops on an individual level. Vygotsky argued that the higher voluntary forms of human behaviour have their roots in social interaction, in the individual's participation in social

behaviours that are mediated by speech. Two main concepts behind the social development theory are the zone of proximal development and general genetic law of cultural development. The zone of proximal development is the gap between the learner's current or actual level of development and that of the learner's potential development. The second, generic genetic law of cultural development theorises the social in connection with the psychological. In his view, collaborative activity among children promotes growth because children of similar ages are likely to be operating within one another's proximal zones of development, modeling in the collaborative group behaviour more advanced than those they could perform as individuals.

The works of John Dewey and Vygotsky show how social interaction is a crucial factor in cooperative learning. Thus, learning can develop through interaction and the construction of knowledge. According to Vygotsky's (1978) theory of social development, knowledge is social, constructed from cooperative efforts to learn, understand, and solve problems. Similarly, Piaget (1971) stated that knowledge inevitably contains a fundamental factor of assimilation which alone gives significance to what is perceived or conceived. Thus, knowledge is an accumulation of the things that we perceive around us, and that the people around us have a significant impact on what and how we perceive things. Vygotsky and Piaget's theories of how knowledge is constructed are only a few of the major premises of cooperative learning. The social development theory is closely linked with cognitive theories. The main thrust of this cognitive theory is the cognitive increase student achievement for reasons which have to do with mental processing of information rather than with motivations. Cooperative methods developed by cognitive theorists involve neither the group goals that are the cornerstone of the motivationalist methods nor the emphasis on building group cohesiveness characteristic of the social cohesion methods. However, there are several quite different cognitive perspectives, as well as some that are similar in theoretical perspective but have developed on largely parallel tracks.

One widely researched set of cognitive theories is the developmental perspective (Damon, 1984; Murray, 1982). The fundamental assumption of the developmental perspective on cooperative learning is that interaction among children around appropriate tasks increases their mastery of critical concepts. A cognitive perspective on cooperative learning quite different from the developmental viewpoint is one that might be called the cognitive elaboration perspective. Research in cognitive psychology has long held that if information is to be retained in memory and related to information already in memory, the learner must engage in some sort

of cognitive restructuring, or elaboration, of the material (Wittrock, 1986). One of the most effective means of elaboration is explaining the material to someone else. Research on peer tutoring has long found achievement benefits for the tutor as well as the tutee (Devin-Sheehan, Feldman and Allen, 1976). Donald Dansereau and his colleagues at Texas Christian University have found in an impressive series of brief studies that college students working on structured "cooperative scripts" can learn technical material or procedures far better than can students working alone (Dansereau, 1988; Patterson and Wallace 1994). In this method, students take roles as recaller and listener. They read a section of text, and then the recaller summarizes the information while the listener learned more than did students working alone, the recaller learned more (O'Donnell and Dansereau, 1992).

2.2. Approaches to Second-Language Teaching and Learning

A language approach can be defined as a theoretical view of instruction which is focused on the nature of the subject to be taught. It is a hypothetical concept underlying a particular way of teaching. Popular approaches to language teaching and learning include the following:

(1) Synthetic Approach
(2) Analytical Approach
(3) Natural approach

Each of the above-mentioned approaches will be discussed in the following paragraphs.

Synthetic approach is characterised by starting with the small units of writing, such as letter, and gradually building them into larger unit such as words and sentences. The alphabetical phonic methods belong to this language approach.

Analytical approach, on the other hand, is characterised by starting with relatively large unit, such as words, phrases and sentences, which are broken or analyzed into smaller units. The whole-word or look-and-say method and the language experience method belong to this approach.

The natural approach was developed by Stephen Krashen and Tracy Terrell in the early eighties (Krashen and Terrell, 1983), based on Krashen's theories about second language acquisition. The approach shared a lot in common with Asher's Total Physical Response method in terms of advocating the need for a "silent phase", waiting for spoken production to "emerge" of its own accord, and emphasizing the need to make learners as relaxed as possible during the

learning process. Some important underlying principles are that there should be a lot of language "acquisition" as opposed to language "processing", and there needs to be a considerable amount of "comprehensible input" forms the teacher. Meaning is considered as the essence of language and vocabulary (not grammar) is the heart of language.

As part of the Natural Approach, students listen to the teacher using the target language communicatively from the very beginning. It has certain similarities with the much earlier Direct Method, with the important exception that students are allowed to use their native language alongside the target language as part of the language learning process. In early stages, students are not corrected during oral production, as the teacher is focusing on meaning rather than form (unless the error is so drastic that it actually hinders meaning).

Communicative activities prevail throughout a language course employing the Natural Approach, focusing on a wide range of activities including games, role-plays, dialogues, group work and discussions. There are three generic stages identified in the approach: (i) Reproduction – developing listening skill; (ii) Early Production – students struggle with the language and make many errors which are corrected based on content and not structure; (ii) Extending Production – promoting fluency through a variety of more challenging activities.

2.3. Methods for Second-Language Teaching and Learning

A language method refers to the way the teacher decides to organize and conduct a lesson. It can be described as the pattern of interaction between the teacher and the learners, the learners and instructional materials or among the learners themselves for the purpose of achieving learning objectives. Method is derived from approach and it determines the role of the teacher and the students. They include the following methods:

(1) Grammar Translation Method
(2) The Direct method
(3) Audio-lingual method
(4) Community Language Learning Method
(5) Silent Way
(6) Total Physical Response
(7) Suggestopedia

Explanation on each of the aforementioned methods will be discussed in the following paragraphs.

Grammar Translation Method is a method that was historically used in teaching Greek and Latin. The method was generalised to teaching modern languages. It is a teaching method that employs the use of the mother-tongue to learn a target language, with little active use of the target language. Much vocabulary is taught in the form of lists of isolated words, when using this method. There is usually long elaborate explanations of the intricacies of grammar are given. Grammar provides the rules for putting words together, and instruction often focuses on the form and inflection of words. Also, reading of difficult classical texts is encouraged early and little or no attention is given to pronunciation.

The Direct Method, on the other hand, dictated that all foreign language teaching should occur in the target language only, with no translation and an emphasis on linking meaning to the language being learned. The method became very popular during the first quarter of the 20th century, especially in private language schools in Europe where highly motivated students could study new languages and not need to travel far in order to try them out and apply them communicatively. One of the most famous advocates of the Direct Method was the German Charles Berlitz, whose schools and "Belitz Method" is now world-renowned. The basic premise of the Direct Method is that students will learn to communicate in the target language, partly by learning how to think in that language and by not involving L1 in the language learning process whatsoever.

The Audio-lingual Method (ALM), otherwise known as the "Army Method", was developed to build communicative competence in translators through very intensive language courses focusing on aural/oral skills. This method incorporated many of the features typical of the earlier Direct Method, but the disciplines mentioned above added the concepts of teaching "linguistic patterns" in combination with "habit-forming". This method was one of the first to have its roots "firmly grounded in linguistic and psychological theory" (Brown 1994), which apparently added to its credibility and probably had some influence in the popularity it enjoyed over a long period of time. It also had a major influence on the language teaching methods that were to follow and can still be seen in major or minor manifestations of language teaching methodology even to this day. This method is based on the principles of behaviour psychology. It adapted many of the principles and procedures of the Direct Method, in part as a reaction to

the lack of speaking skills of the Reading Approach. New material is presented in the form of a dialogue. Based on the principle that language learning is habit formation, the method fosters dependence on mimicry, memorization of set phrases and over-learning. Structures are sequenced and taught one at a time. Structural patterns are taught using repetitive drills. Little or no grammatical explanations are provided; grammar is taught inductively. Skills are sequenced: Listening, speaking, reading and writing are developed in order. Vocabulary is strictly limited and learned in context. Teaching points are determined by contrastive analysis between L1 and L2. There is abundant use of language laboratories, tapes and visual aids. There is an extended pre-reading period at the beginning of the course. Great importance is given to precise native-like pronunciation. Use of the mother tongue by the teacher is permitted, but discouraged among and by the students. Successful responses are reinforced; great care is taken to prevent learner errors. There is a tendency to focus on manipulation of the target language and to disregard content and meaning.

The Community Language Learning method does not just attempt to teach students how to use another language very well. It also tries to encourage the students to take increasingly more responsibility for their own learning, and to "learn about their learning', so to speak. Learning in a non-defensive manner is considered to be very important, with teacher and student regarding each other as a "whole person" where intellect and ability are not separated from feelings. This methodology is not based on the usual methods by which languages are taught. Rather, the method is patterned upon counselling techniques and adapted to the peculiar anxiety and threat as well as the personal and language problems a person encounters in the learning of foreign languages. Consequently, the learner is not thought of as a student but as a client. The native instructors of the language are not considered teachers but, rather are trained in counselling skills adapted to their roles as language counsellors. The language-counselling relationship begins with the client's linguistic confusion and conflict. The aim of the language counsellor's skill is first to communicate empathy for the client's threatened inadequate state and to aid him linguistically. Then slowly the teacher-counsellor strives to enable him to arrive at his own increasingly independent language adequacy. This process is furthered by the language counsellor's ability to establish a warm, understanding, and accepting relationship, thus becoming an "other-language self" for the client.

Celeb Gattegno founded "The Silent Way" as a method for language learning in the early 70s sharing many of the same essential principles as the cognitive code and making good use of the theories underlying Discovery Learning. Some of his basic theories were that "teaching should be subordinated to learning" and "the teacher works with the student; the student works on the language". The most prominent characteristic of the method was that the teacher typically stayed "silent" most of the time, as part of his/her role as facilitator and stimulator, and thus the method's popular name. Language learning is usually seen as a problem solving activity to be engaged in by the students both independently and as a group, and the teacher needs to stay "out of the way" in the process as much as possible. There is an emphasis on human cognition in language learning in this method. Learners are responsible for their own learning – formulating independent hypotheses about the "rules" of the target language and testing those hypotheses by applying them and realizing errors. When students create their own sets of meaningful language rules and concepts and then test them out, they are clearly learning through a discovery/exploratory method that is very different form rote-learning. This appears to have much more in common with the way people learn their native language from a very early age, and can account for the way children come out with new language forms and combinations that they have never heard before. The underlying principles here are that learners become increasingly autonomous in, active with the responsible for the learning process in which they are engaged.

Total physical response is a language method that combines information and skills through the use of the kinesthetic sensory system. This combination of skills allows the student to assimilate information and skills at a rapid rate. As a result, this success leads to a high degree of motivation. This method owns a lot to some basic principles of language acquisition in young learners, most notably that the process involves a substantial amount of listening and comprehension in combination with various "physical responses" (smiling, reaching, grabbing, looking, etc) – well before learners begin to use the language orally. It also focused on the ideas that learning should be as fun and stress-free as possible, and that it should be dynamic through the use of accompanying physical activity. Asher (1977) also has a lot to say about right-brained learning (the part of the brain that deals with motor activity), believing it should precede the "language processing" element covered by the let-brain.

Total physical response is now a household name among teachers of foreign languages. It is widely acclaimed as a highly method at beginning levels, and a standard requirement in the instruction of young learners. It is also admired as method due to its inherent simplicity, making it accessible to a wide range of teacher and learning environment. One of the primary objectives underlying Asher's TPR methodology was that learning needed to become more enjoyable and less stressful. Asher thought that a natural way to accomplish this was to recreate the natural way children learn their native language, most notably through facilitating an appropriate "listening" and "comprehension' period, and encourage learners to respond using right-brain motor skills rather than left-brain language "processing".

Suggestopedia is the name reflecting the application of the power of "suggestion" to the field of pedagogy. One of the most unique characteristics of the method was the use of soft Baroque music during the learning process. It is believed that the music will create a level of relaxed concentration that can facilitate the intake and retention of huge quantities of material. The method was developed in the late 70s, by a Bulgarian psychologist Georgi Lozanov.

Other characteristics of Suggestopedia were the giving over of complete control and authority of the teacher and the encouragement of learners to act as "childishly" as possible, often even assuming names and characters "in" the target language. All of these principles in combination were seen to make the students "suggestible" and therefore able to utilize their maximum mental potential to take in and retain new material. The prime objective of Suggestopedia is to tap into more of students' mental potential to learn, in order to accelerate the process by which they learn to understand and use the target language for communication. Four factors considered essential in this process were the provision of a relaxed and comfortable learning environment, the use of soft baroque music to help increase alpha brain waves and decrease blood pressure and heart rate, "desuggestion" in terms of the psychological barriers learners place on their own learning potentials, and "suggestibility" through the encouragement of learners assuming "child-like" and/or new roles and names in the target language.

2.4. Theories of Language Learning and Acquisition

Over the last fifty years, several theories have been put forward to explain the process by which children learn to understand and speak a language. They can be summarized as follows:-

Table 2.1: Different Theories of Language Learning and Acquisition

Theory	**Central Idea**	**Individual most often associated with theory**
Behaviourist	Children imitate adult. Their correct utterances are reinforced when they get what they want or are praised.	Skinner
Innateness	A child brain contains special language learning mechanisms at birth	Chomsky
Cognitive	Language is just one aspect of a child's overall intellectual development.	Piaget
Interaction	This theory emphasizes the interaction between children and their care-givers.	Bruner

The behaviourist psychologists developed their theories while carrying out a series of experiment on animals. They observed that rats or birds, for example, could be taught to perform various tasks by encouraging habit forming, researchers rewards desirable behaviour. This was known as positive reinforcement. Undesirable behaviour was punished or simply not rewarded- negative reinforcement. The behaviourist B.F Skinner then proposed this theory as an explanation for language acquisition in humans.

Noam Chomsky published a criticism of the behaviourist theory in 1957. In addition to some of the arguments listed above, he focused particular on the impoverished language input children receive. Adult do not typically speak in grammatically complete sentences. In addition, what the child hears is only a small sample of language.

Chomsky concluded that children must have an inborn faculty for language acquisition. According to this theory, the process is biologically determined- the human species has evolved a brain whose neural circuits contain linguistic information at birth. The child's natural

predisposition to learn language is triggered by hearing speech and the child's brain is able to interpret what s/he hears according to the underlying principles or structure it already contains. This natural faculty has become known as the Language Acquisition Device (LAD). Chomsky did not suggest that an English child that all human language share common principle, (for example, they all have words or things and action- noun- nouns and verbs). It is the child's task to establish how the specific language s/he hears expresses these underlying principles.

The Swiss psychologist Jean Piaget placed acquisition of language within the context of a child's mental or cognitive development. He argued that a child has to understand a concept before s/he can acquire the particular language form which expresses that concept. A good example of this is seriation. There will be a point in a child's intellectual development when s/he can compare objects with respect to arrange them in order of size. Piaget suggested that a child who had not yet reached this stage would not be able to learn and use comparative adjectives like "bigger" or "similar".

Object permanence is another phenomenon often cited relation to the cognitive theory. During the first year of life, children seem unaware of the existence of objects they cannot see. An object which moves out of sight ceased to exist. By the time they reach the age of 18 months, children have realized that objects have an existence independently of their perception. The cognitive theory draws attention to the large increase in children's vocabulary at around this age, suggesting a link between object permanence and the learning of labels for objects.

During the first year to 18 months, connections of the type explained above are possible to trace but, as a child continues to develop, so it becomes harder to find clear links between language and intellect. Some studies have focused on children who have learned to speak fluently despite abnormal mental development. Syntax in particular does not appear to rely on general intellectual growth.

In contract to the work of Chomsky, more recent theories have stressed the importance of the language input children receive from their care-givers. Language exists for the purpose of communication and can only be learned in the context of integrationists' who want to communicate with you. Integrationists such as Jerone Bruner suggest that the language behaviour of adults when talking to children (known by several names by most easily referred to as child-directed speech or CDS) is specially adapted to support the acquisition process. This

support is often described to as scaffolding for the child's language learning. Bruner also coined the term Language Acquisition support System or LASS in response to Chomsky's LAD.

These theories serve as a useful corrective to Chomsky's early position it seems likely that a child will learn more quickly with frequent interaction. However, it has already been noted that children in all cultures pass through the same stages in acquiring language. We have also seen that there are cultures in which adults do not adopt special ways of talking to children, so CDS may be useful but seem not to be essential. As stated earlier, the various theories should not be seen simply as alternatives. Rather, each of them offers a partial explanation of the process.

There are some aspects of language acquisition that a child must undergo. Before looking in more detail at the process by which children acquire their native language, it is worth considering just what the task consists of. It is remarkable that a child learns such a vast and complex system in such a short time. The language frameworks offer a useful structure for listing the skills each of us acquires during the first few years of life.

In order to speak a language at all, a child has to be able to produce the individual speech sounds or phonemes. Each language and dialect of a language will use a particular selection of phonemes from the repertoire of sounds which can be made by the human vocal tract. This is why a native English speaker speaks French with an English accent and a native French speaker spaks English with a French accent: we are used to the phonemes of our own language and use them even when speaking another language. Most English speakers use around 20 vowel sounds and about 24 consonants. Some sounds will be apparent in early babbling. While others may not appear until much later, long after the child has stated using recognizable words. As well as mastering the individual sounds, speech requires that a speaker can combine them in a variety of ways, which will again be characteristic of the particular language or dialect s/he is learning.

2.5. Theoretical Studies on Cooperative Learning

The theoretical studies on cooperative learning will be reviewed by examining the essential elements of cooperative learning, types of cooperative learning groups, and variants of cooperative learning strategies. The essential elements of cooperative learning are elements require in a cooperative set up. They include the following:

(1) Positive Interdependence

(2) Promotive Interaction

(3) Social skills

(4) Individual Accountability / Personal Responsibility

(5) Group Processing

In setting up and having learners complete group tasks within a cooperative learning framework, a number of essential elements or requirements must be met. The exact number, name and order of these requirements vary from one school of thought to another. However, nearly all agree that, in one way or another, the elements listed below are essential.

The teacher gives a clear task and a group goal so that students believe they "sink or swim together." Positive interdependence is successfully structured when group members perceive that they are linked with each other in a way that one cannot succeed unless everyone succeeds. The failure of one ensures the failure of all. Group members know that each member's efforts benefit not only him/herself, but all group members.

Learners need to arrange themselves so that they are positioned and postured to face each other for direct eye-to-eye contact and face-to-face academic conversion, in which they promote each other's success by sharing resources and helping, supporting, encouraging, and praising each other's efforts to learn. Cooperative learning groups are both an academic support system and a personal support system. There are important cognitive activities and interpersonal dynamics that can only occur when students promote each other's learning. This includes orally explaining how to solve problems, discussing the nature of the concepts being learned, teaching one's knowledge to classmates, and connecting present with past learning. It is through promoting each other's learning face-to-face that members become personally committed to each other as well as to their mutual goals (Johnson, Johnson, & Holubec, 1998).

When working in a team, students need to possess interpersonal skills and group skills in addition to knowledge of the subject matter. Group members must know how to provide effective leadership, decision-making, trust building, communication and conflict-management, and be motivated to use the prerequisite skills" (Johnson, Johnson and Holubec, 1998). Some of the social skills that can be developed in a cooperative context are:

(a) Shared Leadership: Like sharing the tasks tackled, taking turns talking, talking about several answers before choosing one, and discussing many ideas before selecting one.

(b) Trust Building: Like telling others when they do a job well, showing happiness for them, showing respect for one another's ideas, and criticizing ideas, not people.

(c) Communication: Like asking for help and giving help, listening when others talk, showing interest in what others say, avoiding put-downs, and adding to another person's ideas.

(d) Conflict Management: Like looking for evidence before change one's mind, asking questions to help understanding one another's point of view, staking someone else's opinion that is different from one's own.

After positive interdependence, a key variable mediating the effectiveness of cooperation is a sense of personal responsibility for contributing one's efforts to accomplish the group's goals. This involves being responsible for completing one's share of the work and facilitating the work of other group members and minimally hindering their efforts. Personal responsibility is promoted by individual accountability. Members will reduce their contributions to goal achievement when the group works on tasks where it is difficult to identify members' contributions, when there is an increased likelihood of redundant efforts, when there is a lack of group cohesiveness, and when there is lessened responsibility for the final outcome (Williams, 1981; Williams, Harkins and Latane, 1981).

If, however, there is high individual accountability and it is clear how much effort each member is contributing, if redundant efforts are avoided, if every member is responsible for the final outcome, and if the group is cohesive, then the social loafing effect vanished. The smaller the size of the group, in addition, the greater the individual accountability may be (Messich & Brewer, 1983).

The final element necessary to make cooperation work is structuring group processing. This element is present when students discuss how well they are achieving their goals and maintaining relationships. Without group processing, cooperative groups are often only groups of students sitting together working on the same task (Johnson, Johnson and Holubec, 1999). Learners spend time after the group tasks have been completed to systematically reflect upon how they worked together as a team in such areas as:

(a) How well they achieving their group goals;

(b) How they helped each other comprehend the content, resources, and task procedures;

(c) How they used positive behaviour and attitudes to enable each individual and the entire group as a group to be successful;

(d) What they need to do next time to make their groups even more successful.

Every one of the proceeding elements does not have to be used every time the teacher assigns learners to work in-groups. More importantly, unless these elements are used frequently and correctly, teachers should not expected the many positive long-term results of cooperative learning that can be achieved.

2.5.1. Types of Cooperative Learning Groups

Johnson, Johnson and Holubec's (1998) theory identified three types of cooperative learning groups: formal, informal, and base groups. In formal cooperative learning groups, the groups range in length from one class period to several weeks. The teacher can structure any academic assignment or course requirement for formal cooperative learning. Formal cooperative learning groups ensure that students are actively involved in the intellectual work of organizing material, explaining it, summarizing it, and integrating it into existing conceptual structures.

However, in informal cooperative learning groups, learning groups may last from a few minutes to a whole class period. The teacher uses them during direct teaching (lectures, demonstrations) to focus student attention on the material to be learned, set a mood conducive to learning, help set expectations about materials, what the lesson will cover, ensure that students are cognitively processing the material being taught.

Nonetheless, cooperative base groups are "long-term (lasting for at least a year), heterogeneous groups with stable membership whose primary purpose is for members to give each other the support, help, encouragement, and assistance each needs to progress academically. Base groups provide students with long-term, committed relationships.

2.5.3. Variants of Cooperative Learning Strategies

There are a lot of variants of cooperative learning strategies. Some of them include the ones listed below:

(1) Students Teams Achievement Divisions (STAD)

(2) Team- Games- Tournament (TGT)

(3) Team- Assisted -Individualization (TAI)

(4) Jigsaw

(5) Cooperative Integrated Reading and Composition

(6) Learning Together (LT)

(7) Group Investigation

(8) Numbered-Heads-Together (NHT)

(9) Academic Controversy (AC)

(10) Three-Step Interview (TSI)

(11) Roundtable

(12) Think-Pair-Share (TPS)

(13) Visible Quiz

(14) Galley walk

In Students Teams Achievement Divisions (STAD), students are mixed in performance level, gender and ethnicity. The teacher presents a lesson and then students work within their teams to make sure that all team members have mastered the lesson. Finally, all students take individual quizzes on the material, at which time they may not help one another. Students quiz scores are compared to their own past averages, and point based on the degree to which students can meet or exceed their own earlier performance are awarded. These points are then summed to form team scores, and teams that meet certain criteria earn certificate or other rewards. The whole cycle of activities from teacher's presentation to team practice to quiz usually takes 3-5 class periods. The STAD method has been used in most subjects, from mathematics, arts, to social studies. It is most appropriate from teaching well-defined objectives with single answer, such as mathematics, geography and map skills, and science concepts.

Team-Games-Tournament (TGT), another cooperative variant uses the same teacher presentation and team work as in STAD but replaces the quizzes with weekly tournament, in

which students compete with member of other teams to contribute point to their test scores. Students compete at three-person – tournaments against others with similar past records. A bumping procedure keeps the competition fair by changing assignment to tournament tables each week based on side performance. As in STAD, high performance teams each certificate or other forms of teams' rewards.

Team- Assisted -Individualization (TAI) cooperative variant shares familiarities with STAD and TGT in the use of four- member, mixed ability learning teams and certificates for high performing teams. But where STAD and TGT use a single pace of instruction for the class, TAI combines cooperative learning with individualized instruction. In TAI, students enter an individualized sequence according to placement test and then proceed at their own rates. In generation team member work on different units. Teammates check each other's work against answer sheet and help each other with problems. Final unit tests are taken without teammate help. Each week, teacher total up the number and give certificates or other teams' rewards to teams that exceed a criterion score based on the number of final tests passed, with extra points for perfect papers and completed homework.

In cooperative integrated reading and composition, teachers use basal readers and reading group, much as in traditional reading programmes. However, students are assigned to teams reading programmes. However, students are assigned to teams composed of pairs of students from two different reading groups. While the teacher is working with one reading groups, students in the other groups are working in their pairs on a series of cognitively engaging activities, including reading to one another, making predictions about how narrative, stories come out, summarizing stories to one another, writing responses to stories, and practicing spelling, decoding, and vocabulary. Students work in teams to master main idea and other comprehension skills. During language arts periods, students write drafts, revise and edit one another's work, and prepare for "publication" of team books.

In the Jigsaw method (Aronson, Blaney, Stephen, Sikes, and Snapp, 1978), students are assigned to six member teams to work on academic material that has been broken into sections. For example, a biography might be later divided into early life, first accomplishments, major setbacks, later life, and impact on history. Each team member reads a section. Members of different teams, who have studied the same sections, meet in "expert groups" to discuss their

sections. Then, the students return to their teams and take turns to teach their teammates about their section. Several modifications of Jigsaw have also been designed (Slavin, 1986).

The Learning Together model of cooperative learning (Johnson and Johnson, 1987) was developed at the University of Minnesota. The method involves use of heterogeneous groups working on assignment sheets. The groups hand in a single sheet, and receive praises and rewards based on the group product.

The Group Investigation strategy was developed at the University of Tel-Aviv (Sharan and Shachar, 1988), group investigation is a general classroom organization plan in which students work in small groups using cooperative inquiry, group discussion, and cooperative planning and projects. Students form their own two-to six-member groups. After choosing subtopics from a unit being studied by the entire class, the groups further break their subtopics into individual tasks and carry out the activities necessary to prepare group reports. Each group then makes a presentation or display to communicate its findings to the entire class. Interactive discourse is elaborated in Group Investigation more than in other cooperative methods. Much research and experience show that student talk makes a significant contribution to learning. The Group Investigation is a collaborative model for classroom instruction and school learning that integrates interaction and communication in the classroom with the process of academic inquiry (Sharan and Sharan 1992). Group Investigation can be defined in terms such as parallel aims, responsibility for collaboration, authentic problems, shared expertise and dialogic discussions. In Group Investigation students explore their ideas, clarify them, and finally make them their own.

In Group Investigation the students are called on to use all their interpersonal and study skills and apply them to the planning of specific learning goals. They take an active part in examining, experiencing and understanding their study topic. The student's opportunities to learn by asking questions, to obtain information and their experience are maximized in Group Investigation. Group Investigation has effects on conducting student discussions in which they elaborate on the subject, challenge and amend one another's ideas, and thus remember these ideas more easily. Four critical components typifying the Group Investigation approach are investigation, interaction, interpretation and intrinsic motivation. They are interrelated and simultaneously present:

(a) Investigation refers to the organization and procedures for directing the conduct of classroom learning as a collaborative process of knowledge building. It is the most general component in Group Investigation. Investigation enables the other three components to take place.

(b) Interaction describes the social dimension of the learning process. Interaction among students contributes to their ability to interpret and make the information meaningful. The interaction between peers is important in promoting verbalization and discussion.

(c) Interpretation occurs both at the social and the individual cognitive level. Individual's understanding of the topic under study is enhanced by their interpretation of the information. Students transform information into knowledge through interpretation of information.

(d) Intrinsic motivation refers to the student's emotional involvement. The goal is to have students become personally interested in investigation. (Sharan 1992) Intrinsic motivation can be seen as a consequence of the other three.

In Numbered-Heads-Together (NHT), members of learning teams usually composed of four individuals count off: 1, 2, 3, and 4; the teacher poses a question or problem requiring higher order thinking skills. Students discuss the question to solve the problem, making certain that every group member can summarize the group's discussion or can explain the problem. The instructor calls a specific number to respond as group spokespersons. In this activity, students benefit from the verbalization, from the opportunity to exchange differing perspectives, and from the peer coaching that helps high and low achievers, alike. Students become actively involved with the material and, since no one knows which number the teacher will call, each has a vested interest in being able to articulate the appropriate response. Those chosen randomly as spokespersons (often students who do not volunteer during a whole-class discussion) feel far less threatened giving a team, rather than an individual, answer. It is way of reviewing information that has been previously taught through direct instruction or text. This model works well with unambiguous questions that allow students to come to consensus.

Academic controversy is the instructional use of intellectual conflict to promote higher achievement and increase the quality of problem solving, decision making, critical thinking, reasoning, interpersonal relationships, and psychological health and well-being. To engage in an academic controversy students must research and prepare a position, present and advocate their position, reverse perspectives, and create a synthesis that everyone agrees to. Structured academic controversy is most often contrasted with concurrence seeking, debate, and

individualistic learning. To resolve an issue through concurrence seeking, students inhibit discussion to avoid any disagreement and compromise quickly to reach a consensus. In a debate, students present and defend only one position before a judge who ultimately determines who presented the best position. In individualistic learning, students consider issues independently, working on their own with their own set of material at their own pace. Academic controversy results in more positive outcomes for students compared to concurrence seeking, debate, or individualistic learning.

There is considerable research evidence validating the use of academic controversy (Johnson & Johnson, 1989, 1995). The positive outcomes for students can be classified into three broad areas:

(a) Achievement: Academic controversy results in greater achievement and retention; higher quality reasoning, problem solving and decision making; more frequent creative insight; more thorough exchange of expertise; greater task involvement; and attitude change.

(b) Interpersonal Relationships: Academic controversy results in greater liking and social support among participants.

(c) Psychological Health: Academic controversy results in greater self-esteem, social competence, and ability to cope with stress and adversity.

The controversy procedure consists of five steps (Johnson and Johnson 1995).

(a) Organizing Information and Deriving Conclusions: Students research a position, learn the relevant information, and prepare a persuasive "best case possible" for the position.

(b) Presenting and Advocating Positions: Students present in a persuasive and convincing way the "best case possible" for their position.

(c) Uncertainty Created by Being Challenged by Opposing Views: Students engage in an open discussion in which they argue forcefully for their position, refute the opposing position, and rebut attacks on their position.

(d) Epistemic Curiosity and Perspective Taking: Students reverse perspectives and present the opposing position as accurately, completely, persuasively, and forcefully as they can.

(e) Reconceptualizing, Synthesizing and Integrating: Students drop all advocacies, create a synthesis or integration of the opposing positions, and reach a consensus on the best reasoned judgment that may be made about the issue.

In Three-Step Interview (TSI), the instructor usually poses the interview questions, focused on content material and having no right or wrong solutions. In a Three-Step Interview, one student interviews another within specified time limits (Step One). The two then reverse roles and conduct the interview again (Step two). In a learning team composed of two pairs, the students then share the highlights of the information or insights gleaned from the paired interview (Step three). This structure is developed by Kagan (1989). It helps students reinforce and internalise important concept-related information based on lecturers or textbook material, it also reinforces listening and probing skills, and helps students process and rehearse information, and results in shared insights.

Roundtable is a cooperative learning structure that is useful for brainstorming, reviewing, or practicing a skill. It uses a single sheet of paper and pen for each cooperative learning group. Students in the group respond in turn to a question or problem by stating their ideas aloud as they write them on the paper. It is important that the ideas be vocalized for several reasons:

(a) Silence in a setting like this is boring, rather than golden;

(b) Other team members need to be reflecting on the proffered thoughts;

(c) Variety of results because team-mates learn immediately that someone has come up with an idea they know now not to repeat.

(d) Hearing the responses said aloud means that students do not have to waste

In Roundtable, the multiple answers encourage creativity and deeper thinking. This activity builds positive interdependence among team members because of the shared writing surface, but more importantly, it builds team cohesion and reinforces the power of teamwork because students see in action the value of multiple viewpoints and ideas.

In Think-Pair-Share (TPS) that was developed by Frank Lyman (1981), the instructor poses a question, preferably one demanding analysis, evaluation, or synthesis, and gives students thirty seconds or more to think through an appropriate response (Think). This time can also be spent writing the response. After this “wait time”, students then turn to partners and share their response, thus allowing time for both rehearsal and immediate feedback on their ideas (Pair). During the third and last stage, student responses can be shared within learning teams, with larger groups, or with the entire class during a follow-up discussion (Share).

The calibre of discussion is enhanced by this technique since, too often, the extroverts with the quickest hand reflexes are called on when an instructor poses a question to the entire

class. In addition, all students have an opportunity to learn by reflection and by verbalization. Think-Pair-Share, like most other cooperative learning structures, capitalizes on the principle of simultaneity (Kagan, 1992).

In Visible Quiz**,** students in groups discuss the appropriate response to quiz questions, ones typically displayed on an overhead projector. The answers can be multiple choice (A, B, C, or D) or True (T) or False (F). Each team has a set of large cards with the four letters and the T and F, all sets composed with letters in the same colour (All A'S would be red, for example, and all T's yellow). At a given signal, one person from each team displays the team's choice. The instructor can quickly survey the room to determine how well students understood the question. She then gives the correct answer, going into a mini-lecture if a minority of students gave inappropriate responses. She can also call on groups to explain the rationale for their selection, sometimes uncovering genuine misconceptions and sometimes uncovering poorly constructed, ambiguous wording in the questions.This technique gives both students and teachers immediate feedback on learning. Peer coaching also goes on when the teams discuss each question.

A Galley walk requires a report-put that can be virtually depicted, preferable on butcher paper. It can be an outline, a concept or mind map, or any other written product. In this case designated student stays by the desk or table or next to the butcher paper if it is tape to the wall and serves as the group spokesperson. The other students rotate round the room examining the products of other teams' thinking, asking questions of the designated spokesperson. (The spokesperson role should be rotated so that no one is left without the stimulation of exploring the different student creations).

This structure is also efficient and engenders a sense of team cohesion as each group displays the product of their "group think". The variety of the end products emphasizes the value of critical/creative thinking. This activity motivates students to read important chapters or articles prior to a class session. Besides this useful "front-loading" of course material, another key objective is to build critical thinking and writing skills by having students contrast and then compare their responses to the same piece of writing.

Articles on a specific topic are identified. Students, working individually, prepare a reflective commentary on one of the articles or chapters. They do so using a double-column format, where they cite key points excerpted from the original source on the left-hand side and reactions, questions, commentary, and connections with other readings on the right. When

students come to class, each student is randomly paired with another student who has read and analyzed the same article or chapter. The two partners then, read one another's reflective commentaries, comparing both the key points they have identified and their specific responses to them. They discuss their reasons for these choices. Then, working together, they prepare a composite annotation summarizing the article. If time permits, several students can present to the class their joint annotations. This step offers more peer reinforcement and enhances the speaking/presentation skills students will need.

This activity should be repeated several times during the semester, pairing different students. It enables students to reflect on their own thinking skills (metacognition) and to compare their thinking with that of other students. The more paired annotations they complete, the more skilled students become at identifying key points in the article. They are also more likely to remember the material because they had an opportunity not only to give a personal response, but also to discuss their response with another individual.

2.6. Empirical Studies on Cooperative Learning

Cooperative learning is one of the most remarkable and fertile areas of theory, research, and practice in education. Cooperative learning exists when students work together to accomplish shared learning goals (Johnson and Johnson, 1999). Each student can then achieve his or her learning goal if and only if the other group members achieve theirs (Deutsch, 1962). In the past three decades, modern cooperative learning has become a widely used instructional procedure in preschool through graduate school levels, in all subject areas, in all aspects of instruction and learning, in non-traditional as well as traditional learning situations, and even in after-school and non-school educational programmes. There is broad dissemination of cooperative learning through teacher preparation programmes, in-service professional development, and practitioner publications. The use of cooperative learning so pervades education that it is difficult to find textbooks on instructional methods, teachers' journals, or instructional materials that do not mention and utilize it. While a variety of different ways of operationalizing cooperative learning have been implemented in schools and colleges, there has been no comprehensive review of the research evidence validating the cooperative learning methods. The purpose of this review, therefore, is to examine the empirical support validating

the effectiveness of the different methods of cooperative learning. In order to do so, it is first helpful to discuss why cooperative learning is so widely used.

The widespread use of cooperative learning is due to multiple factors. Three of the most important factors are that cooperative learning is clearly based on theory, validated by research, and operationalized into clear procedures educators can use. First, cooperative learning is based solidly on a variety of theories in anthropology (Mead, 1936), sociology (Coleman, 1961), economics (Von Mises, 1949), political science (Smith, 1759), psychology, and other social sciences. In psychology, where cooperation has received the most intense study, cooperative learning has its roots in social interdependence (Deutsch, 1949, 1962; Johnson & Johnson, 1989), cognitive-developmental (Johnson & Johnson, 1979; Piaget, 1950; Vygotsky, 1978), and behavioural learning theories (Bandura, 1977; Skinner, 1968). It is rare that an instructional procedure is central to such a wide range of social science theories.

Second, the amount, generalizability, breath, and applicability of the research on cooperative, competitive, and individualistic efforts provides considerable validation of the use of cooperative learning, perhaps more than most other instructional methods (Cohen, 1994a; Johnson, 1970; Johnson & Johnson & Johnson, 1974, 1978, 1989, 1999a; Kohn, 1992; Sharan 1980; Slavin, 1977, 1991). There are over 900 research studies validating the effectiveness of cooperative over competitive and individual efforts. This body of research has considerable generalizability since the research has been conducted by many different researches with markedly different orientations working in different settings and countries and in eleven different decades, since research participants have varied widely as to cultural background, economic class, age and gender, and since a wide variety of research tasks and measures of the dependent variables have been used. The research on cooperative efforts, furthermore, has unusual breath, that is, it has focused on a wide variety of diverse outcomes. Over the past 100 years researchers have focused on such diverse outcomes as achievement, higher-level reasoning, retention, time on task, transfer of learning achievement motivation, intrinsic motivation, continuing motivation, social support, friendships, reduction of stereotypes and prejudice, valuing differences, psychological health, self-esteem, social competence, internalization of values, the quality of the learning environment, and many other outcomes. There may not be other instructional strategy that simultaneously achieves such diverse outcomes.

The diverse and positive outcomes that simultaneously result from cooperative efforts have sparked numerous research studies on cooperative learning focused on preventing and treating a wide variety of social problems such as diversity (racism, sexism, inclusion of handicapped), antisocial behaviour (delinquency, drug abuse, bullying, violence, incivility), lack of prosocial values and egocentrism, alienation and loneliness, psychological pathology, low self-esteem, and many more (see reviews by Cohen, 1994a; Johnson & Johnson, 1974, 1989, 1999a; Johnson, Johnson, & Maryama, 1983; Kohn, 1992; Sharan, 1980; Slavin, 1991). For preventing and alleviating many of the social problems related to children, adolescents, and young adults, cooperative learning is the instructional method of choice.

The third factor contributing to the widespread use of cooperative learning is the variety of cooperative learning methods available for teacher use; ranging from very concrete and prescribed to very conceptual and flexible. Cooperative learning is actually a generic term that refers to numerous methods for organizing and conducting classroom instruction. Almost any teacher can find a way to use cooperative learning that is congruent with his or her philosophies and practices. So many teachers use cooperative learning in so many different ways that the operationalizations cannot all be listed here. In assessing the effectiveness of specific cooperative learning methods, however, there are a number of "researcher-developers" who have developed cooperative learning procedures, conducted programmes of research and evaluation of their method, and then involved themselves in teacher-training programmes that are commonly credited as the creators of modern-day cooperative learning. The following have received the most attention : Complex Instruction (CI) (Cohen, 1994b), Constructive Controversy (CC) (Johnson and Johnson, 1979), Cooperative Integrated Reading and Composition (CIRC) (Stevens, Madden, Slavin, and Farnish, 1987), Cooperative Structures (CS) (Kagan, 1985), Learning Together (LT) (Johnson and Johnson, 1975/1999), Student Teams Achievement Divisions (STAD) (Slavin, 1978), Teams-Games-Tournaments (TGT) (De Vries and Edwards, 1974), and Team Assisted Individualization (TAI) (Slavin, Leavey, and Madden, 1982).

Table 2.2: Researcher-Developers of Cooperative Learning Variants

Research-Developer	Date	Method
Johnson & Johnson	Mid 1960s	Learning Together & Alone
De Vries & Edwards	Early 1970s	Teams-Games-Tournaments (TGT)
Sharan & Sharan	Mid 1970s	Group Investigation
Johnson & Johnson	Mid 1970s	Constructive Controversy
Aronson & Associates	Late 1970s	Jigsaw Procedure
Slavin & Associates	Late 1970s	Student Teams Achievement Divisions
Cohen	Early 1980s	Complex Instruction
Slavin & Associates	Early 1980s	Team Accelerated Instruction (TAI)
Kagan	Mid 1980s	Cooperative Learning Structure
Stevens, Slavin & Associates	Late 1980s	Cooperative Integrated Reading &Composition (CIRC)

This combination of theory, research, and practice makes cooperative learning a powerful learning procedure. Knowing that cooperative learning can have powerful effects when properly implemented does not mean, however, that all operationalizations of cooperative learning will be effective or equally effective in maximizing achievement. While many different cooperative learning methods will be mostly effective in their situation.

2.7. Review of Literature on Benefits of Cooperative Learning

Cooperative learning is a personal philosophy, not just a classroom technique. In all situations where people come together in groups, it suggests a way of dealing with people which respects and highlights individual group member's abilities and contributions. The underlying premise of CL is based upon consensus building through cooperation by group members, in contrast to competition in which individuals best other group members. CL practitioners apply this philosophy in the classroom, at committee meetings, with community groups and generally as a way of living with and dealing with other people (Paniz 1997).

As pedagogy, CL involves the entire spectrum of learning activities in which groups of students work together in or out of class. It can be as simple and in formal as pairs working

together in or out of class. It can be as simple and informal as pairs working together in a Think-Pair-Share procedure, where students consider a question individually, discuss their ideas with another student to form a consensus answer, and then share their results with the entire class, to the more formally structured process known as cooperative learning which has been defined by Johnson and Johnson

Cooperative develops higher level thinking skills. Students working together are engaged in the learning process instead of passively listening to the teacher present information or reading information off a computer screen. Pairs of students working together represent the most effective form of interaction, followed by threesomes and larger groups (Schwartz, Black, Strange 1991). When students work in pairs one person is listening while the other partner is discussing the question under investigation. Both are developing valuable problem solving skills by formulating their ideas, discussing them, receiving immediate feedback and responding to questions and comments by their partner (Johnson, D.W. 1971). The interaction is continuous and both students are engaged during the session. Compare this situation to the lecture class where students may or may not be involved by listening to the teacher or by taking notes (Cooper, et al 1984).

According to Roberta Dees (!991) "Although it is not clear which components of cooperative learning are responsible for improvement in higher-level thinking, attempts have been made to identify the components. One conjecture is that dealing with controversy may be such as element. "Smith, Johnson, and Johnson, (1981) studied sixth grade students who worked on controversial issues. They found that for students engaged in controversy, "the cognitive rehearsal of their own of mastery and retention of the materials being learned ". The Johnson has developed a cooperative method called structured controversy where students study and defend one position and then switch with another group which has taken the opposite position. Slavin (1992) emphasizes that "Students will learn from on e another because in their discussions of the, content, cognitive conflicts will arise, inadequate reasoning will be exposed, disequilibrium will occur, and higher quality understanding will emerge.

O'Donnel et al (1988) found that the initial benefits that accrued from a brief cooperative training experience persisted over relatively long intervals and that students trained in the dyadic cooperative approach successfully transferred their skills to individually performed tasks (McDonald et al 1985).

Cooperative learning stimulates critical thinking and helps students clarify ideas through discussion debate. The level of discussion and debate within groups of three or more and between pairs is substantially greater than when an entire class participates in a teacher led discussion. Students receive immediate feedback or questions about their ideas and formulate responses without having to wait for long intervals to participate in the discussion (Peterson and Swing 1985). This aspect of collaborative learning does not preclude whole class discussion. In fact whole class discussion is enhanced by having students think out and discuss ideas thoroughly before the entire class discusses an idea or concepts. The level of discussion becomes much more sophisticated. In addition, the teacher may temporarily join a group's discussion to question ideas or statements made by group members or to clarify concepts or questions raised by students. Nelson-LeGall (1992), comments on the value of debate in enhancing critical thinking skills in students and she reported that "an awareness of conflicting viewpoints appears to be necessary in collaborative groups to engender the type of peer transactions (e.g.) arguments, justifications, explanation, and counter-arguments that foster cognitive growth (Brown & Palinscar, 1989)" Another aspect of the benefits of cooperative discussion is the effect it has on students who peer edit written work. According to Mc Carthey and McMahon (1992) "research focusing specifically in revision when peers respond to and edit writing has revealed that students can help one another improve their writing through response. Nystand (1986) found that students who responded to each other's writing tended to reconceptualize revision, not as editing, but as a more students who did not work in groups viewed the task as editing only (19) Combining discussion with peer editing results in an important aspect of developing critical thinking skills in students.

Cooperative learning develops oral communication skills. When students are working in pairs one partner verbalizes his/her answer while the other listens, asks questions or comments upon what he/she has heard. Clarification and explanation of one's answer is a very important part of the collaborative process and represents a higher order thinking skill (Johnson, Johnson, Roy, Zaidman 1985). Students who tutor each orally communicate it to their partner (Neer 1987). Tannenberg (1995) describes the benefits of developing oral skills which are discipline specific "as in order disciplines, computer scientists use specialized language to economically and precisely communicate with one another. This involves not only mathematical symbols and programme languages, but additional terms and special uses of natural language. A consequence

of having students work together in small groups is that they speak with one explain their ideas relating to the problems that they are solving, whether it be about a graph, programme, algorithm, or proof, they will of necessity acquire the terms that describe these objects.

Tannenberg (1995) states that "the additional benefit in having our students being fluent languages users is that they can them enter into the culture of our disciplines. They will be able to understand specialized publications and talk with more knowledgeable practitioners. That is, acquiring the language of the discipline opens the portal to the vase store of knowledge within the discipline. We should therefore not minimize the value of having our students be able to talk with one another about their work in the disciplines that we teach. The social setting of CL provides this opportunity. Berson (1992) points out the role of speech in children's development as identified by Vygotsky. He states "In his research Vygotsky (1978) reports that children's egocentric speech not only accomplished the task but also played a specific role in task solution. In this regard, he explained that children's speech and action were part of one and the same complex psychological function, directed toward the solution of the problem at hand. In fact, Vygostsky believes that the more complex the action demanded by the situation, and the less direct the solutions, the greater the importance played by speech in the solution."

When students work in groups and express themselves orally three benefits occur. First, the more advanced students demonstrate appropriate ways of approaching a problem, how they analyze content material and formulate arguments and justifications for their approaches. Through the process of questioning by peers these students becomes more aware of the thinking about a problem in small increments, in isolation, a group will often look at a problem from a wider perspective and consider many more options as possible solutions than one person thinking alone would. Third, by discussion various aspects of a problem solution and various aspects of a problem solutions and questioning the more advanced students, the novices in the group can participate in actually solving the problem and eventually learn how to solve problems without the help of their peers. Nelson Legall points out that, "Through encouragement from the group to try new, more active approaches and through social support and social reward for even partially successful efforts, individual students in a group come to think of themselves as capable of engaging in interpretation". (LeGall 1992p63)

Cooperative learning fosters meta-cognition in students. Metacognition involves student recognition and analysis of how they learn (O' Donnell and Dansereau 1992). Metacognition

activities enable students to monitor their performance in a course and their comprehension of the content material. This includes detecting errors and learning how to make corrections while monitoring one's performance. Cooperative learning Structure encourages the development of metacognitive learning because they focus on the process of learning, which includes the evaluation of the group's work by individual group members, assessment and improvement of the corrections in each individual's performance. The content matter is almost secondary to the learning process.

Metacognition is reinforced through cooperative activities which ask students to reflect on their group's performance and make suggestions for improvement and likewise asks students to reflect upon their individual contributions and performance and make corrections which will improve future group actions and results. Students act as mediators of their fellow students' thinking because group discussions call for elaboration and analysis of the initial interpretations made by their peers followed by students modifying their initial approaches (Pressels 1992). Students come to understand the strategic aspects of metacognition and appreciate the value accrued from teaching them how to think. Pressel (1992) makes the analogy; "Like debaters and trial lawyers, cooperative thinkers are benefited a vital exchange their colleagues, but they are usually spared the anxiety of competitive risk-taking and embarrassment of ultimate failure".

Costa and O'Leary (1992) identify several practical reasons why cooperative learning, especially using their constructive controversy approach, enhances student metacognition. The fact that students will be required to explain their strategies or teach other students changes the learning independently. Discussions within cooperative groups require more frequent oral summarizing, explaining and elaboration of what one knows, which in turn consolidates and strengthens what is known through the rehearsal process. The heterogeneity of cooperative groups encourages students to accommodate themselves to their peer's perspective, strategies, and approaches, to completing assignments. This stimulates divergent and creative thinking and a review of one's own thinking. Students often bring incomplete information to a task and by interacting with other students learn how to share their information and obtain insights on how other students learn how to share their information and obtain insights on how other students obtain and use information, thus expanding their understanding of their own thinking process. By sharing their work within cooperative groups, students externalize their ideas and reasoning for critical examination which groups, students externalize their ideas and reasoning for critical

examination which in turn results in peer monitoring and regulations or members thinking and reasoning. Students give each other feedback regarding the quality and relevance of their contributions and make suggestions on how to improve their performance.

Cooperative discussions improve students' recall of text content. When students read a text together and explain the concepts to each other and evaluate each other's explanations they engaged in a high level of critical thinking. They frame the new concepts by using their own vocabulary and by basing their comments upon their previous knowledge. Thus, they construct a new knowledge based on top of their existing base. This process leads to deeper understanding and greater likelihood they will retain the material longer than if they worked alone and simply read and reread the text. Johnson and Johnson (1979) found that engaging in discussion over controversial issues improves their recall of content material.

Dansereau (1985) has developed a structure called "cooperative scripts" where pairs of information while the other student listens for any errors, fills in omitted information and thinks of ways both can remember the main ideas. He found that while both students learned more and were able to recall the information longer than students working alone, the recaller learned the most. O'Donnell and Dansereau (1992) report that cooperating dyads performed better than individuals in their acquisition of descriptive (Spulin et. al 1984) and technical information (Hall et al 1988: Larsen et al 1986).

Cooperative learning creates an environment of active and involved exploratory learning. The entire focus of collaborative learning is to activity involve students in the learning process. Whenever two or more students attempt to solve a problem or answer a question they become involved in the process of exploratory learning. They interact with each other, share ideas and information, seek additional information, make decisions about the results of their deliberations and present their findings to the entire class. They may tutor their peers or receive tutoring. Students have the opportunity to help structure the class experience through, suggestions regarding class format and procedures. This is a level of student empowerment which is unattainable with a lecture format or even with a teacher-led whole class discussion.

Cooperative learning encourages student responsibility for learning. Promotive interaction, a foundation principle of cooperative learning, builds students' responsibility for themselves and their group members through reliance upon each other's talents, and an assessment process which rewards both individuals and groups. Students assist each other and

take different roles within their groups (such as reader, recorder, time keeper etc.) An emphasis on student involvement is created in the development of the process which the group follows. The teacher becomes a facilitator instead of a director and the student becomes a willing participant instead of a passive follower.

Cooperative learning involves students in developing curriculum and class procedures. During the collaborative process, students are asked to assess themselves, their groups, as well as class procedures. Teachers who are confident in themselves can take advantage of this student input to modify the makeup of groups of class assignments and alter the mix of lecture and group work according to immediate student feedback. The teacher does not have to wait until the results of the section examinations are returned to make alterations which will help the students understand the material. Students who participate in structuring the class assume ownership of the process because they are treated like adults, and their opinions and observations are respected by the authority figure in the class. Marzano (1992) identifies four specific ways in which students become involved in developing class procedures when cooperative learning is the basis for class process. The class can identify desired features of the physical environment, such as the arrangement of desks, number and type of breaks that will be taken, the display of classroom accessories to name a few. Students can analyze the effective tone of their groups and suggest activities which will promote positive interactions or deal with conflicts or personality problems within each group. The class may be given responsibility for developing and implement rules for physical and psychological safety of their peers, such as a code of conduct which encourages students to respect each other, listen and respond attentively and generally care for their fellow students.

Cooperative learning helps students wean themselves away from considering teachers the sole sources of knowledge and understanding. One reason cited earlier for teacher reticence in adopting CL method is the fact that professors have spend a lifetime developing their expertise in a subject leading them to feel that their primary function is to impart that knowledge to their students. This after all is how they perceive they learned the subject material when doing their undergraduates studies. In reality teachers become experts in their field when they teach the concepts to others and undertake research activities where they attempt to communicate their findings with their peers. Informal discussion and debate often yield more productive research break through that attending lectures.

CL approaches learning from a student centered philosophy by encouraging students to take responsibility for their learning by involving students throughout the class and encouraging their collaboration in group efforts outsides of class. The teacher serves as teacher. CL requires a great deal of planning and preparation on the part of the teacher to develop activities which will help guide students through the curriculum. The effect is to begin to elevate students to the teachers level and create a high expectation that they have the ability to obtain understand knowledge themselves.

Cooperative learning promotes higher achievement and class attendance. Students who develop personal professional relations with teachers by getting to know them and who work on projects outside of class achieve better results and tend to stay in school (Cooper 1984). Teachers who get to know their student and understand their student grades are improved; they show longer retention of information, transfer information better to other course and disciplines and have better class attendance. There is a strong positive correlation between class attendance and success in course (Johnson and Johnson 1990) which may help account for the improved performance.

According to Lotan Benton (1990)" Evaluations of the implementation of the curriculum consistently show that, on average, students in Finding Out/Desecubrimiento classrooms (a CL method developed by Elizabeth Cohen (1986, 1991) for use in California schools where ESL is an important factor) demonstrate significantly better learning gains on standardized tests in reading and mathematics, as compare with the normal student population (Cohen and lntili, 1981, 1982; Cohen and DeAvilla, 1983; Cohen and Lotan, 1987). Additional studies of the CL methodology known as STAD (Student Teams Achievement Divisions) found that students in this programme gained significantly more in mathematics than did control students (Huber, Bogatzki, 1982; Madden and Slavin, 1983. Slavin and Karweit, 1984). Three studies in TGT (Teams Games Tournaments) also found significantly higher achievements in TGT than in control classes (Edwards, DeVries and Snyder, 1972; Edwards and DeVries, 1974; Hulten and DeVries, 1976). Slavin (1978, 1990) reports the largest effects of Student Team Learning methods have been found n studies of TAI (Team Assisted Instruction). Five studies found substantially greater learning of mathematics computation in TAI than in control classes (Slavin, Leavey and Madden, 1984; Slavin and Karweit 1985).

Cooperative learning promotes innovation in teaching and classroom techniques. Collaborative learning process include: class warm-up activities, name recognition games and group building activities, and group processing. Students work in pairs or larger groups depending upon the task at hand. Group work on content takes many larger groups depending upon the task at hand. Group work on content takes many forms, including pairs or groups working on individual questions, problem assignments, projects, study activities, group tests etc. (Panitz1996). Classes are interesting and enjoyable because of the variety of activities available for use by the teacher. In fact, collaborative learning effectively addresses the "Sesame Street" syndrome in which modern students are exposed to information in short, entertaining sessions. These same students also used to high tech computer systems which deliver material in a variety of ways including video, text, graphical exceeds the above approaches to learning by actively involving every student. Bean (1996) points out that CL technique can be easily integrated with other teaching strategies.

Weaker students improve their performance when grouped with higher achieving students. In studies of collaborative seatwork, Swing and Peterson (1982) found that students of low achievement benefited from participation in groups heterogeneously composed on achievement in comparison to participation in homogenously low-achieving groups. Students of average achievement were the only ones not to benefit from their interaction with others of higher or lower achievement." Cohen 1994 and Hooper (1988) reported that low-achieving eight-grade math students benefited from working with high-achieving students on a delayed posttest with questions covering factual recall, application and problem solving. Burns (1990) also suggests that with CL there is no waiting for help because it is available from other students or the teacher who circulates among the groups. In addition students are directed to seek help from each other before asking the teacher, relieving the teacher of the tension of having to give the same directions or information over and over again. Another explanation offered by the Johnson (1990) is that weaker students are given the opportunity to model the reasoning processes of stronger students as well as preparing each other for tests, checking and correcting homework and helping each other see alternative. Vygostsky (1978) found that students were able to solve certain problem, when working cooperatively, prior to being able to solve those problems individually. He hypothesized that the social interaction extended the student's zone of proximal development, the difference between a student's understanding and potential to

understand more difficult concepts. The opportunity to work with experts increases their ability to solve problems. Thus, opportunity of students to work with experts increases their ability to solve problems. Thus, when students work cooperatively in groups the more knowledge students may lead the less knowledgeable student in the appropriate direction required to understand new concepts.

Cooperative learning can be adapted to large lectures involving students in interactive, critical thinking activities during class. According to Bean (1996) an advantage of CL is that it can be adapted to large classes. In lecture halls, students may be asked to form pairs or small groups by turning around in their seats or working with the students seated next to them. It is nearly impossible to lead a whole class discussion in large lecture classroom, however it is possible to give students a critical thinking task by having them work with a neighbour for ten minutes or so and then asking representative groups to present and justify their solutions. This techniques helps focus students attention on a particular concept or topic, it creates an active learning, helping them take some responsibility for their learning and that of their peers. Compare this to a lecture method where students listen to the instructor, take notes and then leave the class to decipher what was said on their own. This approach also gives the instructor immediate feedback on whether the students have understood the material presented in the lecture.

Cooperative learning is useful in foreign language and esl courses where interactions involving the use of language are important. Brufee (1993) emphasizes the idea that learning takes place when individuals move from the society which they are familiar with to the society which they wish to join by learning the vocabulary, language structure, and customs unique to that society. This is true in academic societies which all have their own vocabulary and customs. Working collaboratively is an idea way to facilitate the acquisition of language and to practise the customs of debate and discussion which occur in a particular academic field such as mathematics or psychology or history. Interacting collaborates with the professor in and out of class also facilitates the enculturation process defined by Brufee. Research conducted using a CL approach (Lotan and Benton, 1990) called Finding Out/Descubrimiento developed by Elizabeth Cohen for use in ESL classes' shows significant development in the acquisition of English language skills by students using the curriculum (DeAvila, 1981; Neves, 1983). Lotan and Benton (1990) further point out that the Finding Out environment for learning language is

different from and preferable to the drill and practice of formal language constructions traditionally associated with established ESL training, Researchers (Hatch, 1978, Richie, 1978, Neves, 1983) agree that peer interaction in natural settings is the optimal use of language necessary for successful acquisition of a second language

Cooperative learning develops social interaction skills. A major component of cooperative learning elaborated by Johnson, Johnson and Holubec (1984) includes training students in the social skills needed to work collaboratively. Students do not come by these skills maturely. Quite the contrary, in our society and current educational framework competition is valued over cooperation. By asking group members to identify what behaviours help them work together and by asking individuals to reflect on their contribution to the group's success or failure, students are made aware of the need for healthy, positive, helping interactions when they work in groups (Cohen and Cohen 1991).

Students develop responsibility for each other. In a traditional competitive classroom, students are concerned with their individual grades and where they fit into the grade curve (Stahl 1992). Emphasis is placed on doing better than everyone else (Bonona et al 1974). In the collaborative class the opposite is true. Mechanisms are in place which creates interdependence among students and reliance upon others for the group's success. A nurturing atmosphere is created whereby students help each other and take responsibility for their entire group's progress. Group celebration of individual and group performance promotes a supportive atmosphere and highlights each student's responsibility to the entire group.

Cooperative learning builds more positive heterogeneous relationships. The current educational system rewards student's achievement by separating students each other. Collaborative learning fosters student interaction at all levels (Webb 1980). Research has shown that when students of high ability work with students of lower ability both benefit. The former benefits by explaining or demonstrating difficult concepts which he/she must understand thoroughly in order to do so, and the latter benefits by seeing a concept modeled by a peer. Both observe each other's approaches to problem solving and begin to appreciate their difference (Johnson and Johnson 1985).

Cooperative learning creates a community environment within the classroom. Community college and many four year colleges are primarily commuter schools. Students do not remain on campus for extracurricular or social activities. Many students have jobs and/or

family pressures which also limit their ability to participate in a campus life. Thus it falls to the classroom teacher to create an atmosphere of community through interactions between students. Based upon the previous discussions of the social benefit of CL it is clear that creating a community of learners is easily accomplished using CL techniques. The traditional lecture method does not provide opportunities for students to socialize in an academic setting. Quite the contrary, lecturing creates a passive, solitary atmosphere where competition is the rule and collaboration is discouraged. Some professors consider collaboration among student cheating or plagiarism. CL brings students together to develop support mechanisms similar to self help groups in their local communities.

Groups are easier to supervise than individual students. Denis Lander (1995) points out that an obvious advantage of CL is that six groups are easier for a staff member to supervise than thirty individual students. Groups may be monitored for their progress through the use of worksheets or exercises which require an end product. Teachers can observe students working on assignments together an individually within their groups. When students work alone, it is very difficult for the teacher to observe most of the students during a class. This is especially true in large teacher to observe most of the students during classes. Quite the contrary, when students are working collaboratively on an assignment it is easy for the teacher to watch individual students perform. Teacher intervention is also possible when CL is the favoured paradigm.

Slavin (1992) looks at the classroom perspective of cooperative learning and points out that when students take responsibility for managing themselves in cooperative groups the teacher is freed up to attend to more essential tasks such as working with having students respond to each other's writing and do peer editing the teacher does not have to evaluate several drafts from each student. The teacher can focus on helping students develop the criteria used to evaluate each other's work, present the criteria to the students that the teacher wishes to be met and work with individual students if necessary. Fourthly, is whether the help is understood by the person receiving it. In cooperative groups students observe each other and can respond to each other immediately. If they see that a student has not understood a concept they may try explaining it again or try a different approach. The students being helped can help the tutor in this process by verbalizing their misunderstanding or rephrasing their questions. Students are more likely to understand the nature of their fellow students' misunderstandings because they are able to relate

to them better than the teacher might. Fifthly, is whether the student who receives help has an opportunity to solve the problem and uses that opportunity. Cooperative structures call for students to work on problems or answer questions during class. The feedback is immediate and all students in the groups works on solving problems, answering each other's questions and developing strategies for future problem solving. The teacher may observe groups and make suggestions in order to insure that all students are participating in the activity.

2.8. Studies on Attitude to English Language and English Grammar

Attitude is a mental view, posture or disposition about something. It is predisposition of perceived feelings and behaviour towards specific objects or people in a particular manner. Attitude could only be seen through behaviour. Okoye (1983) says attitude is a learnt predisposition to react consistently in given manner either negatively or positively to situation, people or concept. Ezeokoli (1996) observes that learning and attitude involves experience and behaviour change.

Researchers have argued that attitude towards a subject affects achievement in that subject (Okpala, 1985; Abe 1995 and Olagunju 1996). In the same vein, Makanjuola(1996) asserts that students' keen interest in a particular subject will gear them up to devoting more time to the study of such subject. This will make them to perform better in that subject, but when the contrary is the case, students' performance becomes low. Further researches in language (Ezeokoli, 1986, Ayodele, 1988, Araromi, 1999) are pointers to the fact that students' attitude to English language influence achievement in the subject.

Studies have identified variables such as age, status, gender, level of educational attainments, socio-economic status, and experience, psychological, cultural and religious factors as some of the factors that can affect or influence the development of attitude towards a goal or an object. Parajers and Johnson, (1996) tested the influence of writing self-efficacy, writing apprehension and writing aptitude on 181 ninth-grade students. Aptitude and self-efficacy had direct effects on performance. Girls and boys did not differ in aptitude as performance, but girls reported lower writing self efficiency. Native English speaking Hispanic students had lower aptitude and performance scores, lower self-efficacy and higher apprehension. Since attitude is very important in whatever one does in life, its importance cannot be overruled in teaching-learning situations. Although attitude can be learned or acquired, shaped or re-shaped and can as

well motivate individuals toward achievement. Students need to develop and sustain positive attitude towards teaching and learning of English Language.

Masquid (1969) believes that a learner's attitude to the language he or she is learning determines how he or she performs in such a language. Also, the attitude of teachers towards comprehension lessons determines the way it is learnt. Hence, the study of attitude as a variable is an essential and inevitable part of any pedagogical innovations (Adeosun 2000). In spite of the importance of the grammatical aspect of any language in effective communication, it is regrettable that a large number of people who have received secondary school education, even up to tertiary education in Nigeria, express themselves in sentences that are usually marred with syntactic and morphological errors.

Bloomfield (1991) describes grammar as morphology and syntax of a language. Morphology, according to him, is the study of the structure of words- the study of the rules governing the formation of words in a language. Moreover, Solarin (2001) posits that "the grammar of a language is the description of the rules of a particular language. According to her, the rules the grammar enable us to understand our errors and how our usage has failed to comply with the rules; enable us to improve our writing and speaking; and enable us to know appropriate grammatical structures to use for different contexts. Furthermore, Abbot (1981) defines grammar as meaning of words. In teaching grammatical structures therefore, there are functional categories that are very important for proper understanding of the semantics as well as functions of grammatical units. For instance, pupils need to know and identify accurately the functional categories in the structure of a sentence.

Also, Kolawole (1998) suggests that the teaching of grammatical structures must involve the active participation of both the teachers and students to make grammatical structures meaningful and result-oriented to produce the desired result of competent users of the English Language in speech and writing. He advocated the active method of teaching to the discussion and lecture methods of teaching which seems predominantly in use by teachers. Isingo Abanihe and Labo-Popoola (2004) said that the problem of lack of access to essential resources constitute possible sources of difference in school quality. It follows then that lack of access to these essential resources will make a lot of difference in the language learning. The resources available definitely make a difference in student's level of language acquisition and performance.

Morrison (1990) examines the function of language as a representation of the ways individuals and groups organize their thoughts and their interpretation of this social environment. Two forms of language use posited are 'restricted and rudiments' of grammatical structures definitely is reflected in the use of the pupils both in speaking and writing. Pupils with elaborate code are categorized by appropriate use of close and open system items intelligibly, thus enhancing effective communication, whereas pupils exhibiting restricted code reflect in their use of language, inadequate grasp the rudiments of grammar and improper use of morphology and syntax. According to Morrison, they "exhibit short grammatically simple and often syntactically weak sentences'. There is relatively little use of a range of adverbs or adjective etc" while there are numbers of factors responsible for these codes, it is obvious that the pupils, grasp of grammatical structures are very significant to this. Their level of proper grasp of the grammatical structures will determine which code they will use.

In his contribution to the issue of grammar, McNeill (1986) while subscribing to the view that the capacity for language is innate, seems to think that language acquisition depend on some more general mechanism, which underpins many different kinds of cognitive problems. Part of these mechanisms is the proper teaching and learning of grammatical structures to reflect the meaning intended in a communicative process. He further posits that semantics is not devoid of grammar and the wrong use of grammatical structures undoubtedly creates a lot of ambiguities contextual lexical and syntactical, the need for proper teaching of grammatical structures therefore is imperative to further utilize fully the innate abilities of individuals.

Grammar instruction has received a lot of attention from researchers and language teachers and the literature on this aspect points to the need for teaching grammar in meaningful contexts. The ultimate aim is, and has always been, to help learners to communicate in the language appropriately with accuracy. Since the term 'communicative competence' was introduced by Hymes in the mid 1960s, it has stimulated a lot of discussion among teachers and linguistics. According to Canale (1983), one should have an adequate knowledge of the language and skill of using it to communicate because these are the underlying system for communication. Savignon (1985) views communicative competence as "the ability to function in a truly communicative setting". This is a dynamic exchange in which linguistic competence must adopt itself to the total information input, both linguistic and paralinguistic of one of more interlocutors. Communicative competence includes: the grammatical competence, which refers

to the knowledge of the lexical items and rules of morphology, syntax, sentence grammar, semantics, and phonology. Secondly, the socio-linguistic competence is the understanding of how utterances are strung together to form a meaningful whole. Thirdly, the strategic competence which refers to the language user's employment of strategies to make the best use of what/he knows about how a language works, in order to interpret, express, and negotiate meaning in a given context.

Jibowo (2007), supports the notion that secondary school students are generally apprehensive of their English grammar classes. Reasons for students' apprehension, as revealed by her study are: teacher-related factors, method and materials, and student-related factors. In spite of all these findings, students' performance has not improved significantly to justify the efforts of previous research studies. Ironically, to worsen the situation depicted by Jibowo above, most teachers of English language pay little or no attention to the mastery of English grammatical structures and lexis that are essential to high proficiency in English. Even some teachers have a form of phobia for English grammar to the extent that vital aspects of English grammar are neglected or not taught at all (Ayodele, 2001).

2.9. Gender Differences in Language Learning and in English Grammar

Researchers have confirmed the effect of gender on academic achievement. A study (Lehr 1982, Cheshire and Jenkin 1998) examined communication in science and mathematics classrooms. A survey was administered to 207 Mexican American Secondary School Students who attended a summer enrichment programme in Mathematics and Science at a university on the Texas-Mexico border. The students were typically of high ability and had voluntarily enrolled in a summer programmes. Primary language was English for 128 students and Spanish for 79 students. Among other areas, the survey examined the frequency of various communication activities in science and mathematics classroom. These activities included explaining ones thinking, giving oral reports, discussing "current" events, sharing ideas and asking questions. Working with others and writing reports. Two-ways analyses of variable were conducted with gender and primary language as independent variable. Results indicate that female students with Spanish as their primary language received opportunities to communicate at frequencies nearly equal to those of male and female English-dominant students. Male students

with Spanish as their primary language reported lowest frequencies of participation in classroom discourse in either Mathematics or Science classes.

Williams (1994) also investigated gender differences on academic achievement of high school students in English Language. It was discovered that male students performed better than their female counterparts in verbal aptitude. Johnson (2002) carried out such an investigation in four English speaking countries Canada, England, Nigeria and USA. The students were tested in six areas: vocabulary, comprehension, initial consonant, variant consonant, vowel sounds and structural Analysis. The findings revealed that in England and Nigeria, boys score better than girls on the majority of tests, while in USA and Canada the reverse was the case. Ayodele (1998), Adegbile (2002) and Agboola (2004) agree to the general consensus that girls have been found in many Nigerian researches to have only a slight positive but statistically insignificant edge over boys in language performance. However, Soneye (1987), Jibowo (1997) find out that gender has no significant effect on performance of students in English language.

2.10. Appraisal of Literature Review

As already revealed in the body of the literature reviewed, the past few years have been productive in scholarly writings advocating for the use of cooperative learning in the second language classroom. Over the past decades, cooperative learning has emerged as one of the leading new approaches in classroom instruction. One important reason for its advocacy is that numerous research studies have revealed that students' completing cooperative learning group tasks tend to have higher academic test scores, positive self-esteem, greater comprehension of the content and skills they are studying, improved motivation, essential communication skills, social awareness, tolerance for individual differences, altruism and positive attitudes towards others (Gunderson and Johnson, 1980; Jacob and Mattson 1987; Slavin 1991). Although it was developed for use with native English speakers, cooperative learning has been found to be effective for promoting the academic achievement, language acquisition, and social development of English language learners (Bianchini, 1995).

Considerable research (Bilbao, 1997; Bonaparte, 1999) demonstrate that cooperative learning produces higher achievement, more positive relationship among students, and healthier psychological adjustment than do competitive or individualistic experiences. Cooperative language learning has been proclaimed as an effective instructional approach in promoting the

cognitive and linguistic development of learners of English as a second language (Christon, 1990; Kagan, 1996). These researchers among others have established the theoretical relevance of cooperative learning in second language instruction based on the premise that cooperative learning provides maximum opportunities for meaningful input and output in a highly interactive and supportive environment. Cooperative learning also integrates language and content learning, and its varied applications are in harmony with the pedagogical implications of the input, socialization, and interactive theories of language acquisition. According to Coelho (1992), cooperative learning increases interaction among learners as they restate, expand, and elaborate their ideas in order to convey and or clarify intended meaning. This interaction is important because it contributes to gains in second language acquisition and in academic achievement.

Subsequently, it has been discovered (Porter, 2006) that the following cooperative strategies have received the most attention in research: Complex Instruction, Constructive Academic Controversy, Cooperative Integrated Reading and Composition, and Cooperative Structures. Others include: Learning Together, Student-Teams-Achievement-Divisions, Teams-Games-Tournaments, and Team-Assisted-Individualization. This is however to the detriment of other useful cooperative structures. Furthermore, it appears that the concentration of the researched works on cooperative learning has been in favour of linguistic areas of oral language teaching, enhancement of listening and reading abilities, and vocabulary development.

In the light of the neglect of other useful cooperative strategies, the following variants of cooperative learning have been selected by the researcher for experimentation: Group Investigation, Jigsaw Procedure, and Numbered-Head-Together. Though a number of scholars have reviewed the research supporting other cooperative learning strategies (Cohen and Lotan, 1992; Sharan and Sharan, 1992; Slavin, 2001), there has not probably been a comprehensive review of the effectiveness of studies on all the different cooperative teaching strategies. It is unknown, for instance of how much of the existing research specifically focuses on cooperative learning strategies and achievement. Due to this fact, the cooperative strategies selected for this study have been little researched into, particular in grammar teaching. Moreover, it should be noted that grammar, an aspect of language, is crucial and central to language learning and acquisition. The importance of the knowledge of the grammatical aspect of any language in effective communication is inestimable.

CHAPTER THREE
METHODOLOGY

This chapter presents the following elements of methodology: research design, variables in the study, selection of participants, research instruments, and validation of instruments. Other elements include research procedure, and method of data analysis. The problem of the study was to determine the effects of Jigsaw, Numbered-Heads-Together and Group Investigation Cooperative Learning Strategies on Secondary School Students' Learning Outcomes in English Grammar.

3.1 Research Design

A pretest-posttest control group quasi experimental design, using a 4 X 2 X 2 factorial matrix, was used for the study. The design is represented thus:

E_{1}-- O_1 X_1 O_2

E_{2}-- O_3 X_2 O_4

E_{3}-- O_5 X_3 O_6

C-- O_7 X_4 O_8

Where:

O_1, O_3, O_5, O_7 – represent pretest observations for the experimental and control groups.

O_2, O_4, O_6, O_8-- represent posttest observations for the experimental and control groups.

X_1 - represents Jigsaw cooperative learning strategy

X_2 - represents Numbered -Heads -Together cooperative learning strategy

X_3 - represents Group Investigation cooperative learning strategy

X_4 - represents Modified lecture method

Table 3.1: A Tabular Representation of the Design Of The Study

Treatment Group	Pre-Test	Jigsaw CLS	Numbered-Heads-Together CLS	Group Investigation CLS	Modified Lecture Method	Post-Test
Jigsaw CLS	✓	✓				✓
Numbered-Heads-Together CLS	✓		✓			✓
Group Investigation CLS	✓			✓		✓
Modified Lecture Method	✓				✓	✓

Table 3.2: A Tabular Representation of 4x2x2 Factorial Matrix

Treatment Group	Gender	Parental Educational Support of Participants	
		Low	High
E_1-Jigsaw	Male		
	Female		
E_2-Numbered-Heads-Together	Male		
	Female		
E_3-Group Investigation	Male		
	Female		
C- Modified Lecture Method	Male		
	Female		

3.2 Variables in the study

The variables in the study are grouped into three, namely:

(1) Independent variable

(2) Moderator variables

(3) Dependent variables

3.2.1 Independent variable

The independent variable is learning strategy, which is varied at four levels:

(i) Jigsaw cooperative learning strategy

(ii) Numbered-Heads-Together cooperative learning strategy

(iii) Group Investigation cooperative learning strategy

(iv) Modified Lecture method

3.2.2 Moderator variables

The moderator variables are:

(i) Gender

(ii) Parental Educational Support

Gender is varied at two levels namely:

(i) Male

(ii) Female

Parental Educational Support of participants is also varied at two levels namely:

(i) Low

(ii) High

3.2.3 Dependent variables

The dependent variables are:

(a) Achievement in English grammar

(b) Attitude to English grammar

Table 3.3: A Tabular Representation of the Variables of the Study

Independent Variable	Moderator Variables	Dependent Variables
Learning Strategy (a) Jigsaw CLS (b) Numbered-Heads-Together CLS (c) Group Investigation CLS (d) Modified Lecture Method	1. Gender (a) Male (b) Female 2. Parental Educational Support (a) Low (b) High	1. Achievement in English Grammar 2. Attitude to English Grammar

3.3 Selection of Participants for the Study

All Senior Secondary School One (SS1) students in all public senior secondary schools in Ijebu-Ode Local Government Area of Ogun State constituted the target population for the study. The study adopted simple random sampling technique to select eight senior secondary schools out of 37 mixed senior secondary schools in the local government area. Two schools were randomly selected from the eight schools and randomly assigned to each of the three experimental and the control groups, making a total of eight schools selected for the study. The study made use of intact classes in order to avoid disruption to the normal academic programmes of the schools that were used for the study.

At the end of the selection, 350 students participated in the study comprising 176 males and174 females. Participants used for the study were assigned as follows:

(a) Jigsaw Cooperative Learning Strategy (Experimental Group 1)

(i) Molipa High School, Molipa, Ijebu-Ode

(ii) Adeola Odutola College, Old Ondo-Benin Road, Ijebu-Ode

(b) Numbered-Heads-Together Cooperative Learning Strategy (Experimental Group 2)

(i) Ijebu Muslim College, Old Ondo-Benin Road, Ijebu-Ode

(ii) Christ Church High School, Molode, Ijebu-Ode

(c) Group Investigation Cooperative Learning Strategy (Experimental Group 3)

(i) Ijebu-Ode Grammar School, Abeokuta Road, Ijebu-Ode

(ii) A.U.D. Secondary School, Ota Street, Ijebu-Ode

(d) Modified Lecture Method (Control Group)

(i) Moslem Comprehensive High School, Imepe, Ijebu-Ode

(ii) Luba Comprehensive High School, Erunwon Road, Ijebu-Ode

3.4. Research Instruments

Eight instruments were developed to collect relevant data. These are:

(i) Students' Achievement Test in English Grammar (SATEG)

(ii) Students' Attitude to English Grammar Questionnaire (SAEG)

(iii) Parental Educational Support' Questionnaire (PAES)

(iv) Jigsaw Instructional Guide

(v) Numbered- Heads –Together Instructional Guide

(vi) Group Investigation Instructional Guide

(vii) Modified Lecture Method Instructional Guide

(viii) Assessment Guide for Research Assistants

3.4.1 Students' Achievement Test in English Grammar (SATEG)

The Students' Achievement Test in English Grammar (SATEG) was designed for both pre-treatment and post-treatment assessments. The test contained two sections: section A and section B. Section A elicited information on the name of school of participant, sex of participant,

and class of participant. Section B contained 50- item completion type objective test intended to measure students' knowledge of English grammar. Areas that were tested include: parts of speech, tenses, concord, and question tags. Others included: plural formation, comparison of adjectives, and irregular and regular verbs. The test items were in consonance with the curriculum of the group of students' under-study. Moreover, the test items were spread to cover the following levels of Bloom's taxonomy of educational objectives: knowledge, comprehension, application, analysis, synthesis, and evaluation. A table of specification for achievement test in English grammar was constructed.

Table 3.4 - Table of Specification for Achievement Test in English Grammar

Level of Objectives	Remembering	Understanding	Thinking	No of Item
Content				
Parts of Speech -Noun -Pronoun -Verb -Adverb -Adjective -Preposition -Conjunction -Interjection	Items: 11,12,13 14,15,16,17 and 18	Items: 28,29,30,31, 32,33,34 and 35	Items: 19,20,21 and 22	20
Plural formation- Rules involved		Items: 6,7,8,9 and 10		5
Comparative and Superlative of Words: Regular and irregular verbs	Items: 46,47,48 and 50			5
Past Tense and Past Participle of words			Items: 36,37,38, 39 and 40	5
Question Tag- Rules involved			Items: 1,2,3,4 and 5	5
Concord- Agreement between the subject and the Verb		Items 23,24,25,26 and 27		5
Tenses: the past, present and the future tenses		Items 41,42,43,44 and 45		5
Total	13	23	14	50

3.4.2. Students' Attitude to English Grammar Questionnaire (SAEG)

Students' Attitude to English Grammar Scale (SAEG) was designed to ensure students' overall disposition to English language as a subject and to English grammar in particular. The questionnaire was in two parts: Sections A and B. Section A elicited information on name of school of participant, sex of participant, and class of participant. Section B of the questionnaire comprised a 25-item four point modified Likert-type scale of Strongly Agree (SA)/Agree (A)/Disagree (D)/Strongly Disagree (SD) and the participants indicated their feelings about English language that are in tune with the given statements.

A modified Likert scale that contains four-point responses was used to measure Attitude to English language. Items were scored as follows:

For positively framed statements:

Strongly Agree - 4
Agree - 3
Disagree - 2
Strongly Disagree - 1

For negatively framed statements:

Strongly Agree - 1
Agree - 2
Disagree - 3
Strongly Disagree - 4

The Students' Attitude to English Grammar Questionnaire used for the study was subjected to face and content validity using language education and evaluation experts in the Faculty and Institute of Education, University of Ibadan, Ibadan. Useful suggestions and comments on the content and language of the instrument were offered, bearing in mind their relevance to the problems being investigated in the study.

3.4.3. Parental Educational Support Questionnaire (PAES)

Each of the participants of the study responded to a 30-item questionnaire designed to elicit information about his or her home background**.** The questions elicited information about the parental educational support of the participants. Some of the questions included: parental responsibilities such as payment of school fees; provision of school materials; monitoring and supervision of school assignments; and visitation to child's school, just to mention a few indices. The response schedule of the questionnaire was four point modified Likert-type scale of Strongly Agree (SA)/Agree (A)/Disagree (D)/Strongly Disagree (SD). Students that scored less than 60 percent (that is, from 0-59) were classified as belonging to low parental educational support, while students that scored 50 percent and above (that is, from 60-120) were rated as belonging to high parental educational support.

3.4.4 Jigsaw Instructional Guide

The instructional guide for the administration of Jigsaw Cooperative Learning Strategy was developed by the researcher. The essence of the preparation of the manual was to guide the research assistants that were used for the study and to acquaint them with principles, ways and manners in which Jigsaw Cooperative Learning Strategy could be properly structured. The guide discussed the desired group size and assigning of participants to groups, classroom arrangement and management, structuring of cooperative skills, expected norms and functions of participants, and specific role of individual participant. More importantly, the instructional guide highlighted the peculiarities of this cooperative strategy and the assessment procedure for the administration of the methodology, in an 18- step-by-step manner that was convenient for any language teacher to apply.

3.4.5 Numbered-Heads-Together Instructional Guide

The instructional guide for the administration of Numbered-Heads-Together Cooperative Learning Strategy was developed by the researcher. The essence of the preparation of the manual was to guide research assistants that were co-opted for the study to acquaint them with principles, ways and manners in which Numbered-Heads-Together Cooperative Learning Strategy could be properly structured. The guide discussed the desired group size and assignment of participants to groups, classroom arrangement and management, structuring of cooperative

skills, expected norms and functions of participants, and specific role of individual participant. More importantly, the instructional guide highlighted the peculiarities of this cooperative strategy and the assessment procedure for the administration of the methodology, in a 17-step-by-step manner that was convenient for any language teacher to apply.

3.4.6 Group Investigation Instructional Guide

The instructional guide for the administration of Group Investigation Cooperative Learning Strategy was developed by the researcher. The essence of the preparation of the manual was to guide research assistants that were co-opted for the study to acquaint them with principles, ways and manners in which Group Investigation Cooperative Learning Strategy could be properly structured. The guide discussed the desired group size and assigning of participants to groups, classroom arrangement and management, structuring of cooperative skills, expected norms and functions of participants, and specific role of individual participant. More importantly, the instructional guide highlighted the peculiarities of this cooperative strategy and the assessment procedure for the administration of the methodology, in an 18-step-by-step manner that was convenient for any language teacher to apply.

3.4.7 Modified Lecture Method Instructional Guide

The instructional guide for the administration of Modified Lecture Method Instructional Strategy was also developed by the researcher. The essence for the preparation of the manual was to guide the research assistants that were co-opted for the study. The manual discussed the principles, ways and manners in which Modified Lecture Method Learning Strategy could be properly structured. The guide contained eight steps that must be followed by the language teacher in order to achieve the stated objectives. It also highlighted the importance of lesson notes and more importantly the proper selection, provision and utilisation of instructional materials for the teaching and learning of selected topics in English grammar.

3.4.8 Assessment Guide for Research Assistants

Eight research assistants took part in the study. The research assistants were selected on the basis of their abilities to conform strictly to principles guiding the conduct of the research work. The assessment guide contained two sections: section A and B. Section A elicited

information about the research assistants' name, sex, and place of work. Section B, on the other hand, highlighted vital areas concerning the research work, and of which research assistant were evaluated. Some of the areas that were given adequate assessment include: possession of at least first degree certificate in English language, sufficient teaching experience, and ability of the research assistants to demonstrate dedication and commitment to the research work.

Apart from the above yardsticks, the research assistants that were selected also demonstrated expertise in the following areas of research work: ability to select participants into learning groups, ability to assign roles to participants, and ability to evaluate the quality and quantity of participants' learning. More importantly, the research assistants that were selected were able to structure appropriately each of the cooperative learning strategies, that is, Jigsaw, Numbered-Heads Together, and Group Investigation Cooperative Learning strategies.

3.5-Validility and Reliability of Instruments

The research instruments that were used for the study were given to experts for face and content validity of each item as follows. Also, the reliability of each of the instruments was determined.

3.5.1- Students' Achievement Test in English Grammar

Originally about 80 test items were generated by the researcher. The generated items were sent to language experts for face and content validity. The difficulty indices of the items were also determined. On the basis of this, 30 items were dropped leaving only 50 that were used for the study.

The instrument was tested for internal consistency reliability. The generated items were given to language experts for face and content validity. The difficulty level of the items was also determined. The instrument was also tested for internal consistency and reliability. The test was administered to a group of SS1 students that were not used for the research. The students were randomly selected from two secondary schools in Ijebu-North local government area of Ogun State. A test re-test method of establishing reliability was adopted at an interval of two weeks, and a reliability co-efficient of 0.87 was obtained for the test.

3.5.2- Students' Attitude to English Grammar Questionnaire

The Students' Attitude to English Grammar Questionnaire that was used for the study was refined by a group of language education and evaluation experts that determined the face and content validity of the instrument. Useful suggestions and comments on the content and language of the instrument were offered, bearing in mind their relevance to the problems being investigated in the study.

The researcher also established the reliability of the attitudinal scale on eighty (80) SS1 students that were randomly selected from two secondary schools in Ijebu-North local government areas of Ogun State. The selected students were not used for the research. The questionnaire was administered once and using Cronbach Alpha, the reliability co-efficient of 0.83 was obtained.

3.5.3- Parental Educational Support' Questionnaire

The instrument was validated by evaluation and measurement experts for face and content validity. Their suggestions and corrections were considered in the production of the final draft of the instrument.

The parental educational support' questionnaire of participants was trial -tested on a sample of 80 SS1 students that were not used for the research. The researcher also established the reliability of the questionnaire by administering the questionnaire once. By using Cronbach Alpha, a reliability co-efficient of 0.83 was obtained.

3.6 Research Procedure

The study was implemented over a twelve-week period as follows:

Stage 1: During the first and the second week respectively**,** the researcher trained twenty research assistants, out of which eight were selected for the research. Some of the criteria that were used to select the research assistants included: willingness to assist in the research work; minimum qualification of first degree certification in English; experienced language teacher of at least four years of teaching English language; demonstration of knowledge of the research work at hand, commitment and dedication to the research work and ability to demonstrate expertise on the use of each of the cooperative strategies that would be used for the experimental groups.

Stage 11: At this stage, the Students Attitude to English Grammar questionnaire was first administered and later the Parental Educational Support questionnaire. After this, the Students Achievement Test in English Grammar (pre-test) specifically designed for the purpose of the study was administered during the third week for both the participants in experimental and control groups.

Stage 111: The basic cooperative skills were taught to all students that were assigned to the experimental groups that is, Jigsaw, Numbered-Heads-Together, and Group Investigation, during the fourth week. Some selected topics in English grammar were used for the study and lesson plans produced for each of the lessons with the subjects. The topics that were studied by participants chosen for the study contained a great deal of topics about the grammar of English language.

Stage 1V: Each experimental group was structured to reflect the nature and dynamics of each of the groups. The experimental groups were allowed to practise and work together as expected of each of the groups for eight weeks, i.e. the fifth week to twelfth week.

Also, participants in the control group were taught using the modified lecture method of teaching. Detailed lesson plans were designed for both experimental and the control groups. Teachers' roles and students' activities were clearly stated. Each of the groups addressed the same instructional objectives based on the same chosen topics and exercises.

Stage V: The researcher administered a scrambled version of the achievement test for both experimental and the control groups in the twelfth week. The post-test was a domain-referenced test that covered the learning outcome and competencies tagged for the period of investigation. The post-test was structured in 'supply-the-answer' manner. It was so designed in order to guard against cheating or prying on one another during the administration of the achievement tests. Furthermore, by adopting this evaluative technique, a large number of items could be tested. Moreover, the correct answers would be easier to identify and so students' answers could be marked definitely right or wrong.

At this point of administration of the achievement test, consultations with other members of each of the teams were discouraged. During the administration of the instruments, students

were seated to conform to normal rules of test administration. The Students' Attitude to English Grammar Questionnaire was first administered and later the Students' Achievement Test in English Grammar.

3.7.1 Treatment Procedure

Experimental Group 1- Jigsaw Cooperative Learning Strategy

The following steps were adhered to:

Step 1: The class was divided into small groups, comprising eight students in each of the groups. The groups were diverse in terms of gender, ethnicity, race, and ability.

Step 11: Each of the groups worked with materials that had correspondingly been divided by the teacher into sections as there are members on each group.

Step 111: Roles were assigned to each of the participants in each of the groups.

Step 1V: Each of the students in each of the groups was assigned a segment of the topic to be learnt. Also, students were allowed to have direct access only to their own segment.

Step V: Students were allowed time to read their segment at least twice in order to become familiar with it.

Step V1: Students were allowed to form temporary 'expert groups' by having one student from each jigsaw group join other students assigned to the same segment. Thus, each student has a topic in which he/she must 'become an expert' and meets with a group of other students developing expertise on the same topic. In other words, student became a member of both a learning group and a research team.

Step VII: Each expert was allowed to return to his/her original group to teach what he/she had learnt.

Step V111: At the end of each of the sessions, a quiz on the material so that the students quickly came to realise that the sessions were not just fun but really count.

Experimental Group 11- Numbered-Heads-Together Cooperative Learning Strategy

The following steps were adhered to:

Step 1: An introduction of the assigned task presented to the students.

Step 11: Students were grouped into learning groups of eight students in each of the groups.

Step 111: Students in each of the teams were numbered. Thus, students were divided into groups containing eight members each and, the teacher had them numbered from 1 to 8.

Step 1V: Students assisted each other to learn the materials to be mastered. Thus, students were to study already prepared topics in English grammar.

Step V: Questions on the material that had been learnt to be asked.

Step VI: The groups strived to make sure that everyone in each of the teams knows the answer.

Step VII: The teacher called a number at random; students with that number raise their hands to be called upon to answer the question. Only students with that number were allowed by the teacher to answer the question and earn points for their teams.

Step V111: Each of the groups to deliberate on their performance and also review their strategies for improvement.

Experimental Group 111-Group Investigation Cooperative Learning Strategy

The following steps were adhered to:

Step 1: The class was divided into small groups, comprising eight students in each of the groups. The groups were diverse in terms of gender, ethnicity, race, and ability.

Step 11: An introduction on the topic was given.

Step 111: The students discussed what they had been introduced to by the teacher and briefly examined the topics. Thus, they examined already prepared topics in English grammar.

Step 1V: After this, the students outlined possible topics for further examination.

Step V: Each learning group chose one topic out from the list of student-generated topics and also determined sub-topics for each group member.

Step V1: Each student in each of the groups was responsible for researching on his or her chosen topic.

Step V1I: Each student in each of the groups prepared a brief report to bring back to the group.

Step V111: The group then designed a presentation and shares its findings with the entire class.

Control Group- Modified Lecture Method

The following steps were adhered to:

Step 1: An introduction of the assigned task presented to the students.

Step 11: The teacher asked questions on the topic in order to ascertain the entry behaviour of the students on the topic about to be taught.

Step 111: Students were taught the unit of instruction for the day.

Step 1V: The teacher ensured that the students knew the topic properly by following a sequential order outlined in teacher's note of lesson.

Step V: Students were permitted to ask for clarifications or questions on areas not properly understood by them.

Step V1: The teacher answered students' questions by explaining and using adequate illustrations or by making proper use of instructional materials prepared for the lesson.

Step V11: The teacher asked questions on the topics to ascertain whether students understood the topics.

Step V111: The teacher ensured that the stated instructional objectives had been achieved by evaluating the lesson.

3.8 Method of Data Analysis

Data collected were analysed using descriptive and inferential statistics. Descriptive statistics of means and standard deviation for achievement in English grammar and attitude to English grammar were computed. Inferential statistics included Analysis of Co-variance (ANCOVA) to test the hypotheses, at the 0.05 level of confidence, and to determine the main and interaction effects of the variables in the study. The Scheffe's statistics was used as post- hoc analysis for pair-wise comparisons of associated treatment levels when a significant main effect was observed. Also, when there were significant two-way interaction effects, line graphs were used to explain the interactions.

CHAPTER FOUR

RESULTS AND DISCUSSION

4.0 In this chapter, the results of the study are presented in accordance with the hypotheses formulated in chapter one.

4.1 Hypotheses Testing

4.1.1 Hypothesis One (a)

There is no significant main effect of treatment on students' achievement in English grammar.

Table 4.1: Summary of ANCOVA of Post-test score of Participants' Achievement in English Grammar by Treatment, Gender, and Parental Educational Support

		Experimental Method					
		Sum of Squares	Df	Mean Square	F	Sig.	Beta
Covariates	Pretest score-Achievement in English Grammar	.8	1	.8	.062	.8	.017
Main Effects	(Combined)	8011.6	5	1602.3	126.8	.000	
	Treatment	6128.5	3	2042.8	161.6	.000*	
	Gender	113.2	1	113.2	8.9	.003*	
	Parental Educational Support	1392.4	1	1392.3	110.1	.000*	
2-Way Interactions	(Combined)	346.8	7	49.5	3.9	.000	
	TreatmentXGender	147.2	3	49.0	3.8	.009*	
	Treatment X Parental Educational Support	189.1	3	63.0	4.9	.002*	
	Gender X Parental Educational Support	.137	1	.1	.011	.9	
3-Way Interactions	TreatmentX Gender X Parental Educational Support	11.9	3	4.0	.315	.8	
Model		8371.1	16	523.1	41.4	.000	
Residual		4207.5	333	12.6			
Total		12578.7	349	36.0			

*Significant at $p < 0.05$

Table 4.1 showed that there are significant main effects of treatment ($F_{(3,333)} = 161.7$; $p < 0.05$). Therefore the hypothesis was rejected. Below is the Multiple Classification analysis (MCA) which presents the descriptive statistics of the post test scores of students' achievement in English grammar in the three experimental groups and control group.

Table 4.2: Multiple Classification Analysis of Participants' Posttest score of Achievement in English Grammar by Treatment, Gender and Parental Educational Support

Grand Mean = 31.9

			Predicted Mean		Deviation		Eta	Beta
		N	Unadjusted	Adjusted for factor and Covariate	Unadjusted	Adjusted for factor and Covariate		Adjusted for factor and Covariate
Treatment	Jigsaw CLS	89	33.8	34.0	2.0	2.0	.7	.7
	NHT CLS	83	30.1	30.5	-1.8	-1.41		
	GI CLS	91	37.4	37.0	5.5	5.1		
	Control Group	87	25.9	26.0	-6.0	-6.13		
Gender	Male	176	31.5	31.3	-.4	-.6	.8	1.0
	Female	174	32.4	32.5	.4	.6		
Parental Educational. Support	Low	126	29.0	29.2	-3.0	-2.7	.4	.3
	High	224	33.6	33.4	1.7	1.5		
R=.798								
R Squared=.637								

Results in Table 4.2 indicated that participants in the Group Investigation Cooperative Learning Strategy group had the highest adjusted-mean scores in achievement ($\bar{x}$ = 37.0; adj. dev. = 5.1) followed by those in the Jigsaw Cooperative Learning Strategy ($\bar{x}$ = 34.0; adj. dev. = 2.1) then by those in the Numbered-Heads-Together Cooperative ($\bar{x}$ = 30.5; adj. dev. = -1.41) and finally by those in the control group ($\bar{x}$ = 25.8; adj. dev. = -6.13). This order can be represented as Group Investigation Cooperative Learning Strategy > Jigsaw Cooperative Learning Strategy > Numbered-Heads-Together Cooperative > Control group. Further, the sources of the significant effect of treatment on achievement in English grammar were traced using Scheffe Post hoc test as shown in Table 4.3.

Table 4.3: Scheffe Post hoc of Achievement in English Grammar by Treatment

			Treatment Group			
Treatment Group	No	Mean	Jigsaw CLS	NHT CLS	GI CLS	Control Group
Jigsaw CLS	89	34.0		*	*	*
NHT CLS	83	30.5	*		*	*
GI CLS	91	37.0	*	*		*
Control Group	87	25.8	*	*	*	

*Pairs of groups are significantly different at $p < 0.05$

Table 4.3 showed that the group exposed to that Jigsaw cooperative learning strategy ($\bar{x}$ = 34.0) is significantly different from each of the three other groups namely: the Numbered-Heads-Together cooperative learning strategy group ($\bar{x}$ = 30.5), the Group Investigation cooperative learning strategy group ($\bar{x}$ = 37.0), and the control group ($\bar{x}$ = 25.8). Also, the group exposed the Numbered-Heads-Together cooperative learning strategy ($\bar{x}$ = 30.5) is significantly different from Jigsaw cooperative learning strategy group ($\bar{x}$ = 34.0), the Group Investigation cooperative learning strategy group ($\bar{x}$ = 37.0), and the control group ($\bar{x}$ = 25.8). Furthermore, the group exposed to Group Investigation cooperative learning strategy, is significantly different from each of the three other groups namely: the Numbered-Heads-

Together cooperative learning strategy group ($\bar{x}$ = 30.5), Jigsaw cooperative learning strategy group ($\bar{x}$ = 34.0), and the control group ($\bar{x}$ = 25.8). Lastly, the group exposed to Modified lecture method strategy i.e. the control group, is significantly different from Jigsaw cooperative learning strategy group ($\bar{x}$ = 34.0), the Numbered-Heads-Together cooperative learning strategy group ($\bar{x}$ = 30.5) and the Group Investigation cooperative learning strategy group ($\bar{x}$ = 37.0) Each of the pairs contributed to the significant effect of treatment on students' achievement in English grammar..

4.1.2 Hypothesis One (b)

There is no significant main effect of treatment on students' attitude to English grammar.

Table 4.4: Summary of ANCOVA of Post-test score of Participants' Attitude to English Grammar by Treatment, Gender, and Parental Educational Support

		Experimental Method					
		Sum of Squares	Df	Mean Square	F	Sig.	Beta
Covariates	Pretest score-Attitude to English Grammar	661.5	1	661.5	434.5	.000	.017
Main Effects	(Combined)	40.0	5	8.0	5.3	.000	
	Treatment	36.0	3	12.0	7.9	.000*	
	Gender	1.2	1	1.3	.9	.4	
	Parental Educational Support	1.7	1	1.7	1.0	.3	
2-Way Interactions	(Combined)	11.1	7	1.6	1.0	.4	
	Treatment xGender	7.7	3	2.5	1.7	.2	
	TreatmentXParental Educational Support	3.5	3	1.2	.8	.5	
	GenderXParental Educational Support	.1	1	.7	.0	1.0	
3-Way Interactions	TreatmentX GenderXParental Educational Support	2.0	3	1.0	.4	.7	
Model		714.7	16	44.7	29.3	.000	
Residual		507.0	333	1.5			
Total		1222.0	349	3.5			

* Significant at $p < 0.05$

The results in Table 4.4 showed that there is significant main effect of treatment ($F_{(3,333)}$ = 7.9; $p < 0.05$). Participants in the Group Investigation cooperative learning strategy had the highest mean score ($\bar{x}$ = 13.7), followed by others in this rank order: Numbered-Heads-Together cooperative learning strategy group ($\bar{x}$ = 12.2); Jigsaw cooperative learning strategy group ($\bar{x}$ = 12.2); and the Traditional lecture method group ($\bar{x}$ = 11.6).Therefore the hypothesis was rejected.

Below is the Multiple Classification analysis (MCA) which presents the descriptive statistics of the post test scores of students' attitude to English grammar in the three experimental groups and control group.

Table 4.5: Multiple Classification Analysis of Participants' Post-test score of Attitude to English Grammar by Treatment, Gender and Parental Educational Support

Grand Mean = 12.4

			Predicted Mean		Deviation		Eta	Beta
		N	Unadjusted	Adjusted for factor and Covariate	Unadjusted	Adjusted for factor and Covariate		Adjusted for factor and Covariate
Treatment	Jigsaw CLS	89	12.2	12.4	-.23	-.0	.4	.18
	NHT CLS	83	12.2	12.4	-.20	-.0		
	GI CLS	91	13.7	12.9	1.2	.5		
	Control Group	87	11.6	12.0	-.9	-.5		
Gender	Male	176	12.4	12.5	.017	.7	1.0	.03
	Female	174	12.4	12.4	-.017	-.7		
Parental Educational Support	Low	126	12.0	12.3	-.4	1.0	.1	..0
	High	224	12.6	12.5	.2	.6		
R=.758								
R Squared=.574								

Results in Table 4.5 indicated that participants in the Group Investigation Cooperative Learning Strategy group had the highest adjusted mean score in achievement ($\bar{x}$ = 12.9; adj. dev. = .47) followed by those in the Numbered Heads Together Cooperative ($\bar{x}$ = 12.4; adj. dev. = -.012) then by those in the Jigsaw Cooperative Learning Strategy ($\bar{x}$ = 12.4; adj. dev. = -.015) and finally by those in the control group ($\bar{x}$ = 12.0; adj. dev. = -.47). This order can be represented as Group Investigation Cooperative Learning Strategy > Numbered Heads Together Cooperative > Jigsaw Cooperative Learning Strategy > Control group.

Table 4. 6: Scheffe Post hoc of Attitude to English Grammar by Treatment

Treatment Group

Treatment Group	No	Mean	Jigsaw CLS	NHT CLS	GI CLS	Control Group
Jigsaw CLS	89	12.4			*	
NHT CLS	83	12.4			*	*
GI CLS	91	12.9	*	*		
Control Group	87	12.0			*	

*Pairs of groups are significantly different at p < 0.05

Table 4.6 showed that the group exposed to the Jigsaw cooperative learning strategy ($\bar{x}$ = 12.4) is significantly different from the group exposed to the Group Investigation cooperative learning strategy ($\bar{x}$ = 12.9). Also, the Numbered-Heads-Together cooperative learning strategy group ($\bar{x}$ = 12.4) is significantly different from Group Investigation cooperative learning strategy group ($\bar{x}$ = 12.9) and the control group ($\bar{x}$ = 12.0). Furthermore, the group exposed to the Group Investigation cooperative learning strategy ($\bar{x}$ = 12.9), is significantly different from Jigsaw cooperative learning strategy ($\bar{x}$ = 12.4) and the Numbered-Heads-Together cooperative learning strategy ($\bar{x}$ = 12.4) groups. Also, the group exposed to the Modified lecture method is significantly different from the Group Investigation cooperative learning strategy ($\bar{x}$ = 12.9) group. The Jigsaw and the Numbered-Heads-Together groups did not contribute to the observed significant effect of students' attitude to English grammar.

4.2.1 Hypothesis Two (a)

There is no significant main effect of gender on students' achievement in English grammar.

Results presented in Table 1 showed that there is a significant effect of gender on students' achievement in English grammar ($F_{(1,333)}$ = 9.0; p < 0.05). Result indicated that the female students had higher achievement mean score ($\bar{x}$ = 32.4) than their male counterparts ($\bar{x}$ = 31.4). The null hypothesis was therefore rejected. The implication of this result is that gender had effect on students' achievement in English grammar.

4.2.2 Hypothesis Two (b)

There is no significant main effect of gender on students' attitude to English grammar.

Results presented in Table 4 showed that there was no significant effect of gender on students' attitude to English grammar ($F_{(1,333)}$ = .9; p > 0.05). The null hypothesis was therefore not rejected. The implication of this result is that gender had no effect on students' attitude to English grammar.

4.3.1 Hypothesis Three (a)

There is no significant main effect of parental educational support on students' achievement in English grammar.

Results presented in Table 1 showed that there is a significant effect of Parental Educational Support on students' achievement in English grammar ($F_{(1,333)}$ = 110.2; p < 0.05). The null hypothesis was rejected. The implication of this result is that Parental Educational Support had effect on students' achievement in English grammar. Participants in the high Parental Educational Support group performed better in English grammar than their counterparts in low Parental Educational Support group.

4.3.2 Hypothesis Three (b)

There is no significant main effect of Parental Educational Support on students' attitude to English grammar.

Results presented in Table 4.4 showed that there was no significant effect of parental educational support on students' attitude to English grammar ($F_{(1,333)}$ = 1.1; p > 0.05). The null

hypothesis was not rejected. The implication of this result is that Parental Educational Support had no effect on students' attitude to English grammar.

4.4.1 Hypothesis Four (a)

There is no significant interaction effect of treatment and gender on students' achievement in English grammar.

The results in Table 4.1 revealed that there is a significant two-way interaction effect of treatment and gender ($F_{(3,333)}$ = 3.9; $p < 0.05$) on students' achievement in English Grammar. Therefore, the null hypothesis was rejected. The implication of the results is that gender together with treatment had no effect on students' achievement in English grammar.

The graph in Figure 4.1 is presented to disentangle the interaction effects of treatment and gender on students' achievement in English grammar.

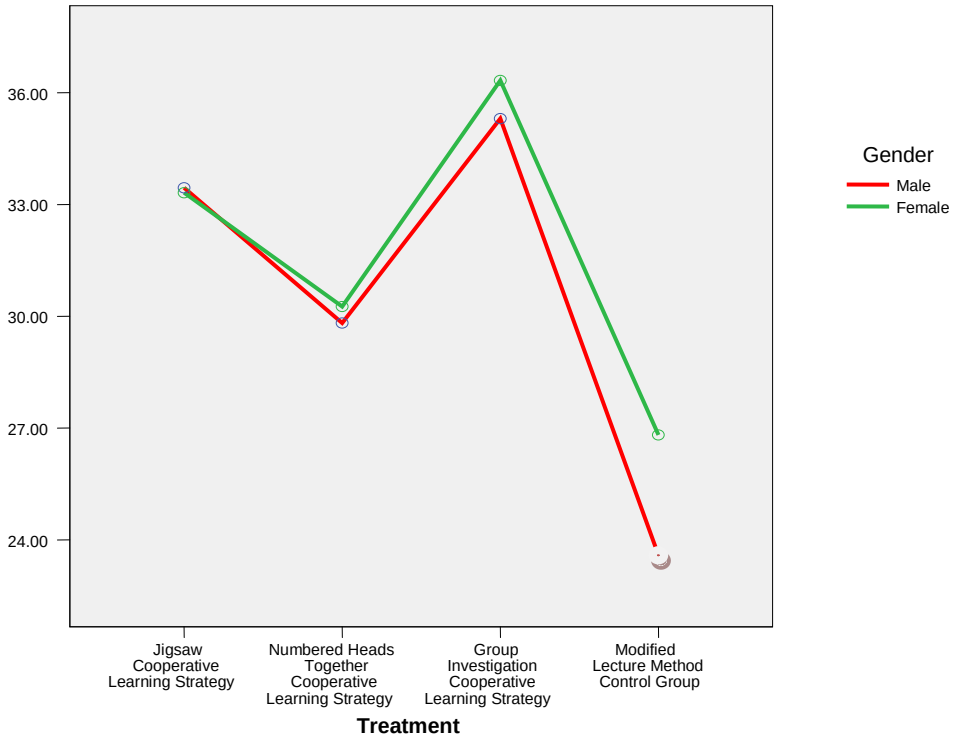

Figure 4.1: Interaction Effect of Treatment and Gender on Students' Achievement in English Grammar

Figure 4.1 showed the performance of all the male and female participants in all the experimental and the control groups in English grammar. In the Jigsaw cooperative learning strategy group, male participants had higher mean score ($\bar{x}$ = 33.9) than female participants ($\bar{x}$ = 33.9). Female participants in the Numbered-Heads-Together cooperative learning strategy group had higher mean score ($\bar{x}$ = 30.5) than male participants ($\bar{x}$ = 29.7). Also, in the Group Investigation cooperative learning strategy group, female participants had higher mean score ($\bar{x}$ = 38.0) than male participants ($\bar{x}$ = 36.9). Similarly, in the Modified lecture method control group, female participants had higher mean score ($\bar{x}$ = 27.2) than male participants ($\bar{x}$ = 24.6). Except in Jigsaw cooperative learning strategy where male participants had higher mean score than their female counterparts, female participants had higher achievement in English grammar than male participants in the other experimental groups and the control group. The interaction is therefore disordinal.

4.4.2 Hypothesis Four (b)

There is no significant interaction effect of treatment and gender on students' attitude to English grammar.

The results in Table 4.4 revealed that there is no significant two-way interaction effects of treatment and gender ($F_{(3,333)}$ = 1.7; p > 0.05) on students' attitude to English grammar. Therefore, the null hypothesis was not rejected. The implication of the results is that gender together with treatment had no effect on students 'attitude to English grammar.

4.5.1 Hypothesis Five (a)

There is no significant interaction effect of treatment and parental educational support on students' achievement in English grammar.

The results in Table 4.1 revealed that there is a significant two-way interaction effects of treatment and parental educational support ($F_{(3,333)}$ = 5.0; p < 0.05) on students' achievement in English grammar. Therefore, the null hypothesis was rejected. The implication of the results is that Parental Educational Support together with treatment influenced the achievement of students in English grammar.

The graph in Figure 4.2 is presented to disentangle the interaction.

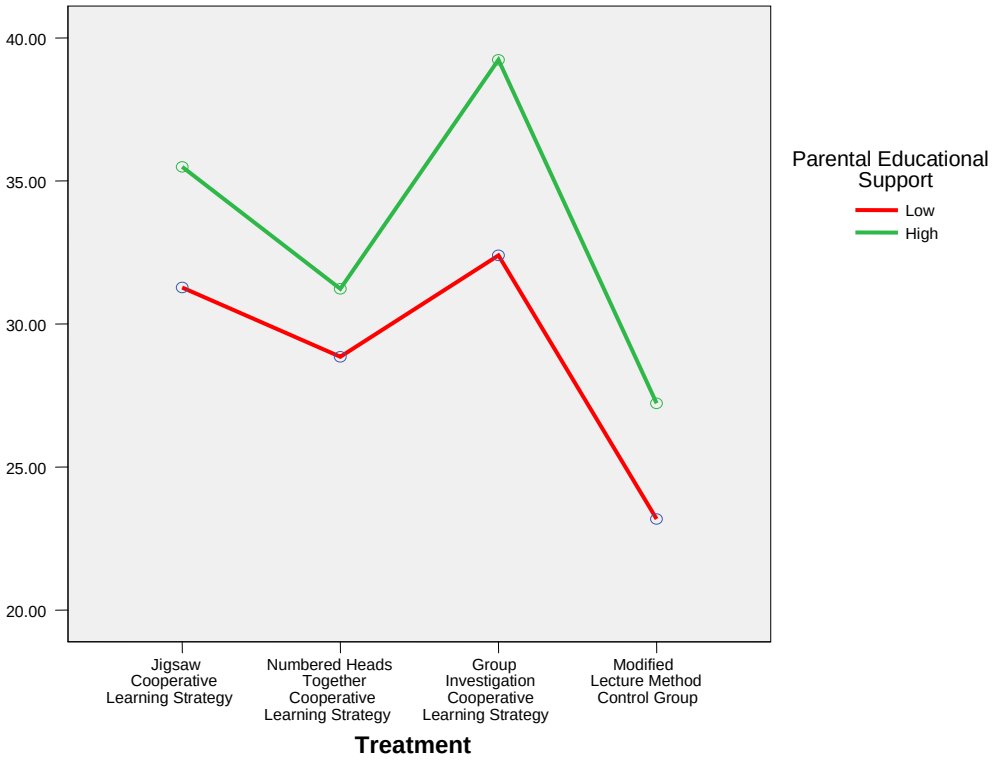

Figure 4.2: Interaction Effect of Treatment and Parental Educational Support on Students' Achievement in English Grammar

Figure 4.2 reveals the performance of participants in each of the experimental and control groups. In the Jigsaw cooperative learning strategy group participants with high Parental Educational Support had higher mean score ($\bar{x}$ = 35.5) followed by those with low Parental Educational Support ($\bar{x}$ = 31.2). Participants with high Parental Educational Support in the Numbered-Heads-Together cooperative learning strategy group had higher mean score ($\bar{x}$ = 31.1) than participants with low Parental Educational Support ($\bar{x}$ = 28.7). Also, in the Group Investigation cooperative learning strategy group, participants with high Parental Educational Support had higher mean score ($\bar{x}$ = 39.2) than participants with low Parental Educational Support ($\bar{x}$ = 32.4). Similarly, in the Modified lecture method control group, participants with high Parental Educational Support had higher mean score ($\bar{x}$ = 27.2) than participants with low parental educational support ($\bar{x}$ = 23.6). In all, participants with high Parental Educational

Support had higher achievement in English grammar than those with low Parental Educational Support. The interaction is therefore ordinal.

4.5.2 Hypothesis Five (b)

There is no significant interaction effect of treatment and parental educational support on students' attitude to English grammar.

The results in Table 4.4 revealed that there is no significant two-way interaction effects of treatment and Parental Educational Support ($F_{(3,333)}$ = .8; p > 0.05) on students' attitude in English grammar. Therefore, the null hypothesis was not rejected. The implication of the results is that parental educational support together with treatment had no effect on students' attitude to English grammar.

4.6.1 Hypothesis Six (a)

There is no significant interaction effect of gender and parental educational support on participants' achievement in English grammar.

The results in Table 4.1 revealed that there is no significant two-way interaction effects of gender and parental educational support on students' achievement in English grammar($F_{(1,333)}$ = 0.0; p > 0.05). Therefore, the null hypothesis was not rejected. The implication of the results is that parental educational support together with gender had no effect on students' achievement in English grammar.

4.6.2 Hypothesis Six (b)

There is no significant interaction effect of gender and parental educational support on participants' attitude to English grammar.

The results in Table 4.4 revealed that there is no significant two-way interaction effects of gender and parental educational support ($F_{(1,333)}$ = 0.0; p > 0.05) on participants attitude to English grammar. Therefore, the null hypothesis was not rejected. The implication of the results is that parental educational support together with gender had no effect on participants' attitude to English grammar.

4.7.1 Hypothesis Seven (a)

There is no significant interaction effect of treatment, gender and parental educational support on participants' achievement in English grammar.

The results in Table 4.1 revealed that there is no significant three-way interaction of treatment, gender and parental educational support ($F_{(3,333)}$ = 0.3; p > 0.05) on students' achievement in English grammar. The null hypothesis which stated that there is no significant interaction effect of treatment, gender and parental educational support on participants' achievement in English grammar was not rejected. The finding showed that treatment, gender and parental educational support had no interacting effects on participants' achievement in English grammar.

4.7.2 Hypothesis Seven (b)

There is no significant interaction effect of treatment, gender and parental educational support on participants' attitude to English grammar.

The results in Table 4.4 revealed that there is no significant three-way interaction effect of treatment, gender and parental educational support ($F_{(3,333)}$ = 0.4; p > 0.05) on students' attitude to English grammar. The null hypothesis was not rejected. The finding revealed that treatment, gender and parental educational support had no interacting effects on participants' attitude to English grammar.

4.8. Discussion of Results

4.8.1. Main effect of Treatments on students' Achievement in and Attitude to English Grammar

Hypothesis 1a (H01a) stated that there is no significant main effect of treatment on students' achievement in English grammar. In the study it was observed that all treatment contributed significantly to the gain score of students' achievement in English grammar. The results revealed that participants in the Jigsaw cooperative learning strategy group had a mean score of 33.4 and standard error of .4. In the Numbered-Heads-Together cooperative learning

strategy, the mean score was $\bar{x}$ = 30.0 and the standard error was .5. Participants in the Group Investigation cooperative learning strategy had a mean score of $\bar{x}$ = 35.8 and standard error of .4. However, in the Traditional lecture method control group, the mean score was $\bar{x}$ = 25.2 and the standard error was .4. Findings indicated that participants in the Group Investigation cooperative learning strategy had the highest mean score ($\bar{x}$ = 35.8) followed by participants in the Jigsaw cooperative learning strategy group ($\bar{x}$ = 33.4). Participants in the Numbered-Heads-Together cooperative learning strategy followed the Jigsaw cooperative learning strategy group with a mean score of $\bar{x}$ = 30.0. Participants in the Traditional lecture method control group had the least mean score ($\bar{x}$ = 25.2). This result corroborates many assertions and findings of numerous studies conducted by researchers and language experts.

The participants that completed the treatments of the cooperative strategies that were contrasted with the traditional lecture method in the study performed better in English grammar than the performance of participants in the control group. The reason is not far-fetched; the effectiveness of cooperative learning in promoting higher achievement and greater productivity has been alluded to by many scholars. Numerous research studies have revealed those students' completing cooperative learning group tasks tend to have higher academic test scores, greater comprehension of the content and skills they are studying, and essential communication skills (Gunderson and Johnson, 1980; Jacob and Mattson 1987; Slavin 1991). Also Bianchini, 1995, supported this view when he concluded that cooperative learning has been found to be effective for promoting academic achievement, language acquisition, and social development of English language learners. Moreover, Christon, 1990 and Kagan, 1996, proclaimed cooperative language learning strategies as effective instructional approaches in promoting the cognitive and linguistic development of learners of English as a second language. Furthermore, Okebukola, 1999, asserted that cooperative learning integrates language and content learning, and its varied applications are in harmony with the pedagogical implications of the input, socialization, and interactive theories of language acquisition. Also, according to Coelho (1992), cooperative learning increases interaction among learners as they restate, expand, and elaborate their ideas in order to convey and or clarify intended meaning. This interaction is important because it contributes to gains in second language acquisition and in academic achievement.

Furthermore, in order to confirm the effectiveness of cooperative learning over the traditional lecture method, thirty studies were examined by Pica (1996) for the purposes of finding outcomes for effects on academic achievement for African American, Mexican American or Native American students. Through this critical review of the literature, it became apparent that cooperative learning compared to traditional methods had significant effects on achievement gains for participants. Studies found that cooperative learning had a positive outcome on academic achievement. Lampe, Rooze and Tallent-Runnels (2001) did a study for twelve weeks with students in an elementary school for the purposes of measuring effects of Jigsaw and Group Investigations on Mexican American children's achievement in elementary social studies. The students were from two elementary schools in the Southwest. There were 25 boys and 26 girls that participated in the cooperative learning model which included Jigsaw and Group Investigations (GI). Each of the two schools had two classrooms that worked in the cooperative learning model and two classrooms that used traditional teaching methods. All teachers had considerable training in cooperative learning. This included group strategies regarding cooperative-learning as learned through workshops. They also were able to have conferences with the researchers and had sample lessons. The teachers were randomly assigned to either teach a heterogeneous cooperative classrooms or the traditional method. Student assignments to classrooms were based on prior test scores from social studies so that the classrooms could all be equally balanced. Texas history was studied by the control group and the cooperative group using the same teaching materials. Achievement was measured by using a test before the study began compared with test scores after the study. The tests were social studies tests that researchers designed based on the social studies unit studied and the curriculum book's publisher data bank. The outcome of the result indicated a statistically significant difference between cooperative learning and traditional methods $p < .001$ favouring cooperative methods.

Shlomo Sharan and his associates (1989) conducted more than ten large-scale experiments on the effectiveness of cooperative learning in general and Group Investigation in particular. Five of the studies assessed students' achievements at both the elementary and secondary levels. Students from Group Investigation classes generally demonstrated a higher level of academic achievement than did their peers taught with the whole class method. (Sharan, S. and Shachar 1988; Sharan, S. and Shaulov 1989). However, Martinez (1990) found slight, but not significant achievement gains through Group Investigation for bilingual immigrant third

grade children in the study of reading. Similarly, minority students did experience little achievement gains through Jigsaw and Group Investigation.

The effects of Numbered-Heads-Together cooperative variant, Maheady, Michielli-Pendl, Harper and Mallette (2006) had earlier found before this study that Numbered-Heads-Together was very effective in boosting the academic achievement of sixth grade students in the study of spellings. Likewise, Maheady, Mallette, Harper and Sacca (1991) found significant achievement for Mexican American students in third grade language studies that were tutored with Numbered- Heads –Together cooperative learning strategy. Scott (1984) did a study regarding spelling achievement through Numbered-Heads-Together cooperative learning strategy and found substantial achievement for Mexican American participants. The study took place in San Diego and grades four through six participated. In contrast, Widaman and Kagan (1987) also studied Mexican American spelling achievement through cooperative learning and found higher achievement through traditional methods after six weeks.

The effectiveness of cooperative learning strategies cannot be limited to a particular area of study, it knows no bounds. Studies of the achievement effects of cooperative learning have taken place in every major subject, at all grade levels, in all grade levels, in all types of schools and in many countries. Both field studies and laboratory studies have produced a great deal of knowledge about the effects of many types of cooperative interactions and about the mechanisms responsible for these effects. For instance, Koprowski and Perigo (2000) employed the use of cooperative learning strategy to facilitate proactive participation of students in gaining information on the morphology of vertebrates, allowing pairs of students to explore a specific organism and choose, with assistance from an instructor, the 10 most interesting and important parts of their organ systems. Partners' attained expert status, compiled and photocopied a list and diagram of their vertebrate's top structures for distribution to the class, and taught their newfound knowledge to their peers. Students were evaluated through standard laboratory practicums. Students strongly endorsed the cooperative technique used in the course; 84% expressed the opinion that the cooperative learning strategy was superior to learning anatomy by a more traditional method.

Consequently, the amount, generalisability, breath, and applicability of the research on cooperative, competitive, and individualistic efforts provides considerable validation of the use of cooperative learning, perhaps more than most other instructional methods (Cohen, 1994;

Johnson, 1970; Johnson and Johnson, 1974, 1978, 1989, 1999a; Kohn, 1992; Sharan 1980; Slavin, 1977, 1991).

There are many research studies (Johnson and Johnson, 2000; Kohn, 2002; Sharan 2002) validating the effectiveness of cooperative over competitive and individual efforts. This body of research has considerable generalizability since the research has been conducted by many different researches with markedly different orientations working in different settings and countries and in several different decades, since research participants have varied widely as to cultural background, economic class, age and gender, and since a wide variety of research tasks and measures of the dependent variables have been used. The research on cooperative efforts, furthermore, has unusual breath, that is, it has focused on a wide variety of diverse outcomes. Over the past years researchers have focused on such diverse outcomes as achievement, higher-level reasoning, retention, time on task, transfer of learning achievement motivation, intrinsic motivation, continuing motivation, social support, friendships, reduction of stereotypes and prejudice, valuing differences, psychological health, self-esteem, social competence, internalization of values, the quality of the learning environment, and many other outcomes. There may not be other instructional strategy that simultaneously achieves such diverse outcomes. It has been seen from the findings of this study that the traditional approach to learning in which most time is spent with the teacher lecturing and the students watching and listening has been over-flogged and used by language teachers to the detriment of other vital, useful and better teaching and learning strategies.

Also, hypothesis 1b (H01b) stated that there is no significant main effect of treatment on students' attitude to English grammar. Apart from the above is the effect of treatment on students' attitude to English grammar. In the findings, results indicated a total mean score of students' attitude to grammar of $\bar{x} =$ 12.4 with a standard deviation of 1.9. However, mean attitudes to grammar score of $\bar{x} =$ 12.2 and a standard deviation of 1.4 were observed for participants in the Jigsaw cooperative learning strategy group. For participants in the Numbered-Heads-Together cooperative learning strategy group, a mean of $\bar{x} =$ 12.2 and a standard deviation of 1.3 were observed. For participants in the Group Investigation cooperative learning strategy group, a mean of $\bar{x} =$ 13.7 and a standard deviation of 2.3 was observed. In the Traditional lecture method control group, a mean score of $\bar{x} =$ 11. and a standard deviation of

1.605 were recorded. In summary, results indicated that participants in the Group Investigation cooperative learning strategy had the highest mean score ($\bar{x}$ = 13.0) followed by participants in the Numbered-Heads-Together cooperative learning strategy ($\bar{x}$ = 12.4). Participants in the Jigsaw cooperative learning strategy ($\bar{x}$ = 12.4) followed the participants in the Numbered-Heads-Together cooperative learning strategy while participants in the Traditional lecture method control group had the lowest mean score ($\bar{x}$ = 12.0).

It has been observed by scholars that social awareness, tolerance for individual differences, altruism and positive attitudes towards others, and more positive relationship among students, and healthier psychological adjustment have been the bane of cooperative learning than do competitive or individualistic experiences (Gunderson and Johnson, 1980; Jacob and Mattson 1987; Slavin 1991). Subsequently, it has been affirmed (Ayodele, 2002) that learners' attitude to learning significantly affects performances. Furthermore, it has severally been noted (Scarrs 1998; Guilford 1998) that the kinds of attitude students have invariably affect schoolwork and learning. Students with positive attitude towards schoolwork will inevitably experience some successes and achievements in their schoolwork and through reinforcement will perform and achieve better than those students with negative attitude, who will achieve little or nothing. Negative attitude ranges from absenteeism from English class, lateness, non-submission of take-home assignments and non-possession of textbooks. Researchers have argued that attitude towards a subject affects achievement in that subject (Okpala, 1985; Abe 1995 and Olagunju 1996). In the same vein, Makanjuola (1996) asserted that students' keen interest in a particular subject will gear them up to devoting more time to the study of such subject. This will make them to perform better in that subject, but when the contrary is the case, students' performance becomes low. Further researches in language (Ezeokoli, 1986, Ayodele, 1988, Araromi, 1999) are pointers to the fact that students' attitude to English language influence achievement in the subject. Cooperative learning also positively influence attitude of students towards a subject matter.

In one of the studies carried out by Scarcella (1988) on the effects of cooperative learning and academic performance, there were significant changes in the level of motivation over the course of the year among the students in classes taught with the Group Investigation method compared to the students who studied with the whole class method. The students from the Group Investigation classes revealed a large increase in their motivation to learn over the course of the

year. Consequently, cooperative learning fosters a higher level of performance by information and interest in the subject matter improves (Kulick and Kulick 1979). When students are successful in a task, they view the subject matter with a very positive attitude because their self-esteem is enhanced. This creates a positive cycle of good performance building higher self esteem which in turn leads to more interest in the subject and higher performance. Students share their success with their groups, thus, enhancing both the individual's and the group's self esteem. Since cooperative learning structures formalize this effect by awarding certificates of achievement or improvement to students, it gives extra credit to groups for an individual's group's improvement. Although attitude may be somehow resistant to change, the teacher in his appropriate selections of learning goal structures could be in a better position to effect appropriate changes in students' attitude to English grammar.

4.8.2. Main effect of Gender on Students' Achievement in and Attitude to English Grammar

Hypothesis 2a (H02a) states that there is no significant main effect of gender on students' achievement in English grammar. However, the results showed that there is a significant difference in the achievement of male and female participants in English grammar of (MD = 1.1; Std error = .4; $p < 0.05$). In effect, achievement in English grammar of male and female participants is significantly different from each other. The result clearly indicated that female participants had higher mean score ($\bar{x} = 31.7$) than male participants ($\bar{x} = 30.5$). This implies that female participants have higher achievement in English grammar than male participants. This result, as it is in this study, has been confirmed by numerous studies.

A number of researches have been carried out in the past on the effects of gender on academic achievement. Generally, it has been confirmed severally that female students usually perform better than their male counterpart in language study. Ross (1985) observed that in spite of variations in methods of teaching, girls are superior to boys in practically every phase of language development. Moreover, researches confirmed the effect of gender on academic achievement, for example, Kinney (2008) in a study that involved English-dominant and Spanish-dominant students' perceptions of opportunities to communicate in language classrooms among other areas, the survey examined the frequency of various communication activities in language classroom. These activities included explaining one's thinking, giving oral reports, discussing current events, sharing

ideas and asking questions. Results indicated that female students with Spanish as their primary language received opportunities to communicate at frequencies nearly equal to those of male and female English-dominant students. Male students, with Spanish as their primary language, reported lowest frequencies of participation in classroom discourse. Also, Ayodele (1978) and Adegbile (1998) agreed to the general consensus that girls have been found in many Nigerian researches to have only a slight positive but statistically insignificant edge over boys in language performance. One of the reasons behind this has been explained in a study carried out in United States on the effect of the home and the amount of communication that take place between the parents, siblings, and other relations of the child,' it was found out that in many families, the mothers talk more to the daughters than the sons. This frequently resulted in 'preferential talk' which in turn made the girls more advanced in language than boys of the same age' (Anderson, 1999).

The finding here disagreed with other studies that revealed that male students tend to perform better than females. Steven (2007) carried out an investigation in four English speaking countries- Canada, England, Nigeria and USA. The students were tested in six areas: vocabulary, comprehension, initial consonant, variant consonant, vowel sounds and structural analysis. The findings revealed that in England and Nigeria, boys score better than girls on the majority of tests. Many other studies (Morgan, 1998; Webb, 2008) revealed no significant cognitive differences between the two sexes. Jibowo (1997) found out that gender had no significant effect on performance of students in English language. Also, Jordan (2002) observed that the sex of the learner had nothing to do with his performance on a given course. Notwithstanding the various findings mentioned above, this study found out that female participants performed creditably well in the achievement test in English grammar as compared to their male participants.

Also, hypothesis 2b (H02b) states that there is no significant main effect of treatment on students' attitude to English grammar. The results also revealed that there is no significant difference in the effect of gender on students' attitude to English grammar ($F_{(1,333)} = .9$; $p > 0.05$). The results indicated that male participants had a mean attitude to English grammar of $\bar{x} =$ 12.5 and a standard error of .1 while female participants had a mean score of $\bar{x} =$ 12.3 and a standard error of .1. The figure showed that male participants had higher but insignificant mean score ($\bar{x} =$ 12.5) than female participants ($\bar{x} =$ 12.3). The implication of this result is that gender will not influence students' attitude to English grammar.

Studies have identified variables such as age, status, gender, level of educational attainments, socio-economic status, and experience, psychological, cultural and religious factors as some of the factors that can affect or influence the development of attitude towards a goal or an object. Parajers and Johnson, (1996) tested the influence of writing self-efficacy, writing apprehension and writing aptitude on 181 ninth-grade students. It was discovered that gender did not influence students' aptitude and self-efficacy performances. Since attitude is very important in whatever one does in life, its importance cannot be overruled in teaching-learning situations. Although attitude can be learned or acquired, shaped or re-shaped and can as well motivate individuals toward achievement, students need to develop and sustain positive attitude towards teaching and learning of English language, particularly its grammar. This made Adeosun (2000) to conclude that the study of attitude is an essential and inevitable part of any pedagogical innovations.

4.8.3. Main effect of Parental Educational Support on Students' Achievement in and Attitude to English Grammar

Hypothesis 3a (H03a): There is no significant main effect of parental educational support on students' achievement in English grammar. The results however revealed that there is a significant main effect of parental educational support on students' achievement in English grammar ($F_{(1, 333)} = 117.6$; $p < 0.05$). The result implies that parental educational support of participants would influence their level of achievement in English grammar. In effect, achievement in parental educational support will significantly affect the achievement of students in English grammar. The result of this finding corroborated many studies that had been carried out in the past concerning parental educational support of learners and academic achievement.

There are many factors that can bring about academic differences in learners. Some of the factors noted by Lazarowitz, (1990) include parental educational support such as provision of educational materials at home and in school; payment of tuition and other fees; existence of congenial learning environments; and monitoring of learners progress in and out of school. Also Lawal (2005), who carried out a research on the effects of learners' educational support and attendance in classes on academic performance in reading comprehension, concluded that learners with favourable educational support had higher mean score than learners with unfavourable educational support; thus, supporting the view that academic performance has

positive relationship with parental educational support. The result of the finding of this study also indicated that participants with low parental educational support had a mean score of 28.9 and a standard error of .3 while participants with high parental educational support had a mean score of $\bar{x} =$ 33.3 and a standard error of .2. Notwithstanding, the result negates other studies relating to the effects of parental educational support and academic achievement. One of the studies was that of Banjo (2003) who reported that there was no positive correlation existing between socio-economic background of students and their academic achievement in oral English. It should be noted that parental educational support is one of the numerous indices of socio-economic background of learners.

Also, hypothesis 3b (H03b): There is no significant main effect of parental educational support on students' attitude to English grammar. In relation to the effect of parental educational support on students' attitude to English grammar, the results revealed that there is no significant main effect of parental educational support on students' attitude to English grammar ($F_{(1, 333)}$ = 1.1; $p > 0.05$). The result implies that parental educational support of participants would not affect their attitude to English grammar. In essence, participants with high parental educational support had higher but insignificant mean score ($\bar{x} =$ 12.5) than those with low parental educational support ($\bar{x} =$ 12.3). Language teachers can help correct or modify students' unfavourable attitude towards English grammar, by introducing various teaching strategies that could help students comprehend easily (Adegbile, 2000).

4.8.4. Interaction effect of Treatment and Gender on students' Achievement in and Attitude to English Grammar

Hypothesis 4a (H04): There is no significant interaction effect of treatment and gender on students' achievement in English grammar. The results however revealed that there is a significant two-way interaction effects of treatment and gender ($F_{(3,333)}$ = 3.4; $p < 0.05$) on students' achievement in English grammar. The implication of the results is that gender would react with treatment to influence the achievement of students in English grammar. The result indicated that a significant interaction of treatment and gender exists between male and female participants exposed to Jigsaw cooperative learning strategy, Numbered-Heads-Together cooperative learning strategy, Group Investigation cooperative learning strategy and Traditional lecture method control group. The result showed that significant interaction of treatment and

gender existed between male and female participants exposed to Jigsaw cooperative learning strategy, Numbered-Heads-Together cooperative learning strategy, Group Investigation cooperative learning strategy and Traditional lecture method control group. In the Jigsaw cooperative learning strategy group, male participants had the highest mean score ($\bar{x}$ = 12.3) followed by female participants ($\bar{x}$ = 12.4). Female participants in the Numbered-Heads-Together cooperative learning strategy group had highest mean score ($\bar{x}$ = 12.7) compared to male participants ($\bar{x}$ = 12.1). Also, in the Group Investigation cooperative learning strategy group, female participants had highest mean score ($\bar{x}$ = 13.0) compared to male participants ($\bar{x}$ = 12.8). Also, in the Traditional lecture method control group, female participants had the highest mean score ($\bar{x}$ = 12.1) compared to male participants ($\bar{x}$ = 11.9). In all, female participants had higher achievement in English grammar than male participants.

The result of this study corroborated many findings. In a study carried out by Box and Little, D.C., (2003), on the effect of cooperative learning and academic effect in social studies, it was discovered that there was a significant two-way interaction effect of treatment and gender on students' achievement. Female participants that used advanced organizers performed significantly well than their male counterparts. Also, Brandt, F.J., and Ellsworth, N.J., (1996) found out that there was a significant two-way interaction effect of treatment and gender on students' achievement. It was discovered that female urban participants had higher mean scores than male urban counterparts in speech delivery. However, in another study carried out by Calderon, M., Hertz-Lazarowitz, Slavin, R., (1998), it was discovered that there is no significant interaction effect of treatment and gender on students' achievement in reading of bilingual participants.

Also, Hypothesis 4b (H04b) states that there is no significant interaction effect of treatment and gender on students' achievement in English grammar. The study also revealed that there is no significant two-way interaction effects of treatment and gender ($F_{(3,333)} = 1.9$; $p > 0.05$) on students' attitude to English grammar. The implication of the results is that gender would not act with treatment to influence the attitude of students to English grammar.

The finding of this study has been confirmed by the outcome of a study carried out by Chang, C.Y., Mao, S.L., (1999), on the effects of cooperative learning strategy and students' cognitive achievement. The study also revealed that there was no significant two-way

interaction effect of treatment and gender on students' attitude in earth science. Also, Cohen, E., Lotan, R., Scarloss, B., Arellano, A., (1999) using Complex Instruction, a variant of cooperative learning, reported no significant interaction effect of treatment and gender on students' attitude, thus, gender would not act with treatment to influence the attitude of students.

4.8.5. Interaction effect of Treatment and Parental Educational Support of participants' Achievement in and Attitude to English Grammar

Hypothesis 5a (H05a) states that there is no significant interaction effect of treatment and parental educational support on students' achievement in English grammar. The results however revealed that there is a significant two-way interaction effect of treatment and parental educational support ($F_{(3,333)} = 5.0$; $p < 0.05$) on students' achievement in English grammar. Thus, there is a significant interaction of treatment and parental educational support existing between participants with low and high parental educational support exposed to Jigsaw cooperative learning strategy, Numbered-Heads-Together cooperative learning strategy, Group investigation cooperative learning strategy and Traditional lecture method control group. The implication of the results is that parental educational support would act together with treatment to influence the achievement of students in English grammar.

In the Jigsaw cooperative learning strategy group participants with high parental educational support had the highest mean score ($\bar{x} = 35.5$) followed by those with low parental educational support ($\bar{x} = 31.2$). Participants with high parental educational support in the Numbered-Heads-Together cooperative learning strategy group had highest mean score ($\bar{x} = 31.2$) compared to participants with low parental educational support ($\bar{x} = 28.9$). Also, in the Group Investigation cooperative learning strategy group, participants with high parental educational support had highest mean score ($\bar{x} = 39.3$) compared to participants with low parental educational support ($\bar{x} = 32.4$). Furthermore, in the Traditional lecture method control group, participants with high parental educational support had the highest mean score ($\bar{x} = 27.2$) compared to participants with low parental educational support ($\bar{x} = 23.2$). In all, participants with high parental educational support had higher achievement in English grammar than those with low parental educational support.

This finding of the study had been confirmed by one of the studies carried out by DeVries, D.L. and Slavin, R.E., (1978). The researchers used Teams-Games Tournament, a cooperative device, to carry out series of classroom experiments. It was discovered that there was a significant two-way interaction effect of treatment and socio-economic background of subjects and achievement in literature. It should be noted that parental educational support is one of the indices generally used by researchers to measure socio-economic variable of subjects. Furthermore, Fan, (1990) confirmed that that there was a significant two-way interaction effect of treatment and home influences of Native American students.

Also, hypothesis 5b (H05b) states that there is no significant interaction effect of treatment and parental educational support on students' attitude to English grammar. Also, the results revealed that there is no significant two-way interaction effect of treatment and parental educational support ($F_{(3,333)} = .817$; $p > 0.05$) on students' attitude to English grammar. In the Jigsaw cooperative learning strategy group participants with high parental educational support had the highest mean score ($\bar{x} = 12.5$) followed by those with low parental educational support ($\bar{x} = 12.211$). Participants with high parental educational support in the Numbered-Heads-Together cooperative learning strategy group had highest mean score ($\bar{x} = 12.5$) compared to participants with low parental educational support ($\bar{x} = 12.3$). Also, in the Group Investigation cooperative learning strategy group, participants with high parental educational support had highest mean score ($\bar{x} = 13.0$) compared to participants with low parental educational support ($\bar{x} = 12.7$). However, in the Traditional lecture method control group, participants with low parental educational support had the highest mean score ($\bar{x} = 12.1$) compared to participants with high parental educational support ($\bar{x} = 11.9$). In effect, there is no significant interaction effect of treatment and parental educational support on students' attitude to English grammar.

The outcome of this finding was supported by the findings of Emmer, E.T and Gerwels, M.C., (2002) who performed an experiment on cooperative learning with elementary pupils. It was discovered that there was no significant interaction effect of treatment and parental upbringing on students' attitude to composition writing. The implication of the results is that parental upbringing would not act together with treatment to influence the attitude of students to composition writing.

4.8.6. Interaction effect of Gender and Parental Educational Support of participants' Achievement in English and Attitude to English Grammar

Hypothesis 6a (H06a): There is no significant interaction effect of gender and parental educational support on participants' achievement in English grammar. The results revealed also that there is no significant two-way interaction effect of gender and parental educational support ($F_{(1,333)} = 0.0$; $p > 0.05$). Male participants with low parental educational support had a mean score of 28.3 while male participants with high parental educational support had a mean score of $\bar{x} =$ 32.7. Furthermore, female participants with low parental educational support had a mean score of $\bar{x} =$ 29.5 while female participants with high parental educational support had a mean score of $\bar{x} =$ 33.9. The implication of the results is that parental educational support would not act together with gender to influence the achievement in English grammar of participants.

The result of this study was corroborated by several studies that were carried out by Haynes, N.M., Gebreyesus, S., (1992); and Hertz-Lazarowitz, R., Miller, N., (Eds.) (1992). It was discovered that that there were no significant two-way interaction effects of sex and socio-economic background of learners. On the contrary, Vaughan, (2002) confirmed that there was positive correlational effect of sex and socio-economic background on achievement and attitude among students of colour.

Hypothesis 6b (H06b) states that there is no significant interaction effect of gender and parental educational support on participants' attitude to English grammar. Also, the results revealed that there is no significant two-way interaction effect of gender and parental educational support ($F_{(1,333)} = 0.0$; $p > 0.05$) on participants' attitude to grammar. The implication of the results is that parental educational support would not act together with gender to affect the attitude to English grammar of participants. Male participants with low parental educational support had a mean score of $\bar{x} =$ 12.4 while male participants with high parental educational support had a mean score of $\bar{x} =$ 12.6. Furthermore, female participants with low parental educational support had a mean score of $\bar{x} =$ 12.3 while female participants with high parental educational support had a mean score of $\bar{x} =$ 12.5.

The experiments carried out by Swisher, K., (1990), and Klingner, J.K., Vaughn, S., Schumm, J.S., (1998) were in tune with the findings of this study. It was found out that there were no significant two-way interaction effect of sex and home background on participants' attitude to education of American Indian and Alaskan Native students.

4.8.7. Interaction effect of Treatment, Gender and Parental Educational Support of Participants' Achievement in and Attitude to English Grammar

Hypothesis 7a (H07a) states that there is no significant interaction effect of treatment, gender and parental support on participants' achievement in English grammar. The results showed that there is no significant three-way interaction of treatment, gender and parental educational support ($F_{(3,333)} = 0.3$; $p > 0.05$) on students' achievement in English grammar. The result revealed that there is no interaction between treatment and gender of participants with low parental educational support. In the Jigsaw cooperative learning strategy group male participants had a mean score of $\bar{x} = 31.1$ while female participants had a mean score of $\bar{x} = 31.4$. Male participants in the Numbered-Heads -Together cooperative learning strategy group had a mean score of $\bar{x} = 28.9$ while female participants had a mean score of $\bar{x} = 28.8$. Also, in the Group Investigation cooperative learning strategy group, male participants had a mean score of $\bar{x} = 31.9$ while female participants had a mean score of $\bar{x} = 32.9$. However, in the Traditional lecture method control group, male participants had a mean score of $\bar{x} = 21.6$ while female participants had a mean score of $\bar{x} = 24.7$.

The result indicated that there is no interaction between treatment and gender of participants with high parental educational support. In the Jigsaw cooperative learning strategy group male participants had a mean score of $\bar{x} = 35.8$ while female participants had a mean score of $\bar{x} = 35.1$. Male participants in the Numbered-Heads-Together cooperative learning strategy group had a mean score of $\bar{x} = 30.8$ while female participants had a mean score of $\bar{x} = 31.7$. Also, in the Group Investigation cooperative learning strategy group, male participants had a mean score of $\bar{x} = 38.7$ while female participant had a mean score of $\bar{x} = 39.8$. However, in the Traditional lecture method control group, male participants had a mean score of $\bar{x} = 25.5$ while female participants had a mean score of $\bar{x} = 28.9$.

The findings of Slavin, R.E and Karweit, N., (1981) confirmed this result. In the study, Slavin et al (1981) contrasted the cognitive and affective outcomes of Student Team Learning Experience (a variant of cooperative learning), sex and home background of participants. The result revealed that there was no interaction between treatment, sex of participants and parental socio-economic background.

Hypothesis 7b (H07b) states that there is no significant interaction effect of treatment, gender and parental support on participants' attitude to English grammar. Also, the results revealed that there is no significant three-way interaction of treatment, gender and parental educational support ($F_{(3,333)} = 0.4$; $p > 0.05$) on students' attitude to English grammar. The result further indicated that there is no interaction between treatment and gender of participants with high parental educational support. In the Jigsaw cooperative learning strategy group male participants had a mean score of $\bar{x} = 12.5$ while female participants had a mean score of $\bar{x} = 12.5$. Male participants in the Numbered- Heads- Together cooperative learning strategy group had a mean score of $\bar{x} = 12.8$ while female participants had a mean score of $\bar{x} = 12.2$. Also, in the Group Investigation cooperative learning strategy group, male participants had a mean score of $\bar{x} = 13.0$ while female participant had a mean score of $\bar{x} = 13.0$. However, in the Traditional lecture method control group, male participants had a mean score of $\bar{x} = 11.9$ while female participants had a mean score of $\bar{x} = 11.9$.

Studies (Johnson, D.W., Johnson, R., Tiffany, M., Zaidman, B., (1983); Kaplan, L.S., and Owings, W.A., 2001) had already asserted the outcome of this finding. In each of the studies, the finding reflected that participants' attitude to a subject area would not be influenced by the interacting effects of treatment, gender and parental educational support.

In concluding this discussion, it must be noted that in any cooperative learning experience, three important areas should be given utmost attention: teachers' experience, teachers' training, and structuring of cooperativeness in learners. Each of the aforementioned areas can affect the outcome of any cooperative learning venture. Cooperative learning is not synonymous with group work. Many teachers have students working in small groups, but in order to qualify as cooperative learning, some criteria must be met: positive interdependence (students need to be able to work together); individual accountability (each student is still assessed on what he or she

knows); group processes (a structure exists for how students will work together); social skills (particular social skills are emphasised during group work); and specific tasks (students work together to achieve a particular goal). Would-be cooperative learning researchers must place high value in teacher preparedness for teaching when deciding to implement a cooperative learning strategy, for it is very important to be fully informed about the strategies through educative practices.

The experience level of the teachers that will be used for the development of specific cooperative learning structures will be beneficial in the implementation of cooperative learning and subsequent positive academic achievement gains. An amount of research has shown that teachers' knowledge has greater influence on student learning and teaching (Kaplan, L.S., 2001). In essence, it is high time educators and administrators realised the essentiality of teacher training and experience.

CHAPTER FIVE

SUMMARY, CONCLUSION AND RECOMMENDATIONS

5.1 Summary of Findings

The findings of this study are summarised as follows:

(1) Students' achievement in English grammar varied with regards to the treatment given to them. Participants in the Group Investigation cooperative learning strategy had the highest mean score followed by others in this rank order: the Jigsaw cooperative learning strategy group; the Numbered-Heads-Together cooperative learning strategy; and participants in the Modified lecture method.

(2) Students' attitude to English grammar varied with regards to the treatment given to them. Participants in the Group Investigation cooperative learning strategy had the highest mean score, followed by others in this rank order: Numbered-Heads-Together cooperative learning strategy group; Jigsaw cooperative learning strategy group; and the Modified lecture method group.

(3) Gender has a significant effect on students' achievement in English grammar. Female participants had higher achievement score than their male counterparts.

(4) Gender has no significant effect on students' attitude to English grammar. Female participants had higher achievement score than their male counterparts, though it was not significant.

(5) Parental educational support had a significant effect on participants' achievement in English grammar. Participants with high parental educational support had higher achievement in English grammar when compared to participants with low parental educational support.

(6) Parental educational support did not have a significant effect on students' attitude to English grammar.

(7) Gender combined with treatment had a significant effect on students' achievement in English grammar. Female participants had higher achievement in English grammar than their male counterparts.

(8) Gender combined with treatment had no significant effect on students' attitude to English grammar.

(9) Parental educational support combined with treatment had significant effect on students' achievement in English grammar. Participants with high parental educational support had higher

achievement in English grammar than those with low parental educational support.

(10) Parental educational support combined with treatment had no significant effect on students' attitude to English grammar.

(11) There was no significant two-way interaction effect of gender and parental educational support on students' achievement in English grammar.

(12) There was no significant two-way interaction effect of gender and parental educational support on participants' attitude to grammar.

(13) There was no significant three-way interaction of treatment, gender and parental educational support on students' achievement in English grammar.

(14) There was no significant three-way interaction of treatment, gender and parental educational support on students' attitude to English grammar.

5.2 Conclusion

Based on the findings of this study, the following conclusions are drawn:

Student-centred instructional strategies involving cooperative learning are effective in improving students' achievement in English grammar. The Group Investigation cooperative strategy is more effective in improving students' achievement in English grammar than Jigsaw and Numbered-Heads-Together cooperative learning strategies. Cooperative learning strategy has the potentials of becoming a primary format that can be used by language teachers to improve the teaching and learning of English language.

5.3. Limitations of the study

Three hundred and fifty (350) participants drawn from eight secondary schools in Ijebu-Ode local government area of Ogun State were used for the study. Consequently,, the researcher had to cover a lot of distance daily in order to monitor the activities of the participants and trained research assistants for a period of twelve weeks.

Furthermore, the preponderance of female students over male students in most of the schools earlier selected for the study made the selections of schools and participants difficult. Also, the researcher encountered difficulties in selecting research assistants that were used for the study. While some exhibited willingness to assist in carrying out the experiment, others were financially induced before they showed willingness to assist in carrying out tasks expected of

them. Initially some school principals were reluctant to permit the researcher to use their schools, teachers and students for the study. In some cases, it took the interventions of zonal education officers and principal-generals to subdue some of the reluctant school principals. Finally, frequent holidays that were observed during the study partially disturbed the study.

5.4. Recommendations

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

(1) Cooperative learning strategies, particularly the Group Investigation variant has significant gains in improving learners' academic achievement in English grammar over and above the effects of traditional lecture method of teaching and learning that is still predominantly used in our classroom. Hence, in order to enable students improve their ability to apply learned rules of grammar in oral and written expressions in English, Group Investigation Cooperative learning strategy must be recommended for use in language classrooms by all stakeholders of education.

(2) Cooperative learning strategies appear to promote positive effects for students as reflected in increased academic achievement and improved social attitude and behaviour. Hence, cooperative learning strategy has the potential of becoming a primary format that can be used by language teachers to achieve both traditional and innovative goals, particularly on the areas of improving the teaching and learning of English language. It must be so recommended for use.

(3) It is recommended that language teachers should strive to improve their teaching skills through the acquisition of innovative strategies of English language teaching. It is believed that this will facilitate the teaching and acquisition of language which will invariably lead to proper mastery of the English language and also aid communication enhancement.

(4) Sequel to the above recommendation, various governments and administrators should organize periodic seminars, conferences and workshops for language teachers in order to upgrade and also update their knowledge of various skills and strategies that are germane for the learning and acquisition of English grammar and English language general.

(5) The expertise demonstrated by graduate English language teachers that were used as research assistants for the study was overwhelming. In the light of this, governments are implored to provide qualified teachers in our schools. Moreover, teachers with lower academic qualifications should be encouraged to enhance their academic qualifications. School administrators should be aware of the competence of the teachers they employ as teachers' academic qualifications have

been observed to have positive effects on academic achievement in not only in English language but also in all school subjects.

(6) The preoccupation of academic research since time immemorial has been to proffer solutions to educational problems, which incorporate problems associated with language study. It is through research that the efficacies of cooperative learning strategies were discovered. Therefore, governments should provide sufficient fund for research purposes in order to break new frontiers and also to unravel innovative strategies for teaching and learning of English language. This is capable of exposing language teachers to some effective alternative methods for teaching English language.

(7) Since the study has provided significant awareness in the existence of direct correlation between positive attitude and achievement in English grammar, language teachers should strive to improve students' attitude to the study of English and its grammar, as this will invariably affect learners' language efficiencies.

(8) Various governments are implored to intensify mass literacy enlightenment campaigns on the effects of home background of learners, particularly parental educational supports, on learners' educational achievements.

(9) The effect of the study materials provided for participants that were used for the study cannot be ignored. Government should provide language materials that are appropriate and meaningful to schools in order to enhance learners' social, personal, aesthetic or intellectual growth and development.

(10) Teachers are implored to help students develop necessary skills for independent study of English; this can likely contribute substantially to enhance students' performance in English grammar and their proficiency in English.

(11) It is recommended that researches be conducted on other cooperative learning strategies that were not used in this study in order to unravel practical, theoretical, intellectual underpinnings that can enable language teachers decipher which cooperative strategies are best suited to teach other's areas of language study.

(12) Teachers and trainee-teachers should be careful in the identification and selection of language strategies for classroom use. Wrong choice of learning strategies usually affects learners' comprehension of varieties of topics in English.

5.5. Suggestions for further study

Further study can be conducted to address the following areas:

(1) The study can be replicated at other levels of formal education to further ascertain the application of the strategies that can best teach English grammar. Consequently, there is a need for more research on all outcomes of cooperative learning in our secondary schools, and post-secondary institutions, and a need for development and evaluation of cooperative strategies for children, especially those in kindergarten and nursery schools.

(2) The study can also be extended to evaluate the effectiveness of cooperative learning strategies on academic achievement in other language areas of oral English, composition writing, reading comprehension, and summary writing just to mention a few instances.

(3) Other cooperative learning variants apart from the ones used in this study can also be evaluated to ascertain the effectiveness of such on academic achievement of English language learners.

(4) Cooperative learning strategies can also be contrasted with other learning modes of competitive and individualistic in order to ascertain the one that is best suited to enhance the mastery of English language.

(5) The study can also be replicated to cover more states of the federation so that the generalizations made in this study could further be more authentic and acceptable.

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APPENDIX I

DEPARTMENT OF TEACHER EDUCATION

FACULTY OF EDUCATION

UNIVERSITY OF IBADAN, IBADAN

ATTITUDE TO ENGLISH LANGUAGE SCALE

Dear Respondent,

The questions that you are about to answer are designed to help the researcher discover how you feel about English Language as a subject in the school curriculum.

It is not a test and as such you are expected to express your mind and feelings freely without fear.

Thank you.

Section A

Please supply the following information:

School: ……

Class: ……

Sex: ……

Section B

Please tick the item that indicates your level of agreement with the statement below. Study the meaning of each of the following carefully:

SA - Strongly Agree

A - Agree

D - Disagree

SD - Strongly Disagree

		SA	A	D	SD
1.	I like English language as a subject studied in schools.				
2	I find it hard to express my thoughts clearly in English language class.				
3	English language has never been my favourite subject.				
4	I study English because it is a compulsory subject.				
5	English language is a difficult subject.				
6	I hate studying English because it is not my mother tongue.				
7	The thought of English language makes me nervous.				
8	I only study it in order to express myself whenever possible.				
9	If not that a credit pass in English language is necessary, I would not have studied it.				
10	I feel uncomfortable whenever I express myself in English.				
11	I hate studying English because it is a language of imperialism.				
12	I hate English because a pass in it is at times considered for promotion to the next class.				
13	Expressing myself in English makes me feel that I am educated.				
14	I love studying English because it is the medium of instruction for other subjects.				
15	I enjoy studying English because it is an international language.				
16	Our English teacher usually uses motivational means to encourage us learn English language.				
17	It appears that our English teacher does not like teaching English language.				
18	Our English teacher uses different language teaching methods to teach us.				
19	Instructional materials are constantly used by our English teacher when teaching.				
20	I like conversing in English Language when at home.				

APPENDIX I1

DEPARTMENT OF TEACHER EDUCATION

FACULTY OF EDUCATION

UNIVERSITY OF IBADAN, IBADAN

QUESTIONNAIRE ON PARENTAL EDUCATIONAL SUPPORT

This questionnaire is designed to elicit information about your parental educational support. Please, fill the questionnaire as correctly as possible. Your responses will be treated with utmost confidentiality and mainly used for research purposes. Please, your cooperation is highly needed.

Section A

Demographic Data

Please, supply the information requested below:

School: ……

Class ……

Age: ……

Sex: Male ( ) Female ( )

Key: (SA = Strongly Agree; A = Agree; D = Disagree and SD = Strongly Disagree. Place a tick against the statement that best expresses your opinion.

S/N		SA	A	D	SD
1	My parents do not attend P.T.A. meetings regularly.				
2	My parents encourage me to read magazines written in English.				
3	My parents make sure that I watch documentaries in English.				
4	My parents can express themselves adequately well in				

	English language.				
5	My parents usually correct my spoken English.				
6	English is the language of communication at home.				
7	My parents usually supervise my home-work.				
8	My parents discuss my school work with me.				
9	My parents do visit my school regularly to monitor my academic progress.				
10	My parents usually discuss my academic progress with my class teacher.				
11	My parents encourage me to listen to programmes like debate in English on radio.				
12	My parents encourages me to watch quiz competitions in English on television.				
13	My parents arrange private lessons for me.				
14	We have a well stocked library at home.				
15	I usually make use of the library to do my assignments.				
16	My parents usually read difficult books to me.				
17	We have housemaids at home that help with domestic work.				
18	I spend less hours doing house work than engaging in academic activities at home.				
19	My parents ensure that I go to school regularly.				
20	My parents ensure that I get to school punctually.				

APPENDIX I1I

DEPARTMENT OF TEACHER EDUCATION

FACULTY OF EDUCATION

UNIVERSITY OF IBADAN, IBADAN

ACHIEVEMENT TEST IN ENGLISH GRAMMAR

Instructions to Students

1. Read the instructions carefully before attempting the questions.
2. Attempt all the questions.
3. Do the test according to your academic ability in English. Do not spy on one another because it is not one of the regular class assessment tests usually given by your teacher. The test items were designed to test your academic achievement in English grammar and the result will be used as such.

Section A

Please supply the following information:

School: ……

Class: ……

Sex: ……

Section B -Answer each of the following questions in this section:

Select the correct form from the choices supplied in parentheses:

1. I think the butter smells a little (rancid, rancidly).
2. Your glass (sure, surely) holds more than mine does.
3. She is looking very (well, good) after the operation.
4. This is the (happiest, most happiest) morning I have ever known.

Select the correct form from the choices supplied in parentheses:

5. (Who, Whom) did you say you saw at the movies?
6. Are you surprised at (us, our) being here so early?
7. She hasn't had as much experience as (I, me).

8. I suspect you and (I, me) are the scapegoats.

Supply the appropriate plural of each of the following words:

9. Clergy:…….
10. Belief:……..
11. Stadium:……
12: Knowledge:……
13: Man-eater:……

Supply the comparative and superlative of each of the following words:

		Comparative	Superlative
14:	Pleasant	……	……
15.	Red	……	……
16.	Expensive	……	……...
17.	Well	……	……
18.	Much	……	……

Supply the past tense and past participle of each of the following words:

		Past Tense	Past Participle
19.	Jail	……	……
20.	Fly	……	……
21.	Withdraw	……	……
22.	Shine	……..	……..
23.	Cling	……..	……..

Supply appropriate questions tag to each at the following statements:

24. You will still be there, _____?
25. I scored twenty in the test, _____?
26. We don't have any meat left, _____?
27. The man has two ears, _____?
28. They were lucky, _____?

Indicate the part of speech of each of the underlined word in each of the following sentences:

29. I like that. _____
30. I like that boy. _____
31. He doesn't like the food that much._____
32 He said that the man would beg._____
33. Please round off your speech. _____
34. The boxers are in the tenth round. _____
35. Whoosh! What a beautiful environment. _____
36. Whom did you get that from?

Select the appropriate words from each of the brackets to complete each of the following sentences:

37. One hundred years (make/makes) a century.
38. (Is/Are) there any salt or pepper?
39. The jury (is/are) arguing among themselves.
40. One of the players on the pitch (has/have) knee injury.
41. Neither her parents nor her friend (was/were) allowed to see her.

Indicate the tense of each of the following sentences:

42. The girl goes to the market every day.
43. I had reached home before it began to rain.
44. She has forgotten the story.
45. James will go to Lagos tomorrow.
46. By February, she will have been visiting the zoo for ten year.

Supply the noun and adjective forms of each of the following verbs:

	Verb	Noun	Adjective
47.	Enable	----------	----------
48.	Accept	----------	----------
49.	Befriend	----------	----------
50.	Stupefy	----------	----------

APPENDIX IV

DEPARTMENT OF TEACHER EDUCATION

FACULTY OF EDUCATION

UNIVERSITY OF IBADAN, IBADAN

ACHIEVEMENT TEST IN ENGLISH GRAMMAR - FOR POST-TEST TREATMENT

Instructions to Students

1. Read the instructions carefully before attempting the questions.
2. Attempt all the questions.
3. Do the test according to your academic ability in English. Do not spy on one another because it is not one of the regular class assessment tests usually given by your teacher. The test items were designed to test your academic achievement in English grammar and the result will be used as such.

Section A

Please supply the following information:

School: ……

Class: ……

Sex: ……

Section B- Answer each of the following questions in this section:

Supply appropriate questions tag to each at the following statements:

1. You will still be there, _____?

2. I scored twenty in the test, _____?
3. We don't have any meat left, _____?
4. The man has two ears, _____?
5. They were lucky, _____?

Supply the appropriate plural of each of the following words:

6. Clergy:…….
7. Belief:……..

8. Stadium:……

9. Knowledge:……

10. Man-eater:……

Select the correct form from the choices supplied in parentheses:

11. I think the butter smells a little (rancid, rancidly).
12. Your glass (sure, surely) holds more than mine does.
13. She is looking very (well, good) after the operation.
14. This is the (happiest, most happiest) morning I have ever known.

Select the correct form from the choices supplied in parentheses:

15. (Who, Whom) did you say you saw at the movies?
16. Are you surprised at (us, our) being here so early?
17. She hasn't had as much experience as (I, me).
18. I suspect you and (I, me) are the scapegoats.

Supply the noun and adjective forms of each of the following verbs:

	Verb	Noun	Adjective
19.	Enable	----------	----------
20.	Accept	----------	----------
21.	Befriend	----------	----------
22.	Stupefy	----------	----------

Select the appropriate words from each of the brackets to complete each of the following sentences:

23. One hundred years (make/makes) a century.
24. (Is/Are) there any salt or pepper?
25. The jury (is/are) arguing among themselves.
26. One of the players on the pitch (has/have) knee injury.
27. Neither her parents nor her friend (was/were) allowed to see her.

Indicate the part of speech of each of the underlined word in each of the following sentences:

28. I like that. _____
29. I like that boy. _____
30. He doesn't like the food that much._____
31. He said that the man would beg._____
32. Please round off your speech. _____
33. The boxers are in the tenth round. _____
34. Whoosh! What a beautiful environment. _____
35. Whom did you get that from?

Supply the past tense and past participle of each of the following words:

		Past Tense	Past Participle
36.	Jail	…….	……
37.	Fly	…….	……
38.	Withdraw	…….	……
39.	Shine	……..	……..
40.	Cling	……..	……..

Indicate the tense of each of the following sentences:

41. The girl goes to the market every day.
42. I had reached home before it began to rain.
43. She has forgotten the story.
44. James will go to Lagos tomorrow.
45. By February, she will have been visiting the zoo for ten year.

Supply the comparative and superlative of each of the following words:

		Comparative	Superlative
46.	Pleasant	……	…….
47.	Red	……	…….
48.	Expensive	……	…….....
49.	Well	……	…….
50.	Much	……	……

APPENDIX V
DEPARTMENT OF TEACHER EDUCATION
FACULTY OF EDUCATION
UNIVERSITY OF IBADAN, IBADAN

GROUP INVESTIGATION INSTRUCTIONAL GUIDE

In order to structure Group Investigation Cooperative Learning Strategy effectively, the following steps should be adhere to strictly:

-**Step 1**: Decide on the group size and assign participants to groups: Teacher must ensure that each learning group does not exceed eight members. The learning group must be heterogeneous, bearing in mind academic ability of participants, gender, and ethnicity.

-**Step 2**: Arrange the classrooms to suit the cooperative variant: Teacher must ensure that participants are well arranged in a desired seating pattern, i.e. participants to be arranged in a pattern that would promote considerable promotive interactions.

-**Step 3:** Structure cooperative skills and encouragement of team work among participants, such as:

-Ensure that participants know and trust each another.

-Ensure that participants share ideas collaboratively in order to solve a problem.

-Ensure that participants discuss or brainstorm on issues without direct leading to the teacher, thus, participants to look to themselves for resources rather than relying solely on their teacher.

-**Step 4**: Ensure that participants adhere to the under-listed norms during deliberation on assigned task:

-Ensure that participants communicate accurately through the medium of English language

-See to it that each participant learns assigned material

-Ensure that participants use quiet voices of moderate level

-Ensure that participants are free to contribute their own ideas.

- See to it that participants listen to one another's idea.

- Ensure that there is presence of active and reflective listening

-Ensure that members of each of the groups use consensus to settle disputes

-Step 5: Assign specific role to each of the participants forming a group. Some of the roles include the following:

Leader and elaborator of knowledge: A member who leads discussions, mediate discussion and takes charge of the group.

Reader: A member who reads the content of the materials to be learnt by the group.

Conflict creator: A member who deliberately disagrees in order to generate debate or elicit critique.

Time keeper and sound hound: A member who reminds the group of the time limit and also caution the group if they are being too loud in their deliberation.

Checker of understanding: A member who randomly asks any member of the group to explain reasoning and rationale underlining group answers.

Monitor and observer: A member who observes and records the frequency with which each member contributes to group work.

Encourager of participation: A member who encourages docile members and also reinforces members' contributions.

Recorder and reporter: A member who records group's idea and presents group work orally to the teacher when asked to do so.

-Step 6: Teacher to explain criteria for success properly to participants.

-Step 7: Distribution of learning materials to participants.

-Step 8: The teacher presents an introduction on the topic to the students by letting the students know the objectives of the lesson.

-Step 9: The students discuss what they have been introduced to by the teacher and briefly examine the topics. Thus; they examine already prepared topics in English grammar.

-Step 10: After this, the students are allowed to outline possible topics for further examination.

-**Step 11**: Each learning group chooses one topic out from the list of student-generated topics and also determines sub-topics for each group member.

-**Step 12:** Each student in each of the groups is responsible for researching on his or her individual topic, thus, the plan allows for division of labour so that students may work individually to locate and learn their portion of the group assignment.

-**Step 13:** Each student in each of the groups prepares a brief report to bring back to the group.

-**Step 14**: Each of the groups designs a presentation and shares its findings with the entire class, thus, students share, analyse, and evaluate the information with respect to preparing a group presentation to all classmates.

-**Step I5:** The teacher provides closure to the lesson.

-**Step 16:** The teacher, together with the students**,** evaluates the quality and quantity of participants' learning. Thus, the teacher allows individuals and groups process their effectiveness. By doing whole-class processing also allows participants and groups review their strategies for improvement.

-**Step 17:** The teacher rewards skillful students and groups, the teacher singles out outstanding participants and groups for reward purposes. The reward may be in form of praise, acknowledgement or material gifts.

- **Step 18**: Assessment of participants: Ability of the research assistant to conduct assessment. The ability of research assistant to ensure that consultations with other members are discouraged, thus, conformity to normal test administration.

APPENDIX V
DEPARTMENT OF TEACHER EDUCATION
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NUMBERED-HEADS-TOGETHER INSTRUCTIONAL GUIDE

In order to structure Numbered-Heads-Together Cooperative Learning Strategy effectively, the following steps should be adhere to strictly:

-Step 1: Decide on the group size and assign participants to groups: Teacher must ensure that each learning group does not exceed eight members. The learning group must be heterogeneous, bearing in mind academic ability of participants, gender, and ethnicity.

-Step 2: Arrange the classrooms to suit the cooperative variant: Teacher must ensure that participants are well arranged in a desired seating pattern, i.e. participants to be arranged in a pattern that would promote considerable promotive interactions.

-Step 3: Structure cooperative skills and encouragement of team work among participants, such as:

-Ensure that participants know and trust each another.

-Ensure that participants share ideas collaboratively in order to solve a problem.

-Ensure that participants discuss or brainstorm on issues without direct leading to the teacher, thus, participants to look to themselves for resources rather than relying solely on their teacher.

-Step 4: Ensure that participants adhere to the under-listed norms during deliberation on assigned task:

-Ensure that participants communicate accurately through the medium of English language

-See to it that each participant learns assigned material

-Ensure that participants use quiet voices of moderate level

-Ensure that participants are free to contribute their own ideas.

- See to it that participants listen to one another's idea.

- Ensure that there is presence of active and reflective listening

-Ensure that members of each of the groups use consensus to settle disputes

-Step 5: Assign specific role to each of the participants forming a group. Some of the roles include the following:

Leader and elaborator of knowledge: A member who leads discussions, mediate discussion and takes charge of the group.

Reader: A member who reads the content of the materials to be learnt by the group.

Conflict creator: A member who deliberately disagrees in order to generate debate or elicit critique.

Time keeper and sound hound: A member who reminds the group of the time limit and also caution the group if they are being too loud in their deliberation.

Checker of understanding: A member who randomly asks any member of the group to explain reasoning and rationale underlining group answers.

Monitor and observer: A member who observes and records the frequency with which each member contributes to group work.

Encourager of participation: A member who encourages docile members and also reinforces members' contributions.

Recorder and reporter: A member who records group's idea and presents group work orally to the teacher when asked to do so.

-Step 6: Teacher to explain criteria for success properly to participants.

-Step 7: Distribution of learning materials to participants.

-Step 8: The teacher presents an introduction of the assigned task to the students by announcing the topic to be treated.

-Step 9: Students in each of the teams are numbered. Thus, students are divided into groups containing eight members each and, the teacher has them numbered from 1 – 8.

-Step 10: Students coach each other on the materials to be mastered. Thus, students are to study already prepared topics in English grammar.

-Step 11: The teacher poses some question on the material that has been learnt.

-Step 12: The groups strive to make sure that everyone in each of the teams knows the answer.

-Step 13: The teacher calls a number at random; students with that number raise their hands to be called upon to answer the question. Only students with that number are allowed by the teacher to answer the question and earn points for their teams.

-Step 14: The teacher provides closure to the lesson.

-Step 15: The teacher, together with the students, evaluates the quality and quantity of participants' learning. Thus, the teacher allows individuals and groups process their effectiveness. By doing whole-class processing also allows participants and groups review their strategies for improvement.

-Step 16: The teacher rewards skillful students and groups, the teacher singles out outstanding participants and groups for reward purposes. The reward may be in form of praise, acknowledgement or material gifts.

-Step 17: Assessment of participants: Ability of the research assistant to conduct assessment. The ability of research assistant to ensure that consultations with other members are discouraged, thus, conformity to normal test administration.

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JIGSAW COOPERATIVE LEARNING INSTRUCTIONAL GUIDE

In order to structure Jigsaw Cooperative Learning Strategy effectively, the following steps should be adhere to strictly:

-Step 1: Decide on the group size and assign participants to groups: Teacher must ensure that each learning group does not exceed eight members. The learning group must be heterogeneous, bearing in mind academic ability of participants, gender, and ethnicity.

-Step 2: Arrange the classrooms to suit the cooperative variant: Teacher must ensure that participants are well arranged in a desired seating pattern, i.e. participants to be arranged in a pattern that would promote considerable promotive interactions.

-Step 3: Structure cooperative skills and encouragement of team work among participants, such as:

-Ensure that participants know and trust each another.

-Ensure that participants share ideas collaboratively in order to solve a problem.

-Ensure that participants discuss or brainstorm on issues without direct leading to the teacher, thus, participants to look to themselves for resources rather than relying solely on their teacher.

-Step 4: Ensure that participants adhere to the under-listed norms during deliberation on assigned task:

-Ensure that participants communicate accurately through the medium of English language

-See to it that each participant learns assigned material

-Ensure that participants use quiet voices of moderate level

-Ensure that participants are free to contribute their own ideas.

- See to it that participants listen to one another's idea.

- Ensure that there is presence of active and reflective listening

-Ensure that members of each of the groups use consensus to settle disputes

-Step 5: Assign specific role to each of the participants forming a group. Some of the roles include the following:

Leader and elaborator of knowledge: A member who leads discussions, mediate discussion and takes charge of the group.

Reader: A member who reads the content of the materials to be learnt by the group.

Conflict creator: A member who deliberately disagrees in order to generate debate or elicit critique.

Time keeper and sound hound: A member who reminds the group of the time limit and also caution the group if they are being too loud in their deliberation.

Checker of understanding: A member who randomly asks any member of the group to explain reasoning and rationale underlining group answers.

Monitor and observer: A member who observes and records the frequency with which each member contributes to group work.

Encourager of participation: A member who encourages docile members and also reinforces members' contributions.

Recorder and reporter: A member who records group's idea and presents group work orally to the teacher when asked to do so.

-Step 6: Teacher to explain criteria for success properly to participants.

-Step 7: Distribution of learning materials to participants.

-Step 8: Divide the unit of instruction correspondingly into sections as there are members on each group.

-Step 9: Make sure that each student learns one segment, making sure that students have direct access only to their own segment.

-Step 10: Ensure that participants have sufficient time to read over their segment, at least twice in order to become familiar with it.

-Step 11: Allow students form temporary 'expert groups' by having one student from each jigsaw group join other students assigned to the same segment. Thus, each student has a topic in which he/she must 'become an expert', and meets with a group of other students developing expertise on the same topic. In other words, student becomes a member of both a learning group and a research team.

-Step 12: Ensure that each expert returns to his/her original group, and teaches what he/she has learnt.

-Step 13: At the end of each the sessions, the teacher gives a quiz on the material so that the students quickly come to realize that the sessions are not just fun but really count.

-Step 14: The group then designs a presentation and shares its findings with the entire class.

-Step 15: The teacher provides closure to the lesson.

-Step 16: The teacher, together with the students**,** evaluates the quality and quantity of participants' learning. Thus, the teacher allows individuals and groups process their effectiveness. By doing whole-class processing also allows participants and groups review their strategies for improvement.

-Step 17: The teacher rewards skillful students and groups, the teacher singles out outstanding participants and groups for reward purposes. The reward may be in form of praise, acknowledgement or material gifts.

-Step 18: Assessment of participants: Ability of the research assistant to conduct assessment. The ability of research assistant to ensure that consultations with other members are discouraged, thus, conformity to normal test administration.

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ASSESSMENT GUIDE FOR RESEARCH ASSISTANTS

Section A- Demographic data of Research Assistant

Name of Research Assistant----------

Place of work----------

Sex----------

Section B- Areas of Assessment Guidelines

The following yardsticks will be used as a guide for proper selection of research assistants that will be co-opted for the study.

(1) Possession of degree certificate: Possession of at least first degree certificate in English language. (5 marks)

(2) Teaching experience of the teacher: Teaching experience of not less than five (5) years. (5 marks)

(3) Dedication and commitment to the research work: Demonstration of desire cooperation and total commitment needed for the study. (5 marks)

(4) Demonstration of expertise in the following areas:

(a) Specifying academic objectives: Knowledge of the academic objectives for the research. (2 marks)

(b) Specifying cooperative skills: Ability of the research assistant to ensure that the expected norms for the study are adhered to by the participants, such as:

(i) Ability of research assistant to structure positive interdependence. (2 marks)

(ii) Ability of research assistant to structure individual accountability. (2 marks)

(iii) Ability of research assistant to structure inter-group cooperation. (2 marks)

(iv) Ensuring that participants know and trust each another. (2 marks)

(v) Ensuring that participants share ideas collaboratively in order to solve a problem.

(2 marks)

(vi) Ensuring that participants discuss or brainstorm on issues without direct leading to the teacher, thus, participants to look to themselves for resources rather than relying solely on their teacher. (2 marks)

(5) Deciding on group size: Ensuring that each learning group does not exceed eight members. (2 marks)

(6) Assigning participants to groups: Ability to see to it that each of the learning group is heterogeneous, bearing in mind academic ability, gender, and ethnicity. (2 marks)

(7) Arranging the classrooms to suit each of the cooperative variants: Ability to ensure desired seating pattern, i.e. participants to be arranged in a pattern that would promote considerable promotive interactions. (2 marks)

(8) Ability of research assistants to ensure that participants adhere to the under-listed norms during deliberation on assigned task:

(a) Ensuring that participants communicate accurately through the medium of English language. (2 marks)

(b) Seeing to it that each participant learns assigned material. (2 marks)

© Ensuring that participants use quiet voices of moderate level. (2 marks)

(d) Ensuring that participants are free to contribute their own ideas. (2 marks)

(e) Seeing to it that participants listen to one another's idea. (2 marks)

(f) Ensuring that there is presence of active and reflective listening. (2 marks)

(g) Ability of research assistant to encourage team work. (2 marks)

(h) Ensuring that members of each of the groups use consensus to settle disputes. (2 marks)

(9) Learning materials needed for the study: Distribution of learning materials to participants at the appropriate time. (2 marks)

(10) Assigning roles: Ability to discuss specific roles of each of the participants forming a group. Some of the roles include the following: (4 marks)

Leader and elaborator of knowledge: A member who leads discussions, mediate discussion and takes charge of the group.

Reader: A member who reads the content of the materials to be learnt by the group.

Conflict creator: A member who deliberately disagrees in order to generate debate or elicit critique.

Time keeper and sound hound: A member who reminds the group of the time limit and also caution the group if they are being too loud in their deliberation.

Checker of understanding: A member who randomly asks any member of the group to explain reasoning and rationale underlining group answers.

Monitor and observer: A member who observes and records the frequency with which each member contributes to group work.

Encourager of participation: A member who encourages docile members and also reinforces members' contributions.

Recorder and reporter: A member who records group's idea and presents group work orally to the teacher when asked to do so.

(11) Explaining criteria for success: Ability of the research assistants to explain properly to participants criteria for success. (2 marks)

(12) Ability of research assistant to structure each of the following cooperative learning variants:

(a) Jigsaw Cooperative Learning Strategy: The research assistants must be able to structure effectively the Jigsaw Cooperative Learning Strategy by following the steps outlined below: (10 marks)

-**Step 1**: Ability to divide the class into small groups, comprising eight participants in each of the groups. The groups will be diverse in terms of gender, ethnicity, race, and ability.

-**Step 11**: Ability to divide the unit of instruction correspondingly into sections as there are members on each group.

-**Step 111**: Ability to assign roles to members in each of the learning groups.

-**Step 1V**: Ability of the research assistant to assign each student to learn one segment, making sure that students have direct access only to their own segment.

-**Step V:** Ensuring that participants have sufficient time to read over their segment, at least twice in order to become familiar with it.

-**Step V1**: Allowing participants form temporary 'expert groups' by having one student from each jigsaw group join other students assigned to the same segment. Thus, each student has a topic in which he/she must 'become an expert', and meets with a group of other students developing expertise on the same topic. In other words, student becomes a member of both a learning group and a research team.

-Step VII: Ensuring that each expert returns to his/her original group, and teaches what he/she has learnt.

(b) Numbered-Heads-Together Cooperative Learning Strategy: The research assistants must be able to structure effectively the Numbered-Heads-Together Cooperative Learning Strategy by following the steps outlined below: (10 marks)

-Step 1: Ability of the research assistant to present an introduction of the assigned task to the students by announcing the topic to be treated.

-Step 11: Ability of research assistant to group participants into learning groups comprising eight members in each of the groups.

-Step 111: Ensuring that participants in each of the teams are numbered. Participants are divided into groups containing eight members each and, the teacher has them numbered from 1 – 8.

-Step 1V: Allowing participants coach each another on the materials to be mastered. Thus, students are to study already prepared topics in English grammar.

-Step V: Ability of the research assistant to pose questions on the material that has been learnt.

-Step VI: Ensuring that participants in each of the groups strive hard to make sure that everyone in each of the teams knows the answer.

- Step VII: Ability to call a number at random and ensuring participants with that number raise their hands to be called upon to answer the questions. Also the research assistant also ensures that those only with such number are allowed to answer the questions and earn points for their teams.

(c) Group Investigation Cooperative Learning Strategy: The research assistants must be able to structure effectively the Group Investigation Cooperative Learning Strategy by following the steps outlined below: (10 marks)

-Step 1: Ability of the research assistant to divide the class into small groups, comprising eight participants in each of the groups. The groups must be diverse in terms of gender, ethnicity, race, and ability.

-Step 11: Ability to present an introduction on the topic to the participants by letting the students know the objectives of the lesson.

-Step 111: Allowing participants to discuss what they have been introduced to by the teacher and briefly examine the topics. Thus; they examine already prepared topics in English grammar.

-Step 1V: Permitting participants to outline possible topics for further examination.

-**Step V**: Ensuring that each learning group chooses one topic out from the list of student-generated topics and also determines sub-topics for each group member.

-**Step V1:** Also ensuring that each participants in each of the groups research on his or her individual topic.

-**Step V1I:** Ensuring that each participant in each of the groups prepares a brief report to bring back to the group.

-**Step V111**: Permitting each of the groups to design a presentation and shares its findings with the entire class.

(13) Ability to monitor participants' behaviour and observation of cooperative skills taught (2 marks)

(14) Providing closure to the lesson. (2 marks)

(15) Evaluating the quality and quantity of participants' learning: Ability of the research assistants to have individuals and groups process their effectiveness, thus, doing whole-class processing and also allowing participants and groups review their strategies for improvement. (2 marks)

(16) Rewarding skillful students and groups: Ability of research assistant to single out outstanding participants and groups for reward purposes. (2 marks)

(17) Assessment of participants: Ability of the research assistant to conduct assessment. The ability of research assistant to ensure that consultations with other members are discouraged, thus, conformity to normal test administration. (5 marks)

APPENDIX 1X

DEPARTMENT OF TEACHER EDUCATION

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STUDY MATERIAL

The Structural Elements of the English Sentences – Parts of Speech

The English Language, like other languages, has word classes: noun, verbs, pronoun, adverbs, adjectives, conjunctions, interjection and prepositions. English words are many and they are used for expressing different ideas and meanings. Different clauses of words used in a sentence of different purposes are referred to in grammar as *part of speech.*

NOUNS

A noun is a word used to name a person, place, thing, quality, act, idea etc. Such words include: Olu, packet, song, jealousy, river etc.

There are four kinds of nouns:-

Proper: the names of people, town, countries etc. These words must always begin with capital letters e.g. Femi, Ibadan, and Nigeria etc.

Common: the names of all physical objects, such as bridge: market, school, etc.

Collective: the names of collections of things. Examples are crate, bunch, crowd, etc.

Abstract: the names of non-physical things. Examples include: perseverance, hatred, freedom, poverty etc.

Plural Formation Processes

(a) Normally, a plural morpheme needs be added to the base word to form the plural form e.g.

girl - girls

table - tables

chair - chairs

spoon - spoons

(b) Some nouns do not require the addition of‘s’ to indicate plural forms. Zero morphemic formation e.g.

sheep - sheep

cattle - cattle

deer - deer

(c) Words that end in-s. –*x*. –ch, -sh etc take –es to form their plural e.g.

dish - dishes

box - boxes

bus - buses

match - matches

(d) Words that end in – *y* takes –ies:

lady - ladies

body - bodies

baby - babies

(e) Words ending in –*f* change to –*ves* to form their plural

e.g knife – knives etc. However, there are important exceptions

like: roof – roofs.

chief - chiefs

belief - beliefs

hazndkerchief – handkerchiefs

(f) Some foreign words used in English often maintain their foreign forms e.g.

Memorandum - memoranda

stadium - stadia

forum - fora

medium - media

(g) Some abstract and materials nouns do not occur with plural suffix e.g.

courage - courage

furniture - furniture

knowledge - knowledge

information - information

(h) There exists a category of nouns that forms the plural by vowel change e.g.

foot - feet

goose - geese

tooth - teeth

man - men

(i) Plural formed by adding –en to the singular form e.g.

ox - oxen

child - children

(j) Apart from the above plural processes, compound nouns also form their plural in the following manners:

(i) The first word in the compound changes to plural while the second does not e.g.

brother-in-law - brothers-in-law,

attorney-general - attorneys-general.

(ii) The second word in the compound changes while the first word remains in the singular form

girlfriend - girlfriends.

(iii) Both the first and the second of the agglutinated words change to plural forms:

man-eater - men-eaters

woman lecturer - women lecturers

NOMINALISATION

Nearly all the words in English vocabulary could be turned into nominal forms i.e. nouns. This act is referred to as normalization. The following are some examples of words (verbs and adjectives) that are turned into nouns.

Word	Part of Speech	Nominal
accept	verb	acceptance
approve	verb	approval
attend	verb	attendance
behave	verb	behaviour
choose	verb	choice
deceive	verb	deceit
enter	verb	entrance
grow	verb	growth
hate	verb	hatred

judge	verb	judgement
leak	verb	leakage
lose	verb	loss
maintain	verb	maintenance
marry	verb	marriage
obey	verb	obedience
paralyse	verb	paralysis
pretend	verb	pretence
pursue	verb	pursuit
receive	verb	receipt
sell	verb	sale
solve	verb	solution
speak	verb	speech
unite	verb	unity
respond	verb	response
create	verb	creation
audacious	adjective	audacity
able	adjective	ability
anxious	adjective	anxiety
brave	adjective	bravery
brief	adjective	brevity
decent	adjective	decency
deep	adjective	depth
free	adjective	freedom
high	adjective	height
hostile	adjective	hostility
long	adjective	length
popular	adjective	popularity
private	adjective	privacy
scarce	adjective	scarcity
true	adjective	truth

vain	adjective	vanity
young	adjective	youth
broad	adjective	breadth
just	adjective	justice
Beautiful	adjective	beauty
Poor	adjective	poverty
Proud	adjective	pride
Angry	adjective	anger
Strong	adjective	strength
Various	adjective	variety

PRONOUNS

A pronoun is a word used instead of a noun. The following are kinds of pronouns:

Personal: This could be nominative or accusative. When pronoun is in the subject position, it is nominative, while a pronoun that functions as object of sentence is said to be in accusative case. Personal pronouns are expressed in singular and plural forms. It is illustrated graphically below:

	Singular		Plural	
	Nominative	Accusative	Nominative	Accusative
First person	I	me	We	us
Second person	You	you	You	you
Third person(s) (i)	He	him	They	them
(ii)	She	her		
(iii)	It	it		

(b) **Possessive:** This kind of pronoun denotes possession e.g. mine, his, hers, its, yours, their, e.g. This book is <u>mine</u>.

(c) **Reflexive**: It is pronoun that reflects a previous noun or pronoun. It is also called emphasis pronoun. Examples include: myself, himself, ourselves e.g.
The president <u>himself</u> commissioned the project.

(d) **Indefinite**: This gives a general or indefinite impression e.g. somebody, everything, anyone, nothing, more e.g. Everybody is serious.

(e) **Demonstrative**: These are pronouns which are substituted for the noun to which they refer: this, that these, those e.g. This is my bag.

(f) **Relative:** Words which relate a clause to a previous noun. This kind of pronouns are also called conjunctive pronouns, e.g. who which, whom, that e.g. The man who we met yesterday has been promoted.

(g) **Interrogative:** Words that introduce questions: e.g. who, whom, which, what, whose. e.g. What is your name?

ADJECTIVES

A word that describes a thing named by a noun is termed adjective. An adjective gives information about a noun. Different kinds of adjectives are examined below:

(a) **Descriptive**: This kind of adjective gives a descriptive information of a noun e.g. I saw a beautiful girl.

(b) **Possessive:** These are adjectives that denote possession of the noun e.g. The player stretched his leg.

(c) **Proper:** These are adjective formed from proper noun e.g. The school has a Ghanaian teacher.

(d) **Indefinite**: These are words which denote quantity, but give little or no information. e.g. All applicants could come.

(e) **Demonstrative**: When words such as *this*, *that*, *these* and *those* are used to qualify or describe nouns, they become demonstrative e.g. This house is mine.

(f) **Interrogative:** Pronouns such as *what* and *which* when they are used with nouns to introduce questions e.g. Which kingdom are you talking about?

(g) **Comparative:** Words like every, each, either, rather, when used with nouns:
She goes to school everyday.

(h) **Distributive**: word like: less, least, more and most when they are used to qualify nouns:
We need more labourers.

Comparison of Adjectives

Adjectives can be compared as follows:

A Adjectives of one syllable:

Positive	**Comparative**	**Superlative**
big	bigger	biggest
wide	wider	widest
cool	cooler	coolest
hot	hotter	hottest
young	younger	youngest

Note that if an adjective of one syllable has a short vowel and ends in a single consonant (e.g. hot: big), that consonant is doubled before '-er' and '-est'

B. Adjective of two syllables, including all adjective that end in –er, -le, -y and –ow are compared as follows:

Positive	**Comparative**	**Superlative**
Clever	cleverer	cleverest
Simple	simpler	simplest
Happy	happier	happiest
Friendly	friendlier	friendliest
Narrow	narrower	narrowest

Note also that 'y' after a consonant is changed to 'i' (e.g. happy, happier).

C. Adjectives of two syllables not ending in –er, -le, -y or –ow and with the stress on the first syllable:

Positive	**Comparative**	**Superlative**
Useful	more useful	most useful
Careless	more careless	most careless

Modern	more modern	most modern
Pleasant	more pleasant	most pleasant

Adjectives of more than two syllables and all participles in –ed or –ing used as adjectives:

Positive	**Comparative**	**Superlative**
Expensive	more expensive	most expensive
Beautiful	more beautiful	most beautiful
Pleased	more pleased	most beautiful
Interesting	more interesting	most interesting

Some adjectives of two syllables may be compared either by adding –er and –est, or by the use of 'more' and 'most'

Positive	**Comparative**	**Superlative**
Common	commoner	commonest
	Or	
Common	more common	most common

Note that the choice often depends upon rhythm and balance.

CONJUNCTIONS

A conjunction is a word that joins two or more groups of words. The three kinds of conjunctions are discussed below:

(a) **Subordinating Conjunctions**: This kind of conjunction links a subordinate clause or phrase to the rest on the sentence e.g. less, because, if, before, that, when, although etc.

(b) **Coordinating Conjunctions**: These are conjunction that joins words, phrases, clauses or sentences of equal importance e.g. and, both and or e.g. James and Juliet are dancing.

(c) **Correlating Conjunctions**: These are conjunctions that come in pairs: either….or, either…nor, both…and etc. E.g. Neither Olu nor Bisi was around.

INTERJECTIONS

These are words that express strong feeling. Interjection has no grammatical connection with the sentences and can be removed without altering the sense. Thus, it is independent of the sentence and it is not used very often e.g. Ah! The man has gone.

VERBS

A verb is a word used to tell what is being done, or has been done, or will be done. It is a 'doing' word. We shall consider the following categories of 'verb'.

Regular Verbs

These are verbs end in –d or –ed to show past tense and past participle

Present Tense	Past Tense	Past Participle
Jail	Jailed	Jailed
Walk	Walked	Walked
Dance	Danced	Danced
Plan	Planned	Planned
Slap	Slapped	Slapped
Kill	Killed	Killed
Wash	Washed	Washed
Talk	Talked	Talked
Advise	Advised	Advised
Clap	Clapped	Clapped

Irregular Verbs

The following are some irregular verbs in English:

Present Tense	Past Tense	Past Participle
Begin	Began	Begun
Burst	Burst	Burst
Cling	Clung	Clung
Creep	Crept	Crept
Cast	Cast	Cast
Dig	Dug	Dug

Draw	Drew	Drawn
Eat	Ate	Eaten
Fly	Flew	Flown
Forbid	Forbade	Forbidden
Go	Went	Gone
Give	Gave	Given
Withdraw	Withdrew	Withdrawn
Tear	Tore	Torn
Shine	Shone	Shone
Shrink	Shrank	Shrunk

ACTIVE AND PASSIVE VOICE

A verb is said to be in the Active Voice when the action denoted by it is by the subject. On the other hand, a verb is considered passive when the action denoted by it is done to the subject. To change the voice of a verb from active to passive, it is necessary to:

-Make the object in the Active Voice the subject in the passive voice:

-Use the appropriate form of the verb.

-Make the subject of the Active Voice an object governed by the preposition

by e.g. Olu has received a prize – Active Voice

A prize had been received by Olu – Passive Voice

QUESTION-TAG

A question-tag is a compound sentence used to ask for confirmation of, agreement with something one is not sure about.

The rules involved in question-tags are as follows:

(a) Question-tags are made up of two parts, namely, the statement and question i.e.

Statement part Question part

Olamide is a girl, isn't she?

(b) When the statement part of the sentence is positive or affirmative, the question part will be expressed in negative manner or vice-versa:

Positive	Negative
The man has two cars,	hasn't he?
Negative	Positive
You haven't got the message,	have you?

(c) The tense of the verb in the statement and question parts must agree:

Past Tense	Past Tense
John came last night	didn't he?

(d) 'Do' verbs are employed when lexical verbs are used

I scored twenty, didn't I?

They saw him, didn't' they?

(e) The subject in the statement part must be in consonance with that of question part:

You went yesterday, didn't you

Ola is a good boy, isn't he?

ADVERBS

An adverb is a word which describes or adds to be meaning of a verb, adjective and any other adverb;

i. She walked quietly – modifying the verb 'walked'

ii. He is very strong – modifying the adjective 'strong'

iii. He spoke really well – modifying the adverb 'well'

There are two kinds of adverbs:

(a) **Simple**: These are adverbs used to complement adjectives and times, adverbs or verbs e.g. He sang rather badly.

(b) **Interrogatives:** These express why, how, when, etc. More often, they are used to introduce questions e.g. How did you fare? Why were you rude to him?

PREPOSITIONS

A preposition is a word used to show a relation between a noun, pronoun, and other words:

E.g. I received a letter from him.

Prepositions can be categorized according to their usage in sentences:

(a) **Simple preposition**: Examples of this are: by, of, to, in etc.

(b) **Compound preposition**: This includes: into, around, inside etc.

(c) **Detached proposition**: Preposition that comes after the word it governs

e.g. Whom did you get that from.

The pronoun whom is in the objective case because it is governed by the preposition from.

(d) **Disguised preposition**: Such as, afloat, ashore, around e.g. The ship ran aground the rock.

(e) **Phrasal preposition**: These are phrases that functions as prepositions e.g. on account of, by means of etc. e.g. He was dropped on account of ill health.

Below is a list of most commonly used preposition:

about	beside	inside	to
above	besides	into	towards
across	between	near	until
after	but	of	under
against	by	on	underneath
along	beneath	off	into
among	despite	onto	up
around	down	outside	upon
before	except	over	with
behind	for	since	within
below	from	throughout	without
beneath	in	till	

TENSES

Tense involves such category of the verb or verbal inflections, such as present, past, and future, that expresses the temporal relations between what is reported in a sentence and the time of its utterance,

The Present Tense

(a) **Present Simple**: The present simple tense is used for:

i. expressing actions that are always true or factual.

Water generates electricity.

Mosquito bite causes malaria

ii. Actions or event that are habitual or repeated actions:

The 'Newswatch' is published weekly.

She visits England thrice a year.

Expressing abilities:

She dances well.

Olu writes well.

(b) **Present Continuous Tense**

This is used to indicate an action which has not yet been completed. It is also known as present progressive:

i. They are going to the market.

ii. The man is learning English.

(c) **Present Perfect Simple Tense**

It expresses the completion or perfection of an action:

i. I have forgotten the story.

ii. Mr. Femi has bought a new car.

(d) **Present Perfect Continuous Tense**

It signifies an action or event which has not yet been completed. It is used as follows:

To indicate that an activity which started in the past has not yet been completed.

i. They have been constructing the dam for the past ten years.

ii. I have been living in the flat since 1990.

To emphasise that a past activity connected with the present, but which now over, has been continuous.

i. We have been receiving lectures until recently.

ii. He has been acting as the captain till the end of March.

The Past Tense

(a) **Past Simple Tense**

This tense indicates than an action has been completed in the past:

She visited the man yesterday.

The fisherman swam across the river.

(b) **Past Continuous Tense**

This tense is used as follows:

i To indicate that an activity was going on when another activity took place:

She was watching plates when the landlord entered.

While he was waiting for the girl, the telephone rang.

ii. Indicate two actions that were taking place simultaneously.

The boxers were fighting while he judges were watching.

Bola was reading her book while her sister was sleeping.

iii. To indicate that an action was continuous over a specified period of time:

She was cooking all the evening.

The students were rehearing throughout the day.

(c) **Past Perfect Simple Tense**

It is used to indicate which of the actions that happened in the past, occurred first. It is usually introduced by subordinate conjunctions such as:

Before, after, when, as soon as etc.

I had reached home the man arrived.

After her friends had gone, Akin locked the door.

(d) **Past Perfect Continuous Tense**

It signifies an action which has not been completed in the past:

The old man had been advising the stupid boy.

The men had been digging the new latrine.

The Future Tense

Future Tenses are usually expressed by:

(a) Shall: Shall is usually used with the first person, both singular and plural numbers, to form the future tense e.g. We shall travel tonight.

Will is used to express the future with second and third persons, that is you, he, she, it, they e.g. They will marry soon.

(b) Am/is/are going to: They are also used to express the future. e.g.

There is going to be a football match tomorrow.

Just like the present and past tenses, future tense could also be examined under the following sub-tittles:

i. **Future simple tense**: The woman will arrive here tomorrow.

Future continuous tense: We shall be leaving next week.

Future perfect simple tense: My niece will have left England by then.

Future perfect continuous tense: By next month, they will have been staying in that village for ten years.

CONCORD

This is a term used to describe the relationship between the inflectional forms of different elements within a sentence, particularly between the subject and verb. Verbs agree with their subjects in number and person. A singular subject requires a singular form of the verb while a plural subject requires a plural form of the verb. Thus, agreement is usually expressed in terms of rules which govern the relationship of various parts of a sentence to one another.

The following are some of the rules involved:

(a) When two or three singular nouns are linked together to form a subject, it thus becomes plural. The plural form of the verb is required e.g.

i. The man and his wife are dancing.

ii. The referee and the boxers have won laurels.

(b) Plural nouns take singular verbs e.g.

i. Mathematics is a difficult subject.

ii. Economics is a social science.

(c) Indefinite pronouns take singular verbs. Pronouns like: everybody, anyone, something, and none. e.g.

i. Everything is going on well.

ii. Somebody has been eating my beans.

(d) Expressions which are plural but which are commonly used require the singular form of the verb.

i. How much is bread and butter?

ii. Is there any salt and pepper?

(e) A singular subject with attached phrases introduced by: with, like, together with, as well as, in addition to etc requires singular verb. e.g

i. The captain, together with members of the team, was late to the field.

ii. Chemistry, in addition to Physics, is taught in the school.

iii. James, as well as John, plays football very well.

(f) Plural numbers require singular verbs when they are used in a phrase to indicate a sum or unit. e.g.

i. Fifty litres of petrol is needed for the journey.

ii. Ten million naira is all that you need.

(g) When two or more singular subjects are joined by nor, or and but, the expression requires the singular form of the verb e.g.

i. Neither Bola nor Jide has a pen

ii. Not Kate but Helen was caned.

(h) When the subject consists of two or more singular words separated by either.or, neither…nor, the singular form of the verb is required, provided that the alternative nouns which follow each part of the expression are singular e.g.

i. Neither her parent nor her friend was allowed to see her.

ii. Either Olu or Tunde is expected to visit.

(i) Sequel to the above (h). If one of the halves is expressed in plural forms, the plural form of the verb is required e.g.

i. Neither her parents nor her friend were allowed to her.

ii. Neither her parents nor her friends were allowed to see her.

(j) Collective nouns usually require singular verb but at times takes plural verb, depending on how the collection is perceived.

i. A committee has been constituted.

ii. The crate of minerals has broken.

iii. The committee were divided in their opinion.

(k) When the two singular nouns joined by a conjunction denote the same person or thing, the expression requires a singular verb.

i. The Dean and Chairman Teaching Practice Committee is expected to host the meeting.

ii. The Colonel and Commanding Officer 22nd Mechanized Division leaves for Lagos tomorrow morning.

(l) When the subject comprises two or more nouns or pronouns of different persons, separated by either….or and neither…..nor, the verb agree in person and in number with the subject that is nearer to it:

i. Neither Olu nor I was able to address the gathering.

ii. Neither you nor John is expected to help the man.

(m) A singular subject that is followed by a modifier in plural form requires a singular verb:

i. One of the players on the pitch has knee injury.

ii. A list of the names of all recruited soldiers is ready.

(n) Both singular and plural forms of the verb could be used for mathematical computations

i. Ten plus ten is twenty.

ii. Ten plus ten are twenty.

(o) Some words that serve as sentence subjects require the singular form of the verb. Such words include each, either and neither.

i. Each of the participants has a vote.

ii. Neither of the girls is around.

iii. Neither of them is coming.

(p) If the subject is a relative pronoun, the verb must agree in number, gender and person with its antecedent: Plato is one of the best men who have ever lived.