

**EFFECTIVENESS OF BLENDED LEARNING APPROACH ON
LISTENING AND SPEAKING SKILLS IN ENGLISH, ENGLISH
LANGUAGE ANXIETY AND LEARNER SATISFACTION
OF SECONDARY SCHOOL STUDENTS**

Thesis
Submitted for the degree of
DOCTOR OF PHILOSOPHY IN EDUCATION

By
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2019**

DECLARATION

I, **ANJU ARAVIND. M**, do here by declare that this thesis entitled as “**EFFECTIVENESS OF BLENDED LEARNING APPROACH ON LISTENING AND SPEAKING SKILLS IN ENGLISH, ENGLISH LANGUAGE ANXIETY AND LEARNER SATISFACTION OF SECONDARY SCHOOL STUDENTS**” has not been submitted by me for the award of any Degree, Diploma, Title or Recognition before.

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SECONDARY SCHOOL STUDENTS**” is a record of bonafide study and
research carried out by **ANJU ARAVIND. M**, under my supervision and
guidance.

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Introduction

- *Need and Significance of the Study*
- *Statement of the Problem*
- *Definition of Key Terms*
- *Variables of the Study*
- *Objectives of the Study*
- *Hypotheses of the Study*
- *Methodology*
- *Scope and Delimitations*

INTRODUCTION

Education is a gradual process which brings positive changes in the human life and behaviour. We can also define education as “a process of acquiring knowledge through study or imparting the knowledge by way of instructions or some other practical procedure”. Education brings a natural and lasting change in an individual’s reasoning and ability to achieve the targeted goal. It facilitates us to investigate our own considerations and thoughts and makes it ready to express it in various shapes.

It is the process by which and through which the experience of the community, namely, knowledge and skills are disseminated to the members of the society. Whatever students learn in the school is useful only when they can apply the same in the everyday life.

Listening is an information processing act. It includes skills in auditory dissemination and cognitive comprehension. Speaking includes skills in using the language expressions and grammatical structure correctly in oral communications. Reading is getting meaning from the printed page. It includes skills for development, levels of comprehension namely critical analysis and application, literary appreciation and study skills. Writing includes guided writing, functional and creative writing.

Language is the basis for all human communication and is fundamental to think and learn. In classroom, students use language to present ideas and communicate their understanding by the use of vocabulary, concepts and

grammatical forms. There are mainly four skills in the process of any language learning. They are:

- a. Listening (Comprehension)
- b. Speaking (Production)
- c. Reading (Comprehension)
- d. Writing (Production)

In all these four categories of skills, Listening and Speaking skills are considered very important in developing a foundation for the other skills. It is through the enhancement of these, the children have many opportunities to talk as well as to listen to teachers and peers and gain language skills so valuable for their success in reading and writing. The ability to speak and listen effectively is one of the most fundamental literacy skills. In the present study, the investigator selected Listening and Speaking skills for the same reason. The main function of Listening comprehension is to facilitate understanding of the spoken form.

Currently there is a lack of focus and resources in English teaching Listening and Speaking skills in Kerala state education system. The existing system employed today is inadequate in meeting the demands of students who are increasingly going to work in a globalized English speaking world. The predominant method of teaching English in primary and high schools in Kerala is the traditional lecture method, which limits the interactions and opportunities for students for learning the above said skills.

The new developments in educational, social, psychological and technological fields like blended learning, online learning etc. have enabled

the educators to come up with new methods that may be better in developing the language skills.

The word blended originated or coined in 2000 and it was referred to the supplementation of teaching-learning programs occurred in the face-to-face brick and mortar system. It then advanced its meaning to another level, associated with many various teaching-learning environments. Blended Learning is generally considered as the combination of instruction from two historically separate models of teaching and learning: traditional face to face learning systems and distributed learning systems. It also emphasizes the central role of computer-based technologies in blended learning.

Kaye thorne (Thorne, 2003) defined Blended learning as a combination of the online innovative and technological advances with interaction and participation in the face-to-face teaching. Blended learning is a mix of

- a) Multimedia technology;
- b) CD ROM video streaming;
- c) Virtual classrooms;
- d) Voicemail, email and conference calls;
- e) Online text animation and video-streaming.

Blended subjects utilize significant online activities in otherwise face-to-face learning, but less than 45 %. Hybrid Subjects are those in which online activities replace 45 to 80 % of face-to-face class meetings. Fully online Subjects have 80 % or more of learning materials conducted online. Singh and Reed (2001) describe blended learning as program for teaching and

learning, when “more than one delivery mode is used with the objective of optimizing the learning outcome and cost of program delivery”. They do not expand on what the delivery modes are in their definition. Yet a more explicit definition from Valiathan (2002) suggests they may include face-to-face classroom and self-paced e-learning.

In higher education, it has been defined as a combination of technology and classroom instruction in a flexible approach to learning that recognizes the benefits of delivering some training and assessment online but also uses other modes to make up a complete training programme which can improve learning outcomes and/or save costs (Banados, 2006). With regard to the academic sector, people choose blended learning for six reasons: pedagogical richness; access to knowledge; social interaction; personal agency (learner control and choice); cost effectiveness; and ease of revision. With reference to blended learning in English Language Teaching (ELT) as: ‘blended learning seeks to combine the best of the taught element of a course with the benefits of technology, so that, the argument goes, better learning outcomes can be achieved’ (Sharma & Barrett , 2010). The main additional reasons for employing blended learning in ELT are:

- a. Learners’ expectations – learners nowadays expect technology to be integrated into their language classes.
- b. Flexibility – learners expect to be able to fit learning into their busy lives, especially professional adults and university students.
- c. Ministry of Education (or similar) directives – in some contexts, teachers are expected to offer blended learning options.

Providing the time-effective and cost-effective way of learning is one of the major advantages of the blended learning especially with large groups. Blended learning is the learner-centric method. But teachers need to be act as facilitators to ensure that the students take their responsibility, while the face-to-face sessions occur. Blended learning is currently conceived as the combination of technology and traditional face-to-face instruction.

Need and Significance of the Study

The primary language of a human being develops from listening and speaking. According to Rivers and Temperley (1978), statistical data shows that in communication, humans spend 45% of time in listening, 30% in speaking 16% in reading and 9% in writing. This clearly indicates the importance of listening and speaking skills in any language learning, especially English which is used more and more as a global language. The proficiency in English language involves four main skills, namely, listening, speaking, reading and writing (LSRW). Though all these skills are equally important, listening and speaking skills are the basis for oral communication. But many students who study English as a foreign language for 8 to 10 years still find it very difficult to express themselves clearly in English. This is mainly because of the lesser weightage given to the spoken part of the language in schools.

The English language learning in schools are more focused on developing skills of reading and writing and evaluating the same through the written exams. Today, when students complete their study programs, they are faced with a highly competitive work force that calls for professionals with a

high proficiency in English, especially in speaking. Thus for achieving the same, the investigator studies to find out the most effective model of Blended Learning to enhance Speaking and Listening skills and the factors which can be manipulated to improve the same.

A national initiative called Second Language Acquisition Programme (SLAP) of DPEP was implemented in the year 1993, to evaluate the level of language skills (Listening, Speaking, Reading, and Writing) and to improve the same. A study was conducted by Nair (2006) with the help of Kerala Research Programme on Local Level Development Centre for Development Studies, Thiruvananthapuram, and the findings reveal the pathetic condition of the English language ability of the students in Kerala. The gravity of the problem is also highlighted by the SSLC (Secondary School Leaving Certificate) examination results of the past several years. In March 2001, the lowest pass percentage as well as the lowest State average was marked for English. While 88 % students passed their first language (Malayalam), only 37 % could secure a pass in English. The lowest average mark of a meagre 13 was also recorded for English. The main problem caused this were “the children in the conventional classes had very little opportunity to listen to English in the classroom as the teachers merely ‘read’ out from the textbooks and the teachers who are supposed to take classes in English may not be competitive to do so” (Nair, 2006).

Kerala being a total literacy state, the students may get higher marks in academic or competitive written exams compared to many other states in India. But, in the words of Nair, (2006), when they face the interview board, the students who studied in state syllabus, start stuttering and stammering.

The same is the case when talking to the native speakers or those fluent in English. The students in state syllabus, taught through Malayalam (mother tongue) medium, learn English language only for a period of generally 45 minutes a day and that too mainly in bottom-up method. Both the teachers and the students are learning English from an exam point of view, which tests only reading and writing skills. Thus the very important aspect of learning listening and speaking skills of the language is not taken care of (Nair, 2006).

Teaching and learning the English language, especially the spoken form, can be made more effective with the use of technology than the conventional lecture method, in the classroom itself, within relatively short time span. The teachers uses the technology with face-face teaching computers are in use since 1960, as the computers are in wide use. CALL (computer-assisted language learning) stated being in use long way after that. Learners of the second language were benefitted largely after the arrival of internet (Marsh, 2012). Language through blended learning offers greater options for personalization of study and put students in control of their own learning. Students were able to vary their pace of learning, drawing on as few or as many resources as necessary, choosing tasks/resources that best suited their learning styles and level of prior knowledge. Social networking, mobile technology and digital literacy are part of their regular, everyday lives and we are doing them an injustice if we don't include it in our daily teaching.

Blended language learning is a comparatively newer concept which can totally improve the language learning experience. To gain or understand the sub skills like pronunciation and accent of the native speaker and indulge in a conversation by comprehending the idea of the spoken discourse, the student

must practice listening and speaking and this can best be done with the help of technology. Blended learning design need to focus on the most efficient integration of the content with customised objectives and subject.

In many countries, blended learning is using to teach many subjects including English. Like in China a study conducted by Guangying (2014), on university students to teach English as a foreign language enhance Listening and Speaking skills through Blended learning approach. The finding of the study shows good improvement in Listening and speaking skills when taught through Blended learning approach compared to the traditional method of teaching. It enhanced the teacher- student relationship too. Here in Kerala also the investigator tried to adapt the similar but customised methodology to suit the locally available resources and requirements of students.

The main skills of Listening and Speaking divide into certain sub skills. Some of the Listening sub skills are Coherence and Cohesion, Lexical Resources, Grammatical Range and Accuracy and Task Achievement. Speaking sub skills are: Fluency and coherence, Lexical resources, Grammatical range and accuracy and Pronunciation. The Blended learning activities and tools which can be used to improve these sub skills are text to speech software, online forum, podcasts, online quizzes, chat rooms, computer based online games, speech recognition software etc.

Student satisfaction with the blended format is directly depended upon the level of interaction with teachers and other students. Teachers can increase interaction opportunities through face-to-face discussion sessions and by using online tools such as discussion forums, virtual conferencing, virtual world and online games, and using mobile technologies such as flip

cameras and voice recorders to engage with parents and the wider school community.

Statement of the Problem

The study was designed to compare Blended learning approach with that of the current practices in teaching English to check the effectiveness in enhancing the Listening skill in English, Speaking skill in English, Learner satisfaction in English and in reducing English language Anxiety of the Secondary school students.

Thus keeping this view in mind, the problem of the study is entitled as **“Effectiveness of Blended Learning Approach on Listening and Speaking Skills in English, English Language Anxiety and Learner Satisfaction of Secondary School Students”**.

Definition of Key Terms

Effectiveness

Effectiveness means, use of a plan for instruction or presentation which causes a desired change in the learners’ behaviour (Charters & Good, 1945). In the present study, effectiveness refers to the degree to which blended learning is successful in producing a desired result, which means, improved listening skill, speaking skill, and learner satisfaction and reduced English language anxiety.

Blended Learning

Blended Learning is a teaching-learning system which integrates online and face-to-face content delivery. The online content delivery in the

Blended learning is in between 30–79% and the rest through traditional method (Allen, 2007). The blended learning is an instructional strategy that uses the best of both online and face-to-face traditional learning. Blended learning refers to the learning model in three parts

- Teacher facilitated Individual activities
- E-learning materials
- Structured and self-paced independent learning time

In the study, Blended learning approach refers to the mode or manner of teaching in which a student learns session/sessions through online content delivery and instructions, and other session/sessions by face-to-face teaching in a brick and mortar system.

Listening Skill in English

Listening has been identified as one of the most used and one of the most important communication skill in personal, academic, and professional settings alike (Wolvin & Coakley, 2012). It is defined as, “Listening comprehension (is) the process of understanding speech in a first or second language. The study of listening comprehension in second language learning focuses on the role of individual linguistic units (e.g., phonemes, words, grammatical structures) as well as the role of the listener’s expectations, the situation and context, background knowledge and topic” (Richards & Schmidt, 2013).

In the present study, the term Listening skill refers to the ability to accurately receive and interpret messages in the communication process focusing on task achievement, coherence and cohesion, lexical resources, and grammatical range and accuracy.

Speaking Skill in English

Speaking, together with writing, belongs among productive skills (Harmer, 2001). Gower et al (Gower, Walters, & Phillips, 1995) noted down that from the communicative point of view, speaking has many different aspects including two major categories – accuracy, involving the correct use of vocabulary, grammar and pronunciation practiced through controlled and guided activities; and fluency, considered to be the ability to keep going when speaking spontaneously.

In the present study, the term Speaking skill refers to the students' ability in expressing their ideas orally which is represented by the scores of speaking focusing on fluency and coherence, lexical resources, grammatical range and accuracy, and pronunciation.

English Language Anxiety

English language anxiety is defined as a combination of various concepts like self-perception, beliefs, feelings, and behaviours which arises in the classroom during the process of language learning due to the unique aspects of the language (Horwitz & Horwitz , 1986).

In the present study, the term English language anxiety refers to the apprehension or uneasiness characterized by communication apprehension, fear of negative evaluation, test anxiety and general feeling of anxiety towards a foreign language.

Learner Satisfaction

Learner satisfaction can be defined as summary of affective responses of varying intensity that follows asynchronous e-learning activities, and is

stimulated by several focal aspects, such as content, user interface, learning community, customisation, and learning performance (Giese & Gote, 2000).

In this study, Learner satisfaction refers to the summative feeling of students' satisfaction with various attributes like, instructor, instruction, interaction, and technology and class management.

Secondary School Students

In India, school category is determined as per the state pattern on the basis of highest class in a school. According to NCERT, in a broader sense, secondary education covers classes from the VIII to the XII. But in practice, classes from the VIII to the X are part of the secondary level of education and classes XI and XII are part of higher secondary. In the present study, the standard of standard VIII is considered as a representation of the whole secondary school students.

Variables of the Study

The variables involved in this study are:

Independent Variable

The independent variable selected for the study is the Instructional strategies with two levels, which are Blended Learning Approach and the Current instructional practices.

- Blended Learning Approach is the Instructional strategy that blends online and face-to-face delivery at secondary level.
- Current instructional practices refers to the method of teaching adopted by secondary school for transacting the curriculum implemented by Government of Kerala from the year 2015-2016 onwards.

Dependent Variables

The four main dependent variables are Listening skill in English, Speaking skill in English, English language anxiety and Learner Satisfaction.

- The variable Listening skill includes Task Achievement, Coherence and Cohesion, Lexical resources, and Grammatical range and accuracy.
- The variable Speaking skill includes sub skills like Fluency and Coherence, Lexical resources, Grammatical range and accuracy, and Pronunciation.
- The variable English Language Anxiety consists of Communication Apprehension, Fear of negative evaluation, Test Anxiety and General feeling of Anxiety towards a foreign language.
- The variable Learner Satisfaction comprises of the dimensions Instructor, Technology, Class management, Interaction and Instruction.

Control Variables

Initial status of the pupils by pre-test scores of test of Listening skill and test of Speaking skill, Nonverbal Intelligence, Classroom environment and Socio-Economic Status.

Objectives of the Study

The objectives of the study are as follows

1. To identify the prevailing strategies in teaching English, constraints and the measures to overcome the constraints in implementing the strategies in teaching English at secondary level.
2. To develop an Instructional strategy based on Blended learning Approach to enhance Listening skill in English, Speaking skill in English, Learner satisfaction and to reduce English language anxiety for the students at secondary level.

3. To find out the effectiveness of the Blended learning Approach over Current practices of teaching to enhance Listening skill in English, Speaking skill in English, Learner satisfaction and to reduce English language anxiety for the students at secondary level for Total sample and Subsample based on gender.

Hypotheses

In the present study, the following hypotheses are formulated.

1. There is no significant difference in the pre-test mean scores of Listening skill in English of the Experimental and Control groups for
 - a) Total sample
 - b) Subsample Boys
 - c) Subsample girls
2. There is no significant difference in the pre-test mean scores of Speaking skill in English of the Experimental and Control groups for
 - a) Total sample
 - b) Subsample Boys
 - c) Subsample girls
3. There is no significant difference in the pre-test mean scores of English language anxiety of the Experimental and Control groups for
 - a) Total sample
 - b) Subsample Boys
 - c) Subsample girls
4. There is no significant difference in the pre-test mean scores of Learner satisfaction of the Experimental and Control groups for
 - a) Total sample
 - b) Subsample Boys
 - c) Subsample girls

5. There is significant difference in the mean pre-test and post-test scores of Listening skill in English of the Experimental group for
 - a) Total sample
 - b) Subsample Boys
 - c) Subsample girls
6. There is significant difference in the mean pre-test and post-test scores of Speaking skill in English of the Experimental group for
 - a) Total sample
 - b) Subsample Boys
 - c) Subsample girls
7. There is significant difference in the mean pre-test and post-test scores of English language anxiety of the Experimental group for
 - a) Total sample
 - b) Subsample Boys
 - c) Subsample girls
8. There is significant difference in the mean pre-test and post-test scores of Learner satisfaction of the Experimental group for
 - a) Total sample
 - b) Subsample Boys
 - c) Subsample girls
9. There is significant difference in the mean Post-test scores of Listening skill in English between the Experimental and control groups for
 - a) Total sample
 - b) Subsample Boys
 - c) Subsample Girls

10. There is significant difference in the mean Post-test scores of Speaking skill in English between the Experimental and control groups for
 - a) Total sample
 - b) Subsample Boys
 - c) Subsample Girls
11. There is significant difference in the mean Post-test scores of English language anxiety between the Experimental and control groups for
 - a) Total sample
 - b) Subsample Boys
 - c) Subsample Girls
12. There is significant difference in the mean Post-test scores of Learner satisfaction between the Experimental and control groups for
 - a) Total sample
 - b) Subsample Boys
 - c) Subsample Girls
13. There is significant difference in the mean gain scores of Listening skill in English between the Experimental and control groups for
 - a) Total sample
 - b) Subsample Boys
 - c) Subsample girls
14. There is significant difference in the mean gain scores of Speaking skill in English between the Experimental and control groups for
 - a) Total sample
 - b) Subsample Boys
 - c) Subsample girls

15. There is significant difference in the mean change scores of English language anxiety between the Experimental and control groups for
 - a) Total sample
 - b) Subsample Boys
 - c) Subsample girls

16. There is significant difference in the mean gain scores of Learner satisfaction between the Experimental and control groups for
 - a) Total sample
 - b) Subsample Boys
 - c) Subsample girls

17. There is significant difference in the adjusted mean scores of Listening skill in English between the Experimental and control groups by considering Pre-test Listening, Pre-test Speaking, Non-Verbal Intelligence, Classroom Environment and Socio-Economic Status as covariates for
 - a) Total sample
 - b) Subsample Boys
 - c) Subsample girls

18. There is significant difference in the adjusted mean scores of Speaking skill in English between the Experimental and control groups by considering Pre-test Listening, Pre-test Speaking, Non-Verbal Intelligence, Classroom Environment and Socio-Economic Status as covariates for
 - a) Total sample
 - b) Subsample Boys
 - c) Subsample girls

19. There is significant difference in the adjusted mean scores of English language anxiety between the Experimental and control groups by considering Pre-test Listening, Pre-test Speaking, Non-Verbal Intelligence, Classroom Environment and Socio-Economic Status as covariates for
- a) Total sample
 - b) Subsample Boys
 - c) Subsample girls
20. There is significant difference in the adjusted mean scores of Learner satisfaction between the Experimental and control groups by considering Pre-test Listening, Pre-test Speaking, Non-Verbal Intelligence, Classroom Environment and Socio-Economic Status as covariates for
- a) Total sample
 - b) Subsample Boys
 - c) Subsample girls

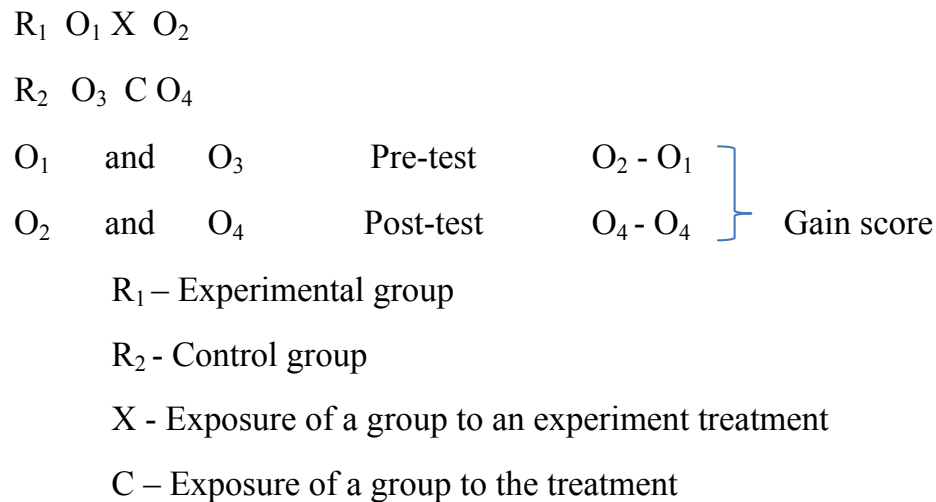
Methodology in Brief

The present study is aimed at comparing the effectiveness of two methods of instruction on the enhancement of students' Listening and Speaking skill in English, Learner satisfaction and reduction of English language anxiety

Design of the Study

In present investigation Pre-test-Post-test Equivalent group design is used. Two groups are equated by Listening and Speaking skill, Non-verbal Intelligence, Classroom environment, Socio-economic status.

Experimental group is taught through Blended learning approach (Rotation model). Control group is taught through constructivist method of teaching.



Samples for the Study

Standard VIII students of secondary schools of Kerala state is considered as the population for the present study. Since it is an experimental study, the sample selected is small in order to avoid difficulty in conducting experiment. Two intact classes of standard VIII are selected from DBHSS, Tanur. Investigator selected two intact classes consist of 45 students of standard VIII from the school, then randomly assigned one group as control group and other as experimental group.

Tools used for the Study

1. Questionnaire on Teachers' perception towards prevailing strategies and constraints in Teaching English (Aruna & Anju, 2014)
2. Lesson transcripts for Blended learning approach (Aruna & Anju, 2016)

Students rotate between online learning, face to face instructions and independent collaborative activities groups in the class. Each rotation

will be structured around a different activity, at least one of which will be online.

3. Lesson transcripts for Current practices (Aruna & Anju, 2016)
4. Test for Listening Skill in English (Aruna & Anju, 2016)
Components: Coherence and cohesion, Lexical resources, Grammatical range, and accuracy and Task achievement.
5. Test for Speaking skill in English (Aruna & Anju, 2016)
Components: Fluency and Coherence, Lexical Resource, Grammatical Range and Accuracy, and Pronunciation
6. Scale of English language anxiety (Aruna & Anju, 2016)
It is a 5 point Likert scale; it has 40 items in total.
Components: Communication apprehension, Fear of negative evaluation, Test taking anxiety, General feeling of anxiety towards a foreign language
7. Scale of Learner Satisfaction (Aruna & Anju, 2016)
It's a 5 point Likert scale. Components: Instructor, Technology, Class management, Interaction, and Instruction.
8. Standard Progressive Matrices Test (Raven, 1958).
It's a Non-verbal test of Intelligence for checking the homogeneity of the groups. Standard Progressive Matrices Test is made by Raven in 1958.
9. Classroom Environment Inventory (Aruna & Sureshan, 1998).
The classroom environment inventory is used to check the students' perception about the classroom climate. The Dimensions used in the Classroom Environment Inventory are Material

environment, Task orientation, Innovation, Participation, Cohesiveness, Teacher support, Teacher control, Personalisation, Independence, Order and organisation, Friction and Competition.

10. General Data Sheet (Aruna & Anju, 2016).

It is used to measure the socio-economic status of the students in the classroom and to know their home environment. It is made up of four components, namely, bio data of the student, Parents' and family members' education, Occupation of the family members and the Family income.

Statistical Techniques used for the Study

1. Percentage analysis:

Percentage analysis was used to find out teachers' perception towards prevailing strategies and constraints in teaching English.

2. Basic descriptive statistics:

Basic descriptive statistics such as Mean, Median, Mode, Standard deviation, Skewness, and Kurtosis were used to calculate each variable in the study for Total sample and Subsample boys and Subsample girls separately.

3. Mean difference analysis: Mean difference analysis was employed to check whether there exists any significant difference between experimental and control groups.

4. Single factor ANCOVA: Single factor ANCOVA was employed to study the main effect of independent variable and to avoid the unnecessary influence of the other uncontrolled independent variables.

5. Effect size (Cohen's d and Partial eta squared)

Effect size is a simple way of quantifying effectiveness of a particular intervention, relative to some comparison, and may therefore be said to be a true measure of the significance of the difference. It is an important tool in reporting and interpreting effectiveness (Coe, 2002)

6. Bonferroni's Post Hoc analysis: Bonferroni's Post Hoc analysis was conducted to find out the statistical significance of the dependant variable by controlling the covariates.

Scope and Delimitation

The present study aims to compare Blended learning approach with that of the current practices in teaching English to check the effectiveness in enhancing the Listening skill in English, Speaking skill in English, Learner satisfaction in English and in reducing English language Anxiety of the Secondary school students.

The sample selected for the study consisted of the students in Malayalam medium only. The sample selected from the 8th standard only. The instructional strategy used was only a single model of blended learning. The present study can be further conducted using different models of Blended Learning and find out and improve the intervening factors for the betterment. The present study can be extended to different situations like corporative organizations, Communicative English teaching institutes like TOEFL, IELTS etc.

The results of the present study can use as a parameter for the similar studies in English and different subjects, different teaching and learning situations.

The present study can be further conducted for testing different blend ratio for optimum results in different aspects of language learning.

Review of Related Literature

- *Theoretical Framework of the Variables*
 - *Blended Learning Approach*
 - *English Language in India*
- *Review of Related Studies*
 - *Studies Related to Listening Skill*
 - *Studies Related to Speaking Skill*
 - *Studies Related to English Language Anxiety*
 - *Studies Related to Learner Satisfaction*

REVIEW OF RELATED LITERATURE

This chapter encompasses relevant concepts, theories related to the topic and the reviews related literature related to the study. The purpose of the theoretical framework and literature is to verify the knowledge about the topic. Hence the theoretical framework helps the investigator to internalise the concept and gives knowledge about origin and definitions, the key concepts, theories and ideas.

The present study is intended to find the effectiveness of Blended learning approach on listening skill, speaking skill, English language anxiety and learner satisfaction. The investigator tried deeply and intensely to internalise the concept and review the literature related to the chosen variables from available sources till 2019.

The chapter is organised under the following heads:

Theoretical framework of the variables

Blended Learning Approach

English Language in India

Review of Related Studies

Studies related to Listening Skill

Studies related to Speaking Skill

Studies related to English Language Anxiety

Studies related to Learner Satisfaction

Theoretical Framework of the Variables

This section details mainly about the major theoretical aspects of the independent variable of the present study, which is blended learning approach and the English language in India, which is the base for the dependent variables.

Theoretical overview of the Blended learning approach and English language in India are detailed below.

Blended Learning Approach

Blended learning is one of the modern way of teaching that reduces time, place and situational barrier where in enabling greatest interaction between teachers and students. It is a combination of traditional face- to-face program and computer assisted learning. Neumeier (2005) asserts that the objective of the blended teaching-learning program is to identify the perfect integration of the traditional and online environments. He further emphasised that this should be decided based on the learning subjects, objectives, context and locality. Curtis, Graham, Cross, and Moore (2005) also stress up on the fact that the function of blended learning program is to combine instructional modalities, instructional methods and face-to-face and online instructions. Jusoff and Khodabandelou (2004) also stressed up in their studies related to the interaction between teacher and student. They stated that the blended learning programs decreases the distance between teacher and students and increases the interaction between them. They further added on that blended learning increases engagement between students as well. Boyle, Bradley, Chalk, Jones and Pickard (2003) state that there is a

high demand for blended learning program due to the use of different delivery methods.

Blended Learning in English Teaching

Dudenev & Hockly (2012) states that the blended learning will continue to make its impact on language teaching. They further assert that the focus will be on using the best practices of blended learning that is to identify and implement the best mix of course delivery in order to provide a most effective language learning experience. Yu-Fen Yang (2014) states that the student teacher interactions will enhance communication between teachers and students and among students as well. They further state that the success of any CMC (Computer mediated program) is dependent on student's involvement and student teacher interactions. They further quantify the engagement or involvement into three engagements, i.e. behavioural, emotional and cognitive engagement. Behavioural engagement can be identified to action oriented outcomes. Emotional engagement can be measured by sharing of student feelings whereas cognitive engagement refers to learning of strategies. All the above engagements could be measured using CMC via log files and qualitative analysis. The three forms of engagement are related to student engagement.

Effectiveness of blended education programs

There are various surveys which confirm the effectiveness of Blended Learning. In one such survey conducted on 2003 based on "Blended Learning Best Practices" by the eLearning Guild 76% of the studies confirms the effectiveness and better learning values of Blended learning programs

compared to the traditional class room teaching-learning process. 73% of the studies revealed that the blended learning programs possessed higher learner value or impact than traditional programs without blending. Osguthorpe and Graham(2003) stated that the main aim of blended learning program is to eliminate the weakness of various delivery methods and thus providing an effective learning environment by benefitting from the strength of these methods. Dziuban, Moskal, & Hartman (2005); Graham (2006); Heinze & Procter (2004); Ocak, 2011 too confirms this theory by stating that the blended learning programs promote effective learning. There are various ways of judging the effectiveness of Blended learning practices. One such way is measuring student learning outcome. Another way is to evaluate the course itself against a set of pedagogical principles.

Models of Blended learning

There are various models of blended learning in practice. They are given below. The models of Blended learning as described by Valiathan (2002) is mainly categorised into 3 heads, namely

- a) Skill-driven : This combines self-paced learning with instructor or facilitator support to develop specific knowledge and skills
- b) Attitude-driven : This mixes various events and delivery media to develop specific behaviours
- c) Competency-driven: This blends performance support tools with knowledge management resources and mentoring to develop workplace competencies.

The Skill- driven model works best with the learners at management and training scenario, at knowledge and application levels. The Attitude – driven model can be used to get optimum result for a soft skill course which trains performance evaluation and negotiation with customers. Whereas the Competency – driven blended learning plan made for employees who needs to make quick decision making (Valiathan, 2002).

The models in the categories of K-12 education, according to Staker and Horn (2012) are:

- a) Rotation: Rotation model is the learners rotating among learning modalities on a fixed schedule, at least one of which is online.
- b) Station Rotation: In Station rotation, the occurrences of the structured rotations happen within schedule. Online station should be one of the station.
- c) Lab Rotation: In Lab rotation, rotations happens within locations on a fixed schedule within school campus usually between classroom and computer lab
- d) Flipped Classroom: In Flipped classroom, the learning content is introduce to the learner online, and the work or learning practice occurs at brick and mortar system under the support of the teacher, so the roles are flipped in this model.
- e) Individual Rotation: Individual rotation is the individually tailored rotation schedule for a course or a subject within the brick and mortar system. But the rotation happens for the scheduled activities only, on customised individual basis.

- f) Flex : In flex model, the learning experience is primarily online along with learning at brick and mortar system with customized face to face support when needed.
- g) Self-Blend : Self-blend is self-directed blended learning, in which the learners use the option of online learning to supplement their formal traditional courses in brick and mortar system, on their own.
- h) Enriched Virtual : In Enriched virtual model, the learning experience mostly happens online with some on-campus enrichment by meeting the teacher or the resource person intermittently.

According to Bonk & Graham (Bonk & Graham, 2006), there are mainly four levels of blending, namely,

- a) Activity Level: It is the blending of the face to face and virtual elements to provide learning activity.
- b) Course level: Course level blending is using the face to face and virtual elements as a part of the course, and it is one of the popular level of blending.
- c) Program level: Program level blending is usually occurs when the learners choose the mix of face to face and online program themselves or the combination is prescribed by the program itself.
- d) Institutional level: Institutional level blending occurs usually at the higher levels of study or at the corporate sectors, when they have made an organizational commitment to blend face to face and online elements.

Gilly Salmon's 5 Stage Model of Blended Learning

Gilly Salmon (2005) developed a model of structured e-learning activities which have the purpose of creating greater interaction and participation between participants in e-learning courses. She believes that for online learning to be successful, it needs to be supported through a structured developmental process. This model is a scaffolding model which means gradually building on to the participant's previous experience. The five-stage-model offers essential support and development to participants at each stage as they build up expertise in learning online. The following are the five stages:-

Stage 1: Access and Motivation. The essential prerequisites for online activity participation are Individual access and the induction of participants into online learning.

Stage 2: Online socialisation. This involves individual participants establishing their online identities and then finding others with whom they interact and share their views.

Stage 3: Information Exchange. In this stage participants engage in mutual exchange of information. By the end of this stage, the participants form a co-operation between each other and support each other's goals.

Stage 4: Knowledge construction. Group discussions are developed in this stage and the interaction becomes more collaborative with the inflow of knowledge, thus participants moving towards a common goal. Collaboration also requires an active sharing of information and intellectual resources amongst the participants.

Stage 5: Development. In this stage, the participants look for more benefits within the system to help them achieve personal goals.

Investigator used the above said model by Salmon as a base for designing and constructing blended learning program for the students

Learning Management System.

Learning Management System (LMS) and Learning Content Management System (LCMS) are basic concepts that warrant efficiency of virtual learning (Abdoli Sejzi, 2013; Sobhaninezhad et al; 2006). LMS is defined as a software system designed to facilitate administrative tasks as well as student participation in e-learning materials (Recesso, 2001). Learning Management System is a Virtual Learning program which apply the new strategy and approach in Educational program and in the process of the traditional policies (Abdoli Sejzi, Aris and Yahaya, 2012). LMS is now an integral part of web based e-learning activities.

Higher education is working to integrate next generation education technology into its learning activities and is struggling to find out effective approaches (Klonoski,2008). Presently education, especially higher education is facing a phenomenal change in the form of higher enrolments, reduced state support and increased use of technology. LMS now is no longer restricted as mere accessories to teaching and learning, but have become a vital tool for the education process like blended Education. As long as the higher education is concerned, LMS have emerged from auxiliary role to a critical one.

According to Ellis (2008), the basic description of LMS is a software application that automates the administration, tracking and reporting of

training events. However it's not that much simple. A robust LMS should be able to do the following:

- a) Centralise and automate administration.
- b) Use self-service and self-guided services.
- c) Support portability and standard.
- d) Assemble and deliver learning contents rapidly.
- e) Consolidate training activities on a scalable web based platform.
- f) Personalised content and enable knowledge reuse (Ellis, 2008).

Factors that need to be considered for the success of Blended Learning Programs

The important factor while designing a Blended learning program is the mode of content delivery used. Neumeier (2005) asserts that the course designers need a framework of parameters to decide on the context related implementation of the blended learning programs. Kerres (2001) states that every course need to have a lead mode and determining this lead mode is essential in securing a clear layout and transparent structure of the course design. Bonk and Graham (2005) proposed that there are three types of blends that an instructor can deploy for a blended learning program are:

- a) Enabling blends: Enabling blends tries to provide the learner the same learning experiences through a different modality.
- b) Enhancing blends: Enhancing blends makes some changes to the pedagogy. For example, in a traditional face-to-face classroom some materials could be provided online so as to supplement the learning process.

- c) Transformational blends: Transformational blends transform the pedagogy where learners actively construct knowledge via multiple interactions and processes rather than being just listeners.

Macdonald (2006) identifies three ways to participate in online activities as well. The first and second one is for online courses where students do synchronous meeting and used face-to-face meeting for structuring a course. The third is campus based and online for students who are physically separate. Khan (2007) asserts that this is called flexible learning which considers both present and distant learning students. This model of blended learning lets the student decide whether to use online or face-to-face. This gives students the options on how to gain or transfer knowledge. Yalin (2003) further states that another crucial factor that determines the success of a blended learning program is the content design. The content design must be based on the student curriculum so as to ensure student satisfaction. Another key area that needs to be defined is the learning objectives of a blended learning program. Christian, Laurence, Christine, & Guillaume (2006) states that students will see the operational steps and can learn these steps or objectives by themselves. He further adds on by stating that by supporting these learning objectives with clear content will make learning much more effective and fun. Moreover learning objectives will provide a clear indication on the areas of improvement that is required. For example students who undergo test through a blended learning program might score low or fail in some sections or learning objectives. The teacher thus can focus his teaching on the failed area or learning objective so as to improve the student's performance. Fixing of the objectives will also help in decoding the modes that need to be used for content delivery. Once the

objectives are clear, a course outline indicating the time allocations, course activities and the delivery and conduct of assessments and assignments should be made. Once the objectives are set, a course syllabus should be designed so as to clarify student expectations and processes. Thus while designing a highly effective blended learning program, clear and concise learning objectives supported by effective content is very much needed for knowledge management.

Garrison and Kanuka (2004) and Oliver and Trigwell (2005) argues that the blended learning programs must take student's experience into consideration. They further state that content and technology designs made by the teacher should also consider the student's experience, if not the highest priority. An effective student centred blended learning program will thus provide a self-directed student to construct an individualized learning environment based on his learning style. Picciano (2009) asserts and support this by saying that students have different learning styles and personalities and course designers must use multiple approaches to meet the needs of a wide range of students. More over the technology that is used need to be simple and user friendly. The need for a proper Learning management system thus arises for a successful blended learning program. Thus a student centred blended learning program which gives importance to student experience along with good content design and learning objectives is required for an effective blended learning program. The investigator thus had taken the above mentioned points into account and had created a LMS for the Blended learning classes.

The assessments used in blended learning programs should be related to the learning objectives, policy and availability of resources for assessments.

It is suggested that the assessments could be conducted online along with traditional methods like quizzes, essays, exams etc. Assessments of groups require a much more comprehensive assessment format. The need for a change management program is often understated when considering the design and implementation of the blended learning program. The transition to the blended learning program must be carefully managed and both the students and the teachers must be receptive about the program and must be ready to accept the blended learning program. At the same time students using the program must be comfortable with technology and must have good time management skills. The teachers who implemented the blended learning programs reveal that the transition and integration of the program will take time and those who are implementing such programs must persevere the early stages and initial resistances and struggles. The importance of formal and informal training is also important for the implementation process.

Technology has left its impact on every sphere of our life. It has changed the way we communicate, share information, how we do our jobs to name a few areas. Education is not left alone from its impact. The Educational industry has seen its adoption at various levels from schools to universities. Various studies conducted reveals that teachers, students and parents agree to the positive impact played by technology. It's agreed that technology has helped in the academic success of students and has helped in achieving their educational goals. IT also has a positive impact on the student's motivation and behaviour (Çetin & Günay, 2010; Demirer & Şahin, 2008; Para & Reis, 2009; Seferoğlu, Akbıyık & Bulut, 2008). (Civelek, 2008; Mercan et al., 2009) supported the same argument.

English Language in India

Any language is as wide as the world and as deep as the mind because it has to contain the world and the mind (Jesa, 2008). To describe the spread of English in the world, Kachru (1985) had devised a model constituting three concentric circles, the “inner”, “outer” and expanding circle, based on the historical context, status and functions of English around the world during the post-colonial era. The inner circle countries were the norm providers where English is the first language such as USA, UK, Canada, Australia & New Zealand. The Outer circle comprises of the developing countries like Nigeria, Zambia, India and Singapore. The expanding circle refers to the multilingual communities in which the importance of English is restricted to a foreign language and is only one of the languages spoken as an official, co-official, legal or educational language.

The very much idea of English as a necessary language in India started in the year 1813, when the British parliament renewed the charter of the East India Company for 20 years. They directed the company to apply 1, 00,000 rupees per year for the revival and promotion of literature, introduction and promotion of knowledge of the sciences among the Indians. As a result, East India Company had set up Madrassa (Mohammedan College) and the Hindu college in Calcutta which gave preference to the traditional form of education.

However, by the early 1820s, serious doubts of this mode of education started to ponder over some of the administrators of the East India Company, who felt, it was not a quite sensible use of money. This was the starting of the private colleges in Bengal teaching western knowledge in English. Macaulay

(1835), in his 'Minutes upon Indian education' emphasised that the support for the publications of books in Arabic and Sanskrit should be withdrawn and the support to the traditional education should be restricted to Madrassa at Delhi and the Hindu College at Banaras, but students should no longer be given scholarship to study at these establishments.

In 1835, the medium of education in schools and universities in India was English as India was under the colonial rule. For over a century, English emerged as the popular language of power and prestige, after gaining independence, the popularity of English continued as it is clearly evident that even our constitution is written in English language.

India is a multi-linguistic country. There are various languages spoken in length and breadth of the country. Two of the world's largest language families are spoken in India, which are Indo Aryan and Dravidian language families (Esfandiari, 2013). There was even wide protest when as per the Article 343 of the Indian constitution; Hindi was designated as the official language of the Union surpassing Tamil. In spite of these, English was widely accepted all along the subcontinents. While English is regarded as an official language alongside Hindi based on the bill in 1963, many Indians do not accept it as the national language (Baldrige, 1996).

Functionality of English Language in Indian Context

English has emerged as the most important global language. English language is quite essential in this age of globalization. It is quite evident in UN declaring English as one of its five official languages because of its background, international acclaim and ease access to the people. However,

the emergence of the English language in the Indian sub- continent is not only related to the British colonization, it can be attributed to the following factors:

Linking language between diversified regions

English played a significant role in the struggle for independence in bringing together our national leaders (Jesa, 2008). After Independence, the nation was divided based on languages. As we proudly say “unity in diversity”, English language is instrumental in uniting a country which is divided based on languages. In India it has slowly become a language of communication for the classes and masses. Various competitive exams, which is the basis of higher education is also conducted in English irrespective of the fact that in which state it is conducted. If we consider our parliament, there are 530 MPs from 29 States speaking different languages. However, as a matter of fact the connecting link between all those MPs is the English language with which they communicate in the parliament.

Window to the world

As it is rightly said “for the East, English is a window to the West and for the West, English is a window to the East”. English language is considered as the chief agent of globalization. After 72 years of independence, India has achieved global acknowledgement as a developing country. It is now an emerging economy and a power house in world affairs. Also India had sought a place in the prestigious UN Security Council as a permanent member. These are all possible due to the fact that we have accepted English language vehemently as our own. The very fact that our education system is mainly based on this language, gives us an extra edge in this age of globalization as it

is clearly evident in us being the second largest emerging economy now. English will also be providing us with the path way of being a developed country in near future.

As an international language

English due to its significance occupies a unique position of being the language used by largest number of people spread over the world. Even though Chinese is considered as the largest speaking language, English is considered as the language which is spread in larger parts of the world. Thus the popularity of English worldwide makes it a medium of international communication. It is the Lingua Franca of modern era (F.G, 1963). If we look at the media, we find that over 50% of the world's newspapers, over 50% of the world's scientific and technical periodicals and more than 60% of world's radio stations uses English as the medium of communication (F.G, 1963). It is used as a second language worldwide. Thus it absorbs and share aspects of culture worldwide. It is because of this language, I feel we are not ignorant of the customs and traditions of different communities in different part of the world. As I said earlier, it is one of the five languages accepted by the United Nation Organization just because of its vast spread all over the world. It is also the language of international politics. For the better understanding among different nations, cultural give and take is a requirement which is possible only through an international language and English is that medium.

As a library language

Books considered being the pathway for acquiring knowledge. 80% of the world's electronically stored information is in English language. Also more than 60% of the world's technical journals, newspapers and periodicals

are being published in English language. So it can be summed up that English is the key to the store house of knowledge. Without knowing this language, we will not be able to move in tune with time and face the challenges of the world. It is also a stepping stone for students for their higher education as majority of their books are in this language. This is rightly stressed up by the Kothari commission (1964) as English would play an important role in higher education as an important library language. The commission also underlined the fact that no student should be considered qualified for a degree, i.e. Master's degree unless he has acquired adequate proficiency in English.

As a language for employment

English language is regarded as a language of opportunities. It opens doors of employments across the length and breadth of the world. Due to its access across the globe, it widens the scope of professional expertise. As the private sector companies are becoming more competitive due to the changed world economy, the employees are always on the run. It is like either you work hard and show the performance or perish for not taking care of your professional growth. The ability to use English language efficiently is very much required to remain employable. Proper English does not mean the ability to make grammatically correct sentences only. It also means other related skills for effective communication like presentation skill, negotiation skill etc. using that language.

As a language for trade

The use of English language for trade started during the time when East India Company came to India with the aim of trade. They started imparting English language to the natives with the sole purpose of trade. The

use of English language for cross border communications is vital in many areas of trade ranging from tourism to the trade in financial services. Free and open communication across borders is important in building a stronger regional economy. This is the common language of the members of World Trade Organization which pledges for free and fair trade across the globe. The simplest forms of international transactions must have English translations to attain global transparency.

Language for science and technology

Majority of the information stored in the computers is in English. This is mainly because English is widely accepted as the language for science and technology. Thus to get ourselves updated with the technological advancement, English language is a necessity. Also most of the authenticated scientific books are in English language. If we carry out a comparative study of all the gadgets which we use in our day to day life to the very sophisticated military hardware, all of these have the encryptions written in English language for the ease of understanding. Thus we can conclude that English is the language of Science and technology. Every advancement in science and technology is discovered, coded, stored and made available in English.

Status of English language in the Indian education system of the pre-independence period

English plays a significant role in the educational system and in the life of Indians since 1834. From that period onwards, the Indian education system was modelled on the British education system (Ramanathan, 2007). Majority of the people in the Britain did not support the spread of English education system to India as they felt that just like America; the western

education would enable Indians to challenge the foreign rule. This was mentioned in the parliamentary papers of 1852-53. However, as it was a political necessity which made them to do so. English then gradually spread in India and gained roots in the Indian education system. Three universities were set up in Bombay, Calcutta and Madras in 1857. By the end of 19th century, two more universities were established in Punjab and Allahabad. The foundation of these universities marked a new era in the history of Indian education system. This resulted in the spread of schools and colleges which in turn helped Indians in mastering English language. During this period the status of English language in different levels of Indian education system is shown below (Patel & Jain, 2008):

Lower primary level. Teaching English was not compulsory except in some private school.

Upper Primary Level. English was taught as a compulsory subject with very few qualified teachers.

Secondary Level. English was taught as a compulsory subject but not compulsory at higher secondary school examination.

Higher Secondary Level. English was taught as a compulsory subject.

College Level. English was compulsory for students who have not passed the English section of higher secondary school examination.

Status of English language in the Indian education system of post-independence period

Although Hindi was declared as the national language, the value and importance of English couldn't diminish because the deeply rooted belief in

the Indian society that it is the language of power and prestige. Also the strong opposition to Hindi in the southern states paved the way for elevating English language to the status of a subsidiary official language of India, in the Official Language Act of 1965. The three language formula emerged as a policy after a quarter of a century of debates and deliberations from political and academic prospective by educational advisory bodies and politicians representing national and regional interest (Ramanathan, 2007).

The Central Advisory Board of Education (CABE), which concentrates on the education system in India, started a discussion in 1940s regarding the language used in the school education system and came up with five major issues which require attention: (Ramanathan, 2007).

- a. Which all languages to be part of the school education system
- b. When to introduce the second and third languages
- c. What is the role of English
- d. What is the role of Hindi
- e. Introducing Sanskrit and minor language(s) as a part of curriculum in school.

In the 23rd. meeting held in 1956, in order to remove the inequalities prevailing among the languages of India, it is recommended that the three languages should be taught in Hindi even in non-Hindi speaking areas from the middle onwards and suggested the following two possible formulae:

- a) Mother tongue
- b) Regional language or a combination of mother tongue and another regional language.

c) A combination of mother tongue and classical language or a combine course of a regional language and a classical language.

1. English or Hindi
2. An Indian/foreign language which does not come under (a) and (b) and other than that used as a medium of instruction. (MOE (Ministry of Education), 1957).

The language formula was simplified and approved by a conference of Chief Ministers held in 1961 as follows: -

- (a) The regional language/mother tongue, if mother tongue is different from the former.
- (b) Hindi/other Indian languages in Hindi speaking areas; and
- (c) English or any other modern European language.

CABE also deliberated in detail on the study of English as a compulsory subject as recommended by the Education Ministers conference held in 1957:-

- a. English should be taught as a compulsory language both at secondary and the university stages, students acquire adequate knowledge of English so as to be able to receive education through this language at the university level.
- b. English should not be introduced earlier than class V. The precise point at which English should be started at the middle stage was left to each individual state to decide. (MOE (Ministry of Education), 1957).

A comprehensive view of the study of languages at school was undertaken and concrete recommendation was made by the Education Commission between 1964 and 1966 (Report of the Education Commission

(1964-66), 1966)The commission having taken account of the diversity of the Indian context recommended a modified or graduated three language formula: -

- a. The mother tongue/the regional language.
- b. The official language of the state/the associate official language of the union.
- c. Any other Indian/foreign language which is not included in the above.

According to a study carried out by (Meganathan, 2018) for British council, 75 different languages are taught in the Indian education system and out of this 31 different languages are used as media of instruction. It also reiterates the importance of English language by giving the statistics of percentage of schools that teaches English as a first language doubled between 1993 and 2002 from 5 % to 10 % in primary schools and from 7 % to 13 % in upper primary schools. Moreover English is offered as second language in more states than any other languages. In addition, out of 35 states (including union territories) 33 states claim to offer English as medium of instruction. This clearly indicates that there has been a shift in perception as the demand for English is now felt in every quarters even though there are pedagogically sound argument against the early introduction of the language (Meganathan, 2018).

Table showing the historical review of the development of English language in India (Saraswathi, 2004) is given below:

Table 1

The Historical Review of the Development of English Language in India

Date	Event	Aims/ Recommendations
1600	Queen Elizabeth I granted a Charter of monopoly of trade with India to the East India Company.	
1823	English education was introduced in India.	The objectives were: (i) To popularize European culture and science among the Indian masses. (ii) To consolidate the position of the British Raj in India.
1835	English was formally introduced as a medium of instruction.	Macaulay's famous 'Minutes' set out the aim of this move.
1857	Universities were established in Madras, Bombay	
1869	Lord Napier's Convocation address at Madras University.	The speech spelt out the objectives of European Education in India: (i) To give a new basis for national unity. (ii) To give a better knowledge of India. (iii) To enable self-government. (iv) To enable participation in the general, intellectual movement of the world.
1947	Independent India chose to retain English as long as it was needed.	
1948	Maulana Azad's observation regarding the role of English.	Maulana Azad said, "the position that English is occupying today in our educational and official life cannot be sustained in future".
1948	The Radhakrishnan Commission free India's first education commission- was set up.	It was recommended that English should continue to be studied in high schools and universities.
1952	Madras introduced a list of graded structures for teaching English in schools.	The aim was to make learning easier for children. Experts identified the basic structures in English.
1953	The Madras English Language Teaching (MELT) campaign.	The structural syllabus prepared by the Institute of Education, London, was introduced in Madras in 1952 for the MELT campaign.
1954	English Language Teaching Institutes (ELTI) were set up.	

Date	Event	Aims/ Recommendations
1957	The Nagpur Seminar for lecturers in English from training colleges.	It came up with recommendations for a six-year course in English involving the use of 3000 words and 300 structures.
1958	The Central Institute of English (CIE, later known as CIEFL and now EFLU) was set up.	The objectives were to train teachers of English to produce teaching material and to improve the standard of English language teaching in India
1961	Jawaharlal Nehru pointed out the need for a link language.	
1963	The Regional Institute of English was set up in Bangalore.	
1967	A Study Group Report on the Study of English in India was prepared.	The aim was to survey the nature of the study of English in India.
1977	UGC Syllabus Reform.	This was the result of regional and national workshops conducted by the UGC to examine the syllabuses of various universities in order to update the differences.
1987	The Curriculum Development Centre (CDC) was set up at Hyderabad.	The aim was to shift focus in curriculum designing from teaching to learning and make it need- based and socially relevant.

Review of Related Studies

Studies are arranged in such a way related with Listening skill in English, Speaking skill in English, English language anxiety and Learner satisfaction.

Studies Related to Listening Skill in English

Language is the basis for all human communication and is fundamental to think and learn. In classroom, students use language to present ideas and communicate their understanding by the use of vocabulary, concepts and grammatical forms. There are mainly four skills in the process of any language learning. They are: listening, speaking, reading, and writing.

The listening and reading are considered as passive skills and the speaking and writing are active skills. In all these four categories of skills, listening and speaking skills are considered very important in developing a foundation for the other skills.

Listening strategies.

Buck (2001) defines strategies as “the thought of ways in which a learner approaches and manages a task.” He classifies strategies as cognitive and metacognitive. For him, “Cognitive Strategies are the mental activities related to the comprehending and storing input in working memory or long-term memory for later retrieval” (Richards 2008). This group consists of three processes as Comprehension Process, Storing and Memory Processes, Using and Retrieval Processes. On the other hand, “Metacognitive Strategies are conscious or unconscious mental activities that perform an executive function in the management of cognitive strategies” (Richards 2008).

Approaches to listening.

There are many approaches to improve listening skill in learners. Researchers mainly have paid attention to top-down and bottom-up processing in listening comprehension. Kurita (2012) defines top-down and bottom up processing as “the use of background knowledge in understanding the meaning of a message. Bottom-up processing, on the other hand, refers to using the incoming input as the basis for understanding the message.” According to Vandergrift (2007), top-down and bottom-up processes usually interact to make spoken input sensible. Anderson (2009) proposes a different model of language comprehension and divides the language comprehension

process into three stages as perception, parsing and utilization. “The first stage is encoding the spoken message, the second stage is the parsing stage, in which the words in the message are transformed into a mental representation of the combined meaning of the words. The third stage is the utilization stage, in which listeners use the mental representation of the sentence’s meaning. If the sentence is a question, they may answer; if it is an instruction, they may obey” (Anderson 2009). The search for an approach to improve listening skill involves several strategies. The significant difference in these strategies is the perspective the researcher takes. These different perspectives fall into two major categories:

- a) The first approach deals with improving listening skills in terms of the teacher and what he/she can do to improve the listening skills of students.
- b) The second approach is in terms of the student and what specifically students can do to improve their listening skills.

Improving listening skills in terms of what the teacher can do has turned up research where many common traits are found. Those include some of the following strategies that teachers should use, provide a good listening environment, give clear directions and model good listening. In brief, the big picture that this approach acknowledges is the thought that listening skills need to be taught to students because we as educators cannot assume that listening skills will be taught at home. Distractions such as background noises should be removed so that students can focus on listening (Miller, 2003); (Renck-Jalongo, 1995). If distractions are present, they can interfere with the ability to hear, which in turn affects the ability to listen (Matheson, Moon & Winiecki, 2000). That could mean sitting in a

comfortable position and/or having the necessary tools ready (Thompson, Grandgenett, & Grandgenett, 1999).

While teaching listening skills, teachers need to give clear directions. Miller (2000) suggested that directions be easy to understand. If directions are confusing or complicated, students will tune them out and wait for a simpler explanation (Renck-Jalongo, 1995). As a teacher, directions should be well thought out and any confusing parts should be clarified for students. Furthermore, teachers might consider using a visual aid to accompany directions. This strategy can help students gain information by addressing the learning styles of both the visual and auditory learners (Church, 2004).

Once teachers have established a good listening environment and given clear directions, another key component for teaching good listening skills is the teacher's modelling of good listening for students. One of the best ways to teach is by example, therefore, it is important that when teachers teach children to listen, that they be good listeners themselves. Renck-Jalongo (1995) agreed and added "students' attentive, involved listening depends considerably upon teacher behaviour". He noted modelling good listening habits as one of those behaviours. One suggestion for teachers to accomplish this is by spending time for listening to what individual students have to say and talking about their thoughts and ideas (Miller, 2003). This technique makes students feel valued and cared for. Once students feel they are cared for by a teacher, they will care more about what that teacher has to say. Other strategies include slow down the message and allow time to process information, encourage the listener to keep an open mind while listening, reward good listening and are aware of potential

barriers within students that may get in the way of listening. A combined approach to improving listening skills would contain both teacher-led as well as student-led strategies. This approach is well rounded in that both the teacher and the student share the responsibilities of improving listening skills.

In a study by Jiang, Kalyuga and Sweller (2017) on foreign language listening skills, found out that the read-and-listen approach benefited novice learners but there was a reversal effect that the more learners have expertise, they benefitted more from the reading only. Supporting this view, Goh (2018) states that listening comprehension is the least visible process in second language and the teacher finds it difficult in teaching listening than any other skills. The metacognitive awareness enables the learners to reflect on analyse, critique and evaluate cognitive, social and affective processes involved in language listening.

The approach that focuses only on student strategies contains three common components. Each of these strategies provides useful benefits to the student. First, students give their undivided attention to the speaker. The first vital step of effective listening is preparing yourself mentally and physically (Mulvany, 1998). Eye contact is advisable for attentive listening. In particular, Cousins (2009) stated that eye contact encourages the speaker and makes him/her feel the listener cares. Edwards (1991) added that watching the speaker allows the listener to focus on the verbal message and to observe any nonverbal cues that the speaker may display. The presence of non-verbal clues should not interrupt the speaker or the listener (Petress, 1999; Mulvany, 1998). The effective listening skills involve the listener responding to the speaker. The following forms of responding have been noted, asking

questions, rephrasing what the speaker said, sharing your own personal experience, and offering feedback. Asking questions is a way to elicit more information from the speaker or to clarify the information (Cousin, 2009; Messmer, 1998). These questions should be direct, yet open-ended (Mulvany, 1998). They are especially effective when trying to draw out a shy speaker. Teachers should also make sure that the question is appropriate and relevant.

Studies Related to Speaking Skill in English

Speaking is considered to be the most important active skill (Widdowson, 1994) for a foreign language learning (Khamkhien, 2010). It is producing utterances for communicating messages (Rodrigues, 2000). It starts from infancy to be developed during childhood to maturity (Levelt, 1989). Abdelsalam (2002) defined speaking as a collection of micro-skills which include syntax, grammar, morphology, pragmatics or social language, semantics and phonology. Speaking is an interactive process because it requires the involvement of another person unlike listening, reading or writing (Noll, 2006). Speaking skill isn't only producing the utterances, but it is the complete process of constructing meanings producing utterances and receiving and processing information (Brown, 1994) with confidence (Bygate, 1987). The meaning formation depends on the context, purpose, subject matter of the speech and the speaker's personality (Jaffe, 2011:202) and the physical environment of the situation. It also includes the participants, their relationship, their cultural backgrounds, and their experience in the topic. In speaking, learners try out new vocabulary and develop working knowledge of language form and structure once visually prompt and culturally familiar information are provided. In oral learning, facing clues like intonation and gesture enhances understanding

(Dawes, 2008). To know a certain amount of grammar and vocabulary doesn't help learners of a foreign language to master it, they also need to employ the forms and the new vocabulary items into real-life situations. The teacher's role has been shifted from building repertoire to teach and test items to building students' skills in using these items (Jensen, Sandrock & Franklin, 2007).

A study conducted by Uzatosun, Skinner, & Cadorath (2017) on student engagement level during English speaking classes at university level in Turkey found out that one of the main issues in English language teaching in monolingual or no-English speaking countries is teaching the spoken form of English. The student negotiation promoted their engagement through providing speaking classes appropriate to their interests and needs.

Oral skills should be taught before writing skills. Time for oral rehearsal of the sentence is of key importance (Hiatt & Rooke, 2002). In a study by Asril, Zaim and Fauzan (2019) on hidden speaking difficulty of English foreign language learners found out that even though students pass their English speaking class with grade B, they felt a hidden difficulty in communicating in English. The areas they felt difficulty is mainly vocabulary.

In speaking tests, it is necessary to get students to actually say something to recognize that there is a difference between knowledge about a language and the skill to use it (Bygate, 2003). By this, learners of the language treat what they learnt and then processed the sounds and words to compose oral outcomes for specific purposes suiting the context in which it occurs. Such a process includes the participants or the speaking partners, the experience, the physical environment and the purposes for speaking (Baker & Westrup, 2003).

In a study conducted by Make and Yonas (2018) on teachers' perception on the use of audio-visual materials to teach English speaking skill, found out that the teachers of the grades 5,6,7 and 8 have positive perception on the use of audio-visual materials in teaching English speaking skill. Supporting this in a study by Selvarajan and Thiyagarajan (2018) on use of videos in improving English language learning skill found out that the movie watching is one of the best ways to learn English than the other ways.

Importance of Speaking skill.

Speakers can't produce effective and appropriate outcomes until they have been exposed to some specific linguistic competences such as grammar, pronunciation and vocabulary, as well as the socio-linguistic competence such as register of the expressions and the contextualizing of the language. Teachers were used to focusing on teaching grammar and vocabulary in isolation which made it difficult if not impossible for teachers and assessors to assess language use ability (MacKay, 2006). Speech is not always unpredictable as language functions or patterns that tend to recur in certain discourse situations; inviting, requesting, offering, greeting, and introducing selves. Speaking has a meaning when it enables children and young people to explore their own selves and clarify their identity. They can manage to understand and respect their own selves (Ranson, 2000). When speaking happens, learners express their views, feel confident to speak up when issues of high interest occur. They also develop a range of skills strategies and behaviours which assist them to manage the challengeable situations. Cele-Murcia (2001) stated that authenticity is very important when students ought to speak. The topics should be of great

interests to the learners with focus on meanings, values, collaboration, social development and provision of a rich context. The researcher sums up the importance of speaking as follows:

- a. Speaking is the communication tool to transform ideas (Conrad & Dunek, 2012), express feelings, explain about discoveries, research results and discussions and responding to others.
- b. Mastering Speaking skills make the speaker a well-rounded communicator who is a proficient in the four language skills. Such skilfulness provides the speaker with several distinct advantages which let them enjoy sharing idea with others and managing to understand and respect their own selves (Ranson, 2000)
- c. Mastering Speaking skills helps the speaker to gain the attention of the audience and hold it till the completion of his/her message.
- d. Speaking skills are important to achieve the career success. Speaking enhances one's personal life by giving opportunities for travel, promotion, scholarships, or to attend conferences, international meetings, represents organizations in international events.
- e. Speaking to the public gives speakers the power to influence people and shape their decisions (Griffin, 2008).
- f. Speaking is a cross-cultural communication system whose function is to regulate consensus with respect to the recognition of cross-cultural identities and the coordination of a nation's political,

economic, and social functions with other nations (Cushman & Cahn, 1985).

- g. Speakers of a foreign language develop a range of skills, strategies and behaviours which assist them to manage the challengeable situations.
- h. Speaking opportunities facilitate a stronger sense of membership, respect and self-worth, learning management, agency and personalizing learning (Fielding and Ruddock, 2004).

Studies Related with English Language Anxiety

Anxiety is a state of apprehension, a illogical fear that does not directly addressed (Hilgard, Atkinson, & Atkinson, 1971). According to Oxford (1999), students may experience feeling of anxiety in foreign/second language classrooms while speaking. There are mainly two types of anxiety, state anxiety, which may diminish over time and trait anxiety which needs therapy. According to MacIntyre (1999), there is another type of anxiety called situation specific anxiety, which usually occurs only in a particular situation, especially in English language. According to Horwitz, Horwitz and Cope (1986) language anxiety as distinct from general anxiety and identified three components of foreign/second language anxiety:

- a. Communication apprehension
- b. Fear of negative evaluation
- c. Test anxiety; or apprehension over academic evaluation

They developed their Foreign Language Classroom Anxiety Scale (FLCAS) based on these three components. However, for test anxiety, they just considered foreign language test anxiety. MacIntyre and Gardner (1989) and Aida (1994) analysed Horwitz et al.'s (1986) FLCAS by factor analysis. Both of these studies supported their idea that language anxiety has the first two above-mentioned components. However, they did not support Horwitz et al.'s (1986) claim that test anxiety is the third component of foreign language anxiety.

In a study by Pathan (2018) on foreign language learning anxiety among students learning English, found out that they have fairly high anxiety in learning English irrespective of gender the level of anxiety remains the same. Listening and speaking needs to be focused sharply than their counter parts. The students feel stress when they are looking into the results only (MacIntyre & Gardner, 1991; Young, 1992). Mikami, Leung and Yoshikawa (2018) states that the threshold of anxiety in low-stakes testing for foreign language reading, found out that the anxiety induced biased occurs when the test of reading seems objectively challenging to the students. In low-stakes test situation, anxiety increases when the test comprehension was difficult.

According to Lee (1999) second language reading and foreign language acquisition has a correlation with pedagogical and cognitive perspectives. According to Leki (1999) the reading is the least anxiety provoking. According to (Campbell, 1999) Listening is also an anxiety creating one.

The term English language anxiety was coined by Horwitz, Horwitz, and Cope (1986). According to Gardner & MacIntyre (Gardner & MacIntyre, 1993), English language anxiety is fear/apprehension happens to learner when is to perform in the second/foreign language". According to Oxford (1999), language anxiety is the major influencing factor in language learning, irrespective of the setting, whether it is formal (in the classroom) or informal (outside the language learning classroom).

Supporting this, a study checked the relation between anxiety with prior learning, self-efficacy and science vocabulary learning (Ardasheva, Carbonneau, Roo, & Wang, 2018). It is found out that:

- a) Science vocabulary learning is a positive contributor.
- b) Prior knowledge has negative association between anxiety and self-efficacy.
- c) Prior knowledge has negative association between anxiety and learning.
- d) There is a need to build a academic and science vocabulary.
- e) Anxiety can be reduced by focusing on science vocabulary instruction.

Liu & Huang, in their study found out that Anxiety and Motivation are two highly correlative important affective variables in second/foreign language acquisition (Liu & Huang (2010). The major findings of the study are:

- a) The respondent of the survey who generally weren't anxious were motivated moderately to learn English.
- b) The correlation between English language anxiety and English learning motivation are negatively correlated.

- c) Both the correlation between performance in English and English learning motivation are negatively correlated

The main factors affecting the foreign language anxiety according to Liu & Huang (2010) are:

- a) Foreign language classroom anxiety
- b) Intrinsic Motivation
- c) Instrumental motivation
- d) Fear of being negatively evaluated
- e) Interest in Foreign languages and culture

Some of the researchers support language anxiety by considering it as positive and contribute to language learning (Scoval, 1978), and for Young (1992) in the study, based on interview, found out that one of the respondents expressed his/her views as the language anxiety is helpful as it acts positively all the time, unless we notice any imbalances and a certain amount of anxiety is useful in language learning, but most of the researches in the language learning shows that there is a negative correlation between language anxiety and performance (Oxford, 1999).

In a longitudinal study conducted by Shirvan & Tahereh (2018), on Foreign language enjoyment and foreign language classroom anxiety, the trend and growth of language learning in university students, analysed data collected by triangulation from 367 undergraduate students. the findings revealed that foreign language classroom anxiety. The Foreign language enjoyment and foreign language classroom anxiety showed negative correlation.

Studies related with Learner Satisfaction

Astin (1993) defines Learner satisfaction as how the students perceive their learning experience in any institution. The Input-Environment-Output was the model developed by him. This model was used to control the input differences to check how the environmental variable is effected in the outcomes. By Environment he meant the actual student experiences during the teaching–learning process. This model helped to assess the student satisfaction level during and after the educational program. The factors affecting their level of satisfaction are mainly the instructor, the interconnectivity and interactivity along with the technology.

Student satisfaction is further defined as the position where their expectations are met or exceeded. The evaluation of student satisfaction is very relevant as it shows the functionality of the course to the administrators and for the students to know if they enjoy their learning experience in a particular setting (Abbas, 2018).

Edginton and Holbrook (2010) had an opposing view that students in blended learning programs are increasingly concerned about their time management skills and personal organisation skills towards the end of the program rather than being concerned about the interaction with the instructor and the online content in the beginning. Holley and Oliver (2010) support this and state that students had problems working in team projects and in developing a sense of community or class room. They also assert that there are five factors which affect student satisfaction namely classroom climate, learning needs, learner efficacy, interaction and appropriate format for the

content. They further states that traditional students were more satisfied than the blended learning students.

In a study conducted by Tratnik and Jareb (2019) in student satisfaction with an online and face-to-face business English course, found out that the students who learned through face-to-face course had better levels of satisfaction than those who take up the online course only. Supporting this, in a study by Qutob (2018) on the relationship between EFL learners' satisfaction within the classroom environment and their speaking skills, foundout that the satisfaction level of the learners are highly associated with their learning materials , language teacher and the aquired speaking skills. There was a high positive correlation found out in between the students' aquired speaking skills with materials and with teacher.

But in a study conducted by Nie and Hu (2018) in China on the student satisfaction level with the college English course based on the MOOC foundout that the students are very much satisfied with the MOOC , especially its course dimensions. The dimensions consisted of teacher, course, interaction and learner. The least satisfied dimension was the learner dimension.

According to a survey conducted by So & Brush (So & Brush, 2008), on student satisfaction on 48 samples who took a blended course in Health education on a collaborative group project, indicated that the collaborative work helps the students to have better satisfaction level, which means the students who collaborated well with other students in blended learning model,

had a positive impact on the social presence as well as the student satisfaction level.

In another study, student satisfaction level is determined by mainly three types of interactions, namely, learner-content, learner-learner and learner-instructor. (Moore & Kearsle, 1996). The factors involved in interaction is defined by Thurmond (2003) as the learners engagements are following:

- a) Course content
- b) Other learners
- c) The instructor
- d) The technological medium used in the course.

This view is supported by Askar, Altun, and Ilgaz (2008) and categorised the factors affecting Student satisfaction into six groups, namely:

- a) Learner –learner interaction
- b) Learner-teacher interaction
- c) Online environment
- d) Technical support
- e) Printed materials
- f) Face-toface environment

In a study conducted by (Lim, Morris & Kupritz, 2007) in between online and blended learning instructional programs, it is found out that, even though there was no significant difference in the learning outcomes between the both instructional strategies, the learners faced many more challenges and

obstacles in the online method than the Blended learning approach and thus the learner factors were significantly different, such as the student satisfaction. The study put forward some recommendations for improving students' level of satisfactions and sense of presence and belongingness while learning such as:

- a) Providing immediate feedback on learners' questions and timely technical support
- b) Asking short questions checking the understanding of major learning content at frequent intervals during instruction
- c) Sending learners' learning progress report on a regular base to promote learners' motivation for learning achievement
- d) Using humour so the learners feel emotionally refreshed and engaged

These are usually involved in Blended learning approach to improve the level of satisfaction in the students.

According to another study by Chen & Yao (2016), conducted on the 20 year olds, the dimentions positively associated with the learner satisfaction are catogarised into six, namely:

- a) Learner
- b) Instructor
- c) Course
- d) Technology
- e) Design
- f) Environment

The findings of the study included that the design dimension was the priority for the younger generations for their learner satisfaction towards the Blended learning environment.

The study conducted on the evaluation of student satisfaction (Thurmond, Wambach, Connors & Frey, 2002) the researchers used Input-Environment-Outcome model, in which, it is found that the student satisfaction is mainly influenced by the online environment, not due to student characteristics.

Conclusion

The theoretical overview helped the investigator the conceptual framework of the variables. It helped to focus on the main areas need to be considered for this particular study. It indeed made it easier for the investigator to define methodology for further proceedings.

Analysis of the reviews show that many studies had taken place on the efficacy of Blended learning approach on English classes about the independent effect of the strategy were found and it included many positive and negative reviews. Based on the literature review, it can be summarised that various instructional strategies were used to make the learners competent in English language, especially in Listening skill and speaking skill in the target language. Very few studies conducted on English language anxiety and Learner satisfaction in English language. No single study was conducted to identify the combined effect of the all these together.

Therefore, the investigator felt the need for conducting a study on the effectiveness of Blended learning approach on listening skill, Speaking skill English language anxiety and Learner satisfaction on secondary school students. The studies are arranged by giving proper weightage to the content of the study. The investigator addressed the above mentioned factors while designing and implementing the Blended learning program.

Methodology

- *Variables in Experiment*
- *Objectives of the Study*
- *Hypotheses of the Study*
- *Design of the Study*
- *Tools Used for the Study*
- *Statistical Techniques Used*

METHODOLOGY

The present study is aimed at comparing the effectiveness of two methods of instruction on the enhancement of student's listening and speaking skills in English.

Preliminary Survey

The preliminary survey is conducted to find out the perception of Secondary school English teachers towards the prevailing strategies, constraints and suggestions for improving Teaching English at secondary level.

Experiment

The current study is conducted to find out the effectiveness of Blended Learning Approach on improving listening and Speaking skills in English and reducing English language Anxiety of Secondary school students.

Variables in Experiment

The Independent variable, dependent variables and control variables are incorporated to conduct the experiment.

Independent Variable

The independent variable selected for the study is the Instructional strategies with two levels, which are Blended Learning Approach and the Current instructional practices.

- Blended Learning Approach is the Instructional strategy that blends online and face-to-face delivery at secondary level.

- Current instructional practices refer to the method of teaching adopted by secondary school for transacting the curriculum implemented by Government of Kerala from the year 2015-2016 onwards.

Dependent Variable

The four main dependent variables are Listening skill in English, Speaking skill in English, English language anxiety and Learner Satisfaction.

- The variable Listening skill includes Task Achievement, Coherence and Cohesion, Lexical resources, and Grammatical range and accuracy.
- The variable Speaking skill includes sub skills like Fluency and Coherence, Lexical resources, Grammatical range and accuracy, and Pronunciation.
- The variable English Language Anxiety consists of Communication Apprehension, Fear of negative evaluation, Test Anxiety and General feeling of Anxiety towards a foreign language.
- The variable Learner Satisfaction comprises of the dimensions Instructor, Technology, Class management, Interaction and Instruction.

Control Variable

The control variables selected for the study are Pre-achievement in English, Non-verbal intelligence, Socio Economic Status and Classroom environment. Pre-achievement refers to the previous knowledge of the students in English language. ANCOVA is used to control these factors statistically. Both the experimental and control groups were instructed by the investigator, so the teacher factor remains constant.

Classificatory Variable

Gender is considered as gender variable in this study.

Objectives of the Study

The objectives of the study are as follows

1. To identify the prevailing strategies in teaching English, constraints and the measures to overcome the constraints in implementing the strategies in teaching English in secondary level.
2. To develop an Instructional strategy based on Blended learning Approach to enhance Listening skill in English, Speaking skill in English, Learner satisfaction and to reduce English language anxiety for the students at secondary level.
3. To find out the effectiveness of the Blended learning Approach over Current instructional practices of teaching to enhance Listening skill in English, Speaking skill in English, Learner satisfaction and to reduce English language anxiety for the students at secondary level for Total sample and Subsample based on gender.

Hypotheses of the Study

In the present study, the following hypotheses are formulated.

1. There is no significant difference in the pre-test mean scores of Listening skill in English of the Experimental and Control groups for
 - a) Total sample
 - b) Subsample Boys
 - c) Subsample girls

2. There is no significant difference in the pre-test mean scores of Speaking skill in English of the Experimental and Control groups for
 - a) Total sample
 - b) Subsample Boys
 - c) Subsample girls
3. There is no significant difference in the pre-test mean scores of English language anxiety of the Experimental and Control groups for
 - a) Total sample
 - b) Subsample Boys
 - c) Subsample girls
4. There is no significant difference in the pre-test mean scores of Learner satisfaction of the Experimental and Control groups for
 - a) Total sample
 - b) Subsample Boys
 - c) Subsample girls
5. There is significant difference in the mean pre-test and post-test scores of Listening skill in English of the Experimental group for
 - a) Total sample
 - b) Subsample Boys
 - c) Subsample girls
6. There is significant difference in the mean pre-test and post-test scores of Speaking skill in English of the Experimental group for
 - a) Total sample
 - b) Subsample Boys
 - c) Subsample girls

7. There is significant difference in the mean pre-test and post-test scores of English language anxiety of the Experimental group for
 - a) Total sample
 - b) Subsample Boys
 - c) Subsample girls
8. There is significant difference in the mean pre-test and post-test scores of Learner satisfaction of the Experimental group for
 - a) Total sample
 - b) Subsample Boys
 - c) Subsample girls
9. There is significant difference in the mean Post-test scores of Listening skill in English between the Experimental and control groups for
 - a) Total sample
 - b) Subsample Boys
 - c) Subsample Girls
10. There is significant difference in the mean Post-test scores of Speaking skill in English between the Experimental and control groups for
 - a) Total sample
 - b) Subsample Boys
 - c) Subsample Girls
11. There is significant difference in the mean Post-test scores of English language anxiety between the Experimental and control groups for
 - a) Total sample
 - b) Subsample Boys
 - c) Subsample Girls

12. There is significant difference in the mean Post-test scores of Learner satisfaction between the Experimental and control groups for
 - a) Total sample
 - b) Subsample Boys
 - c) Subsample Girls
13. There is significant difference in the mean gain scores of Listening skill in English between the Experimental and control groups for
 - a) Total sample
 - b) Subsample Boys
 - c) Subsample girls
14. There is significant difference in the mean gain scores of Speaking skill in English between the Experimental and control groups for
 - a) Total sample
 - b) Subsample Boys
 - c) Subsample girls
15. There is significant difference in the mean change scores of English language anxiety between the Experimental and control groups for
 - a) Total sample
 - b) Subsample Boys
 - c) Subsample girls
16. There is significant difference in the mean gain scores of Learner satisfaction between the Experimental and control groups for
 - a) Total sample
 - b) Subsample Boys
 - c) Subsample girls

17. There is significant difference in the adjusted mean scores of Listening skill in English between the Experimental and control groups by considering Pre-test Listening, Pre-test Speaking, Non-Verbal Intelligence, Classroom Environment and Socio-Economic Status as covariates for
 - a) Total sample
 - b) Subsample Boys
 - c) Subsample girls

18. There is significant difference in the adjusted mean scores of Speaking skill in English between the Experimental and control groups by considering Pre-test Listening, Pre-test Speaking, Non-Verbal Intelligence, Classroom Environment and Socio-Economic Status as covariates for
 - a) Total sample
 - b) Subsample Boys
 - c) Subsample girls

19. There is significant difference in the adjusted mean scores of English language anxiety between the Experimental and control groups by considering Pre-test Listening, Pre-test Speaking, Non-Verbal Intelligence, Classroom Environment and Socio-Economic Status as covariates for
 - a) Total sample
 - b) Subsample Boys
 - c) Subsample girls

20. There is significant difference in the adjusted mean scores of Learner satisfaction between the Experimental and control groups by considering Pre-test Listening, Pre-test Speaking, Non-Verbal Intelligence, Classroom Environment and Socio-Economic Status as covariates for

- a) Total sample
- b) Subsample Boys
- c) Subsample girls

Preliminary Survey

The objective of the preliminary survey is to find out the perception of Secondary school English teachers towards the prevailing strategies, constraints and suggestions for improving Teaching English at secondary level.

Design of the Preliminary Survey

In this phase, the investigator collected data using the survey method for identifying the perception of Secondary school English teachers towards the prevailing strategies, constraints and suggestions for improving Teaching English at secondary level. The data were collected from 50 English language teachers among 12 schools from secondary section in Malappuram district.

Sample Selected for the Preliminary Survey

The sample consists of 50 Secondary School English language teachers. The study adopted purposive sampling technique. Samples were collected from twelve schools from Malappuram district.

Tools used for the Preliminary Survey

The tool used for this phase of study was “A questionnaire on Teachers’ perception towards prevailing strategies and constraints in Teaching English” (Aruna & Anju, 2014), which is developed by the investigator with the help

of the supervising teacher. The dimensions for the selection of questions are the prevailing strategies, constraints in teaching English as a second language, teachers' suggestive measures for improving the quality of Teaching English. A copy of the questionnaire is attached as Appendix I.

The statistical technique used for the preliminary survey was percentage analysis.

Design of the Experiment

As the research work is basically experimental in nature, data were collected using Pre-test- Post-test Equivalent group design. Two groups were equated by the Pre-tests of Listening skill and Speaking skill, Non-verbal Intelligence Test, Classroom environment Inventory and Socio Economic Status Scale. Two classes were selected from a School. One class was selected as experimental group and another was selected as control group. Pre-tests for Listening and Speaking skills were administered for both experimental group and control group. Based on the t test values both the groups were equated. Chapters in the English textbook was taught using Blended Learning Approach to the experimental group and the same chapters were taught through conventional method of teaching to the control group. Then the post- tests were administered to both experimental and control group. Then appropriate statistical tools were employed to find out the effectiveness of Blended learning approach.

The layout of the design is as follows:

$R_1 \quad O_1 \quad X \quad O_2$

$R_2 \quad O_3 \quad C \quad O_4$

O_1	and	O_3	Pre-test	$O_2 - O_1$	} Gain score
O_2	and	O_4	Post-test	$O_4 - O_3$	

R₁ – Experimental group

R₂ - Control group

X - Exposure of a group to an experiment treatment

C – Exposure of a group to the treatment

(Best & Kahn, 2006)

Sample Selected for the Experiment

The design employed was pre-test- post-test equivalent group design. Initially the pre-test was conducted for both the control and experimental groups on Listening skill, Speaking skill, English Language Anxiety and Learner Satisfaction. *t*-test values were taken as the basis for equating both the groups.

Secondary school students of Kerala state was considered as the population for the subject study. Since it is an experimental study, the sample selected was small in order to avoid difficulty in conducting experiment. Two intact classes of standard VIII were selected from the same school. Investigator selected 45 students each of standard VIII from two intact classes and then randomly assigned one group of 45 students as control group (20 boys and 25 girls) and other group of 45 students as experimental group (24 boys and 21 girls).The final sample for the experiment consisted of 90 students.

Details of the sample selected for the treatment is given below in the table and figure:

Table 2

Details of Sample Selected for Experiment

Group	Name of School	Boys	Girls	Total
Experimental Group	DBHSS, Tanur	24	21	45
Control Group	DBHSS, Tanur	20	25	45
Grand Total		44	46	90

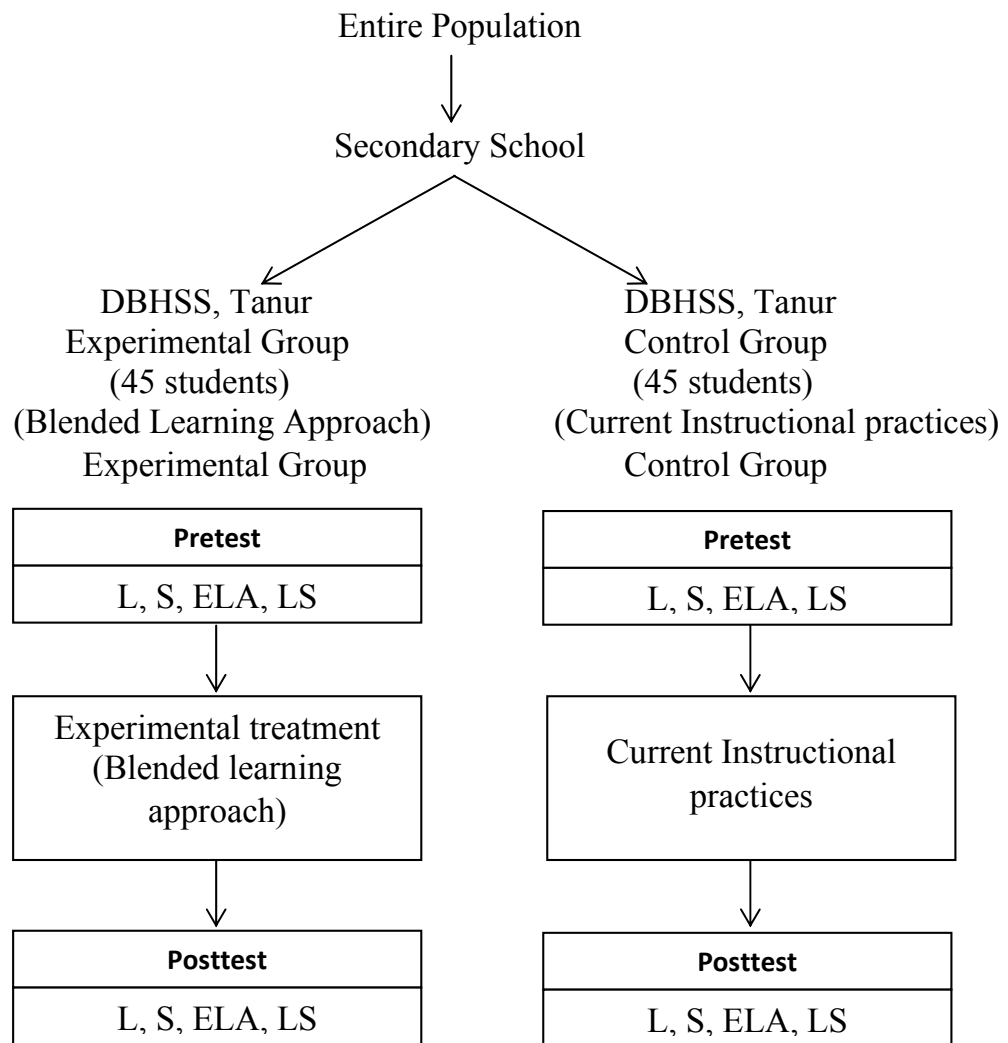


Figure 1. Diagrammatic representation of sampling procedure

Tools used in the Study

A researcher requires different types of tools to gather data or information to test the hypotheses. Each and every tool may not be the same, as the purpose and type of data or information which it is intended to gather are different. The researcher had to find out the most appropriate ones from the already existing tools, or the need may arise to modify or even construct a new one to satisfy the purpose. For this, the researcher should familiarize with the tools, its nature and type of the existing ones or even to construct and use a more appropriate one.

The following are the tools used to gather data in this study.

- a. Lesson Transcripts based on Blended Learning Approach (Aruna & Anju, 2016).
- b. Lesson Transcripts for Current Instructional Practices (Aruna & Anju, 2016).
- c. Test for Listening Skill in English (Aruna & Anju, 2016).
- d. Test for Speaking Skill in English (Aruna & Anju, 2016).
- e. Scale of English Language Anxiety (Aruna & Anju, 2016).
- f. Scale of Learner Satisfaction (Aruna & Anju, 2016).
- g. Standard Progressive Matrices Test (Raven, 1958).
- h. Classroom Environment Inventory (Aruna & sureshan, 1998).
- i. General data sheet (Aruna & Anju, 2016).

Tools used for the study and their purposes are briefed in Table 3.

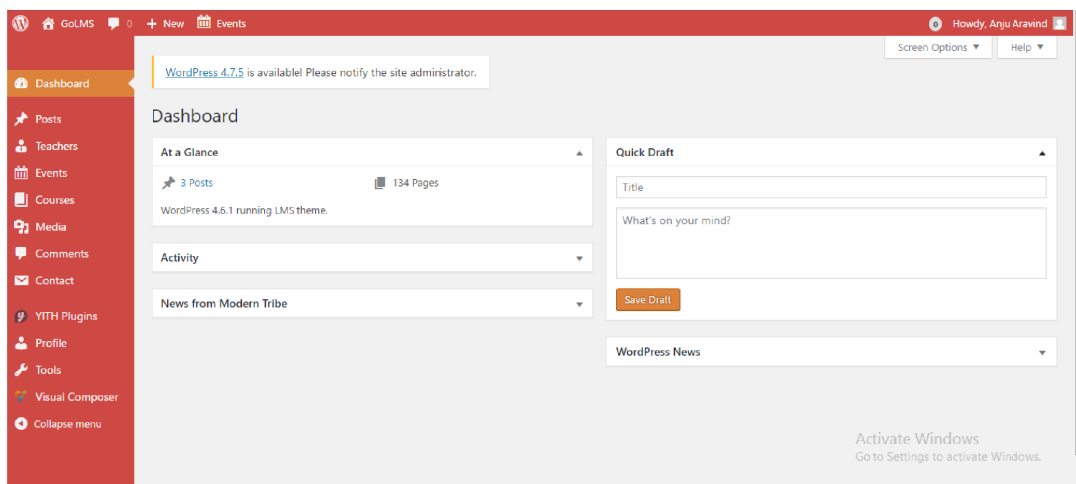
Table 3

Details of Tools used for the Study

Sl No.	Name of the Tools	Author	Variable Measured
1	Lesson transcripts based on blended learning approach.	(Aruna & Anju, 2016)	Blended Learning Approach
2	Lesson transcripts for Current instructional practices	(Aruna & Anju, 2016)	Current instructional practices
3	Test for Listening Skill in English	(Aruna & Anju, 2016)	Listening skill in English
4	Test for Speaking Skill in English	(Aruna & Anju, 2016)	Speaking skill in English
5	Scale of English language anxiety	(Aruna & Anju, 2016)	English language Anxiety
6	Scale of Learner Satisfaction	(Aruna & Anju, 2016)	Learner Satisfaction
7	Standard Progressive Matrices Test	(Raven, 1958)	Non-Verbal Intelligence
8	Classroom Environment Inventory	(Aruna & Sureshan, 1998)	Classroom Environment
9	General Data Sheet	(Aruna & Anju, 2016)	Socio Economic Status

Lesson Transcripts based on Blended Learning Approach (Aruna & Anju, 2016)

The investigator consulted many subject experts and selected different discourses related to the area of 8th Standard English text book to introduce and to improve Listening skill, Speaking skill and Learner Satisfaction and to reduce English language anxiety, with the help of supervising teacher. The investigator issued and prepared a Learning Management System (LMS) to implement Blended Learning Program for the students of standard VIII. This LMS helped the researcher in improving the efficiency in delivering the content to the students, allowing the students to learn in their own pace and participate actively. This helped the investigator in managing the time, class and organise the contents well. Screen shots of the LMS prepared by the investigator are given below.



The features of the above LMS encompassed the following:

The separate Registration and login facilities for the teacher and each student.

For a student to register to this LMS package, he/she needed to have an internet facility to access this LMS, as it is web based. The pre requisite for the same is only a valid e-mail id. The student needed to enter Name, Password, e-mail id and select/specify his/her role to get a Login id and Password.

Create/Select/Access Courses.

The students were allowed to select and access the available courses prepared by the teacher beforehand. The courses were subdivided into several lessons and each lesson was further subdivided into many chapters. A sample screenshot of the same is given below.

Conducting online Speaking and Listening tests.

The investigator created many online class tests for assessing and giving practise to the students. These tests were incorporated in the LMS for each student to participate and be assessed properly. By practicing using these tests, gave more confidence and reduced anxiety in students. These practice questions were inclusive of the questions from the text books and the tailor made questions by the investigator, in addition to certain questions taken from authentic internet sites in order to improve the language skills in the students. A test was added at the end of each lesson for formative evaluation. A sample screenshot of the same is given below.

Title	Author	Date	Ratings
Listening Test — Draft	Anju Aravind	Last Modified 2016/10/01	★★★★★ (0 votes, average: 0.00 out of 5)
Listening Test — Draft	Anju Aravind	Last Modified 2016/10/18	★★★★★ (0 votes, average: 0.00 out of 5)
Listening Test — Draft	Anju Aravind	Last Modified 2016/10/18	★★★★★ (0 votes, average: 0.00 out of 5)
Speaking Test	Anju Aravind	Published 2016/10/01	★★★★★ (0 votes, average: 0.00 out of 5)
Speaking Test	admin	Published 2016/09/24	★★★★★ (0 votes, average: 0.00 out of 5)

The investigator prepared 31 lesson plans based on Gilly Salmon's Five –stage model for designing the blended learning program. Forty minutes was the expected duration of each lesson transcript. The concept of the steps in lesson transcript is adopted from The Five Stage Model developed by Professor Gilly Salmon. The various steps included in the lesson transcript are described as below.

Access and Motivation.

In this stage, the investigator welcomed the students to the world of blended learning and ensured that the students have adequate know-how about how to access the computer and internet.

Online Socialization.

In this stage, the basic netiquettes were introduced to the group. The basic way of sending and receiving messages within the group was taught at this stage. Familiarised and connected between social, cultural and learning environments.

Information Exchange.

This stage incorporated highly structured activities. The students were encouraged for their active participation using the learning materials. The researcher helped the students in this stage.

Knowledge Construction.

This stage provided more open activities in order to facilitate the learning process. In this stage, the students were encouraged to pose more and more questions for the group to consider.

Development.

In this stage, the group members were encouraged to lead discussions and to impart peer knowledge. The students were alone during this stage and no help was offered unless it was asked upon. The investigator provided the links related the topic but not included in the discussion.

A copy of the Blended Learning Lesson transcript is attached as Appendix II.

Lesson transcripts for Current Instructional Practices (Aruna & Anju, 2016)

The investigator consulted many subject experts and selected different discourses related to the area of 8th standard English text book to introduce to improve listening and Speaking skills and Learner satisfaction and to reduce English language anxiety, with the help of supervising teacher. The investigator prepared 31 lesson plans based on the Current instructional practices of teaching model. 40 minutes was the expected duration of each lesson transcript. The various steps included in the lesson transcript are described as below.

Curricular objectives.

It was the basic objectives which have to be attained by the students by teaching that particular lesson.

Pre-requisites.

It included examining the basic knowledge of the learner which was relevant for teaching the new topic.

Learning aids.

It includes all the teaching aids which are locally available and can be utilized by the teacher in teaching the content.

Development.

It included the presentation of the story by the investigator, silent reading by the students, and presentation of appropriate activities followed by oral presentation and evaluation techniques.

Follow-up activity.

This was the activity which to be carried out by the students to ascertain the knowledge they gained.

The investigator taught the control group using the Current instructional practices. Thirty one lesson transcripts of 40 minutes duration were prepared by the investigator. A copy of the lesson transcript based on the Current instructional practices English is presented as Appendix III.

Test for Listening Skill in English (Aruna & Anju, 2016)

The investigator constructed a test to measure listening skill in English of students of 8th standard belonging to experimental and control group, with the help of the supervising teacher. This test is used both as pre-test and post-test by the investigator to collect data on Listening skill in English.

Planning of the test.

The investigator analysed the topics and revised related literature and consulted experts and collected useful information to construct an objective type test with the help of the supervising teacher. The frame of the test was fixed after consulting many experts and experienced teachers. The Text Book and Teachers' Handbook of the year 2016- 2017 was thoroughly analysed and constructed the test and utilized all the available resources.

Preparation of the test.

The investigator prepared the test questions with the help of the supervising teacher and consulting with the subject experts and experienced teachers for 8th standard students. The questions were unambiguous, simple

and easy to follow, which makes it less difficult to answer. Repetition was avoided in the test items and ensured its relevancy. Recorded voice and pictures were used in the test.

Preparation of the blueprint of the listening test of English.

To ensure conclusiveness to the accepted principles in the test construction, items were prepared in such a way that they belong to predetermined objectives, content and form of questions in desirable proportions. Only recalling type questions are asked, so the students didn't have to use their thinking process.

The weightage level of the sub skills.

To assess the listening skill, the main components or sub skills were determined by reviewing the related literature. The following are the main sub skill, namely, Coherence and cohesion, Lexical resources, Grammatical range and accuracy and Task achievement.

- a) Coherence and cohesion: It is the two basic qualities of a text, cohesion is the connectivity of the whole sentence and the coherence is the general understanding of the sentence.
- b) Lexical resources: It is the ability to understand the words used in the question and answers.
- c) Grammatical range and accuracy: It is the ability to understand and respond correctly to the various types of grammar presented to the students through the question and answer options.
- d) Task achievement: It is the ability to cover the requirements of the task presented through the question.

The weightage given to different subskills are shown below in Table 4.

Table 4

Weightage given to Subskills

Sl. No	Sub skill	No. of Questions	Percentage of marks	Mark
1	Coherence and Cohesion	10	25%	10
2	Lexical resource	9	22.5%	9
3	Grammatical range and accuracy	8	20%	8
4	Task achievement	13	32.5%	13
	Total	40	100	40

The weightage level of the type of questions.

Proper weightage had been given to the type of questions after consulting with the supervising teacher, subject experts and experienced teachers. Phoneme Discrimination, Dialogue, Extended Communication. Limited Response, Visual Test were the five types of questions used in the test. Phoneme discrimination is the ability to differentiate the difference between the speech sounds whereas Dialogue here defines is the way to measure the understanding of the students from the individual dialogues from the question. Extended communication is the clear understanding of the situation which is expressed through the question and its related premises. Limited response is the understanding of the question or the statement given and the choices would be limited. Visual test is the choices given to the students to select the correct picture from the given possible answers.

The weightage given to the type of questions is described below in Table 5.

Table 5
Weightage Given to the Type of Questions

Sl. No	Type of questions	Percentage of Marks	Mark
1	Phoneme Discrimination	27.5%	11
2	Dialogue	22.5%	9
3	Extended Communication	20%	8
4	Limited Response	20%	8
5	Visual Test	10%	4
	Total	100	40

The weightage level of the form of questions.

The investigator selected objective form of questions to increase validity and reliability. The questions are in the objective form. The weightage given to the form of questions are given below in Table 6:

Pilot testing.

The pilot test was administered to check the items and the time duration. The draft test was tried out to the sample of 30 students of DBHSS, Tanur. The listening pieces and response sheets were given to the students. The pilot test helped in arranging the questions and checking the reliability and validity of the test items and avoiding any ambiguity.

Item analysis.

The draft test of Listening skill was employed on 30 students. The items in the draft were 46. Each question carried one mark. Total score of the test is the sum of the scores. For item analysis procedure, the answer sheets are scored and arranged in order of the scores from high to low. The highest score was 46 and the lowest was 0. The lowest 27% and highest 27% was selected for the calculations. In this study, the formula and procedure

suggested by Ebel and Frisbie (1991) was used to calculate the difficulty and discriminating power.

The formula for Difficulty Index :

$$\text{Difficulty Index DI} = (U+L)/N$$

The formula for Discriminating Power :

$$\text{Discriminating Power DP} = (U-L)/N$$

Where,

U – The number of students who responded correctly in the upper group.

L – The number of students who responded correctly in the lower group.

N – The total number of students in each group.

In the present study,

The details of the item analysis of the draft test of Listening skill is presented below in the table 6.

Table 6

Details of the Item Analysis of Draft Test of Listening Skill

Item No.	Difficulty Index	Discriminating Power	Status
1	0.64	0.35	Accepted
2	0.63	0.38	Accepted
3	0.63	0.39	Accepted
4	0.64	0.44	Accepted
5	0.66	0.42	Accepted
6	0.68	0.35	Accepted
7	0.62	0.40	Accepted
8	0.67	0.39	Accepted
9	0.68	0.49	Accepted
10	0.46	0.48	Accepted
11	0.66	0.44	Accepted
12	0.62	0.37	Accepted

Item No.	Difficulty Index	Discriminating Power	Status
13	0.59	0.33	Accepted
14	0.63	0.46	Accepted
15	0.64	0.48	Accepted
16	0.57	0.39	Accepted
17	0.54	0.41	Accepted
18	0.65	0.42	Accepted
19	0.63	0.39	Accepted
20	0.51	0.37	Accepted
21	0.63	0.41	Accepted
22	0.64	0.38	Accepted
23	0.62	0.37	Accepted
24	0.66	0.36	Accepted
25	0.65	0.31	Accepted
26	0.62	0.42	Accepted
27	0.55	0.36	Accepted
28	0.65	0.37	Accepted
29	0.61	0.34	Accepted
30	0.67	0.41	Accepted
31	0.64	0.42	Accepted
32	0.59	0.38	Accepted
33	0.61	0.44	Accepted
34	0.64	0.39	Accepted
35	0.62	0.45	Accepted
36	0.41	0.22	Rejected
37	0.23	0.19	Rejected
38	0.11	0.9	Rejected
39	0.07	0.85	Rejected
40	0.14	0.22	Rejected
41	0.49	0.21	Rejected
42	0.64	0.34	Accepted
43	0.63	0.37	Accepted
44	0.68	0.36	Accepted
45	0.61	0.41	Accepted
46	0.62	0.42	Accepted

Selection of the items.

Items for the final test consisted of 40 items. The selection was on the basis of its difficulty index and discriminating power. The items included in the final list were having the difficulty index between 0.4 – 0.7 and discriminating power 0.3 and above.

Validity.

The content validity, which refers how well a test covers the content area to be tested, was established by distributing adequate questions to test each four sub skills of Listening. The face validity was established with the help of experts in the field of teaching and test construction and supervising teacher by subjecting the test to their criticism. According the experts all the items were relevant in covering the content area with reference to the content area to be covered and are measuring the dimensions of the test and the items are proper for the secondary school students.

Reliability.

The reliability of the test was ensured by test-retest method. The test was administered to the sample of 30 students and administered once again after three weeks. The reliability coefficient of the test was found to be .79. Thus the validity and reliability was established to the test and which made it an appropriate tool to measure listening skill of the students.

Administration and scoring procedure of the listening test of English

The students were asked to mark their answers in the response sheets they were distributed in accordance with the instructions in the sheets. The

additional instructions were given whenever necessary. The students had to complete the test within the stipulated time of 40 minutes.

There were 40 questions in the test. The test items were of objective type. Each question carried one mark each thus making the maximum mark one could obtain remained 40 and the minimum mark 0. Each correct answer yield one mark and each wrong answer yield zero marks. The total score one managed to get treated as the score in Listening skill of the student. The sum of the scores of items pertaining to the sub skills namely Coherence and cohesion, Lexical resources, Grammatical range and accuracy and Task achievement were taken as the components of the Listening skill.

A copy of the draft and final Test of Listening Skill are attached as Appendix IV and V respectively.

Test for Speaking Skill in English (Aruna & Anju, 2016)

This test is prepared to measure the Speaking skill of 8th standard students. The procedures the investigator took in each stages of the preparation of the test are described as follows. The same test was used as the Post-test also after the experiment.

Planning of the test.

The text book and teachers' handbook of the year 2016 was thoroughly analysed and constructed the test and utilized all the available resources.

Preparation of the test.

By reviewing many related literature and consulting with the experts and experienced teachers in English, the investigator with the help of the

supervising teacher, the investigator finalized the dimensions of the Speaking test. The components selected for assessing the Speaking skill are Fluency and Coherence, Lexical resources, Grammatical range and accuracy and Pronunciation.

- a) Fluency and coherence: Fluency is a combination of speed of speech, length of answer and pausing correctly wherever required. While Coherence is the ability to expand the answers, answer the questions directly, add relevant detail to explain or illustrate the answers and to connect the sentences by using tenses and connectors.
- b) Lexical resources: Lexical resources are judged by the ability to have enough vocabulary to discuss a range of topics, to use vocabulary accurately and be able to explain themselves when they do not have the right word.
- c) Grammatical range and accuracy: It is the ability to use to construct a range of grammatical structures without grammar errors and not just using simple sentences all the time.
- d) Pronunciation: It is the ability to make the meaning clear. Features of good pronunciation include basic word pronunciation, linked speech sounds, correct sentence stress, and correct use of intonation (rising and falling).

Weightage given to each Speaking sub skill is given below in Table 7.

Table 7

Design Showing the Weightage to Sub skills

Sl No.	Sub skills	Marks	Percentage
1	Fluency and Coherence	7.5	25%
2	Lexical resources	7.5	25%
3	Grammatical range and Accuracy	7.5	25%
4	Pronunciation	7.5	25%
Total		30	100%

Test conducting

To ensure the proper evaluation of all sub skills, the investigator cautiously selected the themes for the test and engaged the students in communication activities. For individual and paired evaluation, different themes were selected.

Pilot test

Pilot test to a set of 30 students of standard VIII consisting of 16 boys and 14 girls was administered to ensure the unambiguity of the test items. The time for pilot test was for 20 minutes for each student.

Try-out

The draft test was tried out by the investigator on a representative sample of 30 students. The purpose of the test was made clear to the students before administering. The test contained all the required information and the additional information required was given by the investigator.

Scoring scheme

Individual and paired presentation was conducted for each student. Investigator paired the students and conducted the introduction part and asked

them to select one from the given 3 topics and present it before the other students for each student and given another two topics to choose one among them and asked the students to interact one another next. Each section carried 10 marks each which combined a total of 30 marks, which was equally distributed among the sub skills. The investigator ensured the active participation from each student. The introduction test item included at least 5 exchanges from each student. The investigator given fixed and adequate time frame for each student.

The test was evaluated based on the respective sub skill. They are given below.

Table 8
The Speaking Test Evaluation Criteria

Sl. No	Subskill	Criteria
1	Fluency and coherence	<ul style="list-style-type: none"> a) Adequate speed b) Fluency c) Expression d) Gestures e) Connections between sentences
2	Lexical resources	<ul style="list-style-type: none"> a) Flexible vocabulary b) Paraphrases c) Use of idioms and phrasal verbs d) Wide variety of vocabulary e) Active vocabulary
3	Grammatical range and accuracy	<ul style="list-style-type: none"> a) Sentences structure b) Accuracy in sentence usage c) Connecting words d) Simple sentences
4	Pronunciation	<ul style="list-style-type: none"> a) Intonation b) Voice modulation c) Clarity d) Audibility e) Manner of speaking

The marks of individual and paired presentation were summed up was calculated and its average was taken as the test mark.

Validity.

The test was prepared as per the pedagogical objectives in the standard VIII text book and teachers' handbook. Each Speaking sub skill was given adequate representation in the test. Thus the investigator ensured the content validity. Face validity was also ensured by subjecting it to the criticism of various experts in the field and the supervising teacher.

Reliability.

The reliability was established by inter-rater reliability of the of the test item was rated by two experts in the field, that means two experienced English language teachers in secondary school. For the present test of Speaking skill, the reliability was found to be 0.75, which shows that the test of Speaking skill is a reliable one.

The draft and final test of Speaking skill is given in the Appendix VI and VII.

Scale of English Language Anxiety (Aruna & Anju, 2016)

To analyse the English language anxiety of secondary school students of 8th standard, the investigator prepared the English language anxiety scale with the help of the supervising guide and the various subject experts.

Preparation of items.

The English language anxiety scale is a 5 point Likert scale; it has forty items in total. The statements used in the scale is intended to measure

the dimensions, namely, Communication apprehension, Fear of negative evaluation, Test taking anxiety and General feeling of anxiety towards a foreign language. Communication apprehension is the individual level of fear or anxiety associated with either real or anticipated communication with another person or persons, as defined by McCroskey (McCroskey, 1977). Fear of negative evaluation is first defined by Watson and Friend as apprehension about other's evaluations, distress over their negative evaluations, and the expectation that others would evaluate one negatively (Watson & Friend, 1969). Test taking anxiety happens before or during the test, in which students experience high level of stress anxiety and discomfort. General feeling of anxiety towards a foreign language is the stress or nervousness on feel while talking in the second or foreign language. Communication apprehension is the feelings of apprehension related to other sensation of apprehension akin but not intrinsically related to communication or fear of negative evaluation.

The table showing the components and number of statements is given below in the table 9.

Table 9
Components and Number of Statements

Sl No	Component	Total number of items	Percentage
1	Communication apprehension	10	25%
2	Fear of negative evaluation	10	25%
3	Test taking anxiety	10	25%
4	General feeling of anxiety towards a foreign language	10	25%
Total		40	100%

Scoring.

The English language anxiety scale was a 5 point Lickert scale. In this scale, the investigator used both positive and negative statements. For positive statement scores 5,4,3,2 and 1 the marking had given Strongly Agree (SA), Agree (A), Undecided (U), Disagree (DA) and Strongly Disagree (SDA). For negative statements, reverse scoring procedure was adopted.

Item analysis.

The draft scale of English language anxiety was administered on a representative sample of 30 students of class 8. Total score of the test is the sum of the scores. For item analysis procedure, the answer sheets are scored and arranged in order of the scores from high to low. The lowest 27% and highest 27% was selected for the calculations. The t values were calculated for each item. The items with a t value above 2.58 were selected for the final test.

The details of the item analysis of draft scale of English language anxiety are presented below.

Table 10

Details of the Item Analysis of Draft Scale of English Language Anxiety

Item No.	t value	Status
1	8.43	Accepted
2	9.33	Accepted
3	7.51	Accepted
4	8.69	Accepted
5	9.63	Accepted
6	7.37	Accepted
7	8.52	Accepted
8	7.85	Accepted
9	5.37	Accepted

Item No.	t value	Status
10	7.58	Accepted
11	8.41	Accepted
12	9.17	Accepted
13	5.38	Accepted
14	7.00	Accepted
15	4.69	Accepted
16	5.78	Accepted
17	8.44	Accepted
18	10.01	Accepted
19	9.42	Accepted
20	8.12	Accepted
21	5.12	Accepted
22	10.02	Accepted
23	8.34	Accepted
24	7.94	Accepted
25	8.99	Accepted
26	8.12	Accepted
27	2.03	Rejected
28	8.77	Accepted
29	9.18	Accepted
30	1.25	Rejected
31	1.28	Rejected
32	9.17	Accepted
33	7.98	Accepted
34	2.11	Rejected
35	6.94	Accepted
36	7.23	Accepted
37	8.38	Accepted
38	7.39	Accepted
39	8.04	Accepted
40	8.22	Accepted
41	5.69	Accepted
42	7.04	Accepted
43	8.05	Accepted
44	8.53	Accepted
45	1.92	Rejected

Five items were deleted from the draft scale after item analysis. The final form of scale of English language anxiety consisted of 40 items.

Reliability and validity.

Test retest method was adopted to ensure reliability of the scale. The reliability coefficient so obtained was .8371 for a sample of 30, thus making it highly reliable.

To ensure validity, while tool construction, equal weightage was given to all the dimensions. Thus content validity was ensured for validating the scale. The face validity was also ensured by seeking help from the Supervising guide and the experts in the area.

The draft and final Scale of English language anxiety are given as Appendices VIII and IX respectively.

Scale of Learner Satisfaction (Aruna & Anju, 2016)

To analyse the Learner satisfaction of secondary school students of 8th standard, the investigator prepared the scale of Learner satisfaction with the help of the supervising guide and the various subject experts.

Preparation of test items

The scale of learner satisfaction is a 5 point Likert scale; it has 20 items in total. The items used in the scale is intended to measure the dimensions, namely, Instructor, Instruction, Interaction, Technology and Class management. Instructor means the teacher or the facilitator who helps the learner to learn English language in the classroom. Instruction is defined as anything that is done purposely to facilitate learning (Reigeluth & Carr-Chellman, 2009). Smaldino, Lowther, Russell, and Mims (2015) define instruction as any

intentional effort to stimulate learning by the deliberate arrangement of experiences to help learners achieve a desirable change in capability. Interaction is the communication between the teacher and the students and in between the students during the class. It is defined by Jack C. Richards, John Platt and Heidi Platt, (1992) as the patterns of verbal and non-verbal communication and the types of social relationships which occur within classrooms. The study of classroom interaction may be a part of studies of classroom discourse, teacher Talk and second language acquisition. Technology is the usage of the online and offline technology the learners are exposed to inside and outside the classroom in relation with the learning content. Classroom management is taking and managing the control of the physical brick and mortars setting the learners are used to learn the course content.

The table showing the components and number of statements is given below in the Table 11.

Table 11

Components and Number of Statements

Sl No	Component	Total number of items	Percentage
1	Instructor	4	20%
2	Instruction	4	20%
3	Interaction	4	20%
4	Technology	4	20%
5	Classroom management	4	20%
Total		20	100%

Item analysis.

The draft scale of Learner satisfaction was administered on a representative sample of 30 students of class 8. Total score of the test is the sum of the scores. For item analysis procedure, the answer sheets are scored and arranged in order of the scores from high to low. The lowest 27% and highest

27% was selected for the calculations. The t values were calculated for each item. The items with a t value above 2.58 were selected for the final test.

The details of the item analysis of draft scale of Learner satisfaction are presented below.

Table 12

Details of the Item Analysis of Draft Scale of Learner Satisfaction

Item No.	t value	Status
1	8.56	Accepted
2	9.65	Accepted
3	2.01	Rejected
4	1.97	Rejected
5	8.09	Accepted
6	9.43	Accepted
7	7.54	Accepted
8	2.09	Rejected
9	10.22	Accepted
10	1.98	Rejected
11	10.23	Accepted
12	9.45	Accepted
13	8.87	Accepted
14	9.34	Accepted
15	9.16	Accepted
16	8.29	Accepted
17	7.97	Accepted
18	2.26	Rejected
19	8.73	Accepted
20	9.12	Accepted
21	12.01	Accepted
22	11.04	Accepted
23	6.19	Accepted
24	2.01	Rejected
25	5.22	Accepted
26	6.91	Accepted

Six items were deleted from the draft scale after item analysis. The final form of scale of Learner satisfaction consisted of 20 items.

Scoring.

The scale of Learner satisfaction was a 5 point Likert scale. Both positive and negative statements are used by the investigator in this scale. For positive statement scores 5,4,3,2 and 1 the marking had given Strongly Agree (SA), Agree (A), Undecided (U), Disagree (DA) and Strongly Disagree (SDA). For negative statements, reverse scoring procedure was adopted.

Reliability and validity.

To ensure reliability of the scale Test-retest method was adopted. The reliability coefficient obtained was 0.74 for a sample of 30, thus making it reliable.

To ensure validity, while tool construction, equal weightage was given to all the dimensions. Thus content validity was ensured for validating the scale. By seeking help from the Supervising guide and the experts in the area, the face validity was also ensured.

The draft and final scale of Learner satisfaction are given in the Appendix X and XI respectively.

Standard Progressive Matrices Test (Raven, 1958)

Measure the Non-verbal Intelligence for testing the homogeneity of the groups, Standard Progressive Matrices Test (Raven, 1958) was used. It was further divided into another five subtests (A, B, C, D and E) of diagrammatic puzzles with a missing part. The students were asked to find the most appropriate and logical part among the given six to eight options.

Forty minutes was the duration for the test. The maximum score one can obtain was 60 as there were 5 sets, each with 12 questions and each

correct answer carried 1 mark each. Non-verbal Intelligence score was the total score obtained by the student.

As reported by Raven, the validity estimated varied from .50 to .80 and the reliability coefficient varied from .80 to .90.

A copy of the response sheet and scoring key of Standard Progressive Matrices Test are given in Appendices XII and XIII respectively.

Classroom Environment Inventory (Aruna & Sureshan, 1998)

The investigator adopted the Classroom Environment Inventory constructed and standardized by Aruna and Sureshan in the year 1998. The dimensions were based on the Classroom Environment Instrument developed by Fruser et al. (1982). The Dimensions used in the Classroom Environment Inventory are Material environment, Task orientation, Innovation, Participation, Cohesiveness, Teacher support, Teacher control, Personalisation, Independence, Order and organisation, Friction and Competition.

Material Environment is related to the adequacy of the materials in the classroom like desk, bench, lighting, books and space. Task Orientation is the extent to which class activities are well organized which includes the organization of students, space, time and instruction. Innovation is the extent to which the teacher plans new, unusual and varying activities and techniques, and encourages students to contribute to classroom planning and think creatively. Participation is the extent to which students are encouraged to participate rather than be passive listeners. Cohesiveness is the extent to which students know helpful and friendly towards each other. Teacher Support is the extent to which teacher helps, be friends, trusts and is interested in students. Teacher Control is the number of rules, how strictly rules are enforced and how severely rule infractions are punished. Personalization is the emphasis on

opportunities for individual students to interact with the teacher for their social growth. Independence is the extent to which the decision making capability and self-learning capacity of the learners. Friction is the amount of tension and fear among students. Competition is the emphasis placed on students competing with each other for grades and recognition.

Validity of this inventory was ensured using criterion related technique. The coefficient of correlation established was .536. Reliability was estimated using test retest method. The correlation between first and second scores is found as .859.

Classroom Environment Inventory and its response sheet are given in the appendices IX and XV respectively.

General Data Sheet (Aruna & Anju, 2016)

The general data sheet which used by the researcher was constructed by Nair (1976) and modified by Aruna & Anju, 2016. The scale was made up of 4 components. First one was regarding the subjects- the name of the pupil, age gender, caste or religion, locality of the school and place of residence. The second part was to obtain details on the level of education of the parents, siblings and other family members. Third section was to get information about the type of occupation of the family members. The information about family income was collected using fourth component.

The investigator used mother's and father's income, occupation and education level to identify the socio economic score of the family.

A copy of General Data sheet is given in the Appendix XVI.

Statistical Techniques Employed for the Study

The following major statistical techniques were used to compare the experimental and control group statistically.

Percentage Analysis

The percentage analysis was used for the preliminary survey phase of the study.

Basic Descriptive Statistics

Preliminary analysis was done to find out the nature of distribution of data. For this, mean, median, mode, standard deviation, skewness and kurtosis corresponding to each variable were used for calculation.

Skewness and Kurtosis

To ensure the normality of data, skewness and kurtosis were calculated. By dividing the values of skewness and kurtosis got these indices by their respective standard errors.

Correlation Coefficient

Pearson's product moment coefficient correlation was used to check the reliability and validity.

Tests of Significance of Difference between Means

Mean difference analysis was used to compare the relevant variables between control group and experimental group. Independent t test scores were calculated to compare the mean pre-test scores, mean post-test scores and mean gain scores of Listening skill, Speaking skill and English language anxiety of the secondary school children, in between control and experimental group.

ANCOVA

The investigator controlled the initial difference between the control group and experimental group using ANCOVA, to free the post-test from the initial difference prior to treatment.

Bonferroni's Test for Post-Hoc Comparison

After ANCOVA, Bonferroni's test was used to compare the adjusted mean scores of Listening skill, Speaking skill and English language anxiety of control group and experimental group.

Effect size

Effect size is a measure which describes the magnitude of difference between the control group and experimental group. For independent sample *t* tests, Cohen's *d* and for ANCOVA, Partial eta squared for group differences were used.

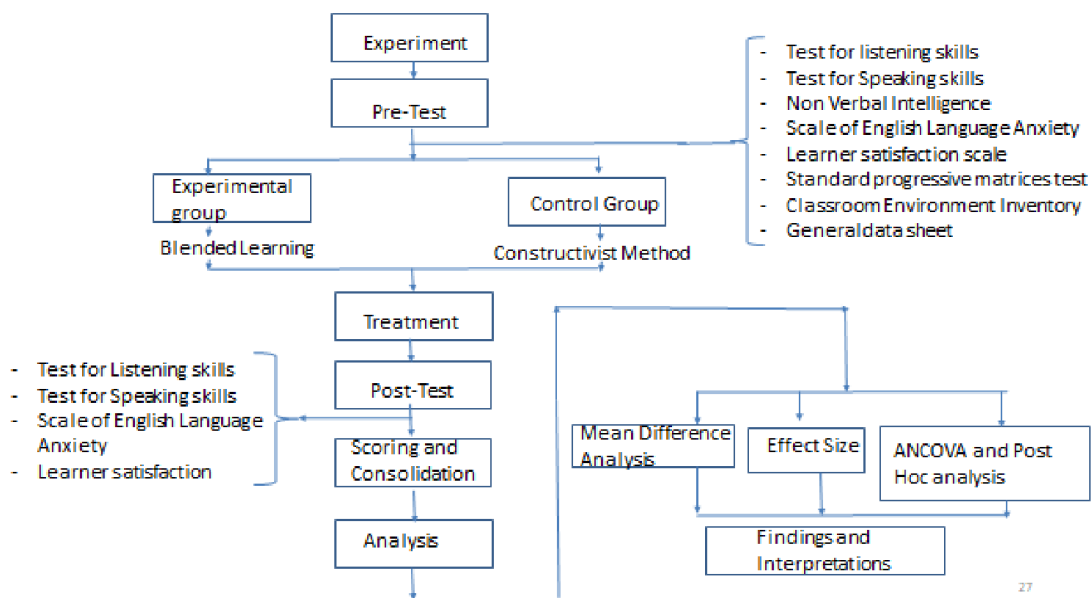


Figure 2. Flowchart showing the summary of the execution of Experiment

Analysis

- *Results of Preliminary Survey*
- *Preliminary Analysis*
- *Statistical Constants of the Variables*
- *Mean Difference Analysis*
- *One-way ANOVA*
- *Bonferroni's Post Hoc Comparison*

ANALYSIS

The present study is conducted to compare the effect of Blended learning approach with that of the current practices in teaching English in enhancing the Listening skill, Speaking skill, Learner satisfaction and in reducing the English Language Anxiety of the secondary school students. The design used in the study is Pre-test- Post-test Equivalent group design which is experimental in nature. The results of the present study is analysed in two major phases. In the first phase, a preliminary survey was conducted to identify the prevailing strategies adopted for teaching English language at secondary school level, its constraints and the suggestive measures to overcome the constraints. In the second phase, relative effectiveness of Blended learning approach over Current instructional practices, in terms of Listening skill, Speaking skill, English language anxiety and Learner satisfaction for Total sample and samples based on gender were analysed.

The collected and tabulated data were analysed using statistical techniques like Percentage analysis, Basic descriptive statistics, Mean difference analysis, One-way Analysis of Variance (ANCOVA), and Bonferroni's Post Hoc comparison. The statistical analysis was conducted based on the objectives based on the objectives set for the study using SPSS software (Statistical Package for Social Science). The entire analysis of the data completed and classified into two phases, Preliminary Survey phase and Experimental phase, and presented in the following order.

Results of the Preliminary survey

Preliminary Analysis

Statistical Constants of the Variables

Establishing the Equivalence of the Groups

Major Analysis

Mean Difference Analysis

One Way ANCOVA

Bonferroni's Post Hoc Comparison

Objectives of the Study

The objectives of the study are as follows

1. To identify the prevailing strategies in teaching English, constraints and the measures to overcome the constraints in implementing the strategies in teaching English in secondary level.
2. To develop an Instructional strategy based on Blended learning Approach to enhance Listening skill in English, Speaking skill in English, Learner satisfaction and to reduce English language anxiety for the students at secondary level.
3. To find out the effectiveness of the Blended learning Approach over Current practices of teaching to enhance Listening skill in English, Speaking skill in English, Learner satisfaction and to reduce English language anxiety for the students at secondary level for Total sample and Subsample based on gender.

Hypotheses of the Study

In the present study, the following hypotheses are formulated.

- a. There is no significant difference in the pre-test mean scores of Listening skill in English of the Experimental and Control groups for
 - a) Total sample
 - b) Subsample Boys
 - c) Subsample girls
- b. There is no significant difference in the pre-test mean scores of Speaking skill in English of the Experimental and Control groups for
 - a) Total sample
 - b) Subsample Boys
 - c) Subsample girls
- c. There is no significant difference in the pre-test mean scores of English language anxiety of the Experimental and Control groups for
 - a) Total sample
 - b) Subsample Boys
 - c) Subsample girls
- d. There is no significant difference in the pre-test mean scores of Learner satisfaction of the Experimental and Control groups for
 - a) Total sample
 - b) Subsample Boys
 - c) Subsample girls
- e. There is significant difference in the mean pre-test and post-test scores of Listening skill in English of the Experimental group for
 - a) Total sample
 - b) Subsample Boys
 - c) Subsample girls

- f. There is significant difference in the mean pre-test and post-test scores of Speaking skill in English of the Experimental group for
 - a) Total sample
 - b) Subsample Boys
 - c) Subsample girls
- g. There is significant difference in the mean pre-test and post-test scores of English language anxiety of the Experimental group for
 - a) Total sample
 - b) Subsample Boys
 - c) Subsample girls
- h. There is significant difference in the mean pre-test and post-test scores of Learner satisfaction of the Experimental group for
 - a) Total sample
 - b) Subsample Boys
 - c) Subsample girls
- i. There is significant difference in the mean Post-test scores of Listening skill in English between the Experimental and control groups for
 - a) Total sample
 - b) Subsample Boys
 - c) Subsample Girls
- j. There is significant difference in the mean Post-test scores of Speaking skill in English between the Experimental and control groups for
 - a) Total sample
 - b) Subsample Boys
 - c) Subsample Girls

- k. There is significant difference in the mean Post-test scores of English language anxiety between the Experimental and control groups for
 - a) Total sample
 - b) Subsample Boys
 - c) Subsample Girls
- l. There is significant difference in the mean Post-test scores of Learner satisfaction between the Experimental and control groups for
 - a) Total sample
 - b) Subsample Boys
 - c) Subsample Girls
- m. There is significant difference in the mean gain scores of Listening skill in English between the Experimental and control groups for
 - a) Total sample
 - b) Subsample Boys
 - c) Subsample girls
- n. There is significant difference in the mean gain scores of Speaking skill in English between the Experimental and control groups for
 - a) Total sample
 - b) Subsample Boys
 - c) Subsample girls
- o. There is significant difference in the mean change scores of English language anxiety between the Experimental and control groups for
 - a) Total sample
 - b) Subsample Boys
 - c) Subsample girls

- p. There is significant difference in the mean gain scores of Learner satisfaction between the Experimental and control groups for
- a) Total sample
 - b) Subsample Boys
 - c) Subsample girls
- q. There is significant difference in the adjusted mean scores of Listening skill in English between the Experimental and control groups by considering Pre-test Listening, Pre-test Speaking, Non-Verbal Intelligence, Classroom Environment and Socio-Economic Status as covariates for
- a) Total sample
 - b) Subsample Boys
 - c) Subsample girls
- r. There is significant difference in the adjusted mean scores of Speaking skill in English between the Experimental and control groups by considering Pre-test Listening, Pre-test Speaking, Non-Verbal Intelligence, Classroom Environment and Socio-Economic Status as covariates for
- a) Total sample
 - b) Subsample Boys
 - c) Subsample girls
- s. There is significant difference in the adjusted mean scores of English language anxiety between the Experimental and control groups by considering Pre-test Listening, Pre-test Speaking, Non-Verbal Intelligence, Classroom Environment and Socio-Economic Status as covariates for
- a) Total sample
 - b) Subsample Boys
 - c) Subsample girls

- t. There is significant difference in the adjusted mean scores of Learner satisfaction between the Experimental and control groups by considering Pre-test Listening, Pre-test Speaking, Non-Verbal Intelligence, Classroom Environment and Socio-Economic Status as covariates for
- a) Total sample
 - b) Subsample Boys
 - c) Subsample girls

Analysis and Interpretation of Data

The main intention of this study is to find out the prevailing strategies, its constraints and the suggestive measures to overcome these constraints to improve English language teaching in secondary level and to design and develop an instructional strategy, Blended Learning Instruction and to test its effectiveness in enhancing Listening and Speaking skill in English, Learner satisfaction and to reduce English language anxiety.

The Prevailing Strategies of Teaching English, its Constraints and the Suggestive Measures to Overcome the Constraints of Teaching English at Secondary Level

English language teaching puts a lot of pressure on the language teachers as it's a foreign language but it remains as one of the important ingredient in these students' career growth in the future. Since the language learners have to process a really huge amount of information and which is mainly obtaining from the English language classroom in school, teachers and learners use different language learning and teaching strategy in achieving the tasks and processing the new input the learners face. Language

teaching strategies show how well the teachers can succeed in tasks or problems encountered during language learning classroom. It can be achieved only through carefully selecting strategies by a teacher. A teacher must identify and analyse the constraints in front of her/him and find out proper corrective measures to rectify it in the most effective manner.

To identify these, the investigator explored the prevailing strategies followed by the teachers to cater to the needs of the English language learners. For this, the investigator with the guidance of supervising teacher constructed a questionnaire with a view to find out the perception of English language teachers at secondary level.

The questionnaire was focused on three main areas namely:

- a) The prevailing strategies in teaching English
- b) The constraints experienced by the teachers in adopting the prevailing strategies in teaching English
- c) The suggestive measures to rectify or overcome the constraints in implementing the prevailing strategies to teach English in secondary school level

Analysis of the perception of English language teachers regarding the prevailing strategies in teaching English in secondary level.

The primary session of the questionnaire was to emphasise on the Perception of English language teachers regarding the prevailing strategies in teaching English in Secondary level. The reactions of the respondents were carefully sorted and analysed using percentage analysis. The details of the prevailing strategies used by the English language teachers in secondary level are given below.

Table 13

Teachers' Perceptions on Prevailing Strategies Practiced for Teaching English at Secondary School Level

No	Strategies practiced for Teaching English	% of teachers practicing
1	Issue Based	100%
2	Blended learning	0%
3	Computer Assisted instruction	24%
4	Assignment and Projects	86%
5	Co-operative learning	98%
6	Collaborative Learning	96%
7	Activity oriented	90%
8	Mentoring	92%
9	Seminars	68%
10	Team teaching	2%
11	Group instruction	100%
12	Individualized instruction	96%
13	Integrated instruction	4%
14	Workbook Practice	58%
15	Debate	70%
16	Speech	56%
17	Article writing	42%
18	Discussion	86%

It is clear from the table that majority of secondary school English teachers practiced teaching strategies like issue based learning strategies (100%), cooperative learning (98%), collaborative learning (96%), mentoring (92%), individualized instruction (96%), and group instruction (100%).

According to the secondary school English language teachers, it is found out that, the less used methods are integrated instruction (4%), team teaching (2%) and article writing (42%). The technology integrated instructions like blended Learning (0%) and computer assisted instruction (18%) are not used much by the secondary school English language teachers.

Constraints experienced by the English language teachers at Secondary level.

In this session, the investigator examined the response of English language teachers at secondary level regarding the constraints experienced while adopting various strategies for teaching English. The constraints were focused on three main areas:

- a) Constraints faced by students
- b) Constraints faced by the teachers
- c) General constraints in teaching English

The details are given below:

Table 14

Constraints Faced by the English Language Teachers for Teaching English at Secondary Level

No	Constraints experienced	% of teachers	
1	Constraints faced by students	Students' communication Apprehension	88%
		Students' fear of negative evaluation	56%
		Students' test anxiety	76%
		Students' general feeling of anxiety towards a foreign language	98%
		Lack of proper attainment of curricular objectives in the previous classes	100%
2	Constraints faced by the teachers	Lack of training	100%
		Lack of time	90%
		Lack of learning resources	96%
		Lack of self-motivation and self confidence	46%
		Lack of expert teachers	54%
3	General constraints in teaching English	Heavy content/ syllabus	100%
		Lack of adequate infrastructure	72%
		Overcrowded classroom	100%
		Lack of support from authority and community	82%

From the table, it is revealed that 100% of the teachers viewed that lack of training, lack of proper attainment of curricular objectives in the previous classes of the students and overcrowded classroom and heavy syllabus as the major constraints. Students' communication apprehension (88%), students' test anxiety (76%), students' general feeling of anxiety towards a foreign language are the next frequent constraint from the students' side. 82% of teachers viewed that they don't get enough support from authority and community.

Suggestive measures to overcome the constraints and alternative solutions for effective teaching of English language at secondary level.

In this session, the investigator obtained responses regarding the measures to overcome the constraints in implementing strategies and alternative solutions for effective teaching from English language teachers at secondary level. The details are given below.

Table 15

Suggestions for Improvement in Teaching English at Secondary School Level

No	Suggestions for improvement	% of teachers
1	Orientation and short term training programs in educational technological innovations	98%
2	Reduce syllabus	98%
3	Reduction in class strength	100%
4	Make sure the students are attaining curricular objectives effectively in each respective class.	86%
5	Teachers' training should be given by well-trained teachers	66%
6	Avail good library and reading room	54%
7	Adequate infrastructure, including language lab	70%
8	Provide effective learning materials to supplement the textbook	82%

Teachers suggested the following measures to overcome the constraints they experienced for improving Teaching English at Secondary school such as reduction of class strength to the advisable number, orientation and short term training programs in educational technological innovations (98%), reduce syllabus (98%), make sure the students are attaining curricular objectives effectively in each respective classes (86%) etc.

The study obtained the perception of Secondary school English teachers regarding the existing strategies, constraints and suggestive measures to overcome the constraints for improving teaching English. Most of the secondary school teachers were aware of different teaching strategies used for teaching English at secondary school level such as Issue based learning, cooperative learning, activity oriented, seminars, group instruction, collaborative learning etc. But when it comes in the matter of technology integrated instructions like computer assisted instruction, only a minimal percentage of teachers are using it and only a few of them are even heard of blended learning.

The Blended learning includes many of the above mentioned instructional strategies in the classroom for the face to face teaching and learning session along with the online part of the program. But merely using these strategies once in a while does not make it a blended learning classroom. Blended learning involves a thoughtful selection of these face to face programs and presenting it to the students in time to time with the adequate customized online content in accordance with the need of the hour for a prolonged certain time period to make it fruitful to the students. Even though many teachers use most of the strategies at least once or twice, which

made them to select most of the instructional strategies from the questionnaire, it doesn't necessarily mean the English language teachers are using these strategies on a continuous basis.

The analysis conducted to check the effectiveness of Blended learning approach in enhancing listening skill in English, speaking skill in English, learner satisfaction and in reducing the English language anxiety is presented in the succeeding session in detail.

Statistical Constants of the Variables

Preliminary analysis was done to identify the basic properties of the distributions of the dependent variable and the covariates. Mean, Median, Mode, Standard Deviation, Skewness and Kurtosis of the pre-test and post-test scores of the dependent variables Listening skill, Speaking skill English Language Anxiety and Learner Satisfaction and the pre-test scores of the covariates Pre-test Listening, Pre-test Speaking, Non-Verbal Intelligence, Classroom Environment and Socio-Economic Status of the students were computed separately for experimental and control groups (Total Sample, Subsample Boys and Subsample Girls).

Test for Listening skill in English (Aruna & Anju, 2016) was used to collect data of Listening skill in English. Sum of scores of a student's Listening skill in English namely, coherence and cohesion, lexical resource, grammatical range and accuracy and task achievement was considered. Minimum possible for the test as well as the components is *Zero*. Maximum possible for the test as well as the components is 40.

Test for Speaking skill in English (Aruna & Anju, 2016) was used to collect data on Speaking skill in English. Sum of scores of a student's English Speaking skill namely, fluency and coherence, lexical resources, grammatical range, accuracy and pronunciation was taken. Minimum possible for the test as well as the components is *Zero*. Maximum possible for the test as well as the components is 30.

To collect data on English Language Anxiety, Scale of English language anxiety (Aruna & Anju, 2016) was used. The possible minimum and maximum scores of English Language Anxiety are 40 and 200 respectively.

To collect data on Learner Satisfaction, Scale of Learner Satisfaction (Aruna & Anju, 2016) was used. The possible minimum and maximum scores of Learner Satisfaction are 20 and 100 respectively.

Standard Progressive Matrices Test (Raven, 1958) was used, to measure the Non-verbal Intelligence of secondary school students belong to experimental and control group, for testing the homogeneity of the groups. The maximum possible score of Non-Verbal Intelligence is 60 and the minimum is *Zero*. The Classroom Environment was measured using Classroom Environment Inventory (Aruna & Sureshan, 1998). Socio-Economic Status Scale (Aruna & Anju, 2016) was used to measure the Socio-Economic Status of the student. The maximum possible scores of Classroom Environment and Socio-Economic Status are 47 and 100 respectively and minimum scores are *zero* and 15 respectively.

To check the pre-test scores of experimental and control group, Normal P-P plots of the pre-test scores of the variables were used.

Pre-test scores of the variables for the experimental group.

The statistical constants of the pre-test scores of the variables Listening skill, Speaking skill, English Language Anxiety, Learner Satisfaction, Non-Verbal Intelligence, Classroom Environment and Socio-Economic Status for Total sample and subsample Boys and subsample Girls of experimental group are presented in the following tables.

Table 16

Statistical Constants of the Pre-test Scores of the Variables for the Experimental Group - Total Sample

Variable	Listening skill	Speaking skill	English Language Anxiety	Learner Satisfaction	Classroom Environment	Non-Verbal Intelligence	Socio-Economic Status
Mean	20.84	15.44	100.04	49.87	31.76	38.20	111.56
Median	21.00	16.00	99.00	53.00	32.00	39.00	115.00
Mode	18	16	99	53	32	39	120
S D	6.802	5.488	38.796	19.377	4.035	6.844	24.212
Sk	-1.11	-1.371	-1.371	-1.389	-.641	-.951	-.647
Ku	.181	.151	-.138	.139	.295	.110	-.081

Table 16 reveals that the Mean, Median and mode of the pre-test scores are almost similar for the Total sample of secondary school students in the experimental group except for Socio Economic Status for which the value of Mode differed from the Mean and Median. The standard deviation of English Language Anxiety and Socio-Economic Status reveal that the scores are somewhat dispersed from the central value. All the distributions are negatively skewed. All the distributions are Leptokurtic except English Language Anxiety and Socio-Economic Status; both are Platykurtic indicate the normality of distribution of variables.

Table 17

Statistical Constants of the Pre-test Scores of the Variables for the Experimental Group-Subsample Boys

Variable	Listening skill	Speaking skill	English Language Anxiety	Learner Satisfaction	Classroom Environment	Non-Verbal Intelligence	Socio-Economic Status
Mean	20.88	15.29	101.67	49.08	31.83	37.38	111.25
Median	21.50	16.00	106.00	46.50	31.50	38.50	115.00
Mode	23	16	99	53	32	42	115
S D	6.867	5.528	41.948	20.941	4.208	7.002	24.240
Sk	.103	.240	-.091	.089	.467	.199	.035
Ku	-.908	-1.383	-1.535	-1.597	-.592	-1.013	-.728

Table 17 indicates that the Mean, Median and mode of the pre-test scores are almost similar for the subsample Boys of secondary school students in the experimental group. The standard deviation of English Language Anxiety and Socio-Economic Status reveal that the scores are somewhat dispersed from the central value. All the distributions are positively skewed except English Language Anxiety. All the distributions are Platykurtic indicate the normality of distribution of variables.

Table 18

Statistical Constants of the Pre-test Scores of the Variables for the Experimental Group-Subsample Girls

Variable	Listening skill	Speaking skill	English Language Anxiety	Learner Satisfaction	Classroom Environment	Non-Verbal Intelligence	Socio-Economic Status
Mean	20.81	15.62	98.19	50.76	31.67	39.14	111.90
Median	18.00	16.00	94.00	53.00	32.00	39.00	115.00
Mode	18	16	94	53	29	39	110
S D	6.897	5.572	35.791	17.894	3.929	6.703	24.773
Sk	.284	.062	-.303	.307	.062	.053	-.216
Ku	-1.310	-1.374	-1.281	-1.203	-.625	-.766	-.384

Table 18 indicates that the Mean, Median and mode of the pre-test scores are almost similar for the subsample Girls of secondary school students in the experimental group. The standard deviation of English Language Anxiety, Learner Satisfaction and Socio-Economic Status reveal that the scores are somewhat dispersed from the central value. All the distributions are positively skewed except English Language Anxiety and Socio-Economic Status.

Pre-test scores of the variables for the control group.

The statistical constants of the pre-test scores of the variables Listening skill, Speaking skill, English Language Anxiety, Learner Satisfaction, Non-Verbal Intelligence, Classroom Environment and Socio-Economic Status for Total sample and subsample Boys and subsample Girls of control group are presented in following tables.

Table 19

Statistical Constants of the Pre-test Scores of the Variables for the Control group -Total Sample

Variable	Listening skill	Speaking skill	English Language Anxiety	Learner Satisfaction	Classroom Environment	Non-Verbal Intelligence	Socio-Economic Status
Mean	18.90	13.95	114.95	46.15	32.40	38.05	107.25
Median	18.00	13.50	121.50	48.50	31.00	39.00	110.00
Mode	18	14	105	53	29	41	110
S D	6.512	5.186	32.633	19.583	4.285	7.338	24.627
Sk	.697	.366	-.654	.227	.524	.029	.442
Ku	-.048	-.931	-.137	-1.255	-.963	-.984	-.320

Table 19 reveals that the Mean, Median and mode of the pre-test scores are almost similar for the Total sample of secondary school students

in the control group except English Language Anxiety. The standard deviation of English Language Anxiety, Learner Satisfaction and Socio-Economic Status reveal that the scores are somewhat dispersed from the central value. All the distributions are positively skewed except English Language Anxiety.

Table 20

Statistical Constants of the Pre-test Scores of the Variables for the Control Group - Subsample Boys

Variable	Listening skill	Speaking skill	English Language Anxiety	Learner Satisfaction	Classroom Environment	Non-Verbal Intelligence	Socio-Economic Status
Mean	18.90	13.95	114.95	46.15	32.40	38.05	107.25
Median	18.00	13.50	121.50	48.50	31.00	39.00	110.00
Mode	18	14	105	50	29	41	110
S D	6.512	5.186	32.633	19.583	4.285	7.338	24.627
Sk	.697	.366	-.654	.227	.524	.029	.442
Ku	-.048	-.931	-.137	-1.255	-.963	-.984	-.320

Table 20 reveals that the Mean, Median and mode of the pre-test scores are almost similar for the subsample Boys of secondary school students in the control group. The standard deviation of English Language Anxiety, Learner Satisfaction and Socio-Economic Status reveal that the scores are somewhat dispersed from the central value. All the distributions are positively skewed except English Language Anxiety and Socio-Economic Status.

Table 21

Statistical Constants of the Pre-test Scores of the Variables for the Control Group - Subsample Girls

Variable	Listening skill	Speaking skill	English Language Anxiety	Learner Satisfaction	Classroom Environment	Non-Verbal Intelligence	Socio-Economic Status
Mean	19.44	14.20	106.44	52.84	33.16	38.68	112.40
Median	18.00	14.00	105.00	53.00	32.00	40.00	110.00
Mode	18	14	105	53	32	41	100
S D	4.398	5.066	35.227	18.598	3.986	6.492	22.552
Sk	.615	.331	-.479	.135	.241	-.169	.194
Ku	-.108	-.739	-.629	-1.447	-1.276	-.776	-.465

Table 21 indicates that the Mean, Median and mode of the pre-test scores are almost similar for the subsample Girls of secondary school students in the control group. The standard deviation of English Language Anxiety, Learner Satisfaction and Socio-Economic Status reveal that the scores are somewhat dispersed from the central value. All the distributions are positively skewed except English Language Anxiety and Socio-Economic Status.

Post-test scores of the variables for the experimental group.

In this section the statistical constants related to the post-test scores of the Experimental group is given bellow for the variables, Listening skill in English, Speaking skill in English, English language anxiety and Learner satisfaction. The details are shown in the following tables, Table 22, Table 23 and Table 24.

Table 22

Statistical Constants of the Post-test Scores of the Variables for the Experimental Group - Total Sample

Variable	Listening skill	Speaking skill	English Language Anxiety	Learner Satisfaction
Mean	25.76	19.56	79.82	61.89
Median	26.00	20.00	76.00	64.00
Mode	26	20	76	64
S D	6.128	4.808	33.221	15.747
Sk	-.864	-1.191	-1.291	-1.141
Ku	-.240	-.021	.078	-.194

Table 22 reveals that the Mean, Median and mode of the post-test scores are almost similar for the Total sample of secondary school students in the experimental group. The standard deviation of English Language Anxiety and Learner Satisfaction reveal that the scores are somewhat dispersed from the central value. All the distributions are negatively skewed.

Table 23

Statistical Constants of the Post-test Scores of the Variables for the Experimental Group - Subsample Boys

Variable	Listening skill	Speaking skill	English Language Anxiety	Learner Satisfaction
Mean	25.79	19.67	81.42	60.29
Median	27.00	19.50	77.50	64.00
Mode	27	20	83	64
S D	6.108	5.105	36.760	17.941
Sk	-.199	.091	.130	-.121
Ku	-.765	-1.482	-1.464	-1.416

Table 23 reveals that the Mean, Median and mode of the post-test scores are almost similar for the subsample Boys of secondary school students in the experimental group. The standard deviation of English

Language Anxiety and Learner Satisfaction reveal that the scores are somewhat dispersed from the central value. The distributions for Listening skill and Learner Satisfaction are negatively skewed and the rest are positively skewed.

Table 24

Statistical Constants of the Post-test Scores of the Variables for the Experimental Group - Subsample Girls

Variable	Listening skill	Speaking skill	English Language Anxiety	Learner Satisfaction
Mean	25.71	19.43	78.00	63.71
Median	26.00	20.00	76.00	64.00
Mode	26	20	76	64
S D	6.302	4.567	29.452	12.993
Sk	-.300	-.230	-.152	-.004
Ku	-.877	-.767	-1.352	-1.332

Table 24 reveals that the Mean, Median and mode of the post-test scores are almost similar for the subsample Girls of secondary school students in the experimental group. The standard deviation of English Language Anxiety shows that the scores are somewhat dispersed from the central value. All the distributions are negatively skewed.

Post-test scores of the variables for the control group.

In this section the statistical constants related to the post-test scores of the Control group is given bellow for the variables, Listening skill in English, Speaking skill in English, English language anxiety and Learner satisfaction. The details are shown in the following tables:

Table 25

Statistical Constants of the Post-Test Scores of the Variables for the Control Group -Total Sample

Variable	Listening skill	Speaking skill	English Language Anxiety	Learner Satisfaction
Mean	21.60	15.40	97.93	53.87
Median	20.00	15.00	102.00	52.00
Mode	18	13	102	55
S D	5.782	5.061	35.615	13.038
Sk	-.331	-.669	-.753	-.211
Ku	.368	.184	-.226	.583

Table 25 reveals that the Mean, Median and mode of the post-test scores are almost similar for the Total sample of secondary school students in the control group. The standard deviation of English Language Anxiety indicates that the scores are somewhat dispersed from the central value. All the distributions are negatively skewed.

Table 26

Statistical Constants of the Post-test Scores of the Variables for the Control group - Subsample Boys

Variable	Listening skill	Speaking skill	English Language Anxiety	Learner Satisfaction
Mean	21.50	15.35	99.70	50.20
Median	20.50	14.00	106.00	50.00
Mode	18	14	100	50
S D	6.932	5.234	34.915	12.459
Sk	.256	.313	-.111	.710
Ku	-.684	-.682	-.609	.849

Table 26 reveals that the Mean, Median and mode of the post-test scores are almost similar for the subsample Boys of secondary school students in the control group. The standard deviation of English Language Anxiety reveal that

the scores are somewhat dispersed from the central value. All the distributions are positively skewed, except for English Language Anxiety.

Table 27

Statistical Constants of the Post-test Scores of the Variables for the Control Group - Subsample Girls

Variable	Listening skill	Speaking skill	English Language Anxiety	Learner Satisfaction
Mean	21.68	15.44	96.52	56.80
Median	20.00	15.00	102.00	55.00
Mode	19	13	102	46
S D	4.819	5.026	36.820	12.984
Sk	.677	.086	-.302	.581
Ku	-.194	-.516	-.803	-.718

Table 27 reveals that the Mean, Median and mode of the post-test scores are almost similar for the subsample Girls of secondary school students in the control group except for Learner Satisfaction. The standard deviation of English Language Anxiety reveal that the scores are somewhat dispersed from the central value. All the distributions are positively skewed, except for English Language Anxiety.

Discussion.

By observing the above statistical constants of pre-test and post-test scores of Listening skill in English, Speaking skill in English , English language anxiety and Learner satisfaction of the Experimental and Control groups, the interferences which can be derived are following.

The data can be used to carryout parametric testing as the distribution of scores follow normal distribution as it is uncovered by the statistical constants of the variables.

Mean Difference Analysis

Before controlling the effects of covariates, the differences in mean scores of pre-test Listening skill in English, Speaking skill in English, English language anxiety and Learner satisfaction of the Experimental and Control groups, difference in mean pre-test and post-test scores of the dependent variables for Control and Experimental groups and the differences in mean gain and change scores between the Experimental and Control groups were thoroughly examined. The level of significance was fixed in between .05 and .01 levels and the mean difference analysis was used for comparison.

Comparison of the mean pre-test scores of Listening skill, Speaking skill, English language anxiety and Learner satisfaction of Experimental and Control groups

To compare the existing status of the control group and Experimental group, the comparisons of the means were undertaken on Listening skill, Speaking skill, English Language Anxiety and Learner Satisfaction before the intervention.

Comparison of the mean pre-test scores of Listening skill in English of Experimental and Control groups.

Test of significance of difference between two means were utilized to compare the status before intervention of both control and experiments groups with respect to the Listening skill in English. To check whether there exists any statistically significant difference between means of the Listening skill scores of the groups prior to the experiment, mean pre-test scores of the two groups were calculated and these values were subjected to test of

significance of difference between means for Total Sample, Subsample Boys and subsample Girls are given in the following sections.

Comparison of the mean pre-test scores of Listening skill in English of Experimental and Control groups for total sample.

To compare the pre-experimental status of Listening skill in English of secondary school students belonging to experimental and control groups, the means and standard deviations of pre-test scores of Listening skill in English of the two groups were subjected to test of significance of difference between means. The details of *t* test for Total sample are presented in Table 28.

Table 28

Result of Test of Significance of Difference in Mean Pre-test Scores of Listening Skill in English between Experimental and Control Groups – Total Sample

Variable	Experimental Group			Control Group			t	Level of Significance
	N ₁	M ₁	SD ₁	N ₂	M ₂	SD ₂		
Listening skill in English	45	20.84	6.80	45	19.2	5.38	1.27	N. S

N. S : Not Significant

It is clear from the table that the *t* test value obtained from the pre-test scores of Listening skill in English for experimental and control groups for the total sample is 1.27 which is not significant. This shows that the pre-experimental Listening skill in English status of secondary school students in experimental and control groups are almost the same for the total sample. So, the two groups are comparable in terms of level of Listening skill in English for Total sample.

The mean pre-test scores of Listening skill in English of experimental and control groups for Total sample are represented graphically in Figure 3.

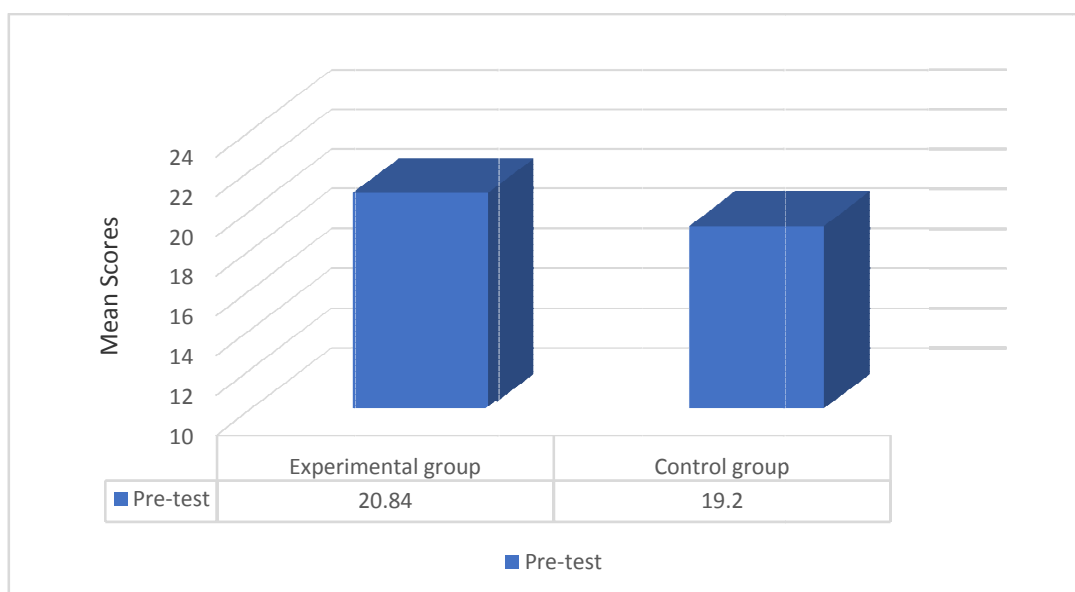


Figure 3. Mean Pre-test Scores of Listening Skill in English of Experimental and Control Groups - Total Sample

The graphical representation of mean pre-test scores of Listening skill in English of experimental and control groups shows that the mean performance of secondary school students in the two groups are almost equal for Total sample. This supports the result of mean difference analysis.

Comparison of the mean pre-test scores of Listening skill in English of Experimental and Control groups for subsample Boys.

The means and standard deviations of pre-test scores of Listening skill in English of Experimental and Control groups were subjected to test of significance of difference between means, to compare the pre-intervention status of Listening skill in English of the two groups. The data and results of t test for subsample Boys are presented in Table 29

Table 29

Result of Test of Significance of Difference in Mean Pre-test Scores of Listening Skill in English between Experimental and Control Groups – Subsample Boys

Variable	Experimental Group			Control Group			t	Level of Significance
	N ₁	M ₁	SD ₁	N ₂	M ₂	SD ₂		
Listening skill in English	24	20.88	6.87	20	18.90	6.51	0.97	N. S

N. S : Not Significant

Table 29 shows that the calculated t value of pre-test scores of Listening skill in English for experimental and control groups for subsample boys is .97 which is not statistically significant. This shows that the pre-experimental Listening skill in English status of secondary school Boys in experimental and control groups are same. Hence, the two groups are comparable in terms of level of Listening skill in English for subsample Boys.

The mean pre-test scores of Listening skill in English of experimental and control groups for subsample Boys are represented graphically in Figure 4

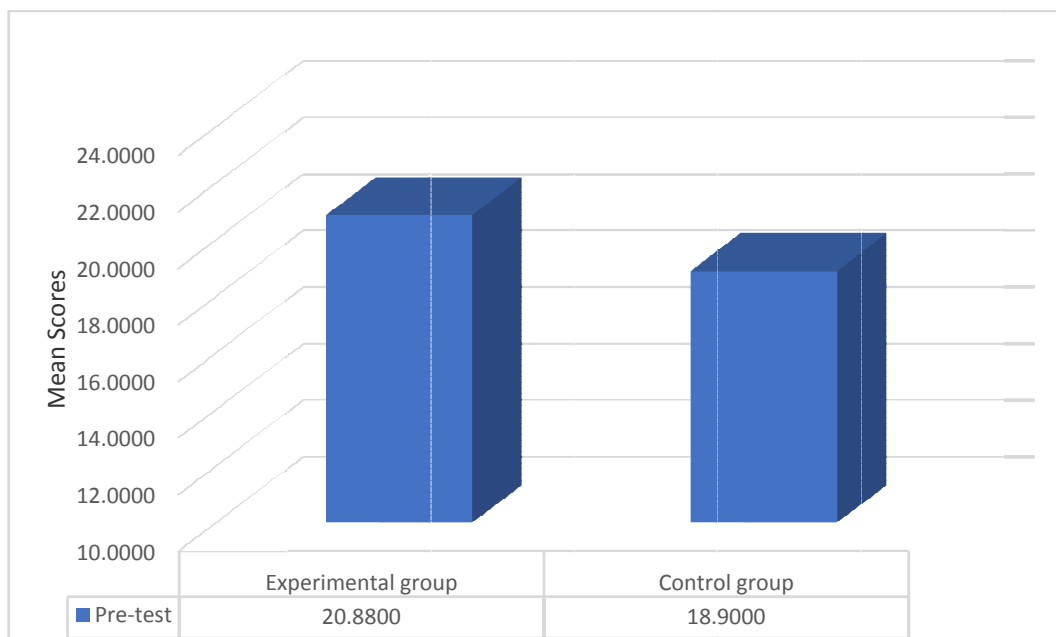


Figure 4. Mean Pre-test Scores of Listening Skill in English of Experimental and Control Groups – Subsample Boys

The graphical representation of mean pre-test scores of experimental and control groups shows that the mean performance of secondary school Boys in the two groups are almost the same with respect to Listening skill in English. Hence the result of t test is supported by the graphical representation also.

Comparison of the mean pre-test scores of Listening skill in English of Experimental and Control groups for subsample Girls.

The means and standard deviations of pre-test scores of Listening skill in English of Experimental and Control groups were subjected to test of significance of difference between means, to compare the pre-intervention status of Listening skill in English of the two groups. The data and results of t test for subsample Girls are presented in Table 30.

Table 30

Result of Test of Significance of Difference in Mean Pre-test Scores of Listening Skill in English between Experimental and Control Groups – Subsample Girls

Variable	Experimental Group			Control Group			t	Level of Significance
	N ₁	M ₁	SD ₁	N ₂	M ₂	SD ₂		
Listening skill in English	21	20.81	6.90	25	19.44	4.40	0.81	N. S

N. S : Not Significant

It is clear from the Table 31 that the experimental and control groups do not differ significantly in their mean pre-test scores of Listening skill in English as the calculated t value is .816 which is not statistically significant. This shows that the pre-experimental Listening skill in English status of secondary school Girls students in experimental and control groups are same. Hence, the two groups are comparable in terms of level of Listening skill in English for subsample Girls.

The mean pre-test scores of Listening skill in English of experimental and control groups for subsample Girls are represented graphically in Figure 5

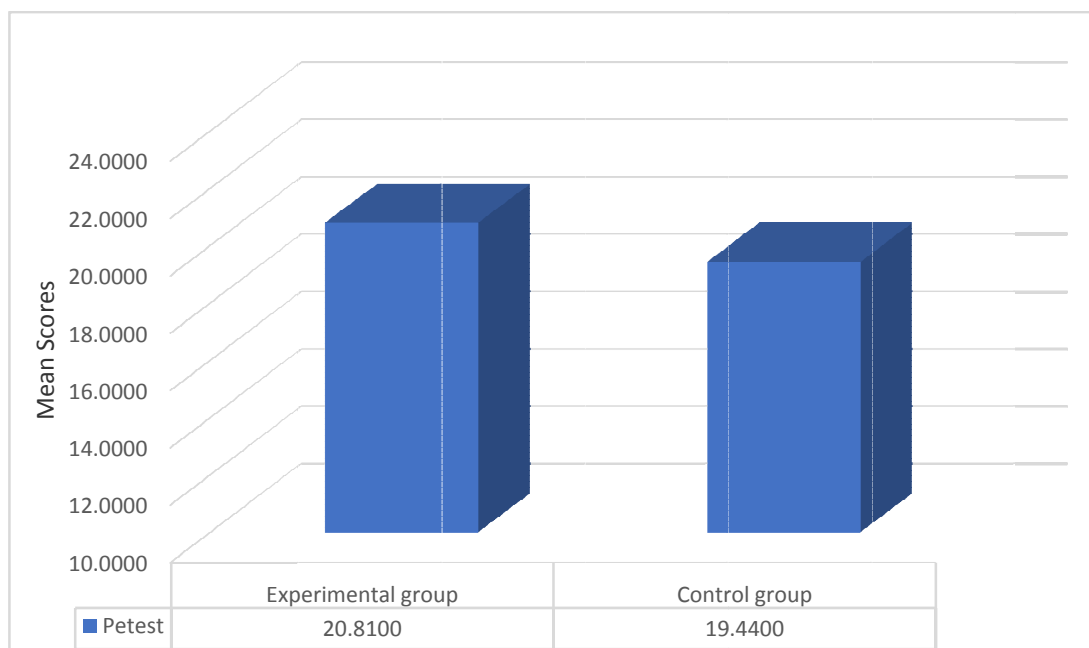


Figure 5. Mean pre-test scores of Listening skill in English of experimental and control groups – Subsample Girls

The graphical representation indicates that the mean pre-test scores of Listening skill in English of experimental and control groups are similar to certain extent for subsample Girls. Hence the graphical representation supports the result of mean difference analysis.

Comparison of the mean pre-test scores of Speaking skill in English of Experimental and Control groups

To study whether the experimental group and control group differ significantly in terms of pre-test scores of Speaking skill test of significance of difference between means was utilized. To check whether there exists any statistically significant difference between mean Speaking skill scores of the

groups prior to the experiment, mean pre-test scores of the two groups were calculated and these values were subjected to test of significance of difference between means for Total Sample, Subsample Boys and subsample Girls are given in the following sections.

Comparison of the mean pre-test scores of Speaking skill in English of Experimental and Control groups for total sample.

To compare the pre-experimental status of Speaking skill in English of secondary school students belonging to experimental and control groups, the means and standard deviations of pre-test scores of Speaking skill in English of the two groups were subjected to test of significance of difference between means. The details of *t* test for Total sample are presented in Table 31.

Table 31

Result of Test of Significance of Difference in Mean Pre-test Scores of Speaking Skill in English between Experimental and Control Groups – Total Sample

Variable	Experimental Group			Control Group			t	Level of Significance
	N ₁	M ₁	SD ₁	N ₂	M ₂	SD ₂		
Speaking skill in English	45	15.44	5.49	45	14.09	5.06	1.22	N. S

N. S : Not Significant

It is clear from the table that the *t* test value obtained from the pre-test scores of Speaking skill in English for experimental and control groups for the total sample is 1.22 which is not significant. This shows that the pre-experimental Speaking skill in English status of secondary school students in experimental and control groups are almost the same for the total sample. So, the two groups are comparable in terms of level of Speaking skill in English for Total sample.

The mean pre-test scores of Speaking skill in English of experimental and control groups for Total sample are represented graphically in Figure 6.

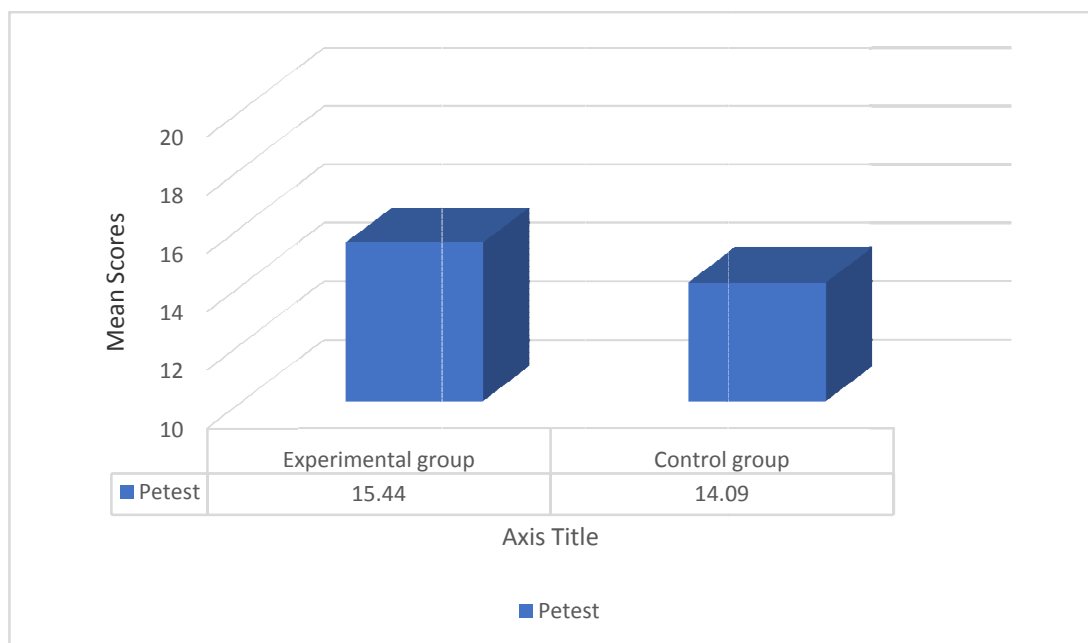


Figure 6. Mean pre-test scores of Speaking skill in English of experimental and control groups - Total sample

The graphical representation of mean pre-test scores of Speaking skill in English of experimental and control groups are similar. This supports the result of mean difference analysis.

Comparison of the mean pre-test scores of Speaking skill in English of Experimental and Control groups for subsample Boys.

The means and standard deviations of pre-test scores of Speaking skill in English of boys belong to Experimental and Control groups were subjected to test of significance of difference between means, to compare the pre-intervention status of Speaking skill in English of the two groups. The data and results of t test for subsample Boys are presented in Table 32.

Table 32

Result of Test of Significance of Difference in Mean Pre-test Scores of Speaking Skill in English between Experimental and Control Groups – Subsample Boys

Variable	Experimental Group			Control Group			t	Level of Significance
	N ₁	M ₁	SD ₁	N ₂	M ₂	SD ₂		
Speaking skill in English	24	15.29	5.53	20	13.95	5.19	0.82	N. S

N. S : Not Significant

It is evident from the table that the t test value obtained from the pre-test scores of Speaking skill in English for experimental and control groups for the total sample is 0.824 which is not significant. This shows that the pre-experimental Speaking skill in English status of secondary school students in experimental and control groups are almost the same for the Subsample boys. So, the two groups are comparable in terms of level of Speaking skill in English for Subsample boys. The mean pre-test scores of Speaking skill in English of experimental and control groups for subsample Boys are represented graphically in Figure 7

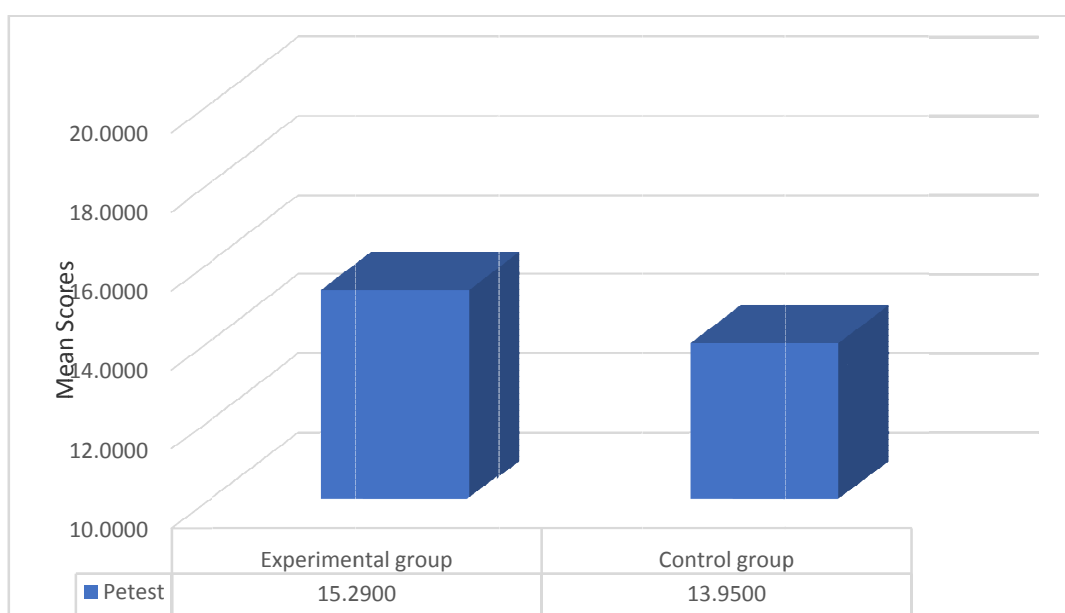


Figure 7. Mean pre-test scores of Speaking skill in English of experimental and control groups – Subsample Boys

The graphical representation of mean pre-test scores of Speaking skill in English of experimental and control groups shows that the mean performance of secondary school Boys in the two groups are almost the same for subsample Boys with respect to Speaking skill in English. Hence the result of t test is supported by the graphical representation also.

Comparison of the mean pre-test scores of speaking skill in English of Experimental and Control groups for subsample Girls.

The means and standard deviations of pre-test scores of Speaking skill in English of Experimental and Control groups were subjected to test of significance of difference between means, to compare the pre-intervention status of Speaking skill in English of the two groups. The data and results of t test for subsample Girls are presented in Table 33.

Table 33

Result of Test of Significance of Difference in Mean Pre-test Scores of Speaking Skill in English between Experimental and Control Groups – Subsample Girls

Variable	Experimental Group			Control Group			t	Level of Significance
	N ₁	M ₁	SD ₁	N ₂	M ₂	SD ₂		
Speaking skill in English	21	15.61	5.57	25	14.20	5.07	0.90	N. S

N. S : Not Significant

It is clear from the table that the t test value obtained from the pre-test scores of Speaking skill in English for experimental and control groups for the total sample is 0.904 which is not significant. This shows that the pre-experimental Speaking skill in English of secondary school students in experimental and control groups are almost the same for the Subsample girls. So, the two groups are comparable in terms of level of Speaking skill in English for Subsample girls.

The mean pre-test scores of Speaking skill in English of experimental and control groups for subsample Girls are represented graphically in Figure 8

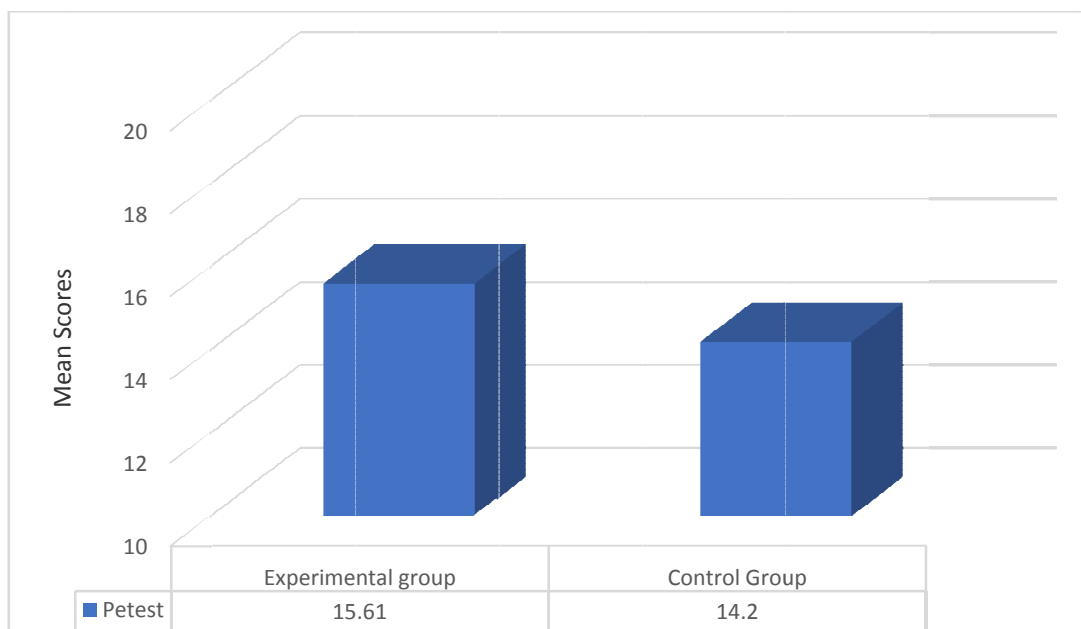


Figure 8. Mean pre-test scores of Speaking skill in English of experimental and control groups – Subsample Girls

The graphical representation indicates that the mean pre-test scores of Speaking skill in English of experimental and control groups are similar to certain extent for subsample Girls. Hence the graphical representation supports the result of mean difference analysis.

Comparison of the mean pre-test scores of English Language Anxiety of Experimental and Control groups

Test of significance of difference between two means was utilized to compare the pre-experimental status of both control and experiments groups with respect to the English Language Anxiety. To check whether there exists any statistically significant difference between mean English Language Anxiety scores of the groups prior to the experiment, mean pre-test scores of

the two groups were calculated and these values were subjected to test of significance of difference between means for Total Sample, Subsample Boys and subsample Girls are given in the following sections.

Comparison of the mean pre-test scores of English Language Anxiety of Experimental and Control groups for total sample

To compare the pre-experimental status on English Language Anxiety of secondary school students belonging to experimental and control groups, the means and standard deviations of pre-test scores of English Language Anxiety of the two groups were subjected to test of significance of difference between means. The details of *t* test for Total sample are presented in Table 34.

Table 34

Result of Test of Significance of Difference in Mean Pre-test Scores of English Language Anxiety between Experimental and Control Groups – Total Sample

Variable	Experimental Group			Control Group			t	Level of Significance
	N ₁	M ₁	SD ₁	N ₂	M ₂	SD ₂		
English Language Anxiety	45	100.04	38.79	45	110.22	33.99	1.32	N. S

N.S: Not Significant

It is clear from the table that the *t* test value obtained from the pre-test scores of English language anxiety for experimental and control groups for the total sample is 1.32 which is not significant. This shows that the pre-experimental English language anxiety of secondary school students in experimental and control groups are almost the same for the Total sample. So, the two groups are comparable in terms of level of English language anxiety for Total sample.

The mean pre-test scores of English Language Anxiety of experimental and control groups for Total sample are represented graphically in Figure 9.

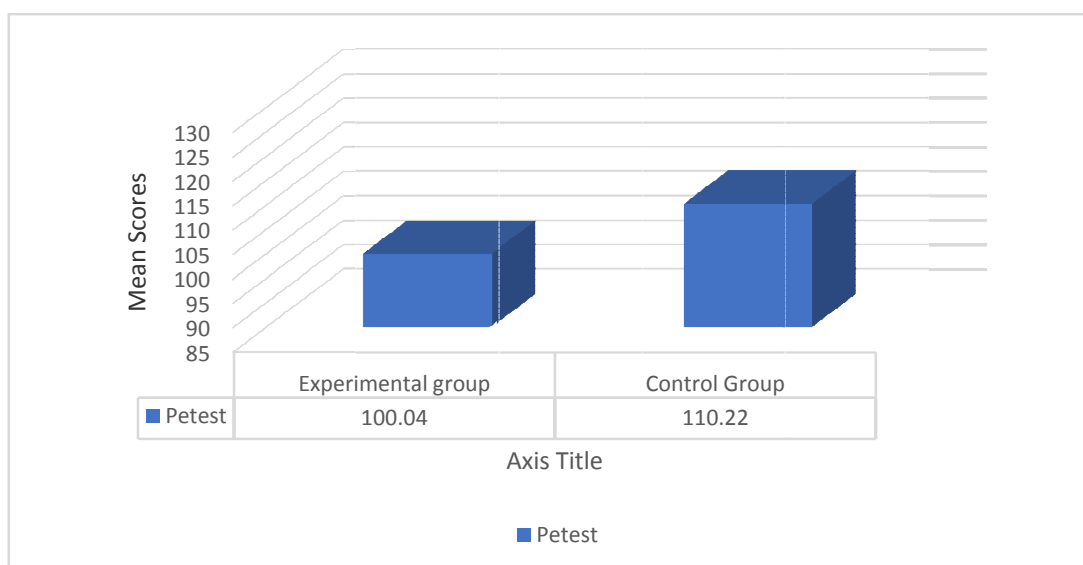


Figure 9. Mean pre-test scores of English Language Anxiety of experimental and control groups - Total sample

The graphical representation of mean pre-test scores of English Language Anxiety of experimental and control groups shows that the mean performance of secondary school students in the two groups are almost equal for Total sample. Hence the results of mean difference analysis are supported by the graphical representation also.

Comparison of the mean pre-test scores of English Language Anxiety of Experimental and Control groups for subsample Boys.

The means and standard deviations of pre-test scores of English Language Anxiety of Experimental and Control groups were subjected to test of significance of difference between means, to compare the pre-experimentation status on English Language Anxiety of the two groups. The data and results of t test for subsample Boys are presented in Table 35.

Table 35

Result of Test of Significance of Difference in Mean Pre-test Scores of English Language Anxiety between Experimental and Control Groups – Subsample Boys

Variable	Experimental Group			Control Group			t	Level of Significance
	N ₁	M ₁	SD ₁	N ₂	M ₂	SD ₂		
English Language Anxiety	24	101.67	41.95	20	114.95	32.63	1.15	N. S

N. S : Not Significant

It is clear from the table that the t test value obtained from the pre-test scores of English language anxiety for experimental and control groups for the Subsample boys is 1.15 which is not significant. This shows that the pre-experimental English language anxiety of secondary school students in experimental and control groups are almost the same for the Subsample boys. So, the two groups are comparable in terms of level of English language anxiety for Subsample boys.

The mean pre-test scores of English Language Anxiety of experimental and control groups for subsample Boys are represented graphically in Figure 10.

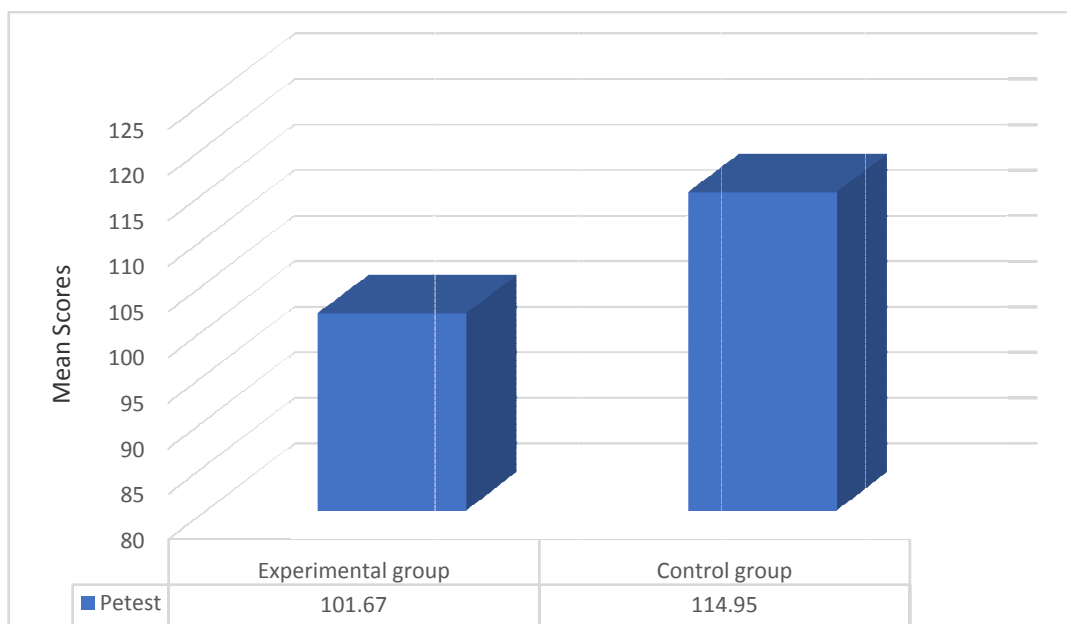


Figure 10. Mean pre-test scores of English Language Anxiety of experimental and control groups – Subsample Boys

The graphical representation of mean pre-test scores of English Language Anxiety of experimental and control groups indicates that the mean performance of secondary school Boys in the two groups are almost similar for subsample Boys with respect to English Language Anxiety. Hence the result of mean difference analysis is supported by the graphical representation also.

Comparison of the mean pre-test scores of English Language Anxiety of Experimental and Control groups for subsample Girls.

The means and standard deviations of pre-test scores of English Language Anxiety of Experimental and Control groups were subjected to test of significance of difference between means, to compare the pre-intervention status on English Language Anxiety of the two groups. The data and results of t test for subsample Girls are presented in Table 36.

Table 36

Result of Test of Significance of Difference in Mean Pre-test Scores of English Language Anxiety between Experimental and Control Groups – Subsample Girls

Variable	Experimental Group			Control Group			t	Level of Significance
	N ₁	M ₁	SD ₁	N ₂	M ₂	SD ₂		
English Language Anxiety	21	98.19	35.79	25	106.44	35.23	.78	N. S

It is clear from the table that the t test value obtained from the pre-test scores of English language anxiety for experimental and control groups for the Subsample girls is .785 which is not significant. This shows that the pre-experimental English language anxiety of secondary school students in experimental and control groups are almost the same for the Subsample girls. So, the two groups are comparable in terms of level of English language anxiety for Subsample girls.

The mean pre-test scores of English Language Anxiety of experimental and control groups for subsample Girls are represented graphically in Figure 11.

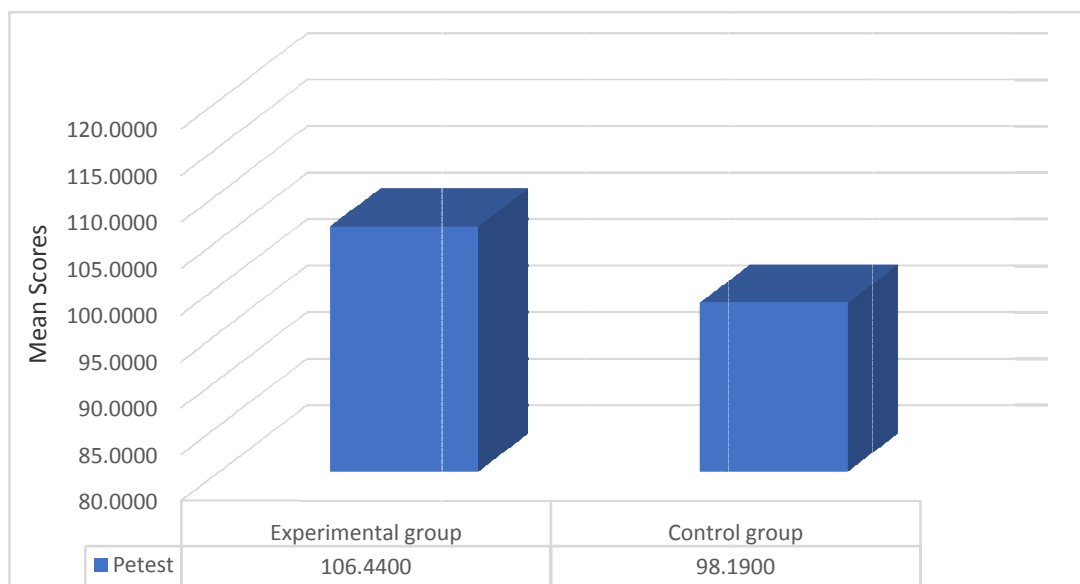


Figure 11. Mean pre-test scores of English Language Anxiety of experimental and control groups – Subsample Girls

The graphical representation indicates that the mean pre-test scores of English Language Anxiety of experimental and control groups are similar to certain extent for subsample Girls. Hence the graphical representation supports the result of mean difference analysis.

Comparison of the mean pre-test scores of Learner Satisfaction of Experimental and Control groups

To study whether the experimental group and control group differ significantly in terms of pre-test scores of Speaking skill test of significance of difference between means was utilized. To check whether there exists any statistically significant difference between mean Speaking skill scores of the groups prior to the experiment, mean pre-test scores of the two groups were

calculated and these values were subjected to test of significance of difference between means for Total Sample, Subsample Boys and subsample Girls are given in the following sections.

Comparison of the mean pre-test scores of Learner Satisfaction of Experimental and Control groups for total sample.

To compare the pre-experimental status of Learner Satisfaction of secondary school students belonging to experimental and control groups, the means and standard deviations of pre-test scores of Learner Satisfaction of the two groups were subjected to test of significance of difference between means. The details of *t* test for Total sample are presented in Table 37.

Table 37

Result of Test of Significance of Difference in Mean Pre-test Scores of Learner Satisfaction between Experimental and Control Groups – Total Sample

Variable	Experimental Group			Control Group			t	Level of Significance
	N ₁	M ₁	SD ₁	N ₂	M ₂	SD ₂		
Learner Satisfaction	45	49.87	19.70	45	45.24	17.42	1.179	N. S

N. S : Not Significant

It is evident from the table that the *t* test value obtained from the pre-test scores of Learner satisfaction for experimental and control groups for the Total sample is 1.179 which is not significant even at .05 levels. This shows that the pre-experimental Learner satisfaction of secondary school students in experimental and control groups are almost the same for the Total sample. So, the two groups are comparable in terms of level of Learner satisfaction for the Total sample.

The mean pre-test scores of Learner Satisfaction of experimental and control groups for Total sample are represented graphically in Figure 12.

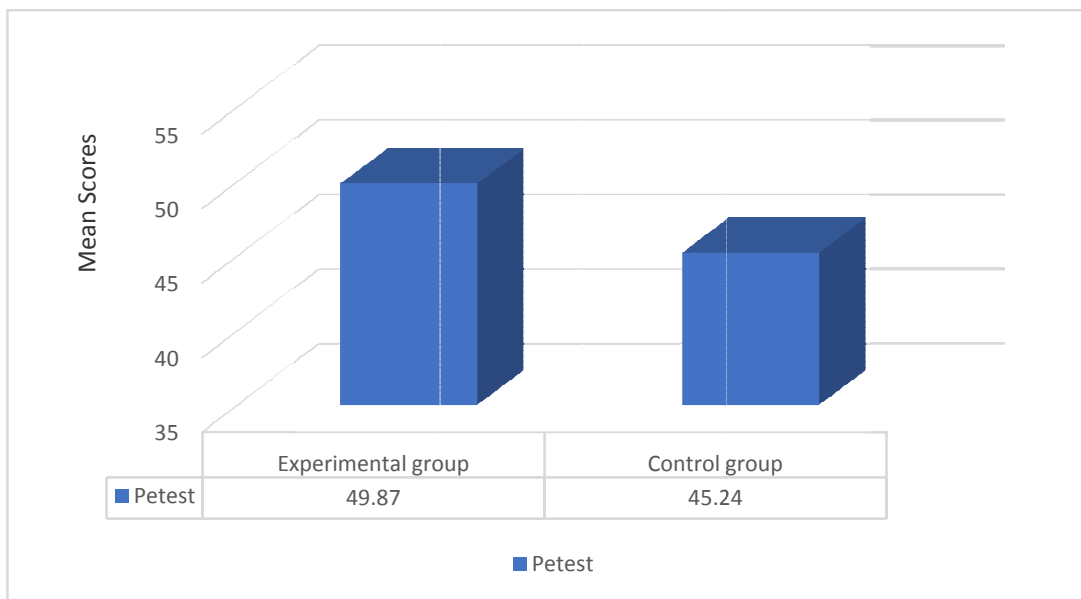


Figure 12. Mean pre-test scores of Learner Satisfaction of experimental and control groups - Total sample

The graphical representation of mean pre-test scores of Learner Satisfaction of experimental and control groups are similar. This supports the result of mean difference analysis.

Comparison of the mean pre-test scores of Learner Satisfaction of Experimental and Control groups for subsample Boys.

The means and standard deviations of pre-test scores of Learner Satisfaction of boys belong to Experimental and Control groups were subjected to test of significance of difference between means, to compare the pre-intervention status of Learner Satisfaction of the two groups. The data and results of t test for subsample Boys are presented in Table 38

Table 38

Result of Test of Significance of Difference in Mean Pre-test Scores of Learner Satisfaction between Experimental and Control Groups – Subsample Boys

Variable	Experimental Group			Control Group			t	Level of Significance
	N ₁	M ₁	SD ₁	N ₂	M ₂	SD ₂		
Learner Satisfaction	24	49.08	21.25	20	43.85	17.29	0.88	N. S

N. S : Not Significant

It is evident from the table that the t test value obtained from the pre-test scores of Learner satisfaction for experimental and control groups for the Subsample boys is .88 which is not significant even at .05 level. This shows that the pre-experimental Learner satisfaction of secondary school students in experimental and control groups are almost the same for the Subsample boys. So, the two groups are comparable in terms of level of Learner satisfaction for the Subsample boys.

The mean pre-test scores of Learner Satisfaction of experimental and control groups for subsample Boys are represented graphically in Figure 13.

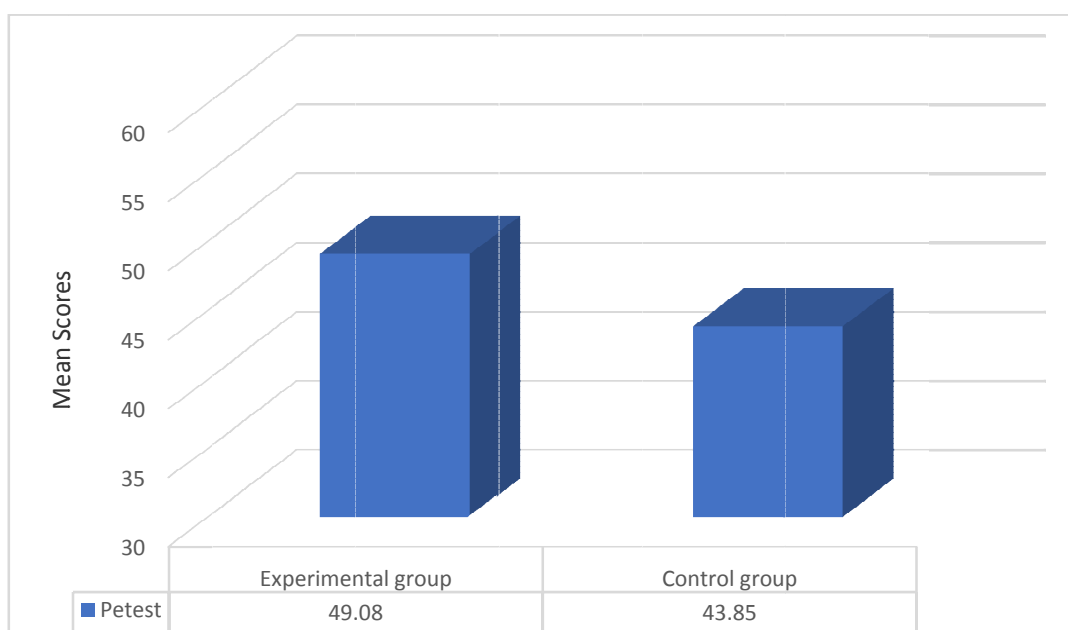


Figure 13. Mean pre-test scores of Learner Satisfaction of experimental and control groups – Subsample Boys

The graphical representation of mean pre-test scores of Learner Satisfaction of experimental and control groups shows that the mean performance of secondary school Boys in the two groups are almost the same for subsample Boys with respect to Learner Satisfaction. Hence the result of t test is supported by the graphical representation also.

Comparison of the mean pre-test scores of Learner Satisfaction of Experimental and Control groups for subsample Girls.

The means and standard deviations of pre-test scores of Learner Satisfaction of Experimental and Control groups were subjected to test of significance of difference between means, to compare the pre-intervention status of Learner Satisfaction of the two groups. The data and results of t test for subsample Girls are presented in Table 39.

Table 39

Result of Test of Significance of Difference in Mean Pre-test Scores of Learner Satisfaction between Experimental and Control Groups – Subsample Girls

Variable	Experimental Group			Control Group			t	Level of Significance
	N ₁	M ₁	SD ₁	N ₂	M ₂	SD ₂		
Learner Satisfaction	21	50.76	18.24	25	46.36	17.79	0.82	N. S

N. S : Not Significant

It is evident from the table that the t test value obtained from the pre-test scores of Learner satisfaction for experimental and control groups for the Subsample girls is .826 which is not significant even at .05 level. This shows that the pre-experimental Learner satisfaction of secondary school students in experimental and control groups are almost the same for the Subsample girls. So, the two groups are comparable in terms of level of Learner satisfaction for the Subsample girls.

The mean pre-test scores of Learner Satisfaction of experimental and control groups for subsample Girls are represented graphically in Figure 14.

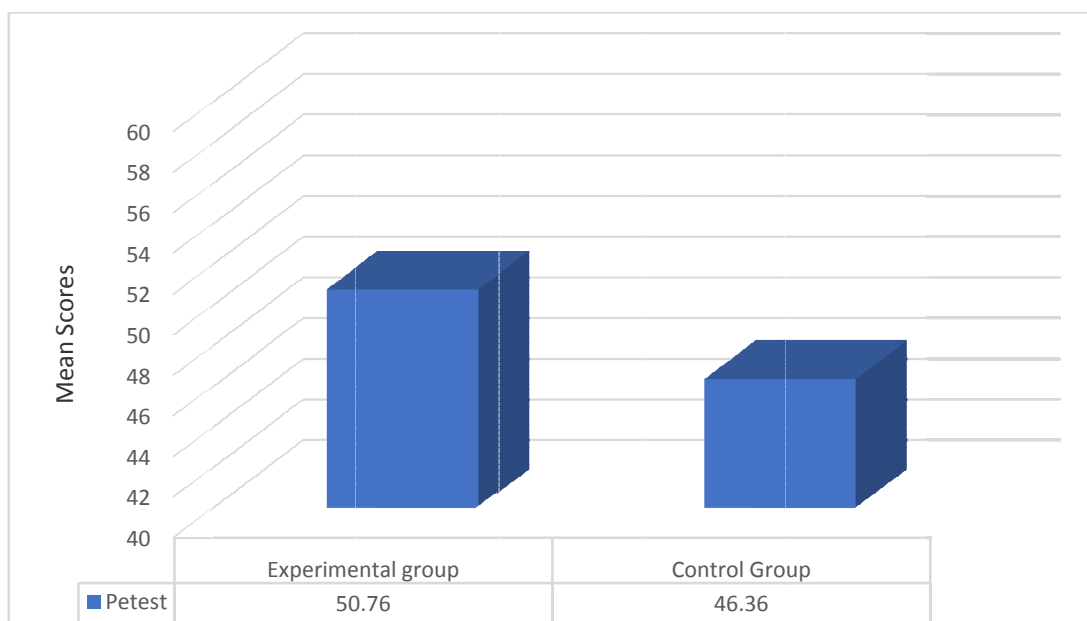


Figure 14. Mean pre-test scores of Learner Satisfaction of experimental and control groups – Subsample Girls

The graphical representation indicates that the mean pre-test scores of Learner Satisfaction of experimental and control groups are similar to certain extent for subsample Girls. Hence the graphical representation supports the result of mean difference analysis.

Discussion

The mean difference analysis of pre-test scores of Listening skill in English, Speaking skill in English, English language Anxiety and Learner Satisfaction of experimental and control groups is shown above in detail.

The control and experimental groups don't differ significantly in the pre-intervention status of Listening skill in English, Speaking skill in English, English language Anxiety and Learner Satisfaction for Total sample,

subsample Boys and subsample Girls. Hence the experimental and control groups are comparable with regard to the previously mentioned variables for the particular samples.

Comparison of the mean pre-test and post-test scores of Listening skill, Speaking skill and English Language Anxiety of Experimental group.

Experimental group given the treatment of Blended Learning Approach and the control group was taught through Current instructional practices English. To test the effectiveness of Blended Learning Approach in enhancing Listening skill and Speaking skill in English, Learner satisfaction and to reduce English Language Anxiety of secondary school students, the mean scores before and after the intervention of the students belonging to the experimental group were compared for the Total sample, subsample Boys and subsample Girls.

Comparison of the mean pre-test and post-test scores of Listening skill in English of Experimental group.

To compare mean performance of Total sample of Secondary school students in the experimental group on pre-test and post-test of Listening skill in English, paired t test was used. The means and standard deviations of pre-test and post-test scores were subjected to test of significance of difference between two correlated means for the Total sample, subsample Boys and subsample Girls. The details are presented in the following sections.

Comparison of the mean pre-test and post-test scores of Listening skill in English of experimental group for total sample.

To check whether there exists any statistically significant difference between mean Listening skill scores of the experimental group prior to the intervention and mean post-test scores, these two were calculated and subjected to paired t test for Total sample.

The details of paired t test for Total sample are presented in Table below.

Table 40

Result of Test of Significance of Difference in Mean Pre-test and Post-test Scores of Listening Skills in English of Experimental Group – Total Sample

Variable	Pre-test			Post-test			t
	N ₁	M ₁	SD ₁	N ₂	M ₂	SD ₂	
Listening Skill in English	45	20.84	6.80	45	25.76	6.80	3.53**

** $p < .01$

It is evident from the table that the calculated t test value obtained from the pre-test and post-test scores of Listening skill in English for experimental group for the Total sample is 3.53. So there is significant difference between mean pre-test scores and mean post-test scores of Listening skill in English of secondary school students in the experimental group at .01 level. Thus the post-test scores in Listening skill in English is greater than the pre-test scores in Listening skill in English for the Total sample. Hence blended learning approach is effective in enhancing Listening skill of Total sample of secondary school students.

The mean pre-test and post-test scores of Listening skill in English for Total sample in the experimental group are presented graphically in Figure 15.

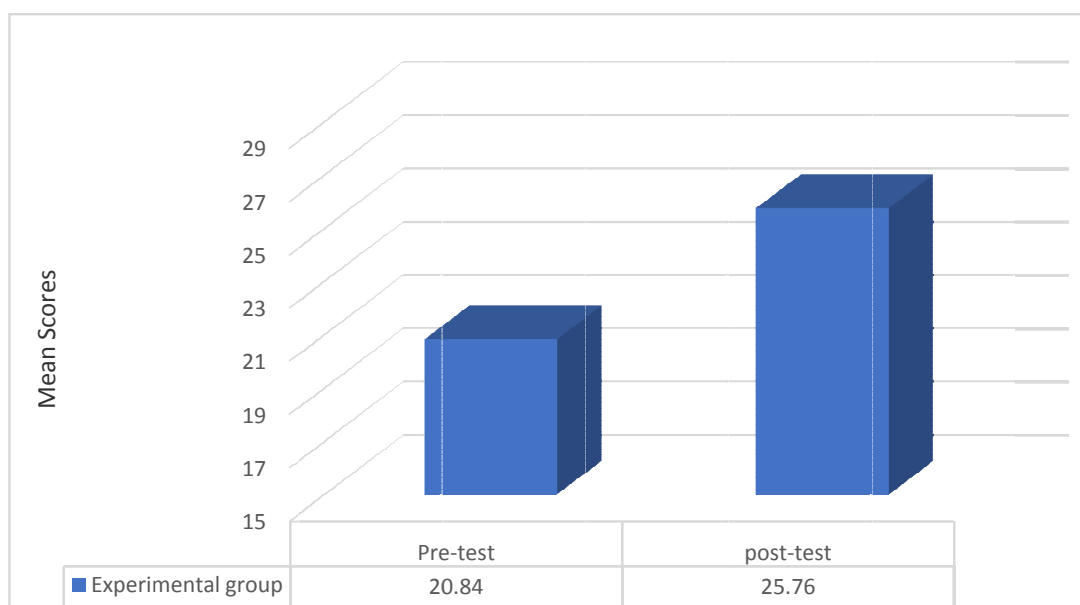


Figure 15. Mean pre-test and post-test scores of Listening skill in English of experimental group – Total sample

The graphical representation of mean pre-test and post-test scores of Listening skill in English indicates that the performance of secondary school students in the two sets are not similar and mean post-test score is greater than the mean pre-test score. The result of mean difference analysis is backed by the graphical representation.

Comparison of the mean pre-test and post-test scores of Listening skill in English of Experimental group for subsample Boys.

To check whether there exists any statistically significant difference between mean Listening skill score of the experimental group prior to the experiment and mean post-test scores were calculated and these values were subjected to paired t test for subsample Boys.

The details of *paired t test* for subsample Boys are presented in Table 41.

Table 41

Result of Test of Significance of Difference in Mean Pre-test and Post-test Scores of Listening Skill in English of Experimental Group – Subsample Boys

Variable	Experimental group						t
	Pre-test			Post-test			
	N ₁	M ₁	SD ₁	N ₂	M ₂	SD ₂	
Listening Skill in English	24	20.88	6.86	24	25.79	6.10	2.55**

** p < .01

It is evident from the table that the calculated t test value obtained from the pre-test and post-test scores of Listening Skill in English for experimental group for the Subsample Boys is 2.55. So, there is significant difference between mean pre-test scores and mean post-test scores of Listening skill in English of secondary school students in the experimental group at .01 level. Thus the post-test scores of Listening skill in English is greater than the pre-test scores in Listening skill in English for the Subsample boys. Hence Blended Learning Approach is effective in enhancing Listening skill of Subsample boys of secondary school students.

The mean pre-test and post-test scores of Listening skill in English for subsample Boys in the experimental group are presented graphically in Figure 16

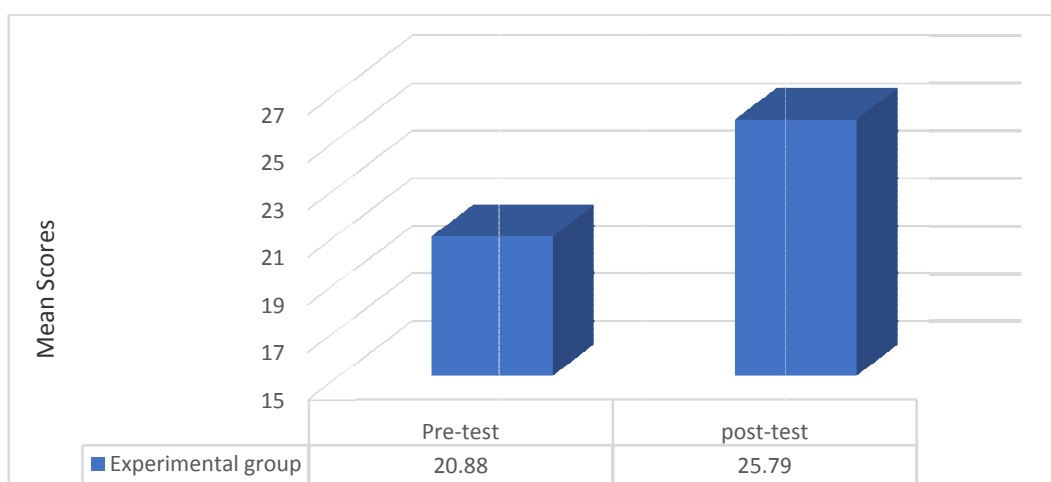


Figure 16. Mean pre-test and post-test scores of Listening skill in English of experimental group– subsample Boys

The graphical representation of mean pre-test and post-test of Listening skill in English indicates that the performance of secondary school students in the two sets are not similar and mean post-test score is greater than the mean pre-test score. Hence the graphical representation supports the result of mean difference analysis.

Comparison of the mean pre-test and post-test scores of Listening skill in English of Experimental group for subsample Girls.

To compare the mean performance of subsample Girls in the experimental group on mean pre-test and post-test of Listening skill, paired *t* test was used. The mean and standard deviation of pre-test scores and post-test scores were subjected to mean difference analysis and the calculated *t* values were tested for significance.

The details of paired *t* test for subsample Girls are presented in Table 42

Table 42

Result of Test of Significance of Difference in Mean Pre-test and Post-test Scores of Listening Skill in English of Experimental Group – Subsample Girls

Variable	Experimental group						t
	Pre-test			Post-test			
	N ₁	M ₁	SD ₁	N ₂	M ₂	SD ₂	
Listening skill in English	21	20.81	6.90	21	25.71	6.30	2.38*

* *p* < .05

It is clear from the table that the calculated *t* test value obtained from the pre-test and post-test scores of Listening skill in English for experimental group for the Subsample Girls is 2.38. So, there is significant difference between mean pre-test scores and mean post-test scores of Listening skill in English of secondary school students in the experimental group for the

Subsample Girls. Hence Blended Learning Approach is effective in enhancing Listening skill of Subsample Girls of secondary school students.

The mean pre-test and post-test scores of Listening skill in English for subsample Girls in the experimental group are presented graphically in Figure 17

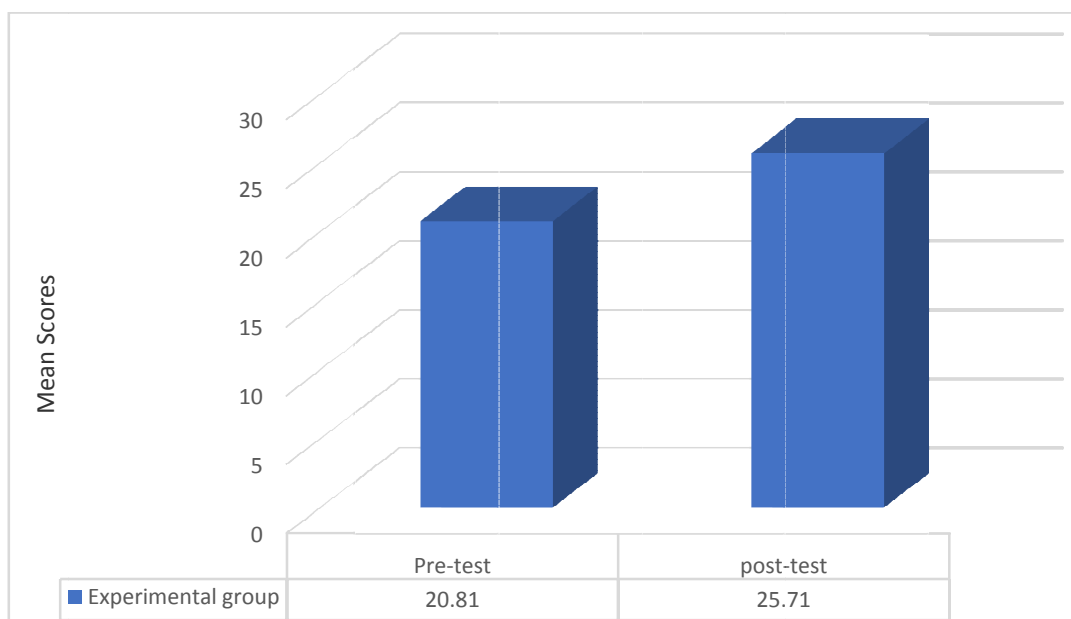


Figure 17. Mean pre-test and post-test scores of Listening skill in English of experimental group – subsample Girls

The graphical representation of mean pre-test and post-test scores of Listening skill in English indicates that the performance of secondary school students in the two sets are not similar and the mean post-test score is greater than the mean pre-test score. Hence the graphical representation supports the result of mean difference analysis.

Comparison of the mean pre-test and post-test scores of Speaking skill in English of experimental group.

To compare the mean performance of Total sample of Secondary school students in the experimental group on pre-test and post-test of

Speaking skill in English, paired *t* test was used. The means and standard deviations of pre-test and post-test scores were subjected to test of significance of difference between two correlated means for the Total sample, subsample Boys and subsample Girls. The details are presented in the following sections.

Comparison of the mean pre-test and post-test scores of Speaking skill in English of Experimental group for total sample.

To check whether there exists any statistically significant difference between mean scores of Speaking skill of the experimental group prior to the experiment, mean post-test scores were calculated and these values were subjected to paired *t* test for Total Sample

The details of *paired t test* for Total sample are presented in Table 43

Table 43

Result of Test of Significance of Difference in Mean Pre-test and Post-test Scores of Speaking Skill in English of Experimental Group – Total Sample

Variable	Experimental group						t
	Pre-test			Post-test			
	N ₁	M ₁	SD ₁	N ₂	M ₂	SD ₂	
Speaking skill in English	45	15.44	5.49	45	19.56	4.81	3.64**

** p < .01

It is evident from the table that the calculated *t* test value obtained from the pre-test and post-test scores of Speaking skill in English for experimental group for the Total sample is 3.64. So, there is significant difference between mean pre-test scores and mean post-test scores of Speaking skill in English of secondary school students in the experimental group at .01 level. Thus the post-test scores in Speaking skill in English is greater than the pre-test scores in Speaking skill in English for the Total

sample. Hence Blended Learning Approach is effective in enhancing Speaking skill of Total sample of secondary school students.

The mean pre-test and post-test scores of Speaking skill in English for Total sample in the experimental group are presented graphically in Figure 18.

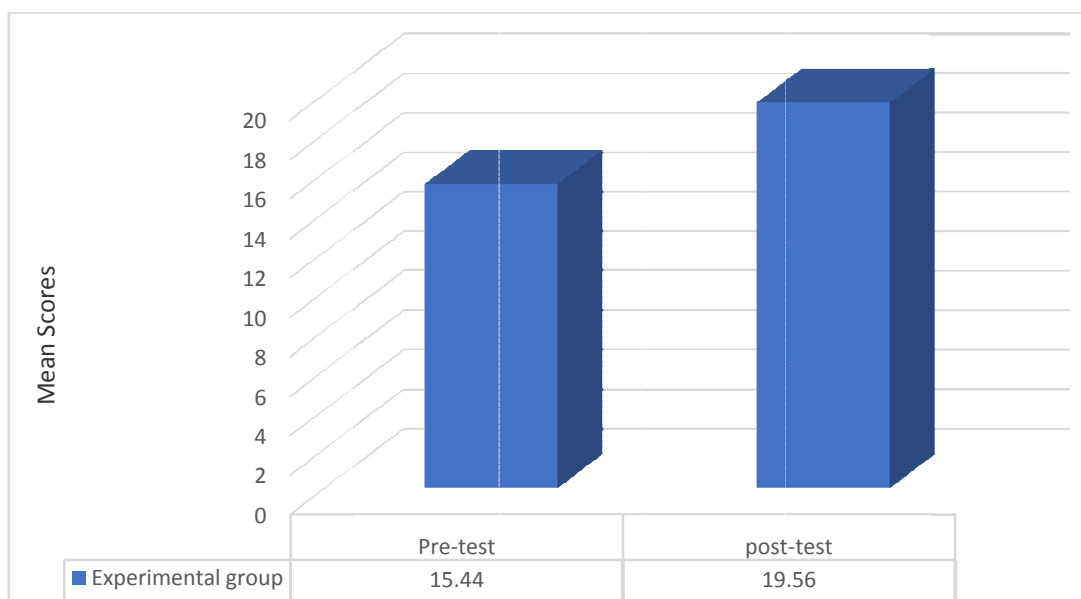


Figure 18. Mean pre-test and post-test scores of Speaking skill in English of experimental group – Total sample

The graphical representation of mean pre-test and post-test of Speaking skill in English indicates that the performance of secondary school students in the two sets are not similar and mean post-test score is greater than the mean pre-test score. Hence the graphical representation supports the result of mean difference analysis.

Comparison of the Mean Pre-test and Post-test Scores of Speaking Skill in English of Experimental Group for subsample Boys.

Paired t test in Speaking skill was used to compare mean performance of subsample Boys in the experimental group on pre-test and post-test. The

mean and standard deviations of pre-test scores and post-test scores were calculated and these values were subjected to mean difference analysis and the calculated paired t test values were tested for significance.

The details of paired t test for subsample Boys are presented in Table 44

Table 44

Result of Test of Significance of Difference in Mean Pre-test and Post-test Scores of Speaking Skill in English of Experimental Group – Subsample Boys

Variable	Experimental Group						t
	Pre-test			Post-test			
	N ₁	M ₁	SD ₁	N ₂	M ₂	SD ₂	
Speaking skill in English	24	15.29	5.53	24	19.67	5.11	2.85**

** $p < .01$

It is evident from the table that the calculated t test value obtained from the pre-test and post-test scores of Speaking skill in English for experimental group for the Subsample boys is 2.85. So there is significant difference between mean pre-test scores and mean post-test scores of Speaking skill in English of secondary school students in the experimental group at .01 level. Thus the post-test scores in Speaking skill in English is greater than the pre-test scores of Speaking skill in English for the Subsample boys. Hence Blended Learning Approach is effective in enhancing Speaking skill of Subsample boys of secondary school students.

The mean pre-test and post-test scores of Speaking skill in English for subsample Boys in the experimental group are presented graphically in Figure 19.

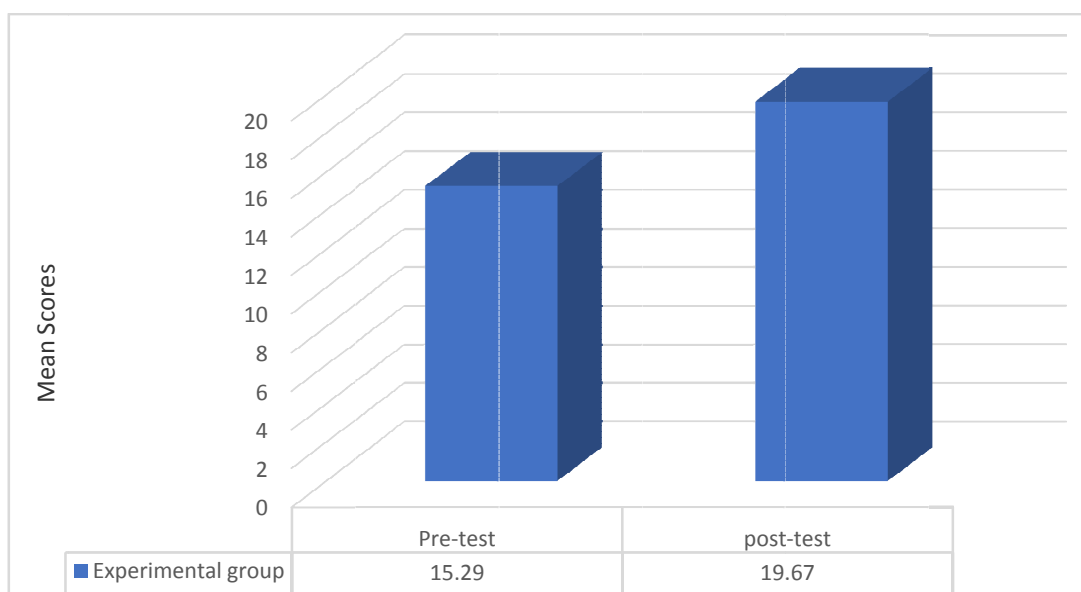


Figure 19. Mean pre-test and post-test scores of Speaking skill in English of experimental group – subsample Boys

The graphical representation of mean pre-test and post-test of Speaking skill in English indicates that the performance of secondary school students in the two sets are not similar and mean post-test score is greater than the mean pre-test score. Hence the graphical representation supports the result of mean difference analysis.

Comparison of the Mean Pre-test and Post-test Scores of Speaking Skill in English of Experimental Group for Subsample Girls.

To compare the mean performance of subsample Girls in the experimental group on mean pre-test and post-test of Speaking skill, paired *t* test was used. The mean and standard deviation of pre-test scores and post-test scores were subjected to mean difference analysis and the calculated *t* values were tested for significance.

The details of *paired t* test for subsample Girls are presented in Table

Table 45

Result of Test of Significance of Difference in Mean Pre-test and Post-test Scores of Speaking Skill in English of Experimental Group – Subsample Girls

Variable	Experimental Group						t
	Pre-test			Post-test			
	N ₁	M ₁	SD ₁	N ₂	M ₂	SD ₂	
Speaking skill in English	21	15.62	5.57	21	19.43	4.57	2.42**

** p < .01

It is clear from the table that the calculated *t* test value obtained from the pre-test and post-test scores of Speaking Skill in English for experimental group for the Subsample Girls is 2.42. So, there is significant difference between mean pre-test scores and mean post-test scores of Speaking Skill in English of secondary school students in the experimental group at .01 level of Speaking Skill in English for the Subsample Girls. Hence Blended Learning Approach is effective in enhancing Speaking Skill of Subsample Girls of secondary school students.

The mean pre-test and post-test scores of Speaking skill in English for subsample Girls in the experimental group are presented graphically in Figure 20.

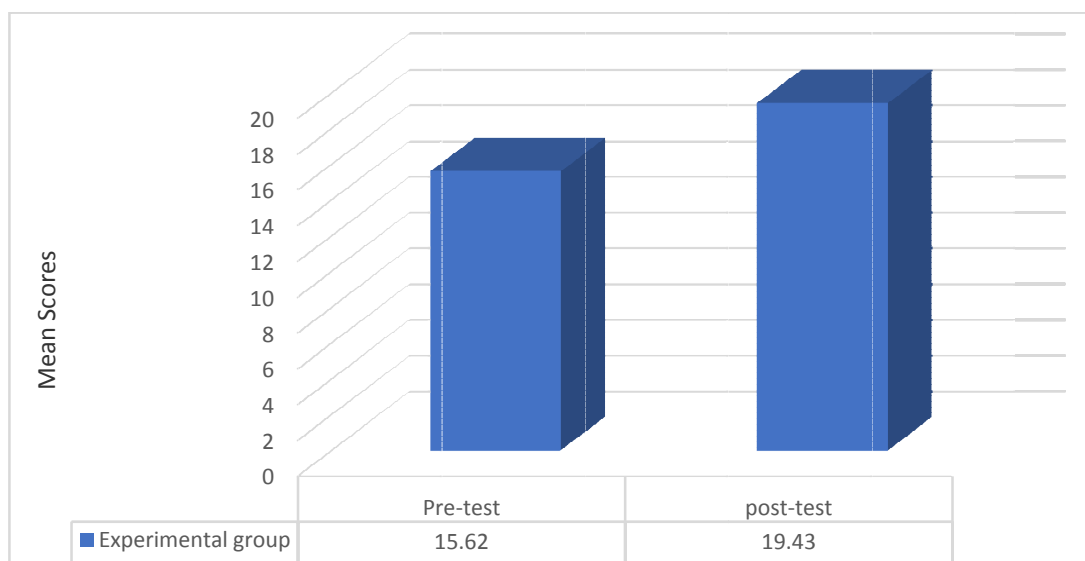


Figure 20. Mean pre-test and post-test scores of Speaking skill in English of experimental group – subsample Girls

The graphical representation in Figure... of pre-test and post-test means of Speaking skill in English indicates that the performance of secondary school students in the two sets are not similar and mean post-test score is greater than the mean pre-test score. Hence the graphical representation supports the result of mean difference analysis.

Comparison of the mean pre-test and post-test scores of English Language Anxiety of Experimental group.

To compare mean performance of Total sample of Secondary school students in the experimental group on pre-test and post-test scores of English Language Anxiety, paired *t* test was used. The means and standard deviations of pre-test and post-test scores were subjected to test of significance of difference between two correlated means for the Total sample, subsample Boys and subsample Girls. The details are presented in the following sections.

Comparison of the mean pre-test and post-test scores of English Language Anxiety of Experimental group for total sample.

To check whether there exists any statistically significant difference between mean scores of English Language Anxiety in the experimental group prior to the experiment mean post-test scores were calculated and these values were subjected to paired *t* test for Total Sample.

The details of *paired t test* for Total sample are presented in Table 46.

Table 46

Result of Test of Significance of Difference in Mean Pre-test and Post-test Scores of English Language Anxiety of Experimental Group – Total Sample

Variable	Pre-test			Post-test			t
	N ₁	M ₁	SD ₁	N ₂	M ₂	SD ₂	
English Language Anxiety	45	100.04	38.80	45	79.82	33.22	2.65**

** p < .01

It is evident from the table that the calculated *t* test value obtained from the pre-test and post-test scores of English Language Anxiety for experimental group for the Total sample is 2.65. So there is significant difference between mean pre-test scores and mean post-test scores of English Language Anxiety of secondary school students in the experimental group at .01 level. Thus the post-test scores in English Language Anxiety is lower than the pre-test scores in English Language Anxiety for the Total sample. Hence Blended Learning Approach is effective in reducing English Language Anxiety of Total sample of secondary school students.

The mean pre-test and post-test scores of English Language Anxiety for Total samples in the experimental group are presented graphically in Figure 21

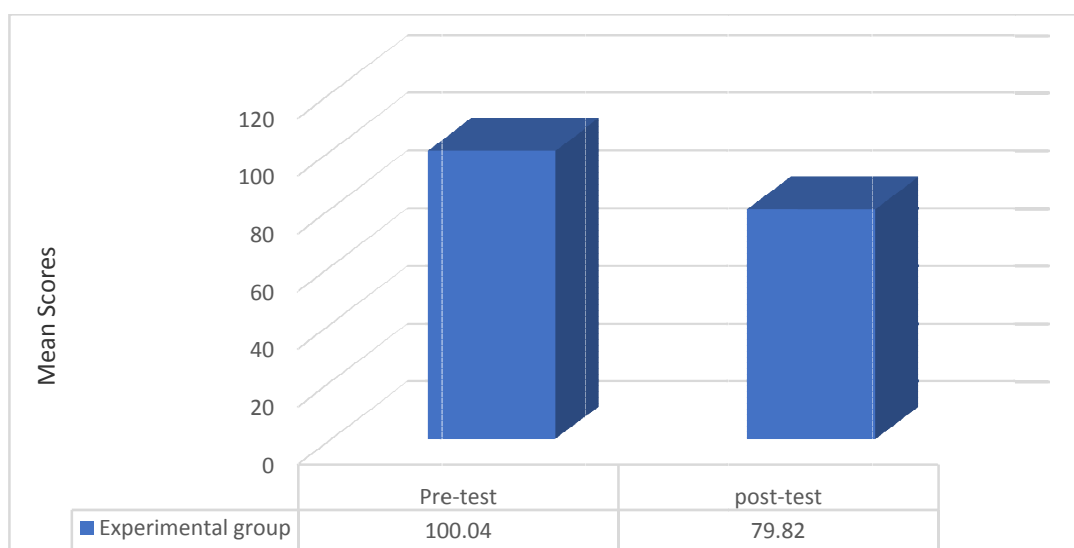


Figure 21. Mean pre-test and post-test scores of English Language Anxiety of experimental group – Total sample

The graphical representation of mean pre-test and post-test of English Language Anxiety indicates that the performance of secondary school students in the two sets are not similar and mean post-test score is lower than the mean pre-test scores. Hence the graphical representation supports the result of mean difference analysis.

Comparison of the mean pre-test and post-test scores of English Language Anxiety of Experimental group for subsample Boys.

To check whether there exists any statistically significant difference between mean score of English Language Anxiety in the experimental group prior to the experiment and mean post-test scores were calculated and these values were subjected to paired *t* test for subsample Boys.

The details of *paired t* test for subsample Boys are presented in Table 47

Table 47

Result of Test of Significance of Difference in Mean Pre-test and Post-test Scores of English Language Anxiety of Experimental Group – Subsample Boys

Variable	Experimental group						t
	Pre-test			Post-test			
	N ₁	M ₁	SD ₁	N ₂	M ₂	SD ₂	
English Language Anxiety	24	101.67	41.95	24	81.42	36.76	1.77*

** p < .05

It is evident from the table that the calculated *t* test value obtained from the pre-test and post-test scores of English Language Anxiety for experimental group for the Subsample boys is 1.77. So there is significant difference between mean pre-test scores and mean post-test scores of English Language Anxiety of secondary school students in the experimental group at .05 level. Thus the post-test scores in English Language Anxiety is lower than the pre-test scores in English Language Anxiety for the Total sample. Hence

Blended Learning Approach is effective in reducing English Language Anxiety of Subsample boys of secondary school students.

The mean pre-test and post-test scores of English Language Anxiety for Subsample boys in the experimental group are presented graphically in Figure 22.

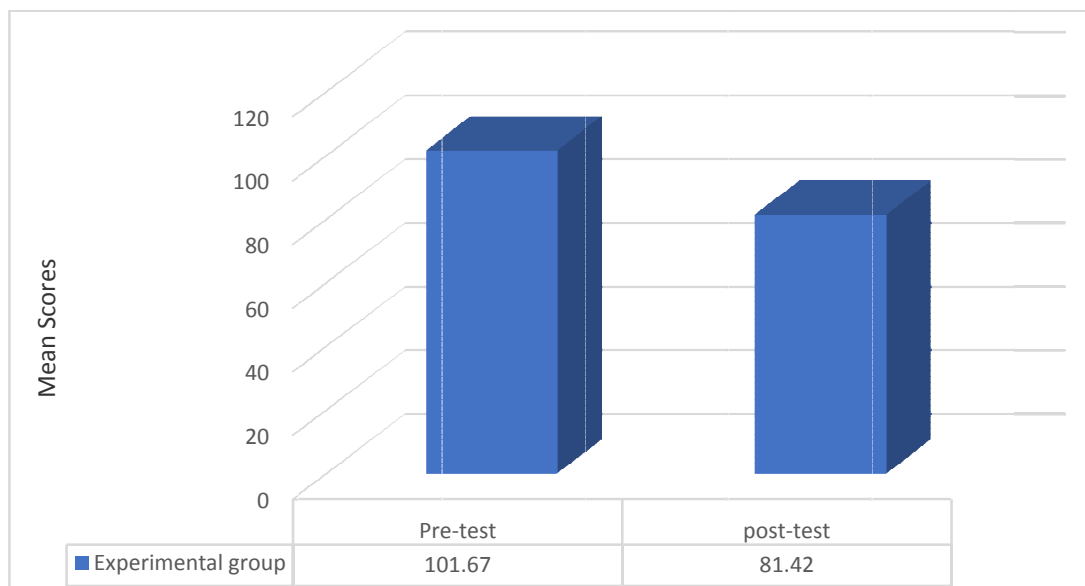


Figure 22. Mean pre-test and post-test scores of English Language Anxiety of experimental group – subsample Boys

The graphical representation of mean pre-test and post-test of English Language Anxiety indicates that the performance of secondary school students in the two sets are not similar and mean post-test score is lower than the mean pre-test scores. Hence the graphical representation supports the result of mean difference analysis.

Comparison of the mean pre-test and post-test scores of English Language Anxiety of Experimental group for subsample Girls.

To compare the mean performance of subsample Girls in the experimental group on mean pre-test and post-test of English Language

Anxiety, paired t test was used. The mean and standard deviation of pre-test scores and post-test scores were subjected to mean difference analysis and the calculated t values were tested for significance.

The details of *paired t test* for subsample Girls are presented in Table 48.

Table 48

Result of Test of Significance of Difference in Mean Pre-test and Post-test Scores of English Language Anxiety of Experimental Group – Subsample Girls

Variable	Experimental group						t
	Pre-test			Post-test			
	N ₁	M ₁	SD ₁	N ₂	M ₂	SD ₂	
English Language Anxiety	21	98.19	35.79	21	78.00	29.45	1.99*

* p < .05

It is evident from the table that the calculated *t* test value obtained from the pre-test and post-test scores of English Language Anxiety for experimental group for the Subsample girls is 1.99. So there is significant difference between mean pre-test scores and mean post-test scores of English Language Anxiety of secondary school students in the experimental group at .05 level. Thus the post-test scores in English Language Anxiety is lower than the pre-test scores in English Language Anxiety for the Total sample. Hence Blended Learning Approach is effective in reducing English Language Anxiety of Total sample of secondary school students.

The mean pre-test and post-test scores of English Language Anxiety for Subsample girls in the experimental group are presented graphically in Figure 23.

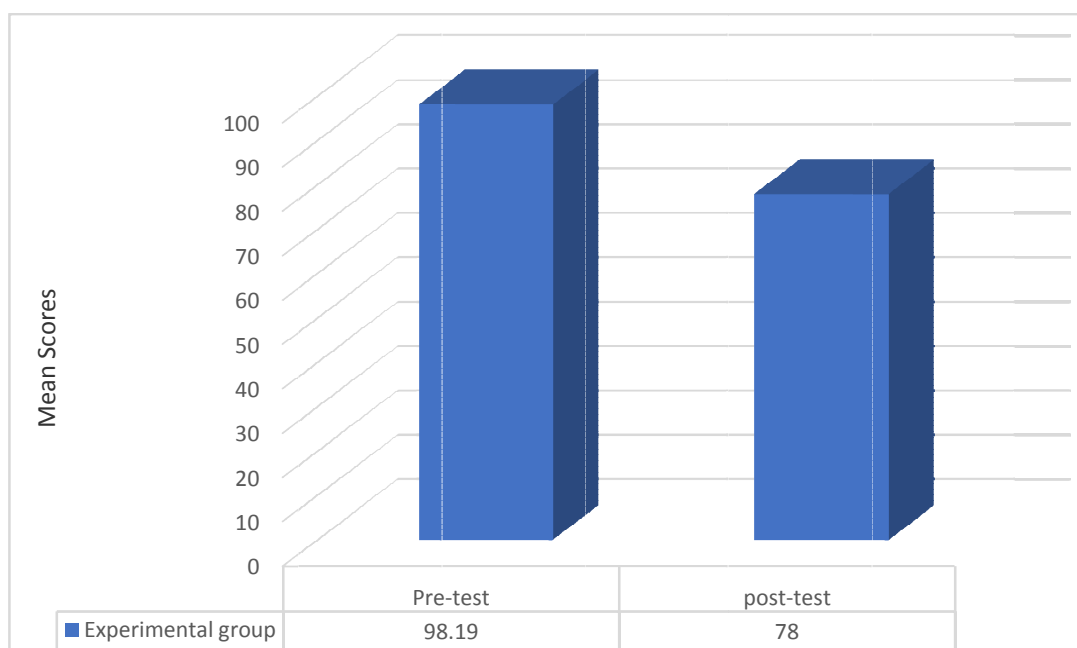


Figure 23. Mean pre-test and post-test scores of English Language Anxiety of experimental group – subsample Girls

The graphical representation of mean pre-test and post-test of English Language Anxiety indicates that the performance of secondary school students in the two sets are not similar and mean post-test score is lower than the mean pre-test scores. Hence the graphical representation supports the result of mean difference analysis.

Comparison of the mean pre-test and post-test scores of Learner Satisfaction of Experimental group.

To compare the mean performance of Total sample of Secondary school students in the experimental group on pre-test and post-test of Learner satisfaction, paired t test was used. The means and standard deviations of pre-test and post-test scores were subjected to test of significance of difference between two correlated means for the Total sample, subsample Boys and subsample Girls. The details are presented in the following sections.

Comparison of the mean pre-test and post-test scores of Learner Satisfaction of Experimental group for total sample.

To check whether there exists any statistically significant difference between mean Learner Satisfaction scores of the experimental group prior to the experiment and mean post-test scores were calculated and these values were subjected to paired *t* test for Total Sample

The details of *paired t test* for Total sample are presented in Table 49.

Table 49

Result of Test of Significance of Difference in Mean Pre-test and Post-test Scores of Learner Satisfaction of Experimental Group – Total Sample

Variable	Experimental group						t
	Pre-test			Post-test			
	N ₁	M ₁	SD ₁	N ₂	M ₂	SD ₂	
Learner satisfaction	45	49.87	19.38	45	61.89	15.75	3.22**

** p < .01

It is evident from the table that the calculated *t* test value obtained from the pre-test and post-test scores of Learner satisfaction for experimental group for the Total sample is 3.22. So there is significant difference between mean pre-test scores and mean post-test scores of Learner satisfaction of secondary school students in the experimental group at .01 level. Thus the post-test scores in Learner satisfaction is greater than the pre-test scores in Listening skill in English for the Total sample. Hence blended learning approach is effective in enhancing Listening skill of Total sample of secondary school students.

The mean pre-test and post-test scores of Learner satisfaction for Total sample in the experimental group are presented graphically in Figure 24.

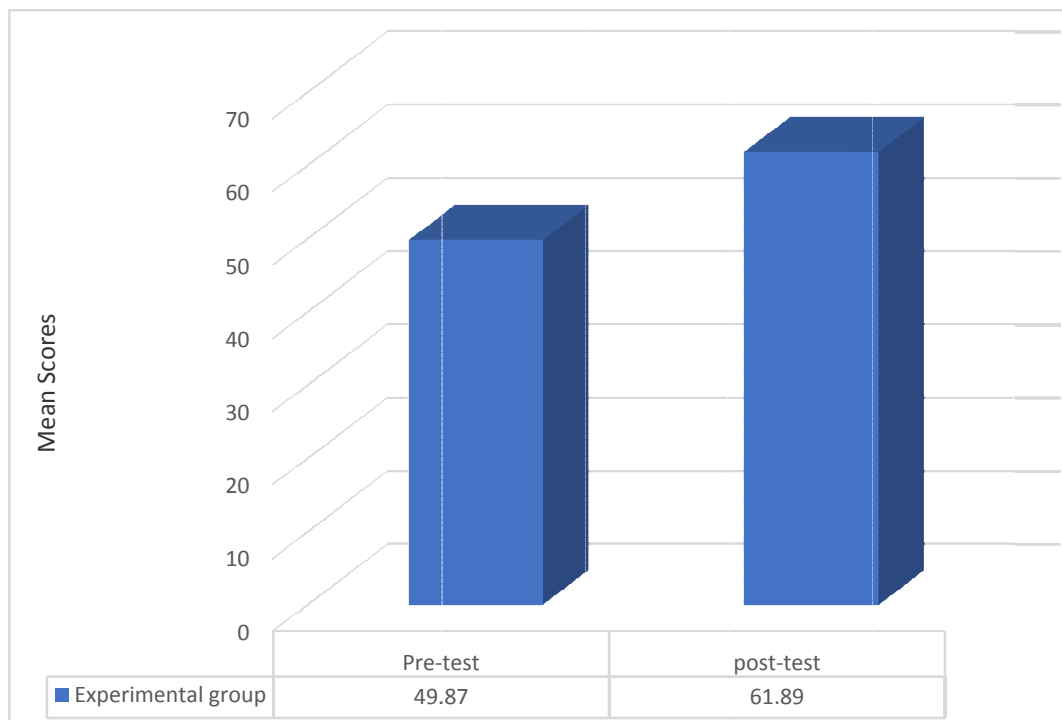


Figure 24. Mean pre-test and post-test scores of Learner Satisfaction of experimental group – Total sample

The graphical representation of mean pre-test and post-test of Learner Satisfaction indicates that the performance of secondary school students in the two sets are not similar and mean post-test score is greater than the mean pre-test score. Hence the graphical representation supports the result of mean difference analysis.

Comparison of the mean pre-test and post-test scores of Learner Satisfaction of Experimental group for subsample Boys.

To check whether there exists any statistically significant difference between mean Learner Satisfaction score of the experimental group prior to the experiment and mean post-test scores were calculated and these values were subjected to paired t test for subsample Boys.

The details of *paired t test* for subsample Boys are presented in Table 50.

Table 50

Result of Test of Significance of Difference in Mean Pre-test and Post-test Scores of Learner Satisfaction of Experimental Group – Subsample Boys

Variable	Experimental group						t
	Pre-test			Post-test			
	N ₁	M ₁	SD ₁	N ₂	M ₂	SD ₂	
Learner satisfaction	24	49.08	20.94	24	60.29	17.94	1.99*

* p < .05

It is evident from the table that the calculated t test value obtained from the pre-test and post-test scores of Learner satisfaction for experimental group for the Subsample Boys is 1.99. So there is significant difference between mean pre-test scores and mean post-test scores of Learner satisfaction of secondary school students in the experimental group at .05 level. Thus the post-test scores in Learner satisfaction is greater than the pre-test scores in Listening skill in English for the Total sample. Hence blended learning approach is effective in enhancing Listening skill of Total sample of secondary school students.

The mean pre-test and post-test scores of Learner satisfaction for Subsample Boys in the experimental group are presented graphically in Figure 25.

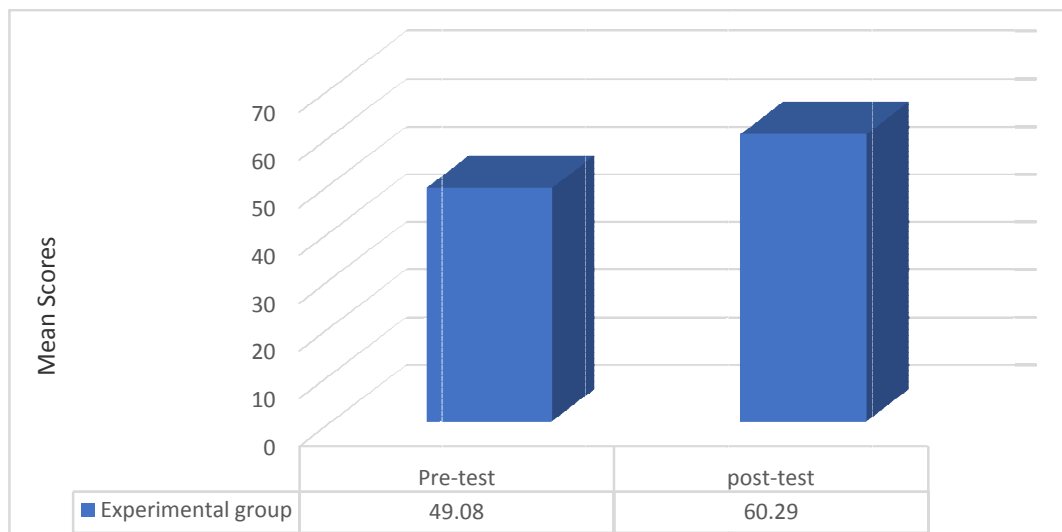


Figure 25. Mean pre-test and post-test scores of Learner Satisfaction of experimental group – subsample Boys

The graphical representation of mean pre-test and post-test of Learner Satisfaction indicates that the performance of secondary school students in the two sets are not similar and mean post-test score is greater than the mean pre-test scores. Hence the graphical representation supports the result of mean difference analysis.

Comparison of the mean pre-test and post-test scores of Learner Satisfaction of Experimental group for subsample Girls.

To compare the mean performance of subsample Girls in the experimental group on mean pre-test and post-test of Learner satisfaction, paired t test was used. The mean and standard deviation of pre-test scores and post-test scores were subjected to mean difference analysis and the calculated t values were tested for significance.

The details of *paired t test* for subsample Girls are presented in Table 51.

Table 51

Result of Test of significance of Difference in mean Pre-test and Post-test Scores of Learner Satisfaction of Experimental Group – Subsample Girls

Variable	Experimental group						t
	Pre-test			Post-test			
	N ₁	M ₁	SD ₁	N ₂	M ₂	SD ₂	
Listening skill	21	50.76	17.89	21	63.71	12.99	2.68**

** p < .01

It is evident from the table that the calculated *t* test value obtained from the pre-test and post-test scores of Learner satisfaction for experimental group for the Subsample Boys is 2.68. So there is significant difference between mean pre-test scores and mean post-test scores of Learner satisfaction of secondary school students in the experimental group at .01 level. Thus the post-test scores in Learner satisfaction is greater than the pre-test scores in Listening skill in English for the Total sample. Hence blended learning approach is effective in enhancing Learner satisfaction of Subsample girls of secondary school students.

The mean pre-test and post-test scores of Learner Satisfaction for subsample Girls in the experimental group are presented graphically in Figures 26.

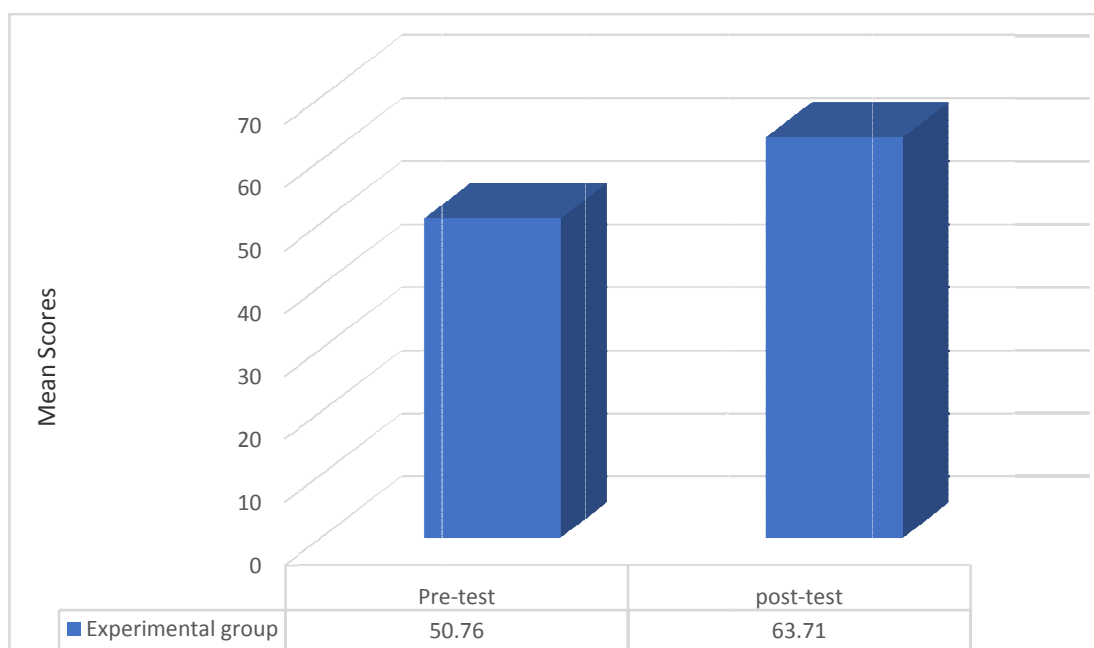


Figure 26. Mean pre-test and post-test scores of Learner Satisfaction of experimental group – subsample Girls

The graphical representation of mean pre-test and post-test of Learner Satisfaction indicates that the performance of secondary school students in the two sets are not similar and mean post-test score is greater than the mean pre-test scores. Hence the graphical representation supports the result of mean difference analysis.

Discussion

The mean difference analysis of pre-test and post-test scores of Listening skill, Speaking skill, English Language Anxiety and learner Satisfaction of secondary school students in the Experimental group has shown the following result.

There is significant difference between the pre-test and post-test scores of Listening skill for Total sample and subsample Boys and subsample Girls. Hence the Blended Learning Approach is effective in enhancing the Listening skill in English for Total sample and subsamples Boys and subsample Girls.

The mean pre-test and post-test scores differ significantly for Speaking skill for Total sample and subsample Boys and subsample Girls. Hence the Blended Learning Approach is effective in enhancing the Speaking skill in English for Total sample and subsample Boys and subsample Girls.

The difference between the pre-test and post-test scores of English Language Anxiety is significant for Total sample and subsamples Boys and subsample Girls. Hence the Blended Learning Approach is effective in reducing the English Language Anxiety for Total sample and subsamples Boys and subsample Girls.

The mean pre-test and post-test scores differ significantly for Learner Satisfaction for Total sample and subsample Boys and subsample Girls. Hence the Blended Learning Approach is effective in enhancing the Learner Satisfaction in English for Total sample and subsample Boys and subsample Girls.

Comparison of the Mean Post-test scores of Listening Skill, Speaking Skill and English Language Anxiety of Experimental and Control Groups

The comparisons of mean performance of the students belonging to Control and experimental groups on Listening skill and Speaking skill, English Language Anxiety and Learner satisfaction of the experimental group taught through Blended Learning Approach and the control group taught through Current instructional practices were done to compare effect of Blended Learning Approach and Current instructional practices on Listening skill and Speaking skill, English Language Anxiety, and Learner satisfaction of the secondary school students after the intervention.

Comparison of the mean post-test scores of Listening skill in English of Experimental and control groups

Comparisons of mean scores were carried out to test whether significant difference exists between mean scores of experimental and control groups in the dependant variable Listening skill in English after the intervention means and standard deviations of post-test scores of both experimental and control groups were calculated and these values were subjected to test of significance of difference between means for Total Sample, Subsample Boys and subsample Girls are given in the following sections.

Comparison of the mean post-test scores of Listening skill in English of Experimental and Control groups for total sample.

To compare the post interventional effect of Listening skill in English of secondary school students belonging to experimental and control groups, the means and standard deviations of post-test scores of Listening skill in English of the two groups were subjected to test of significance of difference between means. The details of *t* test for Total sample are presented in Table 52

Table 52

Result of Test of Significance of Difference in Mean Post-test Scores of Listening Skill in English between Experimental and Control Groups – Total Sample

Variable	Experimental Group			Control Group			t
	N ₁	M ₁	SD ₁	N ₁	M ₁	SD ₁	
Listening skill	45	25.76	6.13	45	21.60	5.78	3.30**

** $p < .01$

It is evident from the table that the calculated *t* test value obtained by the post-test scores of Listening skill in English between experimental and control groups for the Total sample is 3.30. The mean score of the experimental

group is significantly greater than the mean score of the control group after the intervention at .01 level. Hence blended learning approach is effective in enhancing Listening skill of Total sample of secondary school students than Current instructional practices.

The mean post-test scores of Listening skill in English of experimental and control groups for Total sample are represented graphically in Figure 27

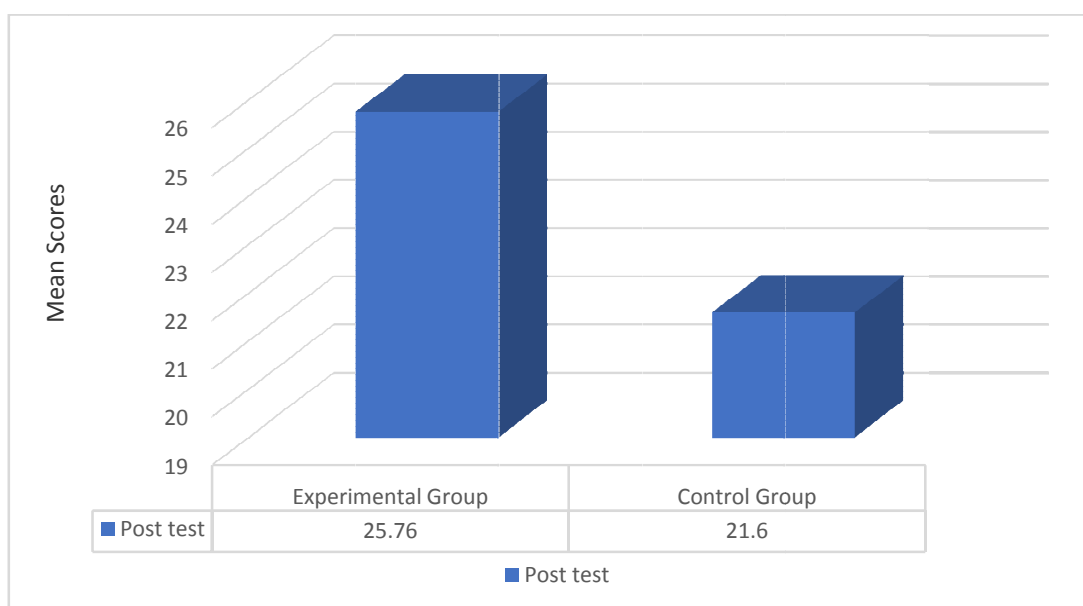


Figure 27. Mean post-test scores of Listening skill in English of experimental and control groups - Total sample

The graphical representation of mean post-test scores of Listening skill in English of experimental and control groups show that the mean performance of secondary school students in the two groups are not similar for Total sample. This supports the result of mean difference analysis.

Comparison of the mean pre-test scores of Listening skill in English of Experimental and Control groups for subsample Boys.

To compare the post interventional effect of Listening skill in English of secondary school students belonging to experimental and control groups,

the means and standard deviations of post-test scores of Listening skill in English of the two groups were subjected to test of significance of difference between means. The details of t test for Total sample are presented in Table below.

Table 53

Result of Test of Significance of Difference in Mean Post-test Scores of Listening Skill in English between Experimental and Control Groups – Subsample Boys

Variable	Experimental Group			Control Group			t
	N ₁	M ₁	SD ₁	N ₂	M ₂	SD ₂	
Listening skill	24	25.79	6.11	20	21.50	6.93	2.18*

* $p < .05$

It is evident from the table that the calculated t test value obtained by the post-test scores of Listening skill in English between experimental and control groups for the Subsample boys is 2.18. So, the mean score of the experimental group is significantly greater than the mean score of the control group after the intervention at .05 level. This shows that for Subsample boys, the Blended Learning Approach is more effective than the Current instructional practices.

The mean post-test scores of Listening skill in English of experimental and control groups for subsample Boys are represented graphically in Figure 28.

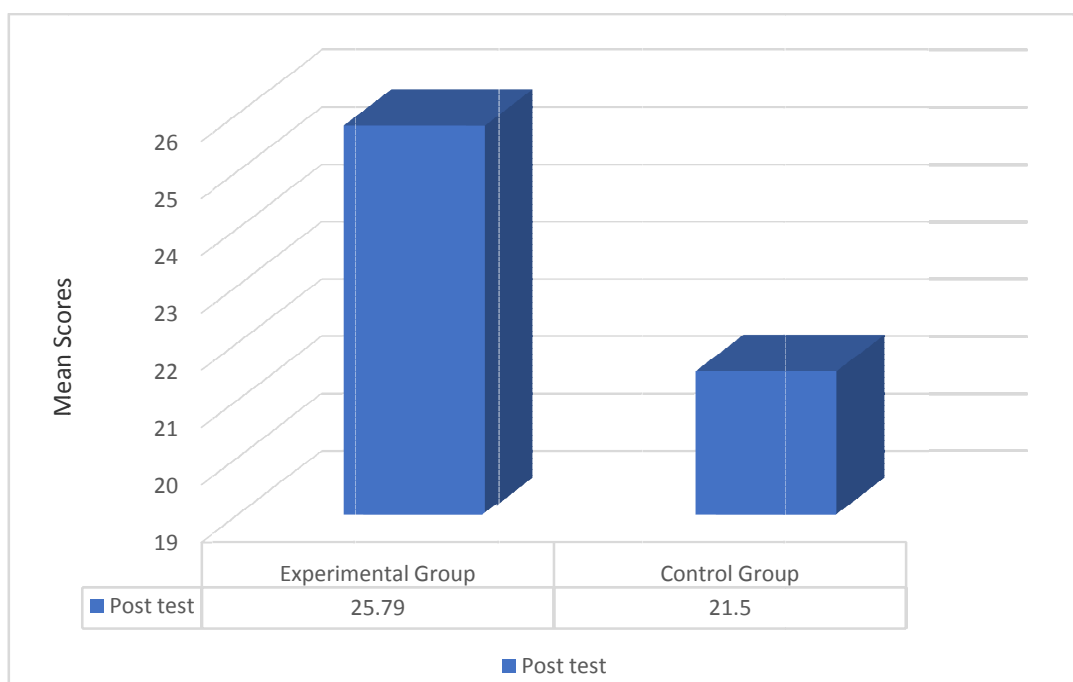


Figure 28. Mean post-test scores of Listening skill in English of experimental and control groups –Subsample Boys

The graphical representation of mean post-test scores of Listening skill in English of experimental and control groups show that the mean performance of secondary school students in the two groups are not similar for Subsample Boys. This supports the result of mean difference analysis.

Comparison of the mean pre-test scores of Listening skill in English of Experimental and Control groups for subsample Girls.

To test whether there exists significance of difference Listening skill in English of secondary school students belonging to experimental and control groups after intervention, the means and standard deviations of post-test scores of Listening skill in English of the two groups were subjected to test of significance of difference between means. The details of t test for Subsample Girls are presented in Table 54.

Table 54

Result of Test of Significance of Difference in Mean Post-test Scores of Listening Skill in English between Experimental and Control Groups – Subsample Girls

Variable	Experimental Group			Control Group			t
	N ₁	M ₁	SD ₁	N ₂	M ₂	SD ₂	
Listening skill	21	25.71	6.30	25	21.68	4.82	2.45**

** p < .01

It is evident from the table that the calculated t test value obtained by the post-test scores of Listening skill in English between experimental and control groups for the Subsample girls is 2.45. So, the mean score of the experimental group is significantly greater than the mean score of the control group after the intervention at .01 level. This shows that for Subsample girls, the Blended Learning Approach is more effective than the Current instructional practices.

The mean post-test scores of Listening skill in English of experimental and control groups for subsample Girls are represented graphically in Figure 29.

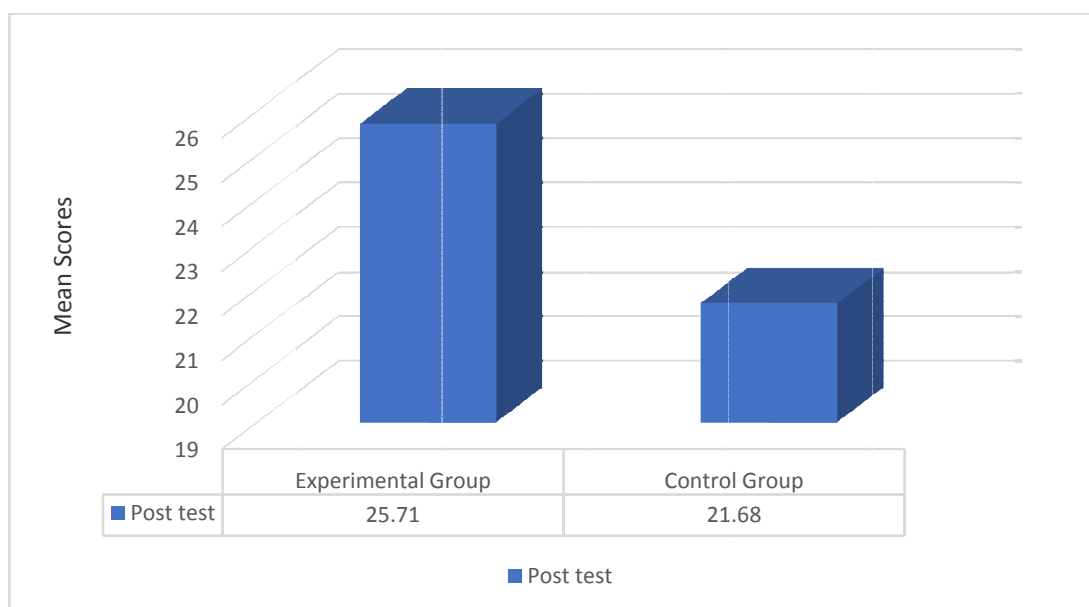


Figure 29. Mean post-test scores of Listening skill in English of experimental and control groups – Subsample Girls

The graphical representation of mean post-test scores of Listening skill in English of experimental and control groups shows that the mean performance of secondary school students in the two groups are not similar for Subsample Girls. This supports the result of mean difference analysis for subsample Girls.

Comparison of the mean post-test scores of Speaking skill in English of Experimental and control groups.

Comparisons of mean scores were carried out to test whether significant difference exists between mean scores of experimental and control groups in the dependant variable Speaking skill in English after the intervention means and standard deviations of post-test scores of both experimental and control groups were calculated and these values were subjected to test of significance of difference between means for Total Sample, Subsample Boys and subsample Girls are given in the following sections.

Comparison of the mean post-test scores of Speaking skill in English of Experimental and Control groups for total sample.

To compare the post interventional effect of Speaking skill in English of secondary school students belonging to experimental and control groups, the means and standard deviations of post-test scores of Speaking skill in English of the two groups were subjected to test of significance of difference between means. The details of t test for Total sample are presented in Table 55.

Table 55

Result of Test of Significance of Difference in Mean Post-test Scores of Speaking Skill in English between Experimental and Control Groups – Total Sample

Variable	Experimental Group			Control Group			t
	N ₁	M ₁	SD ₁	N ₂	M ₂	SD ₂	
Speaking skill	45	19.56	4.81	45	15.40	5.06	3.99**

** p < .01

It is evident from the table that the calculated *t* test value obtained by the post-test scores of Speaking skill in English between experimental and control groups for the Total sample is 3.09. The mean score of the experimental group is significantly greater than the mean score of the control group after the intervention at .01 level. Hence blended learning approach is effective in enhancing Speaking skill of Total sample of secondary school students than Current instructional practices.

The mean post-test scores of Speaking skill in English of experimental and control groups for Total sample are represented graphically in Figure 30.

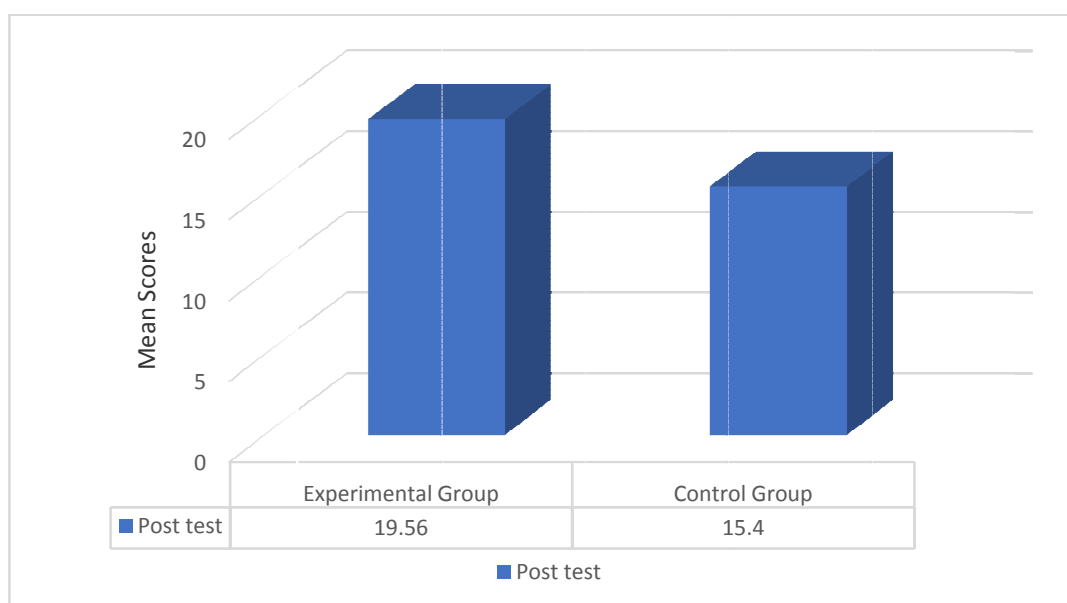


Figure 30. Mean post-test scores of Speaking skill in English of experimental and control groups - Total sample

The graphical representation of mean post-test scores of Speaking skill in English of experimental and control groups show that the mean performance of secondary school students in the two groups are not similar for Total sample. This supports the result of mean difference analysis.

Comparison of the mean pre-test scores of Speaking skill in English of Experimental and Control groups for subsample Boys.

To compare the post interventional effect of Speaking skill in English of secondary school students belonging to experimental and control groups, the means and standard deviations of post-test scores of Speaking skill in English of the two groups were subjected to test of significance of difference between means. The details of *t* test for Total sample are presented in table 56

Table 56

Result of Test of Significance of Difference in Mean Post-test Scores of Speaking Skill in English between Experimental and Control Groups – Subsample Boys

Variable	Experimental Group			Control Group			t
	N ₁	M ₁	SD ₁	N ₂	M ₂	SD ₂	
Speaking skill	24	19.67	5.11	20	15.35	5.23	2.76**

** p < .01

It is evident from the table that the calculated *t* test value obtained by the post-test scores of Speaking skill in English between experimental and control groups for the Subsample boys is 2.76. The mean score of the experimental group is significantly greater than the mean score of the control group after the intervention at .01 level. Hence blended learning approach is effective in enhancing Speaking skill of Subsample boys of secondary school students than Current instructional practices.

The mean post-test scores of Speaking skill in English of experimental and control groups for subsample Boys are represented graphically in Figure 31.

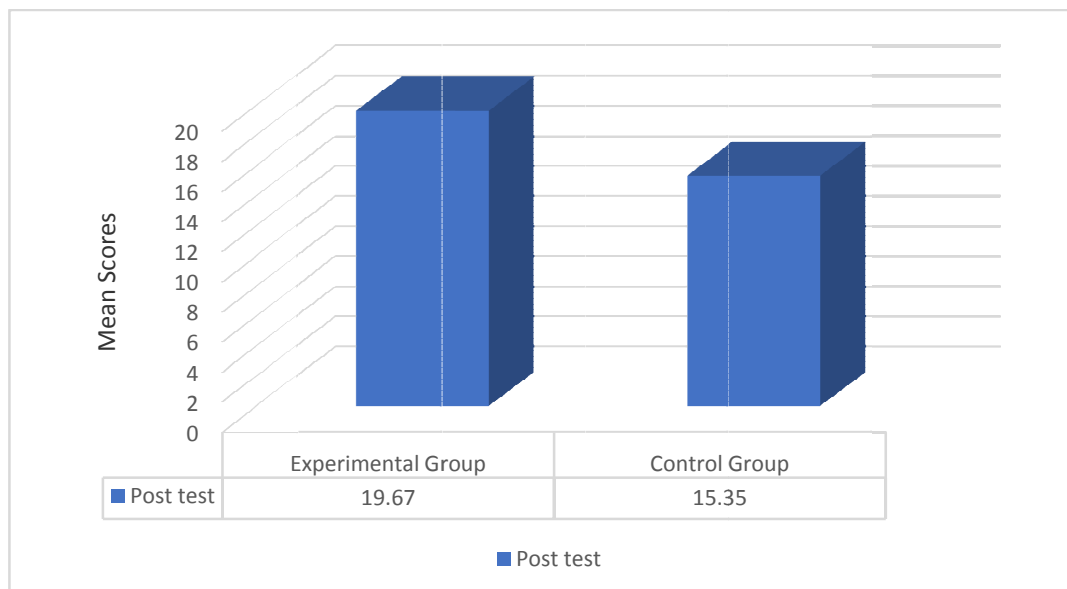


Figure 31. Mean post-test scores of Speaking skill in English of experimental and control groups – Subsample Boys

The graphical representation of mean post-test scores of Speaking skill in English of experimental and control groups show that the mean performance of secondary school students in the two groups are not similar for Subsample Boys. This supports the result of mean difference analysis.

Comparison of the mean pre-test scores of Speaking skill in English of Experimental and Control groups for subsample Girls.

To test whether there exists significance of difference Speaking skill in English of secondary school students belonging to experimental and control groups after intervention, the means and standard deviations of post-test scores of Speaking skill in English of the two groups were subjected to test of significance of difference between means. The details of *t* test for Subsample Girls are presented in Table 57.

Table 57

Result of Test of Significance of Difference in Mean Post-test Scores of Speaking Skill in English between Experimental and Control Groups – Subsample Girls

Variable	Experimental Group			Control Group			t
	N ₁	M ₁	SD ₁	N ₂	M ₂	SD ₂	
Speaking skill	21	19.43	4.57	25	15.44	5.03	2.79**

** p < .01

It is evident from the table that the calculated t test value obtained by the post-test scores of Speaking skill in English between experimental and control groups for the Subsample girls is 2.76. The mean score of the experimental group is significantly greater than the mean score of the control group after the intervention at .01 level. Hence blended learning approach is effective in enhancing Speaking skill of Subsample girls of secondary school students than Current instructional practices.

The mean post-test scores of Speaking skill in English of experimental and control groups for subsample Girls are represented graphically in Figure 32.

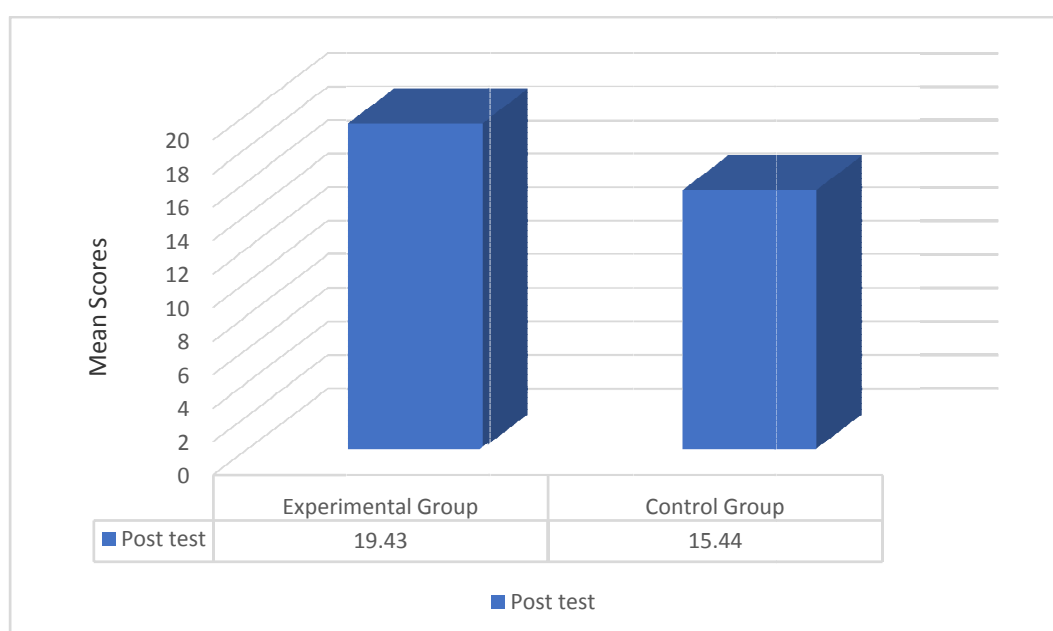


Figure 32. Mean post-test scores of Speaking skill in English of experimental and control groups – Subsample Girls

The graphical representation of mean post-test scores of Speaking skill in English of experimental and control groups show that the mean performance of secondary school students in the two groups are not similar for subsample girls. This supports the result of mean difference analysis for subsample Girls.

Comparison of the mean post-test scores of English Language Anxiety of Experimental and control groups.

Comparisons of mean scores were carried out to test whether significant difference exists between mean scores of experimental and control groups in the dependant variable English Language Anxiety after the intervention means and standard deviations of post-test scores of both experimental and control groups were calculated and these values were subjected to test of significance of difference between means for Total Sample, Subsample Boys and subsample Girls are given in the following sections.

Comparison of the mean post-test scores of English Language Anxiety Experimental and Control groups for total sample.

To compare the post interventional effect of English language anxiety of secondary school students belonging to experimental and control groups, the means and standard deviations of post-test scores of English Language Anxiety of the two groups were subjected to test of significance of difference between means. The details of *t* test for Total sample are presented in Table 58.

Table 58

Result of Test of Significance of Difference in Mean Post-test Scores of English Language Anxiety between Experimental and Control Groups – Total Sample

Variable	Experimental Group			Control Group			t
	N ₁	M ₁	SD ₁	N ₂	M ₂	SD ₂	
English Language Anxiety	45	79.82	33.22	45	97.93	35.61	2.49**

** p < .01

It is evident from the table that the calculated t test value obtained by the post-test scores of English language anxiety between experimental and control groups for the Total sample is 2.49. The mean score of the experimental group is significantly lower than the mean score of the control group after the intervention at .01 level. Hence blended learning approach is effective in reducing English language Anxiety of Total sample of secondary school students than Current instructional practices.

The mean post-test scores of English Language Anxiety of experimental and control groups for Total sample are represented graphically in Figure 33.

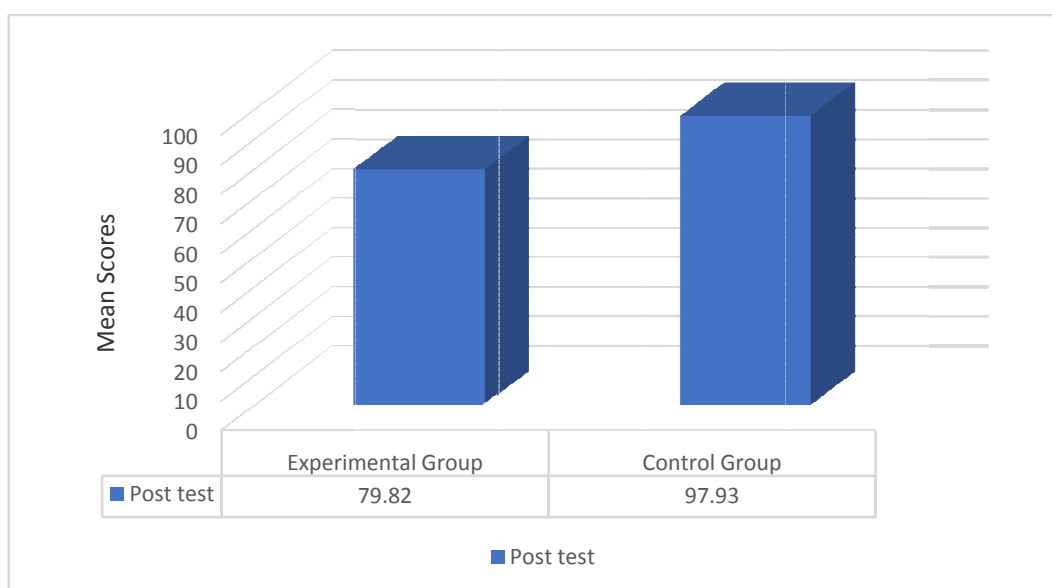


Figure 33. Mean post-test scores of English Language Anxiety of experimental and control groups - Total sample

The graphical representation of mean post-test scores of English Language Anxiety of experimental and control groups show that the mean performance of secondary school students in the two groups are not similar for Total sample. This supports the result of mean difference analysis.

Comparison of the mean pre-test scores of English Language Anxiety of Experimental and Control groups for subsample Boys.

To compare the post interventional effect of English Language Anxiety of secondary school students belonging to experimental and control groups, the means and standard deviations of post-test scores of English Language Anxiety of the two groups were subjected to test of significance of difference between means. The details of *t* test for Total sample are presented in Table 59.

Table 59

Result of Test of Significance of Difference in Mean Post-test Scores of English Language Anxiety between Experimental and Control Groups – Subsample Boys

Variable	Experimental Group			Control Group			t
	N ₁	M ₁	SD ₁	N ₂	M ₂	SD ₂	
English Language Anxiety	24	81.42	36.76	20	99.70	34.92	1.76

* $p < .05$

It is evident from the table that the calculated *t* test value obtained by the post-test scores of English language anxiety between experimental and control groups for the Subsample boys is 1.76. The mean score of the experimental group is significantly lower than the mean score of the control group after the intervention at .05 level. Hence blended learning approach is effective in reducing English language Anxiety of Subsample boys of secondary school students than Current instructional practices.

The mean post-test scores of English Language Anxiety of experimental and control groups for subsample Boys are represented graphically in Figure 34.

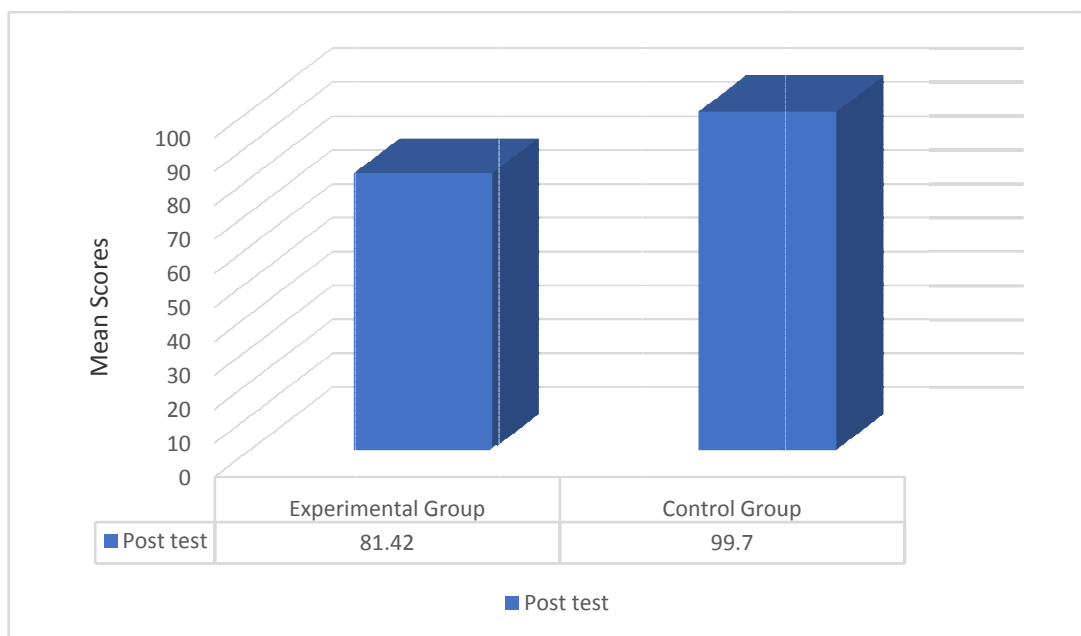


Figure 34. Mean post-test scores of English Language Anxiety of experimental and control groups – Subsample Boys

The graphical representation of mean post-test scores of English Language Anxiety of experimental and control groups show that the mean performance of secondary school students in the two groups are not similar for Subsample Boys. This supports the result of mean difference analysis.

Comparison of the mean pre-test scores of English Language Anxiety of Experimental and Control groups for subsample Girls.

To test whether there exists significance of difference English Language Anxiety of secondary school students belonging to experimental and control groups after intervention, the means and standard deviations of

post-test scores of English Language Anxiety of the two groups were subjected to test of significance of difference between means. The details of t test for Subsample Girls are presented in Table 60

Table 60

Result of Test of Significance of Difference in Mean Post-test Scores of English Language Anxiety between Experimental and Control Groups – Subsample Girls

Variable	Experimental Group			Control Group			t
	N ₁	M ₁	SD ₁	N ₂	M ₂	SD ₂	
English Language Anxiety	21	78	29.45	25	96.52	36.82	1.86*

* $p < .05$

It is evident from the table that the calculated t test value obtained by the post-test scores of English language anxiety between experimental and control groups for the Subsample girls is 1.86. The mean score of the experimental group is significantly lower than the mean score of the control group after the intervention at .05 level. Hence blended learning approach is effective in reducing English language Anxiety of Subsample girls of secondary school students than Current instructional practices.

The mean post-test scores of English Language Anxiety of experimental and control groups for subsample Girls are represented graphically in Figure 35.

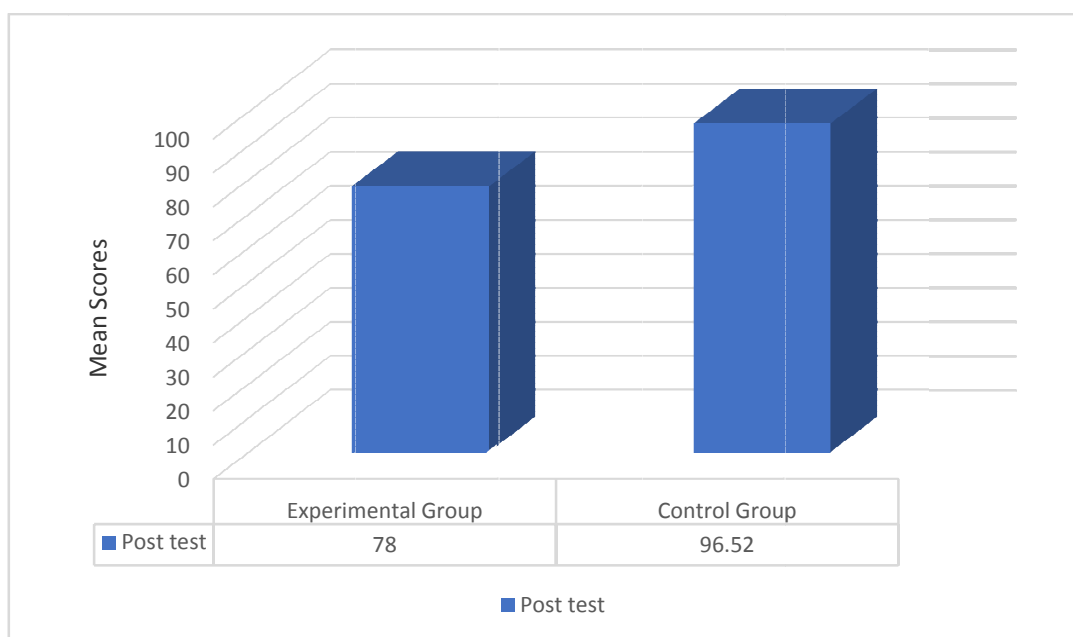


Figure 35. Mean post-test scores of English Language Anxiety of experimental and control groups – Subsample Girls

The graphical representation of mean post-test scores of English Language Anxiety of experimental and control groups shows that the mean performance of secondary school students in the two groups are not similar for Subsample Girls. This supports the result of mean difference analysis for subsample Girls.

Comparison of the mean post-test scores of Learner Satisfaction of Experimental and control groups.

Comparisons of mean scores were carried out to test whether significant difference exists between mean post-test scores of experimental and control groups in the dependant variable Learner Satisfaction after the intervention means and standard deviations of post-test scores of both experimental and control groups were calculated and these values were subjected to test of significance of difference between means for Total Sample, Subsample Boys and subsample Girls are given in the following sections.

Comparison of the mean post-test scores of Learner Satisfaction of Experimental and Control groups for total sample.

To compare the post interventional effect of Learner Satisfaction of secondary school students belonging to experimental and control groups, the means and standard deviations of post-test scores of Learner Satisfaction of the two groups were subjected to test of significance of difference between means. The details of *t* test for Total sample are presented in Table 61.

Table 61

Result of Test of Significance of Difference in Mean Post-test Scores of Learner Satisfaction between Experimental and Control Groups – Total Sample

Variable	Experimental Group			Control Group			t
	N ₁	M ₁	SD ₁	N ₂	M ₂	SD ₂	
Learner Satisfaction	45	61.89	15.75	45	53.87	13.04	2.63**

** $p < .01$

It is evident from the table that the calculated *t* test value obtained by the post-test scores of Learner Satisfaction between experimental and control groups for the Total sample is 2.63. The mean score of the experimental group is significantly greater than the mean score of the control group after the intervention at .01 level. Hence blended learning approach is effective in enhancing Learner Satisfaction of Total sample of secondary school students than Current instructional practices.

The mean post-test scores of Learner Satisfaction of experimental and control groups for Total sample are represented graphically in Figure 36.

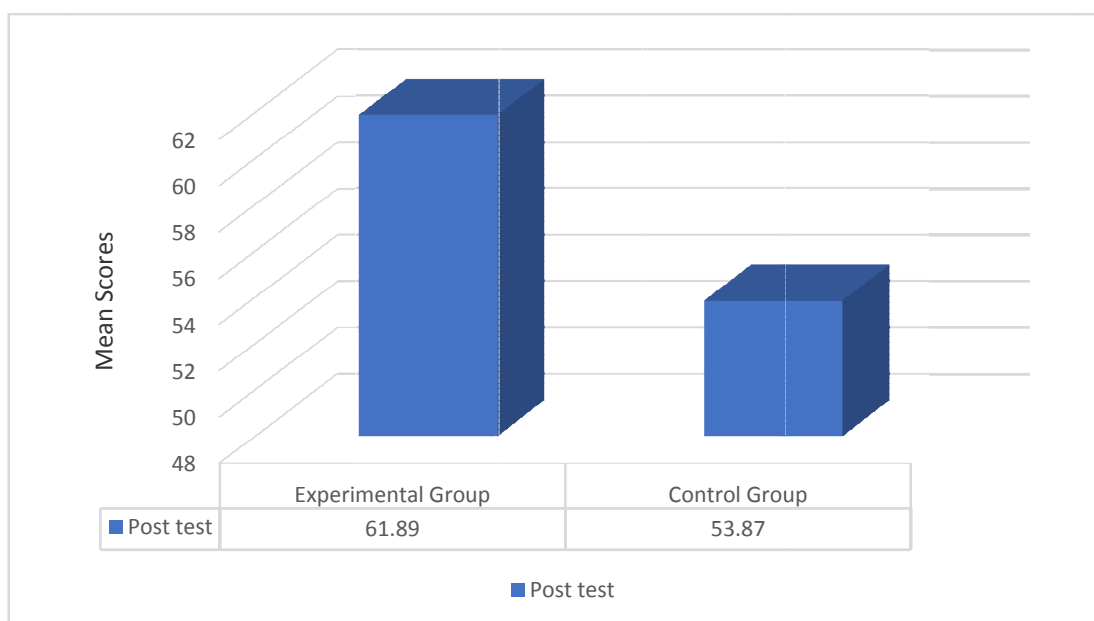


Figure 36. Mean post-test scores of Learner Satisfaction of experimental and control groups - Total sample

The graphical representation of mean post-test scores of Learner Satisfaction of experimental and control groups show that the mean performance of secondary school students in the two groups are not similar for Total sample. This supports the result of mean difference analysis.

Comparison of the mean post-test scores of Learner Satisfaction of Experimental and Control groups for subsample Boys.

To compare the post interventional effect of Learner Satisfaction of secondary school students belonging to experimental and control groups, the means and standard deviations of post-test scores of Learner Satisfaction of the two groups were subjected to test of significance of difference between means. The details of t test for Total sample are presented in Table 62.

Table 62

Result of Test of Significance of Difference in Mean Post-test Scores of Learner Satisfaction between Experimental and Control Groups – Subsample Boys

Variable	Experimental Group			Control Group			t
	N ₁	M ₁	SD ₁	N ₂	M ₂	SD ₂	
t Learner Satisfaction	24	60.29	17.94	20	50.20	12.46	2.19*

* p < .05

It is evident from the table that the calculated *t* test value obtained by the post-test scores of Learner Satisfaction between experimental and control groups for the subsample Boys is 2.19. The mean score of the experimental group is significantly greater than the mean score of the control group after the intervention at .05 level. Hence blended learning approach is effective in enhancing Learner Satisfaction of subsample Boys of secondary school students than Current instructional practices.

The mean post-test scores of Learner Satisfaction of experimental and control groups for subsample Boys are represented graphically in Figure 37.

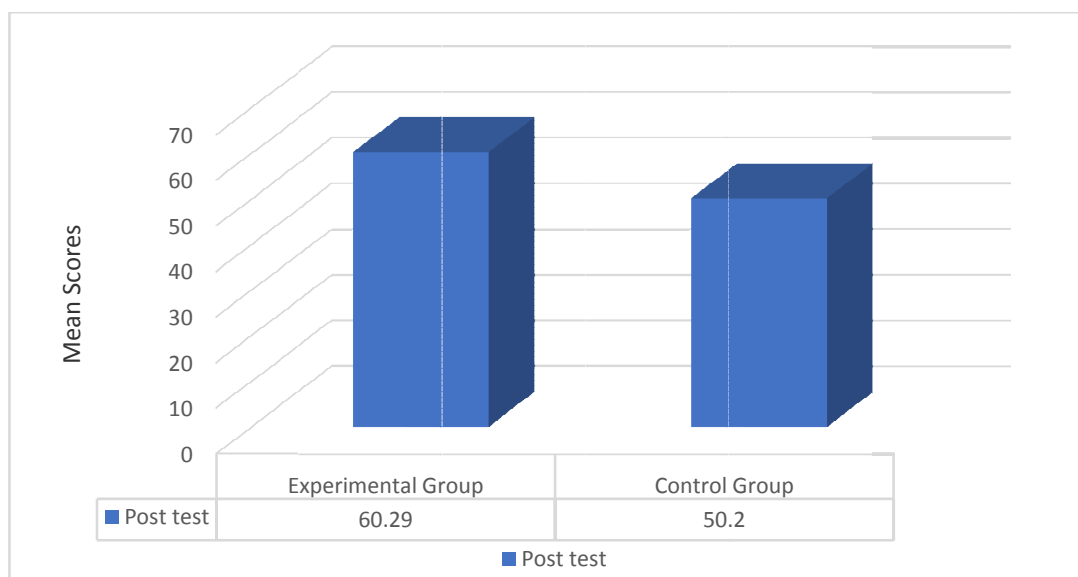


Figure 37. Mean post-test scores of Learner Satisfaction of experimental and control groups – Subsample Boys

The graphical representation of mean post-test scores of Learner Satisfaction of experimental and control groups show that the mean performance of secondary school students in the two groups are not similar for Subsample Boys. This supports the result of mean difference analysis.

Comparison of the mean post-test scores of Learner Satisfaction of Experimental and Control groups for subsample Girls.

To test whether there exists significance of difference Learner Satisfaction of secondary school students belonging to experimental and control groups after intervention, the means and standard deviations of post-test scores of Learner Satisfaction of the two groups were subjected to test of significance of difference between means. The details of *t* test for Subsample Girls are presented in Table 63.

Table 63

Result of Test of Significance of Difference in Mean Post-test Scores of Learner Satisfaction between Experimental and Control Groups – Subsample Girls

Variable	Experimental Group			Control Group			t
	N ₁	M ₁	SD ₁	N ₂	M ₂	SD ₂	
Learner Satisfaction	21	63.71	12.99	25	56.80	12.98	1.79*

* p < .05

It is evident from the table that the calculated *t* test value obtained by the post-test scores of Learner Satisfaction between experimental and control groups for the subsample girls is 1.79. The mean score of the experimental group is significantly greater than the mean score of the control group after the intervention at .05 level. Hence blended learning approach is effective in enhancing Learner Satisfaction of subsample girls of secondary school students than Current instructional practices.

The mean post-test scores of Learner Satisfaction of experimental and control groups for subsample Girls are represented graphically in Figure 38.

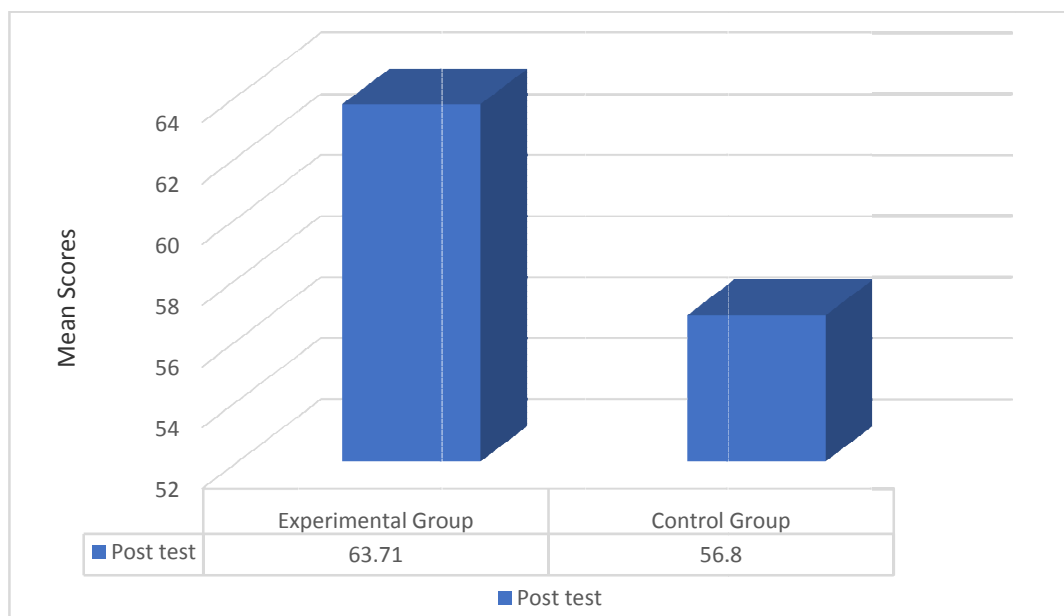


Figure 38. Mean post-test scores of Learner Satisfaction of experimental and control groups – Subsample Girls

The graphical representation of mean post-test scores of Learner Satisfaction of experimental and control groups show that the mean performance of secondary school students in the two groups are not similar for Subsample Girls. This supports the result of mean difference analysis for subsample Girls.

Discussion

The mean difference analysis of post-test scores of Listening skill, Speaking skill and English Language Anxiety and Learner Satisfaction of secondary school students between Experimental group and control groups showed the following result.

There is significant difference in post-test scores of Listening skill for Total sample and subsample Boys and subsample Girls. The difference in subsample Boys between the experimental and control groups are not high

like that of Total sample and subsample Girls. Thus it proves that the Blended Learning Approach is effective in enhancing the Listening skill in English for Total sample and subsamples Boys and subsample Girls.

The mean post-test scores differ significantly for Speaking skill for Total sample and subsample Boys and subsample Girls. Hence the Blended Learning Approach is effective in enhancing the Speaking skill in English for Total sample and subsample Boys and subsample Girls.

The differences between the pre-test and post-test scores of English Language Anxiety are significant for Total sample and subsample Boys and subsample Girls. The difference is not high for the subsample Boys. Still the Blended Learning Approach is effective in reducing the English Language Anxiety for Total sample and subsample Boys and subsample Girls.

There is significant difference in post-test scores of Learner Satisfaction for Total sample, subsample Boys and subsample Girls. The differences in post-test scores of Learner Satisfaction between experimental group and control group for Total sample and subsample Boys and subsample Girls between the experimental and control groups are significantly high. So, the Blended Learning Approach is effective in enhancing the Learner satisfaction for Total sample, subsample Boys and subsample Girls.

Comparison of the mean gain/ change scores of Listening skill, Speaking skill, English Language Anxiety and Learner Satisfaction of Experimental and Control groups

Initial differences in the mean scores may be significant and it may not be the same after intervention and vice versa. Mean difference analysis was utilized to clarify this result. To test the effectiveness of Blended Learning

Approach in enhancing Listening skill, speaking skill and Learner Satisfaction of Secondary school students, mean gain scores of experimental and control groups on these variables were compared. Similarly, the mean change scores of English Language Anxiety of experimental and control groups were compared to test the effectiveness of Blended Learning in reducing English Language Anxiety of secondary school students. Whenever the groups were found statistically significant, effect size was calculated.

Comparison of the mean Gain scores of Listening skill in English of Experimental and Control groups for Total sample and subsample based on gender.

Two tailed tests of significance of difference between means were administered to test whether significant difference exists between experimental group and the control group for the dependant variable Listening skill in English. Mean difference analysis was carried out with the means and standard deviations of Listening skill in English of the two groups and the calculated t values were tested for significance. For significant mean differences, the magnitude of the effect also found out using effect size measure of two groups. The data and results of t tests for Total sample subsample Boys and subsample Girls are given in the following sections.

Comparison of the mean gain scores of Listening skill in English of Experimental and Control groups for Total sample.

To study whether there exists any significant difference in Listening skill in English of secondary school students belonging to experimental and control groups, the means and standard deviations of gain scores of Listening

skill in English of the two groups were subjected to test of significance of difference between means. The details of t test for Total sample are presented in Table 64.

Table 64

Result of Test of Significance of Difference in Mean Gain Scores of Listening Skill in English between Experimental and Control Groups – Total Sample

Variable	Experimental Group			Control Group			t	Effect size	Cohen's Category
	N ₁	M ₁	SD ₁	N ₂	M ₂	SD ₂			
Listening skill	45	4.91	3.73	45	2.40	1.60	4.15**	.87	Large

** p < .01

It is evident from the table that the calculated t test value obtained by the gain scores of Listening skill in English between experimental and control groups for the Total sample is 4.15. The mean score of the experimental group is significantly greater than the mean gain score of the control group after the intervention at .01 level. Hence blended learning approach is effective in enhancing Listening skill of Total sample of secondary school students than Current instructional practices.

Since the mean difference was found to be significant, effect size was calculated. The value of Cohen's d is 0.87, which is greater than the limit set for large effects in Cohen's category. It means that Blended Learning Approach has a large effect in enhancing Listening skill in English of Total sample of secondary school students when compared to Current instructional practices.

The mean gain scores of Listening skill in English of experimental and control groups for Total sample are represented graphically in Figure 39.

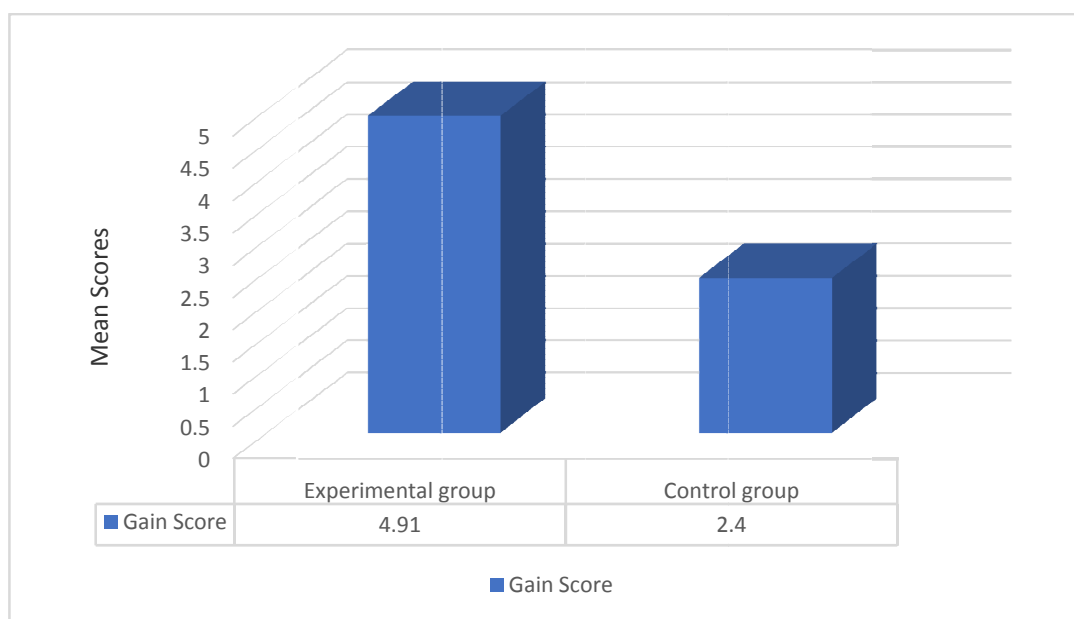


Figure 39. Mean gain scores of Listening skill in English of experimental and control groups - Total sample

The graphical representation of mean gain scores of Listening skill in English of experimental and control groups are not similar and it shows that there is gain in Listening skill of secondary school students belongs to experimental group and control group, after the intervention. This graphical representation supports the result of mean difference analysis.

Comparison of the mean gain scores of Listening skill in English of Experimental and Control groups for subsample boys.

To study whether there exists any significant difference of Listening skill in English of secondary school students belonging to experimental and control groups, the means and standard deviations of gain scores of Listening skill in English of the two groups were subjected to test of significance of difference between means. The details of t test for Subsample Boys are presented in Table 65.

Table 65

Result of Test of Significance of Difference in Mean Gain Scores of Listening Skill in English between Experimental and Control Groups – Subsample Boys

Variable	Experimental Group			Control Group			t	Effect size	Cohen's Category
	N ₁	M ₁	SD ₁	N ₂	M ₂	SD ₂			
Listening skill	24	4.92	3.93	20	2.60	2.23	2.33*	.72	Medium

* $p < .05$

It is evident from the table that the calculated t test value obtained by the gain scores of Listening skill in English between experimental and control groups for the Subsample boys is 2.33. The mean score of the experimental group is significantly greater than the mean gain score of the control group after the intervention at .05 level. Hence blended learning approach is effective in enhancing Listening skill of Subsample boys of secondary school students than Current instructional practices.

Since the mean difference was found to be significant, effect size was calculated. The value of Cohen's d is .72 which is greater than the limit set for medium effects in Cohen's category. It means that Blended Learning Approach has a medium effect in enhancing Listening skill in English of Subsample boys of secondary school students when compared to Current instructional practices.

The mean gain scores of Listening skill in English of experimental and control groups for Subsample Boys are represented graphically in Figure 40.

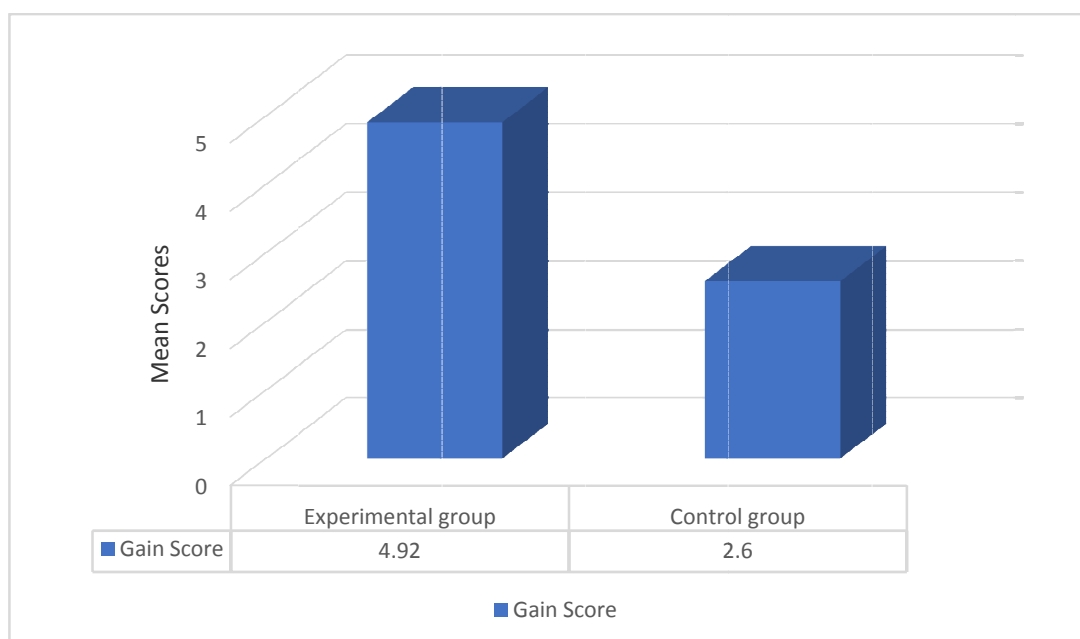


Figure 40. Mean gain scores of Listening skill in English of experimental and control groups - Subsample Boys

The graphical representation of mean gain scores of Listening skill in English of experimental and control groups are not similar and it shows that there is gain in Listening skill of secondary school students belongs to experimental group and control group, after the intervention. This graphical representation supports the result of mean difference analysis.

Comparison of the mean gain scores of Listening skill in English of Experimental and Control groups for subsample Girls.

To study whether there exists any significant difference of Listening skill in English of secondary school students belonging to experimental and control groups, the means and standard deviations of gain scores of Listening skill in English of the two groups were subjected to test of significance of difference between means. The details of t test for Subsample Girls are presented in Table 66.

Table 66

Result of Test of significance of difference in Mean Gain Scores of Listening skill in English between Experimental and Control Groups – Subsample Girls

Variable	Experimental Group			Control Group			t	Effect size	Cohen's Category
	N ₁	M ₁	SD ₁	N ₂	M ₂	SD ₂			
Listening skill	21	4.90	3.59	25	2.24	.831	3.61**	1.02	large

** p < .01

It is evident from the table that the calculated *t* test value obtained by the gain scores of Listening skill in English between experimental and control groups for the Subsample girls is 3.61. The mean score of the experimental group is significantly greater than the mean gain score of the control group after the intervention at .05 level. Hence blended learning approach is effective in enhancing Listening skill of Subsample girls of secondary school students than Current instructional practices.

Since the mean difference was found to be significant, effect size was calculated. The value of Cohen's *d* is 1.02 which is greater than the limit set for large effects in Cohen's category. It means that Blended Learning Approach has a large effect in enhancing Listening skill in English of Subsample Girls of secondary school students when compared to Current instructional practices.

The mean gain scores of Listening skill in English of experimental and control groups for Subsample Girls are represented graphically in Figure 41.

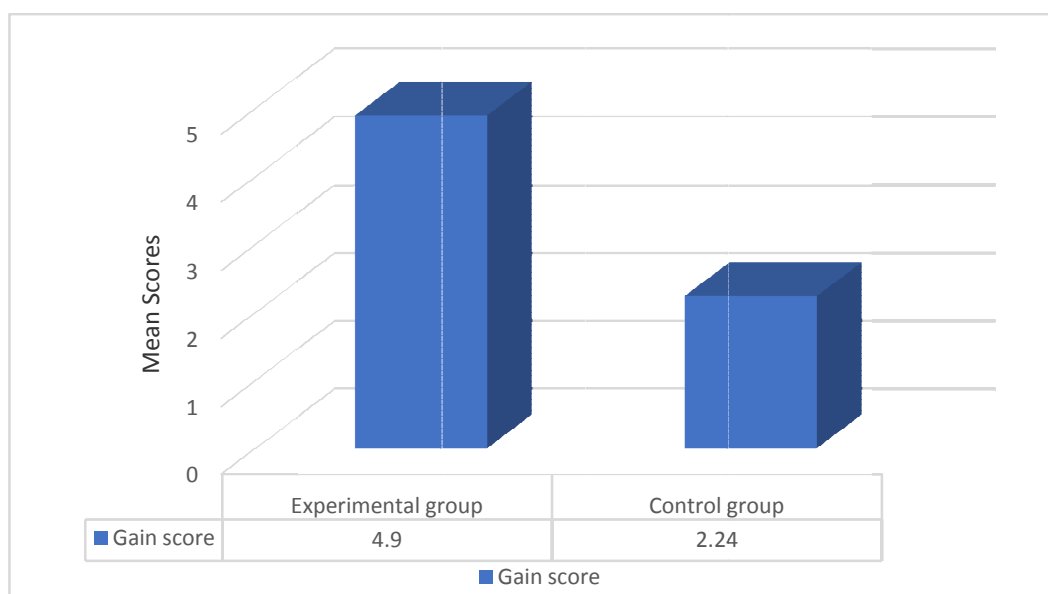


Figure 41. Mean gain scores of Listening skill in English of experimental and control groups - Subsample Girls

The graphical representation of mean gain scores of Listening skill in English of experimental and control groups are not similar and it shows that there is gain in Listening skill of secondary school students belongs to experimental group and control group, after the intervention. This graphical representation supports the result of mean difference analysis.

Comparison of the mean Gain scores of Speaking skill in English of Experimental and Control groups Total sample and subsample based on gender

Two tailed tests of significance of difference between means was administered to test whether significant difference exists between experimental group and the control group for the dependant variable Speaking skill in English. Mean difference analysis was carried out with the means and standard deviations of Speaking skill in English of the two groups and the calculated t values were tested for significance. For significant mean differences, the magnitude of the effect also found out using effect size

measure of two groups. The data and results of t tests for Total sample subsample Boys and subsample Girls are given in the following sections.

Comparison of the mean gain scores of Speaking skill in English of Experimental and Control groups for Total sample.

To study whether there exists any significant difference of Speaking skill in English of secondary school students belonging to experimental and control groups, the means and standard deviations of gain scores of Speaking skill in English of the two groups were subjected to test of significance of difference between means. The details of t test for Total sample are presented in Table 67.

Table 67

Result of Test of Significance of Difference in Mean Gain Scores of Speaking Skill in English between Experimental and Control Groups – Total Sample

Variable	Experimental Group			Control Group			t	Effect size	Cohen's Category
	N ₁	M ₁	SD ₁	N ₂	M ₂	SD ₂			
Speaking skill	45	4.11	2.07	45	1.31	1.95	4.15**	1.39	large

** $p < .01$

It is evident from the table that the calculated t test value obtained by the gain scores of Speaking skill in English between experimental and control groups for the Total sample is 4.15. The mean score of the experimental group is significantly greater than the mean gain score of the control group after the intervention at .01 level. Hence blended learning approach is effective in enhancing Speaking skill of Total sample of secondary school students than Current instructional practices.

Since the mean difference was found to be significant, effect size was calculated. The value of Cohen's d is 1.39 which is greater than the limit set for large effects in Cohen's category. It means that Blended Learning Approach has

a large effect in enhancing Speaking skill in English of Total sample of secondary school students when compared to Current instructional practices.

The mean gain scores of Speaking skill in English of experimental and control groups for Total sample are represented graphically in Figure 42.

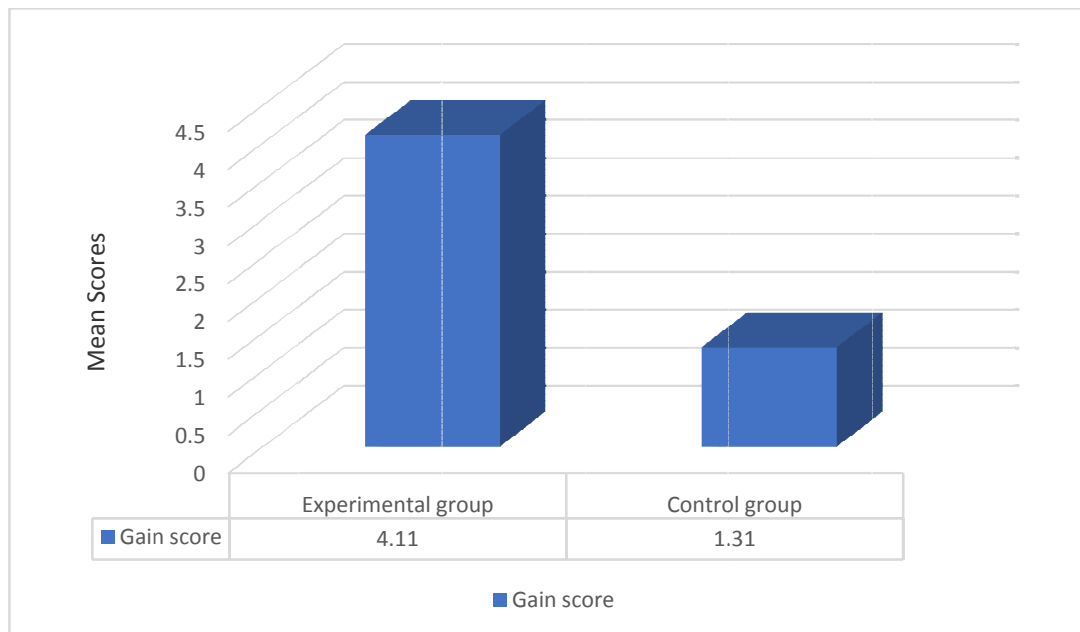


Figure 42. Mean gain scores of Speaking skill in English of experimental and control groups - Total sample

The graphical representation of mean gain scores of Speaking skill in English of experimental and control groups are not similar and it shows that there is gain in Speaking skill of secondary school students belongs to experimental group and control group, after the intervention. This graphical representation supports the result of mean difference analysis.

Comparison of the mean gain scores of Speaking skill in English of Experimental and Control groups for subsample boys.

To study whether there exists any significant difference of Speaking skill in English of secondary school students belonging to experimental and control groups, the means and standard deviations of gain scores of Speaking

skill in English of the two groups were subjected to test of significance of difference between means. The details of t test for Subsample Boys are presented in Table 68.

Table 68

Result of Test of Significance of Difference in Mean Gain Scores of Speaking Skill in English between Experimental and Control Groups – Subsample Boys

Variable	Experimental Group			Control Group			t	Effect size	Cohen's Category
	N ₁	M ₁	SD ₁	N ₂	M ₂	SD ₂			
Speaking skill	24	4.38	1.86	20	1.40	1.79	5.37**	1.63	large

** p < .01

It is evident from the table that the calculated t test value obtained by the gain scores of Speaking skill in English between experimental and control groups for the Subsample boys is 5.37. The mean score of the experimental group is significantly greater than the mean gain score of the control group after the intervention at .01 level. Hence blended learning approach is effective in enhancing Speaking skill of Subsample boys of secondary school students than Current instructional practices.

Since the mean difference was found to be significant, effect size was calculated. The value of Cohen's d is 1.63 which is greater than the limit set for large effects in Cohen's category. It means that Blended Learning Approach has a large effect in enhancing Speaking skill in English of Subsample boys of secondary school students when compared to Current instructional practices.

The mean gain scores of Speaking skill in English of experimental and control groups for Subsample Boys are represented graphically in Figure 43.

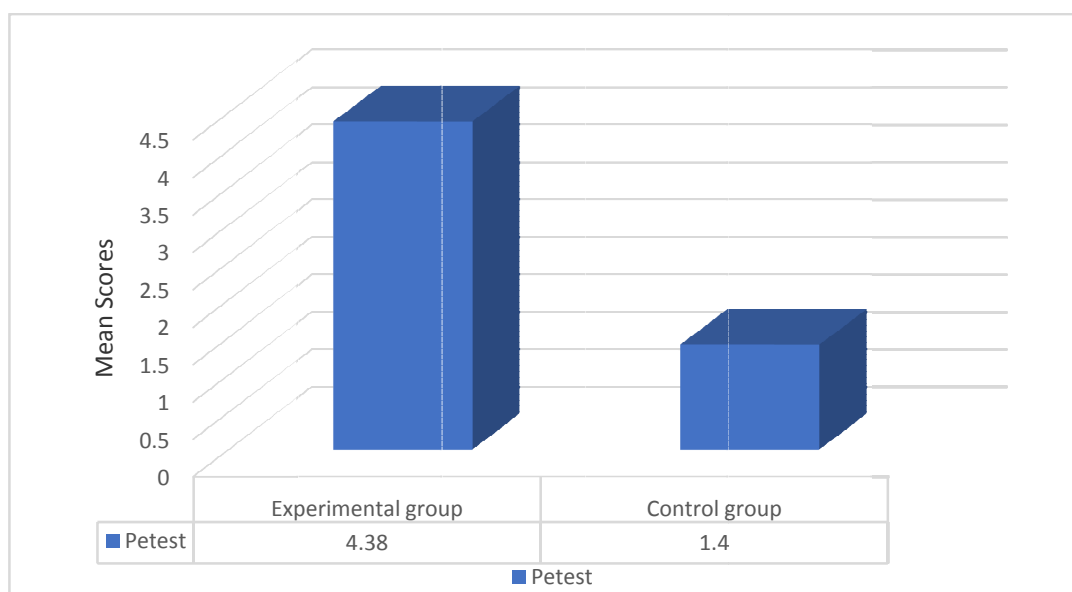


Figure 43. Mean gain scores of Speaking skill in English of experimental and control groups - Subsample Boys

The graphical representation of mean gain scores of Speaking skill in English of experimental and control groups are not similar and it shows that there is gain in Speaking skill of secondary school students belongs to experimental group and control group, after the intervention. This graphical representation supports the result of mean difference analysis.

Comparison of the mean gain scores of Speaking skill in English of Experimental and Control groups for subsample Girls.

To study whether there exists any significant difference of Speaking skill in English of secondary school students belonging to experimental and control groups, the means and standard deviations of gain scores of Speaking skill in English of the two groups were subjected to test of significance of difference between means. The details of t test for Subsample Girls are presented in Table 69.

Table 69

Result of Test of Significance of Difference in Mean Gain Scores of Speaking Skill in English between Experimental and Control Groups – Subsample Girls

Variable	Experimental Group			Control Group			t	Effect size	Cohen's Category
	N ₁	M ₁	SD ₁	N ₂	M ₂	SD ₂			
Speaking Skills	21	3.81	2.29	25	1.24	2.11	3.96**	1.67	Large

** p < .01

It is evident from the table that the calculated *t* test value obtained by the gain scores of Speaking skill in English between experimental and control groups for the Subsample girls is 3.96. The mean score of the experimental group is significantly greater than the mean gain score of the control group after the intervention at .01 level. Hence blended learning approach is effective in enhancing Speaking skill of Subsample girls of secondary school students than Current instructional practices.

Since the mean difference was found to be significant, effect size was calculated. The value of Cohen's *d* is 1.67, which is greater than the limit set for large effects in Cohen's category. It means that Blended Learning Approach has a large effect in enhancing Speaking skill in English of Subsample Girls of secondary school students when compared to Current instructional practices.

The mean gain scores of Speaking skill in English of experimental and control groups for Subsample Girls are represented graphically in Figure 44.

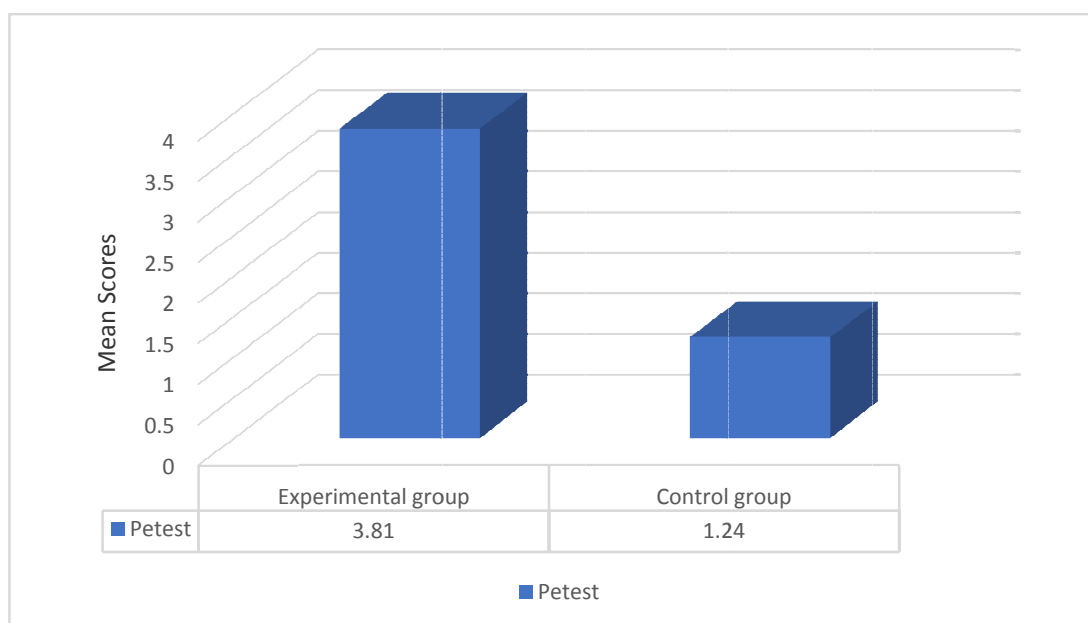


Figure 44. Mean gain scores of Speaking skill in English of experimental and control groups - Subsample Girls

The graphical representation of mean gain scores of Speaking skill in English of experimental and control groups are not similar and it shows that there is gain in Speaking skill of secondary school students belongs to experimental group and control group, after the intervention. This graphical representation supports the result of mean difference analysis.

Comparison of the mean Change scores of English Language Anxiety of Experimental and Control groups Total sample and subsample based on gender

Two tailed tests of significance of difference between means was administered to test whether significant difference exists between experimental group and the control group for the dependant variable Listening skill in English. Mean difference analysis was carried out with the means and standard deviations of English Language Anxiety of the two groups and the calculated t values were tested for significance. For significant

mean differences, the magnitude of the effect also found out using effect size measure of two groups. The data and results of t tests for Total sample subsample Boys and subsample Girls are given in the following sections.

Comparison of the mean change scores of English Language Anxiety of Experimental and Control groups for Total sample.

To study whether there exists any significant difference of English Language Anxiety of secondary school students belonging to experimental and control groups, the means and standard deviations of change scores of English Language Anxiety of the two groups were subjected to test of significance of difference between means. The details of t test for Total sample are presented in the table below.

Table 70

Result of Test of Significance of Difference in Mean Change Scores of English Language Anxiety between Experimental and Control Groups – Total Sample

Variable	Experimental Group			Control Group			t	Effect size	Cohen's Category
	N ₁	M ₁	SD ₁	N ₂	M ₂	SD ₂			
English Language Anxiety	45	20.22	12.77	45	12.29	12.96	2.93**	.67	Medium

** $p < .01$

It is evident from the table that the calculated t test value obtained by the change scores of English language anxiety between experimental and control groups for the Total sample is 2.93. The mean score of the experimental group is significantly lower than the mean change score of the control group after the intervention at .01 level. Hence blended learning approach is effective in reducing English language anxiety of Total sample of secondary school students than Current instructional practices.

Since the mean difference was found to be significant, effect size was calculated. The value of Cohen's d is .67 which is greater than the limit set for medium effects in Cohen's category. It means that Blended Learning Approach has a medium effect in reducing English Language Anxiety of Total sample of secondary school students when compared to Current instructional practices.

The mean change scores of English Language Anxiety of experimental and control groups for Total sample are represented graphically in Figure 45.

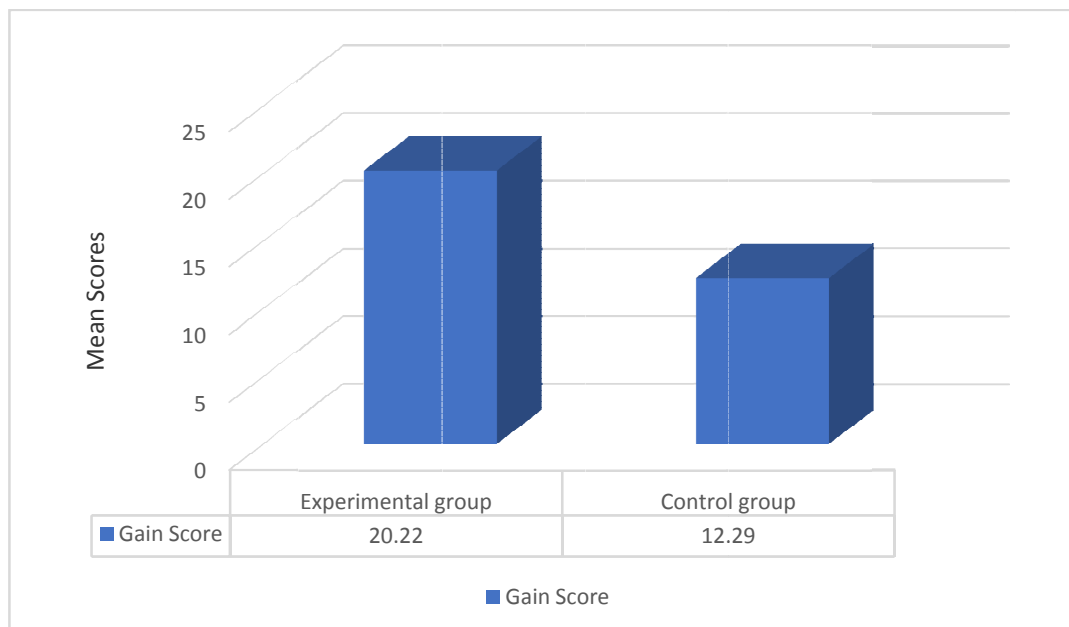


Figure 45. Mean change scores of English Language Anxiety of experimental and control groups - Total sample

The graphical representation of mean change scores of English Language Anxiety of experimental and control groups are not similar and it shows that there is reduction in English Language Anxiety of secondary school students belongs to experimental and control groups after the intervention. This graphical representation supports the result of mean difference analysis.

Comparison of the mean change scores of English Language Anxiety of Experimental and Control groups for subsample Boys.

To study whether there exists any significant difference of English Language Anxiety of secondary school students belonging to experimental and control groups, the means and standard deviations of change scores of English Language Anxiety of the two groups were subjected to test of significance of difference between means. The details of *t* test for Subsample Boys are presented in Table 71.

Table 71

Result of Test of Significance of Difference in Mean Change Scores of English Language Anxiety between Experimental and Control Groups – Subsample Boys

Variable	<u>Experimental Group</u>			<u>Control Group</u>			t	Effect size	Cohen's Category
	N ₁	M ₁	SD ₁	N ₂	M ₂	SD ₂			
English Language Anxiety	24	20.25	14.66	20	15.25	18.35	1.01	.15	Small

NS : Not significant

It is evident from the table that the calculated *t* test value obtained by the change scores of English language anxiety between experimental and control groups for the subsample boys is 1.01. So there exists no statistically significant difference in the mean change scores of English Language Anxiety for experimental and control groups for Subsample boys. This shows that the mean change scores of English Language Anxiety of secondary school students in experimental group is not significantly higher than the control group. Comparison of the mean values of changes scores shows reduction in English Language Anxiety for both Experimental and control groups. The change score of experimental group is lower than the control group. But the difference in the mean value is not significant enough to

attribute it to the intervention. Effect size is not calculated as the mean difference is not significant even at .05 level.

The value of Cohen's d is .15 which is lower than the limit set for medium effects in Cohen's category. It means that Blended Learning Approach has only small effect in reducing English Language Anxiety of Subsample boys of secondary school students when compared to Current instructional practices.

The mean change scores of English Language Anxiety of experimental and control groups for Subsample Boys are represented graphically in Figure 46.

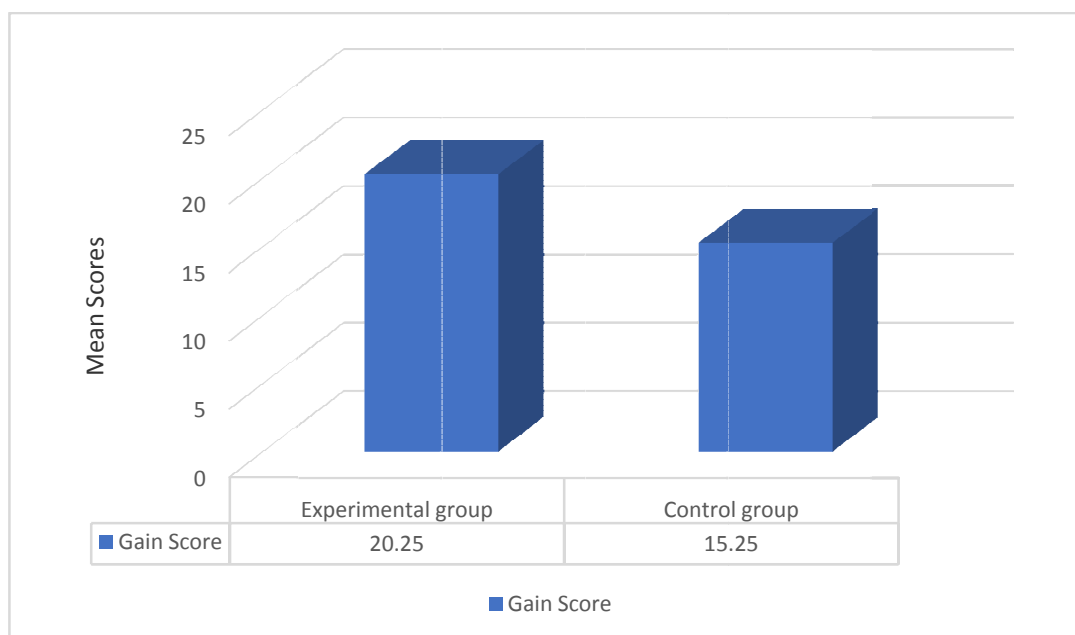


Figure 46. Mean change scores of English Language Anxiety of experimental and control groups - Subsample Boys

The graphical representation of mean change scores of English Language Anxiety of experimental and control groups are not similar and it shows that there is reduction in English Language Anxiety of secondary school

students belongs to experimental and control groups after the intervention. This graphical representation supports the result of mean difference analysis.

Comparison of the mean change scores of English Language Anxiety of Experimental and Control groups for subsample Girls.

To study whether there exists any significant difference of English Language Anxiety of secondary school students belonging to experimental and control groups, the means and standard deviations of gain scores of English Language Anxiety of the two groups were subjected to test of significance of difference between means. The details of *t* test for Subsample Girls are presented in Table 72.

Table 72

Result of Test of Significance of Difference in Mean Change Scores of English Language Anxiety between Experimental and Control Groups – Subsample Girls

Variable	Experimental Group			Control Group			t	Effect size	Cohen's Category
	N ₁	M ₁	SD ₁	N ₂	M ₂	SD ₂			
English language Anxiety	21	20.19	10.55	25	9.92	5.32	4.27**	1.22	Large

** $p < .01$

It is evident from the table that the calculated *t* test value obtained by the change scores of English language anxiety between experimental and control groups for the Subsample girls is 4.27. The mean score of the experimental group is significantly lower than the mean change score of the control group after the intervention at .01 level. Hence blended learning approach is effective in reducing English language anxiety of Subsample girls of secondary school students than Current instructional practices.

Since the mean difference was found to be significant, effect size was calculated. The value of Cohen's *d* is 1.22 which is greater than the limit set

for large effects in Cohen's category. It means that Blended Learning Approach has a large effect in reducing English Language Anxiety of Subsample Girls of secondary school students when compared to Current instructional practices.

The mean change scores of English Language Anxiety of experimental and control groups for Subsample Girls are represented graphically in Figure 47.

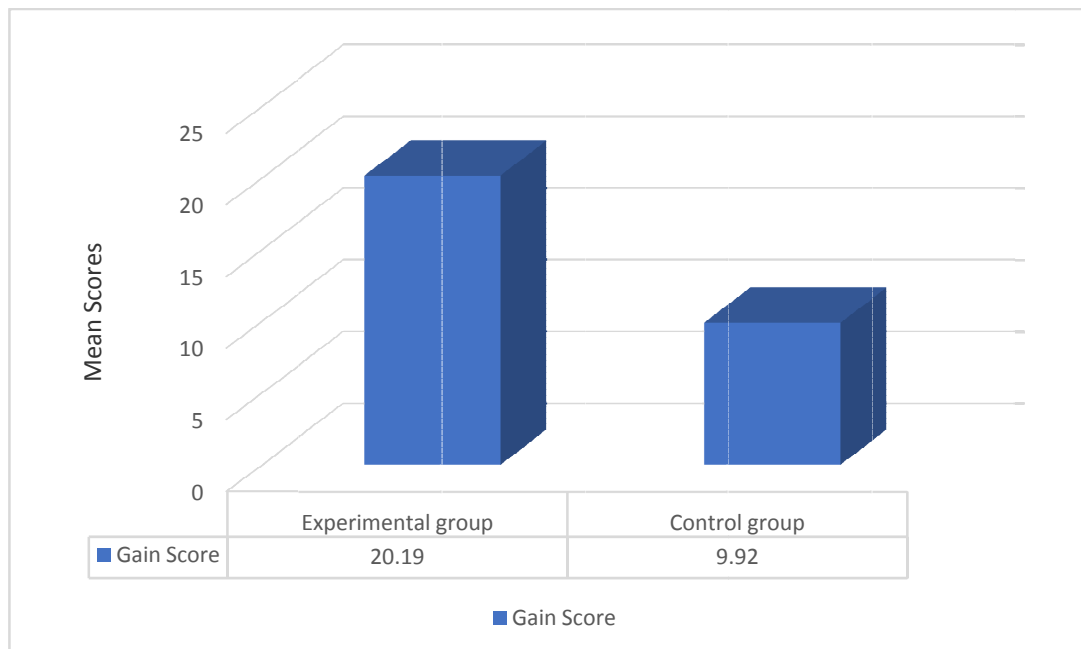


Figure 47. Mean change scores of English Language Anxiety of experimental and control groups - Subsample Girls

The graphical representation of mean change scores of English Language Anxiety of experimental and control groups are not similar and it shows that there is reduction in English Language Anxiety of secondary school students belongs to experimental and control groups after the intervention. This graphical representation supports the result of mean difference analysis.

Comparison of the mean Gain scores of Learner Satisfaction of Experimental and Control groups Total sample and subsample based on gender

Two tailed tests of significance of difference between means was administered to test whether significant difference exists between experimental group and the control group for the dependant variable Listening skill in English. Mean difference analysis was carried out with the means and standard deviations of Learner Satisfaction of the two groups and the calculated t values were tested for significance. For significant mean differences, the magnitude of the effect also found out using effect size measure of two groups. The data and results of t tests for Total sample, subsample Boys and subsample Girls are given in the following sections.

Comparison of the mean gain scores of Learner Satisfaction of Experimental and Control groups for Total sample.

To study whether there exists any significant difference of Learner Satisfaction of secondary school students belonging to experimental and control groups, the means and standard deviations of gain scores of Learner Satisfaction of the two groups were subjected to test of significance of difference between means. The details of t test for Total sample are presented in Table 73.

Table 73

Result of Test of Significance of Difference in Mean Gain Scores of Learner Satisfaction between Experimental and Control Groups – Total Sample

Variable	Experimental Group			Control Group			t	Effect size	Cohen's Category
	N ₁	M ₁	SD ₁	N ₂	M ₂	SD ₂			
Learner Satisfaction	45	12.02	8.47	45	4.00	14.33	3.23**	.69	Medium

** p < .01

It is evident from the table that the calculated t test value obtained by the gain scores of Learner satisfaction between experimental and control groups for the Total sample is 3.23. The mean score of the experimental group is significantly greater than the mean gain score of the control group after the intervention at .01 level. Hence blended learning approach is effective in enhancing Learner satisfaction of Total sample of secondary school students than Current instructional practices.

Since the mean difference was found to be significant, effect size was calculated. The value of Cohen’s d is .69 which is greater than the limit set for medium effects in Cohen’s category. It means that Blended Learning Approach has a medium effect in enhancing Learner Satisfaction of Total sample of secondary school students when compared to Current instructional practices.

The mean gain scores of Learner Satisfaction of experimental and control groups for Total sample are represented graphically in Figure 48.

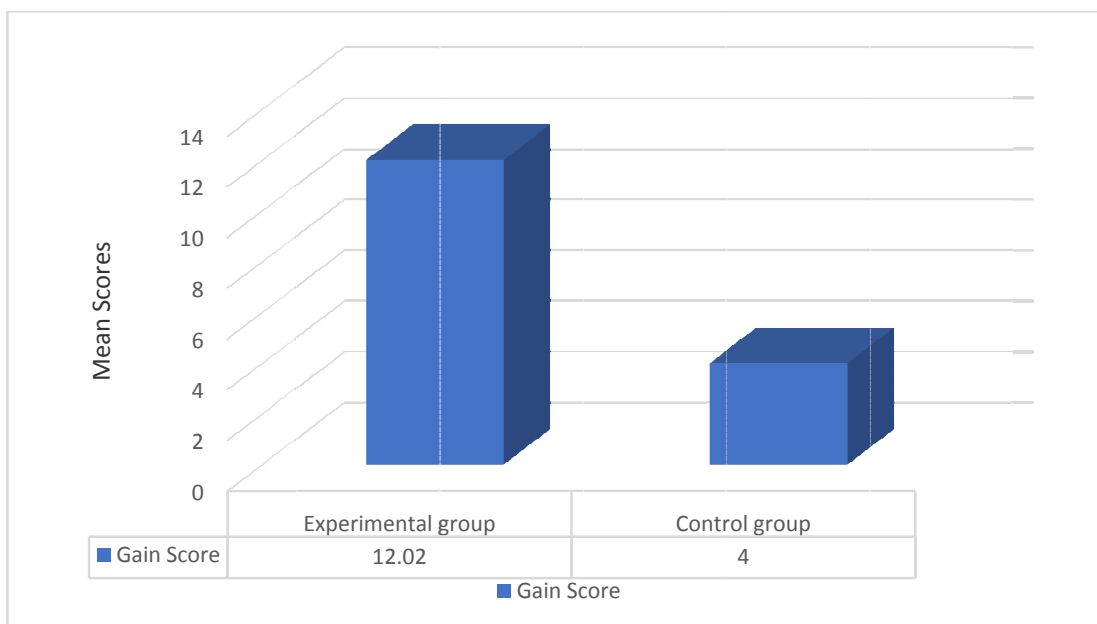


Figure 48. Mean gain scores of Learner Satisfaction of experimental and control groups - Total sample

The graphical representation of mean gain scores of Learner Satisfaction of experimental and controls group are not similar and it shows that there is gain in Learner Satisfaction of secondary school students belongs to experimental group and control group, after the intervention. This graphical representation supports the result of mean difference analysis.

Comparison of the mean gain scores of Learner Satisfaction of Experimental and Control groups for subsample Boys.

To study whether there exists any significant difference of Learner Satisfaction of secondary school students belonging to experimental and control groups, the means and standard deviations of gain scores of Learner Satisfaction of the two groups were subjected to test of significance of difference between means. The details of *t* test for Subsample Boys are presented in Table 74.

Table 74

Result of Test of Significance of Difference in Mean Gain Scores of Learner Satisfaction between Experimental and Control Groups – Subsample Boys

Variable	Experimental Group			Control Group			t	Effect size	Cohen's Category
	N ₁	M ₁	SD ₁	N ₂	M ₂	SD ₂			
Learner Satisfaction	24	11.21	9.18	20	4.05	15.83	1.87*	.55	Medium

* $p < .05$

It is evident from the table that the calculated *t* test value obtained by the gain scores of Learner satisfaction between experimental and control groups for the Subsample boys is 1.87. The mean score of the experimental group is significantly greater than the mean gain score of the control group after the intervention at .01 level. Hence blended learning approach is effective in enhancing Learner satisfaction of Subsample boys of secondary school students than Current instructional practices.

Since the mean difference was found to be significant, effect size was calculated. The value of Cohen's d is .55 which is greater than the limit set for medium effects in Cohen's category. It means that Blended Learning Approach has a medium effect in enhancing Learner satisfaction of Subsample boys of secondary school students when compared to Current instructional practices.

The mean gain scores of Learner Satisfaction of experimental and control groups for Subsample Boys are represented graphically in Figure 49.

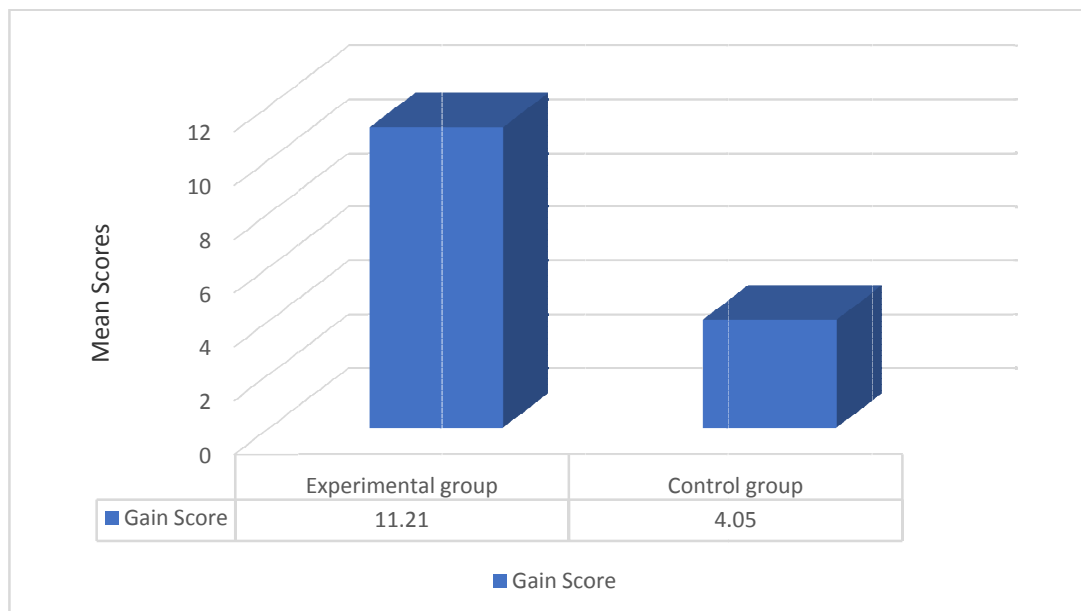


Figure 49. Mean gain scores of Learner Satisfaction of experimental and control groups - Subsample Boys

The graphical representation of mean gain scores of Learner Satisfaction of experimental and control groups are not similar and it shows that there is gain in Learner Satisfaction of secondary school students belongs to experimental group and control group, after the intervention. This graphical representation supports the result of mean difference analysis.

Comparison of the mean gain scores of Learner Satisfaction of Experimental and Control groups for subsample Girls.

To study whether there exists any significant difference of Learner Satisfaction of secondary school students belonging to experimental and control groups, the means and standard deviations of gain scores of Learner Satisfaction of the two groups were subjected to test of significance of difference between means. The details of *t* test for Subsample Girls are presented in Table 75.

Table 75

Result of Test of Significance of Difference in Mean Gain Scores of Learner Satisfaction between Experimental and Control Groups – Subsample Girls

Variable	Experimental Group			Control Group			t	Effect size	Cohen's Category
	N ₁	M ₁	SD ₁	N ₂	M ₂	SD ₂			
Learner satisfaction	21	12.95	7.68	25	3.96	13.35	2.72**	.83	large

** $p < .01$

It is evident from the table that the calculated *t* test value obtained by the gain scores of Learner satisfaction between experimental and control groups for the Subsample girls is 2.72. The mean score of the experimental group is significantly greater than the mean gain score of the control group after the intervention at .01 level. Hence blended learning approach is effective in enhancing Learner satisfaction of Subsample girls of secondary school students than Current instructional practices.

Since the mean difference was found to be significant, effect size was calculated. The value of Cohen's *d* is .83 which is greater than the limit set for large effects in Cohen's category. It means that Blended Learning

Approach has a large effect in enhancing Learner Satisfaction of Subsample Girls of secondary school students when compared to Current instructional practices.

The mean gain scores of Learner Satisfaction of experimental and control groups for Subsample Girls are represented graphically in Figure 50.

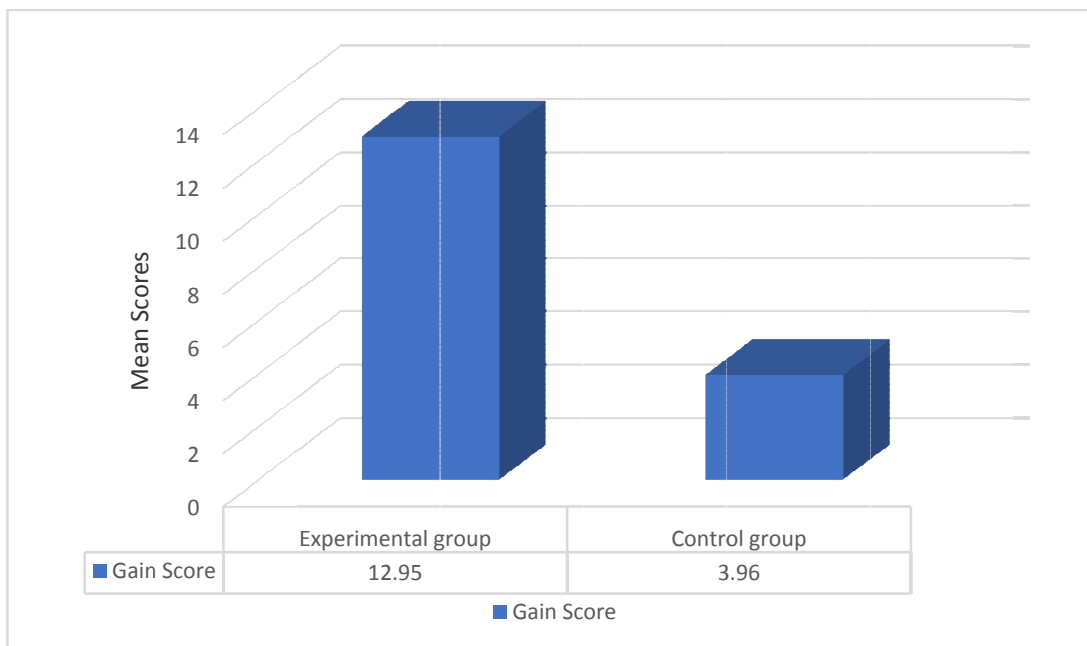


Figure 50. Mean gain scores of Learner Satisfaction of experimental and control groups - Subsample Girls

The graphical representation of mean gain scores of Learner Satisfaction of experimental and control groups are not similar and it shows that there is gain in Learner Satisfaction of secondary school students belongs to experimental group and control group, after the intervention. This graphical representation supports the result of mean difference analysis.

Discussion

The mean difference analysis of Gain scores of Listening skill, Speaking skill and learner Satisfaction and Change scores of English

Language Anxiety of secondary school students in the Experimental group show the following result.

There is significant difference between experimental and control groups on Listening skill and Speaking skill for Total sample and subsample Boys and subsample Girls and on English Language Anxiety and Learner Satisfaction for Total sample and subsample Girls. Significant mean difference was not found in mean change scores of English Language Anxiety and Learner satisfaction for subsample Boys.

Hence the Blended Learning Approach is effective in enhancing the Listening skill and Speaking skill in English for Total sample and subsample Boys and subsample Girls, Learner Satisfaction for Total sample and subsample Girls and in reducing English Language Anxiety for Total sample and subsample Girls, except Subsample boys.

For the variable Listening skill in English, Large effects of Blended Learning Approach were found for Total sample and subsample Girls and medium effects for subsample Boys with Current instructional practices. In case of Speaking skill in English, Large effects of Blended Learning Approach were found for all the three samples. For the variable English Language Anxiety, Medium effects for Total sample and Subsample boys, and Large effects for subsample Girls. For the variable, Learner Satisfaction, Medium effects for Total sample and Subsample boys, and Large effects for subsample Girls of Blended Learning Approach were found with Current instructional practices.

Analysis of Covariance (ANCOVA) of the Dependant Variables

To determine the effectiveness of Blended learning approach in enhancing Listening skill, speaking skill and Learner Satisfaction and reducing English Language Anxiety, the pre-test and post-test scores of the Experimental and Control groups were subjected to Statistical Analysis of Covariance. For this, Single way ANCOVA with two levels of method of instruction (Blended learning approach and Current instructional practices) selected as independent variable. The 5 covariates chosen are Pre-test Listening, Pre-test Speaking, Non-Verbal Intelligence, Classroom Environment and Socio-Economic Status. Dependent variables are Listening skill in English, speaking skill in English, English Language Anxiety and Learner Satisfaction. Gender is considered as classificatory variable in the study.

By employing one-way ANCOVA, the investigator could further study the relative effectiveness of Blended Learning Approach and Current instructional practices in English with regard to enhancing Listening skill in English, speaking skill in English and Learner, and reducing English language Anxiety Satisfaction after controlling the individual and combined effect of the five covariates.

Check for basic assumptions.

Before proceeding to ANCOVA, the basic assumptions were examined thoroughly for checking whether the data is sufficient enough to conduct ANCOVA proceedings, as suggested by Winer (1977) and Ferguson (1996). It was checked that the data satisfied the following assumptions.

The dependent variables Listening skill, Speaking skill, English Language Anxiety and Learner Satisfaction are on interval scale. The

distributions follow normal distribution properties. Linear relationship between dependant variables and covariates and Homogeneity are the main assumptions which are presented in the following sections.

Linear relationship between the dependant variable and covariates.

To know whether the data follow the basic assumptions the dependant variables (Listening skill, Speaking skill, English Language Anxiety and Learner Satisfaction) and the covariates (Pre-test Listening, Pre-test Speaking, Non-Verbal Intelligence, Classroom Environment and Socio-Economic Status) were studied using scatter plots. It is clear from the scatter plots that the relationship between the dependant variable and the covariates didn't differ greatly from the line of goodness of fit. The normal distribution was followed by the dependent variables and the covariates were satisfied.

Homogeneity of variables (Levene's Test).

Levene's Test of Equality of Error Variances was used for testing homogeneity of variances of two groups. It tests whether the error variances of experimental and control groups differ significantly or not. Homogeneity of variances of experimental and control groups on dependant variables Listening skill, Speaking skill, English Language Anxiety and Learner Satisfaction were tested for Total sample, subsample Boys and subsamples Girls and found that the error variance of the dependent variable is equal across the group.

Comparison of the adjusted mean scores of Listening skill between experimental and control groups by considering Pre-test Listening, Pre-test Speaking, Non-Verbal Intelligence, Classroom Environment and Socio-Economic Status as covariates for Total sample and subsamples based on Gender – (Bonferroni’s Test of post Hoc Comparison).

One-way ANCOVA was used to study whether there exist any significant differences between experimental and control groups in terms of Listening skill after adjusting for the pre-intervention differences if any. For each sample, ANCOVA was employed by taking covariates one at a time and in combination of five covariates, namely Pre-test Listening, Pre-test Speaking, Classroom Environment, Non-Verbal Intelligence and Socio-Economic Status, at a time to measure the combined effect of five covariates. Every ANCOVA with significant F value was followed by Bonferroni’s test of post hoc comparison. The details and summary of the dependent variable Listening skill and effect size in terms of Partial eta squared for Total sample, subsample Boys and subsample Girls are presented in the following sections.

Comparison of the adjusted mean scores of Listening skill between experimental and control groups by considering Pre-test Listening, Pre-test Speaking, Non-Verbal Intelligence, Classroom Environment and Socio-Economic Status as covariates for Total sample.

To find out the relative effectiveness of Blended Learning Approach and Current instructional practices in enhancing the Listening skill in English of Secondary school students, after adjusting pre-test differences if any, one

was ANCOVA was employed on Total sample. Linear adjustments were made in the post-test scores of Listening skill for the combined effect of the covariates namely, Pre-test Listening, Pre-test Speaking, Non-Verbal Intelligence, Classroom Environment and Socio-Economic Status.

The data and results of covariance analysis of Listening skill for Total sample are presented in Table 76.

Table 76

Summary of Analysis of Covariance of Listening Skill – Total sample

	Source of Variance	<u>Covariates</u>					Combined Effect
		Pre – test Listening	Pre-test Speaking	Non-Verbal Intelligence	Classroom Environment	Socio - Economic Status	
SS	Between groups	165.61	202.56	383.64	375.79	396.38	147.67
	Within groups	663.55	1418.93	3054.70	3121.72	3077.53	570.81
Df	Between groups	1	1	1	1	1	1
	Within groups	87	87	87	87	87	83
Mean Squares	Between groups	165.61	202.56	383.64	375.79	396.38	147.67
	Within groups	7.63	16.31	35.11	35.88	35.37	6.88
	Total	3511.66	3511.66	3511.66	3511.66	3511.66	3511.66
	F	21.71	12.42	10.93	10.47	11.21	21.47
	Level of Significance	.000	.001	.001	.002	.001	.000
	Partial eta squared	.200	.125	.112	.107	.114	.206

Table 76 shows that the calculated $F(1,87) = 21.71, p < .001, \eta_p^2 = .200$; $F(1,87) = 12.42, p = .001, \eta_p^2 = .125$; $F(1,87) = 10.93, p = .001, \eta_p^2 = .112$; $F(1,87) = 10.47, p = .002, \eta_p^2 = .107$; $F(1,87) = 11.21, p = .001, \eta_p^2 = .114$; $F(1,83) = 21.47, p < .000, \eta_p^2 = .206$ for the effect of Blended Learning Approach on Listening skill after controlling the combined and individual effect of Pre-test Listening, Pre-test Speaking, Classroom Environment, Non-Verbal Intelligence and Socio-Economic Status are significant at .01 level of significance. This is clear from the result that it indicates the significant

difference between post-test scores of Listening skill of experimental and control groups even after controlling the effects of five covariates. Hence the difference in post-test scores of Listening skill between experimental and control groups can be attributed to the influence of Blended Learning Approach. The values of Partial eta squared also support and substantiate the results.

Post-hoc comparison of adjusted means on Listening skill of experimental and control groups for Total sample.

To find out whether experimental and control groups differ significantly in terms of adjusted mean post-test scores of Listening skill, test of significance of difference between adjusted means was used with each ANCOVA. The details of post hoc comparison of adjusted mean scores of Listening skill for Total sample are presented in Table 77.

Table 77

Data and Results of Bonferroni's Test of Post Hoc Comparison between the Adjusted Means of Listening Skill – Total Sample

Covariates	Experimental Group		Control Group		SE	t
	N	Adjusted Mean	N	Adjusted Mean		
Pre – test Listening	45	25.047	45	22.309	.59	4.66**
Pre-test Speaking	45	25.191	45	22.165	.859	3.524**
Non-Verbal Intelligence	45	25.74	45	21.613	1.25	3.306**
Classroom Environment	45	25.739	45	21.616	1.274	3.236**
Socio -Economic Status	45	25.78	45	21.58	1.25	3.335**
Combined effect	45	24.985	45	22.371	.564	4.634**

*p<.05 **p<.01

Table 77 shows that the calculated t values are significant at .01 level of significance. Thus, it's clear that there is significant difference between adjusted mean scores of Listening skill of secondary school students belonging to experimental and control groups. Moreover, higher adjusted mean scores associated with experimental group. Hence the results show that

the Blended Learning Approach is more effective in enhancing the Listening skill than the Current instructional practices for Total sample.

Comparison of the adjusted mean scores of Listening skill between experimental and control groups by considering Pre-test Listening, Pre-test Speaking, Non-Verbal Intelligence, Classroom Environment and Socio-Economic Status as covariates for subsample Boys

To find out the relative effectiveness of Blended Learning Approach and Current instructional practices in enhancing the Listening skill in English of Secondary school students, after adjusting pre-test differences if any, one way ANCOVA was employed on subsample Boys. Linear adjustments were made in the post-test scores of Listening skill for the combined effect of the covariates namely, Pre-test Listening, Pre-test Speaking, Non-Verbal Intelligence, Classroom Environment and Socio-Economic Status.

The data and results of covariance analysis of Listening skill for subsample Boys are presented in Table 78.

Table 78
Summary of Analysis of Covariance of Listening Skill – Subsample Boys

	Source of Variance	Covariates					Combined Effect
		Pre – test Listening	Pre-test Speaking	Non-Verbal Intelligence	Classroom Environment	Socio - Economic Status	
SS	Between groups	72.93	90.02	193.88	194.05	210.95	66.93
	Within groups	407.65	456.97	1747.08	1761.22	1748.06	276.38
Df	Between groups	1	1	1	1	1	1
	Within groups	41	41	41	41	41	37
Mean Squares	Between groups	72.93	90.02	193.88	194.05	210.95	66.93
	Within groups	9.94	11.15	42.61	42.96	42.64	7.47
	Total	1971.89	1971.89	1971.89	1971.89	1971.89	1971.89
F		7.34	8.08	4.55	4.52	4.95	8.96
Level of Significance		.010	.007	.039	.040	.032	.005
Partial eta squared		.152	.165	.100	.099	.108	.195

Table 78 shows that the calculated $F(1,41) = 7.34$, $p = .010$, $\eta_p^2 = .152$; $F(1,41) = 8.08$, $p = .007$, $\eta_p^2 = .165$; $F(1,37) = 8.96$, $p = .005$, $\eta_p^2 = .195$ for the effect of Blended Learning Approach on Listening skill after controlling the combined and individual effect of Pre-test Listening, Pre-test Speaking, significant at .01 level of significance. The calculated value, $F(1,41) = 4.55$, $p = .039$, $\eta_p^2 = .100$; $F(1,41) = 4.52$, $p = .040$, $\eta_p^2 = .099$; $F(1,41) = 4.95$, $p = .032$, $\eta_p^2 = .108$ after controlling the individual effects of Classroom Environment, Non-Verbal Intelligence and Socio-Economic Status are greater than the table value at .05 level. Hence there is significant difference between post-test scores of Listening skill of experimental and control groups even after controlling the effects of five covariates. Hence the difference in post-test scores of Listening skill between experimental and control groups can be attributed to the influence of Blended Learning Approach. The values of Partial eta squared also support and substantiate the results.

Post hoc comparison of adjusted means on Listening skill of experimental and control groups for subsample Boys.

To find out whether experimental and control groups differ significantly in terms of adjusted mean post-test scores of Listening skill, test of significance of difference between adjusted means was used with each ANCOVA. The details of post hoc comparison of adjusted mean scores of Listening skill for subsample Boys are presented in Table 79.

Table 79

Data and Results of Bonferroni's Test of Post Hoc Comparison between the Adjusted Means of Listening Skill – Subsample Boys

Covariates	<u>Experimental group</u>		<u>Control group</u>		SE	t
	N	Adjusted Mean	N	Adjusted Mean		
Pre – test Listening	24	25.03	20	22.42	.97	2.71**
Pre-test Speaking	24	25.16	20	22.26	1.02	2.84**
Non-Verbal Intelligence	24	25.76	20	21.54	1.98	2.13*
Classroom Environment	24	25.76	20	21.54	1.99	2.13*
Socio -Economic Status	24	25.85	20	21.43	1.98	2.22*
Combined effect	24	24.99	20	22.46	.84	2.99**

*p<.05 **p<.01

Table 79 shows that the calculated t values are significant at .05 level of significance after adjusting individual effects of Pre – test Listening, Pre-test Speaking and combined effect as covariates. The calculated t value after adjusting for the individual effects of Classroom Environment, Non-Verbal Intelligence and Socio-Economic Status are greater than the table value at .05 level of significance. Thus, it's clear that there is significant difference between adjusted mean scores of Listening skill of secondary school students belonging to experimental and control groups. Moreover, higher adjusted mean scores are associated with experimental group. Hence the results show that the Blended Learning Approach is more effective in enhancing the Listening skill than the Current instructional practices for subsample Boys.

Comparison of the adjusted mean scores of Listening skill between experimental and control groups by considering Pre-test Listening, Pre-test Speaking, Non-Verbal Intelligence, Classroom Environment and Socio-Economic Status as covariates for subsample Girls.

To find out the relative effectiveness of Blended Learning Approach and Current instructional practices in enhancing the Listening skill in English

of Secondary school students, after adjusting pre-test differences if any, one was ANCOVA was employed on subsample Girls. Linear adjustments were made in the post-test scores of Listening skill for the combined effect of the covariates namely, Pre-test Listening, Pre-test Speaking, Non-Verbal Intelligence, Classroom Environment and Socio-Economic Status.

The data and results of covariance analysis of Listening skill for subsample Girls are presented in Table 80.

Table 80

Summary of Analysis of Covariance of Listening Skill – Subsample Girls

	Source of Variance	<u>Covariates</u>					Combined Effect
		Pre – test Listening	Pre-test Speaking	Non-Verbal Intelligence	Classroom Environment	Socio - Economic Status	
SS	Between groups	89.94	110.33	192.32	186.77	184.32	88.56
	Within groups	254.19	858.21	1303.75	1349.49	1328.17	231.14
Df	Between groups	1	1	1	1	1	1
	Within groups	43	43	43	43	43	39
Mean Squares	Between groups	89.94	110.33	192.32	186.77	184.32	88.56
	Within groups	5.91	19.96	30.32	31.38	30.89	5.93
	Total	1537.48	1537.48	1537.48	1537.48	1537.48	1537.48
F		15.21	5.53	6.34	5.95	5.97	14.94
Level of Significance		.000	.023	.016	.019	.019	.000
Partial eta squared		.261	.114	.129	.122	.122	.277

Table 80 shows that the calculated $F(1,43) = 15.21, p < .001, \eta_p^2 = .261; \eta_p^2 = .114; F(1,43) = 6.34, p = .016, \eta_p^2 = .129; F(1,43) = 5.95, p = .019, \eta_p^2 = .122; F(1,43) = 5.97, p = .019, \eta_p^2 = .122; F(1,39) = 14.94, p < .001, \eta_p^2 = .277$ for the effect of Blended Learning Approach on Listening skill after controlling the combined and individual effect of Pre-test Listening, Classroom Environment, Non-Verbal Intelligence and Socio-Economic Status are significant at .01 level of significance and the value $F(1,43) = 5.53, p = .023$

after controlling the individual covariate Pre-test Speaking is significant at .05 level. This is clear from the result that it indicates the significant difference between post-test scores of Listening skill of experimental and control groups even after controlling the effects of five covariates. Hence the difference in post-test scores of Listening skill between experimental and control groups can be attributed to the influence of Blended Learning Approach. The values of Partial eta squared also support and substantiate the results.

Post hoc comparison of adjusted means on Listening skill of experimental and control groups for subsample Girls.

To find out whether experimental and control groups differ significantly in terms of adjusted mean post-test scores of Listening skill, test of significance of difference between adjusted means was used with each ANCOVA. The details of post hoc comparison of adjusted mean scores of Listening skill for subsample Girls are presented in Table 81.

Table 81

Data and Results of Bonferroni's Test of Post Hoc Comparison between the Adjusted Means of Listening Skill – Subsample Girls

Covariates	Experimental group		Control group		SE	t
	N	Adjusted Mean	N	Adjusted Mean		
Pre – test Listening	21	25.06	25	22.23	.73	3.90**
Pre-test Speaking	21	25.23	25	22.09	1.34	2.35*
Non-Verbal Intelligence	21	25.75	25	21.65	1.63	2.52**
Classroom Environment	21	25.76	25	21.64	1.69	2.44**
Socio -Economic Status	21	25.71	25	21.69	1.65	2.44**
Combined effect	21	25.09	25	22.21	.75	3.87**

*p<.05 **p<.01

Table 81 shows that the calculated t values are significant at .01 level of significance after controlling the combined and individual effect of Pre-test Listening, Classroom Environment, Non-Verbal Intelligence and Socio-Economic Status and the t value after controlling the individual covariate Pre-test Speaking is at .05 level. Thus, it's clear that there is significant difference between adjusted mean scores of Listening skill of secondary school students belonging to experimental and control groups. Moreover, higher adjusted mean scores are associated with experimental group. Hence the results show that the Blended Learning Approach is more effective in enhancing the Listening skill than the Current instructional practices for subsample Girls.

Comparison of the adjusted mean scores of Speaking skill between experimental and control groups by considering Pre-test Listening, Pre-test Speaking, Non-Verbal Intelligence, Classroom Environment and Socio-Economic Status as covariates for Total sample and subsamples based on Gender - (Bonferroni's Test of post Hoc Comparison).

One-way ANCOVA was used to study whether there exist any significant differences between experimental and control groups in terms of Speaking skill after adjusting for the pre-intervention differences if any. For each sample, ANCOVA was employed by taking covariates one at a time and in combination of five covariates, namely Pre-test Listening, Pre-test Speaking, Classroom Environment, Non-Verbal Intelligence and Socio-Economic Status, at a time to measure the combined effect of five covariates. Every ANCOVA with significant F value was followed by Bonferroni's test of post hoc comparison. The details and summary of the dependent variable

Speaking skill and effect size in terms of Partial eta squared for Total sample, subsample Boys and subsample Girls are presented in the following sections.

Comparison of the adjusted mean scores of Speaking skill between experimental and control groups by considering Pre-test Listening, Pre-test Speaking, Non-Verbal Intelligence, Classroom Environment and Socio-Economic Status as covariates for Total sample

To find out the relative effectiveness of Blended Learning Approach and Current instructional practices in enhancing the Speaking skill in English of Secondary school students, after adjusting pre-test differences if any, one way ANCOVA was employed on Total sample. Linear adjustments were made in the post-test scores of Speaking skill for the combined effect of the covariates namely, Pre-test Listening, Pre-test Speaking, Non-Verbal Intelligence, Classroom Environment and Socio-Economic Status.

The data and results of covariance analysis of Speaking skill for Total sample are presented in Table 82.

Table 82
Summary of Analysis of Covariance of Speaking Skill – Total Sample

	Source of Variance	Covariates					Combined Effect
		Pre – test Listening	Pre-test Speaking	Non-Verbal Intelligence	Classroom Environment	Socio - Economic Status	
SS	Between groups	230.09	196.99	386.38	360.32	394.89	185.12
	Within groups	1089.09	311.02	2131.21	2125.92	2113.35	294.83
Df	Between groups	1	1	1	1	1	1
	Within groups	87	87	87	87	87	83
Mean Squares	Between groups	230.09	196.99	386.38	360.32	394.89	185.12
	Within groups	12.52	3.58	24.49	24.44	24.29	3.55
	Total	2532.46	2532.46	2532.46	2532.46	2532.46	2532.46
F		18.38	55.10	15.77	14.75	16.26	52.11
Level of Significance		.000	.000	.000	.000	.000	.000
Partial eta squared		.174	.388	.153	.145	.157	.386

Table 82 shows that the calculated $F(1,87) = 18.38, p < .001, \eta_p^2 = .174$; $F(1,87) = 55.10, p < .001, \eta_p^2 = .388$; $F(1,87) = 15.77, p < .001, \eta_p^2 = .153$; $F(1,87) = 14.75, p < .001, \eta_p^2 = .145$; $F(1,87) = 16.26, p < .001, \eta_p^2 = .157$; $F(1,83) = 52.11, p < .001, \eta_p^2 = .386$ for the effect of Blended Learning Approach on Speaking skill after controlling the combined and individual effect of Pre-test Listening, Pre-test Speaking, Classroom Environment, Non-Verbal Intelligence and Socio-Economic Status are significant at .01 level of significance. This is clear from the result that it indicates the significant difference between post-test scores of Speaking skill of experimental and control groups even after controlling the effects of five covariates. Hence the difference in post-test scores of Speaking skill between experimental and control groups can be attributed to the influence of Blended Learning Approach. The values of Partial eta squared also support and substantiate the results.

Post hoc comparison of adjusted means on Speaking skill of experimental and control groups for Total sample.

To find out whether experimental and control groups differ significantly in terms of adjusted mean post-test scores of Speaking skill, test of significance of difference between adjusted means was used with each ANCOVA. The details of post hoc comparison of adjusted mean scores of Speaking skill for Total sample are presented in Table 83.

Table 83

Data and Results of Bonferroni's Test of Post Hoc Comparison between the Adjusted Means of Speaking Skill – Total Sample

Covariates	<u>Experimental group</u>		<u>Control group</u>		SE	t
	N	Adjusted Mean	N	Adjusted Mean		
Pre – test Listening	45	19.09	45	15.86	.75	4.29**
Pre-test Speaking	45	18.97	45	15.99	.40	7.42**
Non-Verbal Intelligence	45	19.55	45	15.41	1.04	3.97**
Classroom Environment	45	19.49	45	15.46	1.05	3.84**
Socio -Economic Status	45	19.57	45	15.38	1.04	4.03**
Combined effect	45	18.94	45	16.02	.41	7.22**

*p<.05 **p<.01

Table 83 shows that the calculated t values are significant at .01 level of significance. Thus, it's clear that there is significant difference between adjusted mean scores of Speaking skill of secondary school students belonging to experimental and control groups. Moreover, higher adjusted mean scores associated with experimental group. Hence the results show that the Blended Learning Approach is more effective in enhancing the Speaking skill than the Current instructional practices for Total sample.

Comparison of the adjusted mean scores of Speaking skill between experimental and control groups by considering Pre-test Listening, Pre-test Speaking, Non-Verbal Intelligence, Classroom Environment and Socio-Economic Status as covariates for subsample Boys

To find out the relative effectiveness of Blended Learning Approach and Current instructional practices in enhancing the Speaking skill in English of Secondary school students, after adjusting pre-test differences if any, one way ANCOVA was employed on Total sample. Linear adjustments were made in the post-test scores of Speaking skill for the combined effect of the

covariates namely, Pre-test Listening, Pre-test Speaking, Non-Verbal Intelligence, Classroom Environment and Socio-Economic Status.

The data and results of covariance analysis of Speaking skill for subsample Boys are presented in Table 84

Table 84
Summary of Analysis of Covariance of Speaking Skill – Subsample Boys

	Source of Variance	Covariates					Combined Effect
		Pre – test Listening	Pre-test Speaking	Non-Verbal Intelligence	Classroom Environment	Socio - Economic Status	
SS	Between groups	101.01	103.47	201.18	200.99	205.45	95.87
	Within groups	374.94	129.11	1118.46	1119.39	1117.61	119.47
Df	Between groups	1	1	1	1	1	1
	Within groups	41	41	41	41	41	37
Mean Squares	Between groups	101.01	103.47	201.18	200.99	205.45	95.87
	Within groups	9.15	3.15	27.28	27.30	27.26	3.23
	Total	1323.16	1323.16	1323.16	1323.16	1323.16	1323.16
F		11.05	32.86	7.38	7.36	7.54	29.69
Level of Significance		.002	.000	.010	.010	.009	.000
Partial eta squared		.212	.445	.152	.152	.155	.445

Table 84 shows that the calculated $F(1,41) = 11.05, p = .002, \eta_p^2 = .212$; $F(1,41) = 32.86, p < .000, \eta_p^2 = .445$; $F(1,41) = 7.38, p = .010, \eta_p^2 = .152$; $F(1,41) = 7.36, p = .010, \eta_p^2 = .152$; $F(1,41) = 7.54, p = .009, \eta_p^2 = .155$; $F(1,37) = 29.69, p < .001, \eta_p^2 = .445$ for the effect of Blended Learning Approach on Speaking skill after controlling the combined and individual effect of Pre-test Listening, Pre-test Speaking, Classroom Environment, Non-Verbal Intelligence and Socio-Economic Status are significant at .01 level of significance. This is clear from the result that it indicates the significant difference between post-test scores of Speaking skill of experimental and control groups even after controlling the effects of five covariates. Hence the difference in post-test scores

of Speaking skill between experimental and control groups can be attributed to the influence of Blended Learning Approach. The values of Partial eta squared also support and substantiate the results.

Post hoc comparison of adjusted means on Speaking skill of experimental and control groups for subsample Boys.

To find out whether experimental and control groups differ significantly in terms of adjusted mean post-test scores of Speaking skill, test of significance of difference between adjusted means was used with each ANCOVA. The details of post hoc comparison of adjusted mean scores of Speaking skill for subsample Boys are presented in Table 85.

Table 85

Data and Results of Bonferroni's Test of Post Hoc Comparison between the Adjusted Means of Speaking Skill– Subsample Boys

Covariates	Experimental group		Control group		SE	t
	N	Adjusted Mean	N	Adjusted Mean		
Pre – test Listening	24	19.10	20	16.03	.93	3.32**
Pre-test Speaking	24	19.12	20	16.01	.54	5.73**
Non-Verbal Intelligence	24	19.66	20	15.36	1.58	2.72**
Classroom Environment	24	19.66	20	15.36	1.59	2.71**
Socio -Economic Status	24	19.68	20	15.33	1.59	2.75**
Combined effect	24	19.08	20	16.06	.56	5.45**

**p<.01

Table 85 shows that the calculated t values are significant at .01 level of significance. Thus, it's clear that there is significant difference between adjusted mean scores of Speaking skill of secondary school students belonging to experimental and control groups. Moreover, higher adjusted mean scores are associated with experimental group. Hence the results show

that the Blended Learning Approach is more effective in enhancing the Speaking skill than the Current instructional practices for subsample Boys.

Comparison of the adjusted mean scores of Speaking skill between experimental and control groups by considering Pre-test Listening, Pre-test Speaking, Non-Verbal Intelligence, Classroom Environment and Socio-Economic Status as covariates for subsample Girls

To find out the relative effectiveness of Blended Learning Approach and Current instructional practices in enhancing the Speaking skill in English of Secondary school students, after adjusting pre-test differences if any, one was ANCOVA was employed on subsample Girls. Linear adjustments were made in the post-test scores of Speaking skill for the combined effect of the covariates namely, Pre-test Listening, Pre-test Speaking, Non-Verbal Intelligence, Classroom Environment and Socio-Economic Status.

The data and results of covariance analysis of Speaking skill for subsample Girls are presented in Table 86.

Table 86.

Summary of Analysis of Covariance of Speaking skill – Subsample Girls

	Source of Variance	Covariates					Combined Effect
		Pre – test Listening	Pre-test Speaking	Non-Verbal Intelligence	Classroom Environment	Socio - Economic Status	
SS	Between groups	124.66	88.69	185.07	148.86	179.71	82.08
	Within groups	695.77	175.22	1008.39	993.35	982.57	158.95
Df	Between groups	1	1	1	1	1	1
	Within groups	43	43	43	43	43	39
Mean Squares	Between groups	124.66	88.69	185.07	148.86	179.71	82.08
	Within groups	16.18	4.08	23.45	23.10	22.85	4.08
	Total	1204.87	1204.87	1204.87	1204.87	1204.87	1204.87
F		7.70	21.78	7.89	6.44	7.87	20.14
Level of Significance		.008	.000	.007	.015	.008	.000
Partial eta squared		.152	.336	.155	.130	.155	.341

Table 86 shows that the calculated value $F(1,43) = 7.70$, $p = .008$, $\eta_p^2 = .152$; $F(1,43) = 21.78$, $p < .001$, $\eta_p^2 = .336$; $F(1,43) = 7.89$, $p = .007$, $\eta_p^2 = .155$; $F(1,43) = 6.44$, $p = .015$, $\eta_p^2 = .130$; $F(1,43) = 7.87$, $p = .008$, $\eta_p^2 = .155$; $F(1,39) = 20.14$, $p < .001$, $\eta_p^2 = .341$ for the effect of Blended Learning Approach on Speaking skill after controlling the combined and individual effect of Pre-test Listening, Pre-test Speaking, Classroom Environment, Non-Verbal Intelligence and Socio-Economic Status are significant at .01 level of significance. This is clear from the result that it indicates the significant difference between post-test scores of Speaking skill of experimental and control groups even after controlling the effects of five covariates. Hence the difference in post-test scores of Speaking skill between experimental and control groups can be attributed to the influence of Blended Learning Approach. The values of Partial eta squared also support and substantiate the results.

Post hoc comparison of adjusted means on Speaking skill of experimental and control groups for subsample Girls.

To find out whether experimental and control groups differ significantly in terms of adjusted mean post-test scores of Speaking skill, test of significance of difference between adjusted means was used with each ANCOVA. The details of post hoc comparison of adjusted mean scores of Speaking skill for Subsample Girls are presented in Table 87.

Table 87

Data and Results of Bonferroni's Test of Post Hoc Comparison between the Adjusted Means of Speaking Skill – subsample Girls

Covariates	Experimental group		Control group		SE	t
	N	Adjusted Mean	N	Adjusted Mean		
Pre – test Listening	21	19.07	25	15.74	1.20	2.78**
Pre-test Speaking	21	18.79	25	15.98	.60	4.67**
Non-Verbal Intelligence	21	19.45	25	15.42	1.43	2.81**
Classroom Environment	21	19.26	25	15.58	1.45	2.54**
Socio -Economic Status	21	19.42	25	15.45	1.42	2.80**
Combined effect	21	18.77	25	15.99	.62	4.49**

*p<.05 **p<.01

Table 87 shows that the calculated t values are significant at .01 level of significance. Thus, it's clear that there is significant difference between adjusted mean scores of Speaking skill of secondary school students belonging to experimental and control groups. Moreover, higher adjusted mean scores are associated with experimental group. Hence the results show that the Blended Learning Approach is more effective in enhancing the Speaking skill than the Current instructional practices for subsample Girls.

Comparison of the adjusted mean scores of English Language Anxiety between experimental and control groups by considering Pre-test Listening, Pre-test Speaking, Non-Verbal Intelligence, Classroom Environment and Socio-Economic Status as covariates for Total sample and subsamples based on Gender- (Bonferroni's Test of post Hoc Comparison)

One-way ANCOVA was used to study whether there exist any significant differences between experimental and control groups in terms of English Language Anxiety after adjusting for the pre-intervention differences

if any. For each sample, ANCOVA was employed by taking covariates one at a time and in combination of five covariates, namely Pre-test Listening, Pre-test Speaking, Classroom Environment, Non-Verbal Intelligence and Socio-Economic Status, at a time to measure the combined effect of five covariates. Every ANCOVA with significant F value was followed by Bonferroni's test of post hoc comparison. The details and summary of the dependent variable English Language Anxiety and effect size in terms of Partial eta squared for Total sample, subsample Boys and subsample Girls are presented in the following sections.

Comparison of the adjusted mean scores of English Language Anxiety between experimental and control groups by considering Pre-test Listening, Pre-test Speaking, Non-Verbal Intelligence, Classroom Environment and Socio-Economic Status as covariates for Total sample

To find out the relative effectiveness of Blended Learning Approach and Current instructional practices in reducing the English Language Anxiety in English of Secondary school students, after adjusting pre-test differences if any, one was ANCOVA was employed on Total sample. Linear adjustments were made in the post-test scores of English Language Anxiety for the combined effect of the covariates namely, Pre-test Listening, Pre-test Speaking, Non-Verbal Intelligence, Classroom Environment and Socio-Economic Status.

The data and results of covariance analysis of English Language Anxiety for Total sample are presented in Table 88.

Table 88

Summary of Analysis of Covariance of English Language Anxiety – Total Sample

	Source of Variance	Covariates					Combined Effect
		Pre – test Listening	Pre-test Speaking	Non-Verbal Intelligence	Classroom Environment	Socio - Economic Status	
SS	Between groups	5114.35	3630.55	7316.55	6328.75	7660.29	3838.89
	Within groups	94102	66848.69	103771.39	102552.97	101460.12	62284.13
Df	Between groups	1	1	1	1	1	1
	Within groups	87	87	87	87	87	83
Mean Squares	Between groups	5114.35	3630.55	7316.55	6328.75	7660.29	3838.89
	Within groups	1081.64	768.38	1192.78	1178.77	1166.21	750.41
	Total	111749.66	111749.66	111749.66	111749.66	111749.66	111749.66
F		4.73	4.73	6.13	5.37	6.57	5.12
Level of Significance		.032	.032	.015	.023	.012	.026
Partial eta squared		.052	.052	.066	.058	.070	.058

Table 88 shows that the calculated $F(1,87) = 4.73, p = .032, \eta_p^2 = .052$; $F(1,87) = 4.73, p = .015, \eta_p^2 = .052$; $F(1,87) = 6.13, p = .015, \eta_p^2 = .066$; $F(1,87) = 5.37, p = .023, \eta_p^2 = .058$; $F(1,87) = 6.57, p = .012, \eta_p^2 = .070$; $F(1,83) = 5.12, p = .026, \eta_p^2 = .058$ for the effect of Blended Learning Approach on English Language Anxiety after controlling the combined and individual effect of Pre-test Listening, Pre-test Speaking, Classroom Environment, Non-Verbal Intelligence and Socio-Economic Status are significant at .05 level of significance. This is clear from the result that it indicates the significant difference between post-test scores of English Language Anxiety of experimental and control groups even after controlling the effects of five covariates. Hence the difference in post-test scores of English Language Anxiety between experimental and control groups can be attributed to the influence of Blended Learning Approach. The values of Partial eta squared also support and substantiate the results.

Post hoc comparison of adjusted means on English Language Anxiety of experimental and control groups for Total sample.

To find out whether experimental and control groups differ significantly in terms of adjusted mean post-test scores of Learner Satisfaction, test of significance of difference between adjusted means was used with each ANCOVA. The details of post hoc comparison of adjusted mean scores of English Language Anxiety for Total sample are presented in Table 89.

Table 89

Data and results of Bonferroni's Test of Post Hoc comparison between the adjusted means of English Language Anxiety – Total sample

Covariates	<u>Experimental group</u>		<u>Control group</u>		SE	t
	N	Adjusted Mean	N	Adjusted Mean		
Pre – test Listening	45	81.27	45	96.49	6.99	2.17*
Pre-test Speaking	45	82.47	45	95.28	5.89	2.17*
Non-Verbal Intelligence	45	79.86	45	97.89	7.28	2.48**
Classroom Environment	45	80.42	45	97.34	7.30	2.32*
Socio -Economic Status	45	79.65	45	98.11	7.20	2.56**
Combined effect	45	82.22	45	95.54	5.89	2.26*

*p<.05 **p<.01

Table 89 shows that the calculated t values are significant .05 level of significance. Thus, it's clear that there are significant difference between adjusted mean scores of English Language Anxiety of secondary school students belonging to experimental and control groups. Moreover, lower adjusted mean scores are associated with experimental group. Hence the results show that the Blended Learning Approach is more effective in reducing the English Language Anxiety than the Current instructional practices for Total sample.

Comparison of the adjusted mean scores of English Language Anxiety between experimental and control groups by considering Pre-test Listening, Pre-test Speaking, Non-Verbal Intelligence, Classroom Environment and Socio-Economic Status as covariates for subsample Boys

To find out the relative effectiveness of Blended Learning Approach and Current instructional practices in reducing the English Language Anxiety in English of Secondary school students, after adjusting pre-test differences if any, one was ANCOVA was employed on Total sample. Linear adjustments were made in the post-test scores of English Language Anxiety for the combined effect of the covariates namely, Pre-test Listening, Pre-test Speaking, Non-Verbal Intelligence, Classroom Environment and Socio-Economic Status.

The data and results of covariance analysis of English Language Anxiety for subsample Boys are presented in Table 90.

Table 90

Summary of Analysis of Covariance of English Language Anxiety – Subsample Boys

	Source of Variance	Covariates					Combined Effect
		Pre – test Listening	Pre-test Speaking	Non-Verbal Intelligence	Classroom Environment	Socio - Economic Status	
SS	Between groups	2164.32	2029.16	3488.52	3344.38	4247.42	2196.35
	Within groups	46330.38	40372.46	53559.49	52974.31	50639.82	35995.81
Df	Between groups	1	1	1	1	1	1
	Within groups	41	41	41	41	41	37
Mean Squares	Between groups	2164.32	2029.16	3488.52	3344.38	4247.42	2196.35
	Within groups	1130.01	984.69	1306.33	1292.06	1235.12	972.86
	Total	57888.73	57888.73	57888.73	57888.73	57888.73	57888.73
F		1.92	2.06	2.67	2.59	3.44	2.26
Level of Significance		.174	.159	.110	.115	.071	.141
Partial eta squared		.045	.048	.061	.059	.077	.058

Table 90 shows that the calculated $F(1,41) = 3.44$, $p = .071$, $\eta_p^2 = .077$ for the effect of Blended Learning Approach on English Language Anxiety after controlling the Socio-Economic Status is significant at .05 level. The calculated value $F(1,41) = 1.92$, $p = .174$, $\eta_p^2 = .045$; $F(1,41) = 2.06$, $p = .159$, $\eta_p^2 = .048$; $F(1,41) = 2.67$, $p = .110$, $\eta_p^2 = .061$; $F(1,41) = 2.59$, $p = .115$, $\eta_p^2 = .059$; $F(1,37) = 2.26$, $p = .141$, $\eta_p^2 = .058$ after controlling the combined and individual effect of Pre-test Listening, Pre-test Speaking, Classroom Environment, Non-Verbal Intelligence are not significant. This is clear from the result that it indicates no significant difference between post-test scores of English Language Anxiety of experimental and control groups even after controlling the effects of four covariates. Hence the difference in post-test scores of English Language Anxiety between experimental and control groups cannot be attributed to the influence of Blended Learning Approach for the subsample boys. The values of Partial eta squared also support and substantiate the results.

Post hoc comparison of adjusted means on English Language Anxiety of experimental and control groups for subsample Boys.

To find out whether experimental and control groups differ significantly in terms of adjusted mean post-test scores of Learner Satisfaction, test of significance of difference between adjusted means was used with each ANCOVA. The details of post hoc comparison of adjusted mean scores of English Language Anxiety for subsample Boys are presented in Table 91.

Table 91

Data and Results of Bonferroni's Test of Post Hoc Comparison between the Adjusted Means of English Language Anxiety – Subsample Boys

Covariates	Experimental group		Control group		SE	t
	N	Adjusted Mean	N	Adjusted Mean		
Pre – test Listening	24	83.25	20	97.49	10.29	1.38
Pre-test Speaking	24	83.48	20	97.23	9.58	1.44
Non-Verbal Intelligence	24	81.59	20	99.49	10.96	1.63
Classroom Environment	24	81.75	20	99.30	10.91	1.61
Socio -Economic Status	24	80.73	20	100.53	10.68	1.85*
Combined effect	24	83.15	20	97.62	9.64	1.50

*p<.05

Table 91 shows that the calculated t values are not significant even at .05 level of significance. Thus, it's clear that there is no significant difference between adjusted mean scores of English Language Anxiety of secondary school students belonging to experimental and control groups, except after adjusting the for the individual effect of Socio-economic status, which has a calculated t value which is greater than the table value at .05 level of significance. But, lower adjusted mean scores are associated with experimental group. Hence the results show that the Blended Learning Approach is not effective in reducing the English Language Anxiety than the Current instructional practices for subsample Boys.

Comparison of the adjusted mean scores of English Language Anxiety between experimental and control groups by considering Pre-test Listening, Pre-test Speaking, Non-Verbal Intelligence, Classroom Environment and Socio-Economic Status as covariates for subsample Girls

To find out the relative effectiveness of Blended Learning Approach and Current instructional practices in reducing the English Language Anxiety in

English of Secondary school students, after adjusting pre-test differences if any, one was ANCOVA was employed on subsample Girls. Linear adjustments were made in the post-test scores of English Language Anxiety for the combined effect of the covariates namely, Pre-test Listening, Pre-test Speaking, Non-Verbal Intelligence, Classroom Environment and Socio-Economic Status.

The data and results of covariance analysis of English Language Anxiety for subsample Girls are presented in Table 92.

Table 92

Summary of Analysis of Covariance of English Language Anxiety – Subsample Girls

	Source of Variance	Covariates					Combined Effect
		Pre – test Listening	Pre-test Speaking	Non-Verbal Intelligence	Classroom Environment	Socio - Economic Status	
SS	Between groups	3112.44	1680.43	3955.14	3210.61	3890.65	1996.34
	Within groups	47212.25	25707.41	49780.95	49241.58	49575.58	23421.06
Df	Between groups	1	1	1	1	1	1
	Within groups	43	43	43	43	43	39
Mean Squares	Between groups	3112.44	1680.43	3955.14	3210.61	3890.65	1996.34
	Within groups	1097.96	597.85	1157.69	1145.15	1152.92	600.54
	Total	53798.8	53798.8	53798.80	53798.80	53798.8	53798.80
F		2.84	2.81	3.42	2.80	3.38	3.32
Level of Significance		.099	.101	.071	.101	.073	.076
Partial eta squared		.062	.061	.074	.061	.073	.79

Table 92 shows that the calculated $F(1,43) = 3.42, p = .071, \eta_p^2 = .074$; $F(1,43) = 3.38, p = .073, \eta_p^2 = .073$; $F(1,39) = 3.32, p = .076, \eta_p^2 = .79$ for the effect of Blended Learning Approach on English Language Anxiety after controlling the combined and individual effect of Non-Verbal Intelligence and Socio-Economic Status are significant at .05 level of significance. The value $F(1,43) = 2.84, p = .099, \eta_p^2 = .062$; $F(1,43) = 2.81, p = .101, \eta_p^2 = .061$; $F(1,43)$

=2.80, $p = .101$, $\eta_p^2 = .061$ obtained after controlling the effects of Pre-test Listening, Pre-test Speaking, Classroom Environment are not significant at .05 level. So, the result indicates significant difference between post-test scores of English Language Anxiety of experimental and control groups after the effects of three combined and individual covariates. Hence the difference in post-test scores of English Language Anxiety between experimental and control groups can be attributed to the influence of Blended Learning Approach. The values of Partial eta squared also support and substantiate the results.

Post hoc comparison of adjusted means on English Language Anxiety of experimental and control groups for subsample Girls.

To find out whether experimental and control groups differ significantly in terms of adjusted mean post-test scores of Learner Satisfaction, test of significance of difference between adjusted means was used with each ANCOVA. The details of post hoc comparison of adjusted mean scores of English Language Anxiety for subsample Girls are presented in Table 93.

Table 93

Data and Results of Bonferroni’s Test of Post Hoc Comparison between the Adjusted Means of English Language Anxiety – Subsample Girls

Covariates	Experimental group		Control group		SE	T
	N	Adjusted Mean	N	Adjusted Mean		
Pre – test Listening	21	79.02	25	95.66	9.88	1.68
Pre-test Speaking	21	81.41	25	93.66	7.305	1.68
Non-Verbal Intelligence	21	77.94	25	96.57	10.08	1.85*
Classroom Environment	21	78.78	25	95.82	10.20	1.67
Socio -Economic Status	21	78.03	25	96.49	10.05	1.84*
Combined effect	21	80.63	25	94.31	7.50	1.82*

* $p < .05$ ** $p < .01$

Table 93 shows that the calculated t values are significant at .05 level of significance after adjusting the combined and individual effects of Non-Verbal Intelligence and Socio-Economic Status. The calculated t value after adjusting the effects of Pre-test Listening, Pre-test Speaking, and Classroom Environment are not significant at .05 levels. Thus, it's clear that there is significant difference between adjusted mean scores of English Language Anxiety of secondary school students belonging to experimental and control groups Hence the results show that the difference in the English Language Anxiety can be attributed to the Blended Learning Approach for subsample Girls.

Comparison of the adjusted mean scores of Learner Satisfaction between experimental and control groups by considering Pre-test Listening, Pre-test Speaking, Non-Verbal Intelligence, Classroom Environment and Socio-Economic Status as covariates for Total sample and subsamples based on Gender - (Bonferroni's Test of post Hoc Comparison)

One-way ANCOVA was used to study whether there exist any significant differences between experimental and control groups in terms of Learner Satisfaction after adjusting for the pre-intervention differences if any. For each sample, ANCOVA was employed by taking covariates one at a time and in combination of five covariates, namely Pre-test Listening, Pre-test Speaking, Classroom Environment, Non-Verbal Intelligence and Socio-Economic Status, at a time to measure the combined effect of five covariates. Every ANCOVA with significant F value was followed by Bonferroni's test of post hoc comparison. The details and summary of the dependent variable Learner Satisfaction and effect size in terms of Partial eta squared for Total sample, subsample Boys and subsample Girls are presented in the following sections.

Comparison of the adjusted mean scores of Learner Satisfaction between experimental and control groups by considering Pre-test Listening, Pre-test Speaking, Non-Verbal Intelligence, Classroom Environment and Socio-Economic Status as covariates for Total sample

To find out the relative effectiveness of Blended Learning Approach and Current instructional practices in enhancing the Learner Satisfaction in English of Secondary school students, after adjusting pre-test differences if any, one way ANCOVA was employed on Total sample. Linear adjustments were made in the post-test scores of Learner Satisfaction for the combined effect of the covariates namely, Pre-test Listening, Pre-test Speaking, Non-Verbal Intelligence, Classroom Environment and Socio-Economic Status.

The data and results of covariance analysis of Learner Satisfaction for Total sample are presented in Table 94

Table 94

Summary of Analysis of Covariance of Learner Satisfaction – Total Sample

	Source of Variance	<u>Covariates</u>					Combined Effect
		Pre – test Listening	Pre-test Speaking	Non-Verbal Intelligence	Classroom Environment	Socio - Economic Status	
SS	Between groups	1343.97	1254.97	1461.41	1244.69	1477.42	1139.32
	Within groups	18328.88	18067.60	18242.24	18045.33	18217.61	17415.33
Df	Between groups	1	1	1	1	1	1
	Within groups	87	87	87	87	87	83
Mean Squares	Between groups	1343.97	1254.97	1461.41	1244.69	1477.42	1139.32
	Within groups	210.68	207.67	209.68	207.42	209.39	209.82
	Total	19837.66	19837.66	19837.66	19837.66	19837.66	19837.66
F		6.38	6.04	6.97	6.00	7.06	5.43
Level of Significance		.013	.016	.010	.016	.009	.022
Partial eta squared		.068	.065	.074	.065	.075	.061

Table 94 shows that the calculated $F(1,87) = 6.38, p = .013, \eta_p^2 = .068$; $F(1,87) = 6.04, p = .016, \eta_p^2 = .065$; $F(1,87) = 6.97, p = .010, \eta_p^2 = .074$; $F(1,87) = 6.00, p = .016, \eta_p^2 = .065$; $F(1,87) = 7.06, p = .009, \eta_p^2 = .075$; $F(1,83) = 5.43, p = .022, \eta_p^2 = .061$ for the effect of Blended Learning Approach on Learner Satisfaction after controlling the combined and individual effect of Pre-test Listening, Pre-test Speaking, Classroom Environment, Non-Verbal Intelligence and Socio-Economic Status are significant at .05 level of significance. This is clear from the result that it indicates the significant difference between post-test scores of Learner Satisfaction of experimental and control groups even after controlling the effects of five covariates. Hence the difference in post-test scores of Learner Satisfaction between experimental and control groups can be attributed to the influence of Blended Learning Approach. The values of Partial eta squared also support and substantiate the results.

Post hoc comparison of adjusted means on Learner Satisfaction of experimental and control groups for Total sample.

To find out whether experimental and control groups differ significantly in terms of adjusted mean post-test scores of Learner Satisfaction, test of significance of difference between adjusted means was used with each ANCOVA. The details of post hoc comparison of adjusted mean scores of Learner Satisfaction for Total sample are presented in Table

Table 95

Data and Results of Bonferroni's Test of Post Hoc Comparison between the Adjusted Means of Learner Satisfaction – Total Sample

Covariates	Experimental group		Control group		SE	t
	N	Adjusted Mean	N	Adjusted Mean		
Pre – test Listening	45	61.78	45	53.98	3.09	2.53**
Pre-test Speaking	45	61.64	45	54.11	3.06	2.46**
Non-Verbal Intelligence	45	61.91	45	53.85	3.05	2.64**
Classroom Environment	45	61.63	45	54.13	3.06	2.45**
Socio -Economic Status	45	61.93	45	53.82	3.05	2.66**
Combined effect	45	61.51	45	54.25	3.12	2.33*

*p<.05 **p<.01

Table 95 shows that the calculated t values are significant at .05 level of significance. Thus, it's clear that there are significant difference between adjusted mean scores of Learner Satisfaction of secondary school students belonging to experimental and control groups. Moreover, higher adjusted mean scores associated with experimental group. Hence the results show that the Blended Learning Approach is more effective in enhancing the Learner Satisfaction than the Current instructional practices for Total sample.

Comparison of the adjusted mean scores of Learner Satisfaction between experimental and control groups by considering Pre-test Listening, Pre-test Speaking, Non-Verbal Intelligence, Classroom Environment and Socio-Economic Status as covariates for subsample Boys

To find out the relative effectiveness of Blended Learning Approach and Current instructional practices in enhancing the Learner Satisfaction in English of Secondary school students, after adjusting pre-test differences if any, one was ANCOVA was employed on Total sample. Linear adjustments

were made in the post-test scores of Learner Satisfaction for the combined effect of the covariates namely, Pre-test Listening, Pre-test Speaking, Non-Verbal Intelligence, Classroom Environment and Socio-Economic Status.

The data and results of covariance analysis of Learner Satisfaction for subsample Boys are presented in Table 96.

Table 96

Summary of Analysis of Covariance of Learner Satisfaction – Subsample Boys

	Source of Variance	Covariates					Combined Effect
		Pre – test Listening	Pre-test Speaking	Non-Verbal Intelligence	Classroom Environment	Socio - Economic Status	
SS	Between groups	1062.09	931.63	1150.14	1033.77	1240.92	1146.71
	Within groups	10345.84	9946.01	10185.22	10088.58	9768.21	8487.68
Df	Between groups	1	1	1	1	1	1
	Within groups	41	41	41	41	41	37
Mean Squares	Between groups	1062.09	931.63	1150.14	1033.77	1240.92	1146.71
	Within groups	252.34	242.59	248.42	246.06	238.25	229.39
	Total	11463.16	11463.16	11463.16	11463.16	11463.16	11463.16
F		4.21	3.84	4.63	4.20	5.21	4.99
Level of Significance		.047	.057	.037	.047	.028	.031
Partial eta squared		.093	.086	.101	.093	.113	.119

Table 96 shows that the calculated $F(1,41) = 4.21, p = .047, \eta_p^2 = .093$; $F(1,41) = 3.84, p = .057, \eta_p^2 = .086$; $F(1,41) = 4.63, p = .037, \eta_p^2 = .101$; $F(1,41) = 4.20, p = .047, \eta_p^2 = .093$; $F(1,41) = 5.21, p = .028, \eta_p^2 = .113$; $F(1,37) = 4.99, p = .031, \eta_p^2 = .119$ for the effect of Blended Learning Approach on Learner Satisfaction after controlling the combined and individual effect of Pre-test Listening, Pre-test Speaking, Classroom Environment, Non-Verbal Intelligence and Socio-Economic Status are significant at .05 level of significance. This is clear from the result that it

indicates the significant difference between post-test scores of Learner Satisfaction of experimental and control groups even after controlling the effects of five covariates. Hence the difference in post-test scores of Learner Satisfaction between experimental and control groups can be attributed to the influence of Blended Learning Approach. The values of Partial eta squared also support and substantiate the results.

Post hoc comparison of adjusted means on Learner Satisfaction of experimental and control groups for subsample Boys.

To find out whether experimental and control groups differ significantly in terms of adjusted mean post-test scores of Learner Satisfaction, test of significance of difference between adjusted means was used with each ANCOVA. The details of post hoc comparison of adjusted mean scores of Learner Satisfaction for subsample Boys are presented in Table 97.

Table 97

Data and Results of Bonferroni’s Test of Post Hoc Comparison between the Adjusted Means of Learner Satisfaction – Subsample Boys

Covariates	Experimental group		Control group		SE	t
	N	Adjusted Mean	N	Adjusted Mean		
Pre – test Listening	24	60.24	20	50.26	4.86	2.05*
Pre-test Speaking	24	59.94	20	50.62	4.75	1.96*
Non-Verbal Intelligence	24	60.38	20	50.09	4.78	2.15*
Classroom Environment	24	60.14	20	50.38	4.76	2.05*
Socio -Economic Status	24	60.57	20	49.87	4.69	2.28*
Combined effect	24	60.46	20	49.99	4.68	2.24*

*p<.05

Table 97 shows that the calculated t values are significant at .05 level of significance. Thus, it’s clear that there are significant difference between

adjusted mean scores of Learner Satisfaction of secondary school students belonging to experimental and control groups. Moreover, higher adjusted mean scores are associated with experimental group. Hence the results show that the Blended Learning Approach is more effective in enhancing the Learner Satisfaction than the Current instructional practices for subsample Boys.

Comparison of the adjusted mean scores of Learner Satisfaction between experimental and control groups by considering Pre-test Listening, Pre-test Speaking, Non-Verbal Intelligence, Classroom Environment and Socio-Economic Status as covariates for subsample Girls

To find out the relative effectiveness of Blended Learning Approach and Current instructional practices in enhancing the Learner Satisfaction in English of Secondary school students, after adjusting pre-test differences if any, one way ANCOVA was employed on subsample Girls. Linear adjustments were made in the post-test scores of Learner Satisfaction for the combined effect of the covariates namely, Pre-test Listening, Pre-test Speaking, Non-Verbal Intelligence, Classroom Environment and Socio-Economic Status.

The data and results of covariance analysis of Learner Satisfaction for subsample Girls are presented in Table 98.

Table 98

Summary of Analysis of Covariance of Learner Satisfaction – Subsample Girls

	Source of Variance	Covariates					Combined Effect
		Pre – test Listening	Pre-test Speaking	Non-Verbal Intelligence	Classroom Environment	Socio - Economic Status	
SS	Between groups	493.02	508.35	542.48	428.99	547.14	347.49
	Within groups	7357.82	7402.68	7420.12	7282.84	7412.34	7139.197
Df	Between groups	1	1	1	1	1	1
	Within groups	43	43	43	43	43	39
Mean Squares	Between groups	493.02	508.35	542.49	428.99	547.14	347.49
	Within groups	171.11	172.16	172.56	169.37	172.38	183.06
	Total	7967.91	7967.91	7967.91	7967.91	7967.91	7967.91
F		2.88	2.95	3.14	2.53	3.17	1.89
Level of Significance		.09	.09	.08	.11	.08	.17
Partial eta squared		.063	.064	.068	.056	.069	.046

Table 98 shows that the calculated $F(1,43) = 2.88, p = .097, \eta_p^2 = .063$; $F(1,43) = 2.95, p = .093, \eta_p^2 = .064$; $F(1,43) = 3.14, p = .083, \eta_p^2 = .068$; $F(1,43) = 3.17, p = .082, \eta_p^2 = .069$ for the effect of Blended Learning Approach on Learner Satisfaction after controlling the individual effect of Pre-test Listening, Pre-test Speaking, Non-Verbal Intelligence and Socio-Economic Status are not significant. The calculated $F(1,43) = 2.53, p = .119, \eta_p^2 = .056$; $F(1,39) = 1.89, p = .176, \eta_p^2 = .046$ for the effect of Blended Learning Approach on Learner Satisfaction after controlling the combined and individual effect of Classroom Environment are not significant at .05 level of significance. This is clear from the result that it indicates the significant difference between post-test scores of Learner Satisfaction of experimental and control groups even after controlling the effects of four covariates. The covariate Classroom environment has no effect on the Learner satisfaction of the girls. Hence the difference in post-test scores of Learner Satisfaction

between experimental and control groups can be attributed to the influence of Blended Learning Approach only. The values of Partial eta squared also support and substantiate the results.

Post hoc comparison of adjusted means on Learner Satisfaction of experimental and control groups for subsample Girls.

To find out whether experimental and control groups differ significantly in terms of adjusted mean post-test scores of Learner Satisfaction, test of significance of difference between adjusted means was used with each ANCOVA. The details of post hoc comparison of adjusted mean scores of Learner Satisfaction for sample Girls are presented in Table 99.

Table 99

Data and Results of Bonferroni's Test of Post Hoc Comparison between the Adjusted Means of Learner Satisfaction – Subsample Girls

Covariates	<u>Experimental Group</u>		<u>Control Group</u>		SE	T
	N	Adjusted Mean	N	Adjusted Mean		
Pre – test Listening	21	63.56	25	56.93	3.90	1.69*
Pre-test Speaking	21	63.62	25	56.88	3.92	1.72*
Non-Verbal Intelligence	21	63.71	25	56.81	3.89	1.77*
Classroom Environment	21	63.35	25	57.11	3.92	1.59
Socio -Economic Status	21	63.72	25	56.79	3.89	1.78*
Combined effect	21	63.06	25	57.35	4.14	1.38

*p<.05

Table 99 shows that the calculated t values are significant at .05 level of significance for the adjusted mean scores of Learner Satisfaction of experimental and control groups after controlling the effects of Pre – test Listening, Pre-test Speaking, Non-Verbal Intelligence and Socio -Economic Status. The calculated t values after adjusting for the combined and individual

effect of Classroom Environment are not significant at .05 levels. Thus, it's clear that there is significant difference between adjusted mean scores of Learners satisfaction of secondary school students belonging to experimental and control groups Hence the results show that the difference in the learner Satisfaction can be attributed to the Blended Learning Approach for subsample Girls.

Summary and Discussion of ANCOVA of the Dependent Variables

Results of ANCOVA of dependant variables Listening skill, speaking skill, English language Anxiety and Learner Satisfaction employed to study the effectiveness of Blended Learning Approach and Current instructional practices after controlling the combined and individual effect of the covariates are presented in the following tables.

The calculated F values for the ANCOVA of dependant variables, t values of post hoc comparison and effect size Partial eta squared for Total sample, subsample Boys, Subsample Girls are presented in Table 96, Table 97 and Table 98 Respectively.

The summary of ANCOVA of the dependant variables and effect size for Total sample is given in Table 100.

Table 100

Summary of ANCOVA of the Dependant Variables – Total Sample

Source of Variation	Dependent Variable	Covariate	F	t	Level of Significance	Partial eta Squared
Blended Learning Approach and Current instructional practices of Teaching	Listening Skill	Pre – test Listening	21.71	4.66	.01	.200
		Pre-test Speaking	12.42	3.52	.01	.125
		Non-Verbal Intelligence	10.93	3.31	.01	.112
		Classroom Environment	10.47	3.24	.01	.107
		Socio -Economic Status	11.21	3.34	.01	.114
		Combined Effect	21.47	4.63	.01	.206
	Speaking skill	Pre – test Listening	18.38	4.29	.01	.174
		Pre-test Speaking	55.10	7.42	.01	.388
		Non-Verbal Intelligence	15.77	3.97	.01	.153
		Classroom Environment	14.75	3.84	.01	.145
		Socio -Economic Status	16.26	4.03	.01	.157
		Combined Effect	51.11	7.22	.01	.386
	English Language Anxiety	Pre – test Listening	4.73	2.17	.05	.052
		Pre-test Speaking	4.73	2.17	.05	.052
		Non-Verbal Intelligence	6.13	2.48	.01	.066
		Classroom Environment	5.37	2.32	.05	.058
		Socio -Economic Status	6.57	2.56	.01	.070
		Combined Effect	5.12	2.26	.05	.058
	Learner Satisfaction	Pre – test Listening	6.38	2.53	.01	.068
		Pre-test Speaking	6.04	2.46	.01	.065
		Non-Verbal Intelligence	6.97	2.64	.01	.074
Classroom Environment		6.00	2.45	.01	.065	
Socio -Economic Status		7.06	2.66	.01	.075	
Combined Effect		5.43	2.33	.05	.061	

After covariate analysis, as per Table 100 the experimental and control groups significantly differ in terms of Listening skill, Speaking skill, English Language Anxiety and Learner Satisfaction after controlling the individual and combined effect of the five covariates. It shows that the Blended Learning Approach is more effective than Current instructional practices in enhancing Listening skill, Speaking skill and Learner Satisfaction and in

reducing English Language Anxiety for Total sample as both groups differed significantly after controlling the combined effect of variables. These results are substantiated by the Partial eta squared values too.

The summary of ANCOVA of the dependant variables and effect size for subsample Boys is given in Table 101.

Table 101

Summary of ANCOVA of the Dependant Variables – Subsample Boys

Source of Variation	Dependent Variable	Covariate	F	t	Level of Significance	Partial eta squared
Blended Learning Approach and Current instructional practices of Teaching	Listening Skill	Pre – test Listening	7.34	2.71	.01	.152
		Pre-test Speaking	8.08	2.84	.01	.165
		Non-Verbal Intelligence	4.55	2.13	.05	.100
		Classroom Environment	4.52	2.13	.05	.099
		Socio -Economic Status	4.95	2.22	.05	.108
		Combined Effect	8.96	2.99	.01	.195
	Speaking skill	Pre – test Listening	11.5	3.32	.01	.212
		Pre-test Speaking	32.86	5.73	.01	.445
		Non-Verbal Intelligence	7.38	2.72	.01	.152
		Classroom Environment	7.36	2.71	.01	.152
		Socio -Economic Status	7.54	2.75	.01	.155
		Combined Effect	29.69	5.45	.01	.445
	English Language Anxiety	Pre – test Listening	1.92	1.38	NS	.045
		Pre-test Speaking	2.06	1.44	NS	.048
		Non-Verbal Intelligence	2.67	1.63	NS	.061
		Classroom Environment	2.59	1.61	NS	.059
		Socio -Economic Status	3.44	1.85	.05	.077
		Combined Effect	2.26	1.50	NS	.058
	Learner Satisfaction	Pre – test Listening	4.21	2.05	.05	.093
		Pre-test Speaking	3.84	1.96	.05	.086
		Non-Verbal Intelligence	4.63	2.15	.05	.101
Classroom Environment		4.20	2.05	.05	.093	
Socio -Economic Status		5.21	2.28	.05	.113	
Combined Effect		4.99	2.24	.05	.119	

After covariate analysis, as per Table 101 the experimental and control groups significantly differ in terms of Listening skill, Speaking skill and Learner Satisfaction, except English Language Anxiety after controlling the individual and combined effect of the five covariates. It shows that the Blended Learning Approach is more effective than Current instructional practices in enhancing Listening skill, Speaking skill and Learner Satisfaction for subsample Boys as both groups differed significantly after controlling the combined effect of variables. In English Language Anxiety, the two groups didn't differ significantly after controlling the combined and individual effect of the covariates except Socio-economic Status. These results are substantiated by the Partial eta squared values too.

The summary of ANCOVA of the dependant variables and effect size for subsample Girl is given in Table 102.

Table 102

Summary of ANCOVA of the Dependant Variables – Subsample Girls

Source of Variation	Dependent Variable	Covariate	F	t	Level of Significance	Partial eta squared
Blended Learning Approach and Current instructional practices of Teaching	Listening Skill	Pre – test Listening	15.21	3.90	.01	.261
		Pre-test Speaking	5.53	2.35	.05	.114
		Non-Verbal Intelligence	6.34	2.52	.01	.129
		Classroom Environment	5.95	2.44	.01	.122
		Socio -Economic Status	5.97	2.44	.01	.122
		Combined Effect	14.94	3.87	.01	.277
	Speaking skill	Pre – test Listening	7.70	2.78	.01	.152
		Pre-test Speaking	21.78	4.67	.01	.336
		Non-Verbal Intelligence	7.89	2.81	.01	.155
		Classroom Environment	6.44	2.54	.01	.130
		Socio -Economic Status	7.87	2.80	.01	.155
		Combined Effect	20.14	4.49	.01	.341
	English Language Anxiety	Pre – test Listening	2.84	1.68	NS	.062
		Pre-test Speaking	2.81	1.68	NS	.061
		Non-Verbal Intelligence	3.42	1.85	.05	.074
		Classroom Environment	2.80	1.67	NS	.061
		Socio -Economic Status	3.38	1.84	.05	.073
		Combined Effect	3.32	1.82	.05	.79
	Learner Satisfaction	Pre – test Listening	2.88	1.69	.05	.063
		Pre-test Speaking	2.95	1.72	.05	.064
		Non-Verbal Intelligence	3.14	1.77	.05	.068
Classroom Environment		2.53	1.59	NS	.056	
Socio -Economic Status		3.17	1.78	.05	.069	
Combined Effect		1.89	1.38	NS	.046	

Table 102 shows that the experimental and control groups significantly differ in terms of Listening skill, Speaking skill and English Language Anxiety, except Learner Satisfaction after controlling the individual and combined effect of the five covariates. It shows that the Blended Learning Approach is more effective than Current instructional practices in enhancing

Listening skill, Speaking skill and reducing English Language for subsample Girls as both groups differed significantly after controlling the combined effect of variables. In Learner Satisfaction, the covariate classroom environment has an interaction no interaction effect in Subsample girls, though other covariates have significant effect after controlling, which makes the combined effect non-significant.

These results are substantiated by the Partial eta squared values too.

From the findings of the results of Mean difference analysis and Analysis of Covariance it can be inferred that Blended Learning Approach is more effective than Current instructional practices in enhancing Listening skill, Speaking skill and Learner Satisfaction and in reducing English Language Anxiety of secondary school students for Total sample, subsample Boys and subsample Girls, except in reducing English Language Anxiety for subsample Boys.

Summary, of Findings, Conclusion & Suggestions

- *Study in Retrospect*
- *Major Findings of the Study*
- *Tenability of Hypotheses*
- *Educational Implications of the Study*
- *Educational Implications Derived*
- *Suggestions for Further Research*

SUMMARY AND FINDINGS

Study in Retrospect

Chapter V discusses the study in brief. It covers restatement of the problem, variables, objectives, hypotheses, methodology, tools prepared and adopted and statistical techniques used for analysis of data.

Restatement of the Problem

The study was designed to compare the effect of Blended learning approach with that of the current practices in teaching English in enhancing the Listening skill, Speaking skill, Learner satisfaction and in reducing the English Language Anxiety of the secondary school students. Keeping this view in mind, the problem of the study is restated as “EFFECTIVENESS OF BLENDED LEARNING APPROACH ON LISTENING AND SPEAKING SKILLS IN ENGLISH, ENGLISH LANGUAGE ANXIETY AND LEARNER SATISFACTION OF SECONDARY SCHOOL STUDENTS.”

Variables of the Study

In the present study, the independent variable selected is Instructional strategy, which has two levels:

- Blended Learning Approach
- Current practices of teaching

The dependent variables are:

- Listening skill in English
- Speaking skill in English

- English language anxiety
- Learner Satisfaction

Covariates of the study are:

- Pre-test score of Test of Listening skill in English
- Pre-test score of Test of Speaking skill in English
- Non-verbal intelligence
- Socio Economic Status
- Classroom environment

The Classificatory Variable used in this study is gender.

Objectives of the Study

The objectives of the study are as follows:

1. To identify the prevailing strategies in teaching English, constraints and the measures to overcome the constraints in implementing these strategies in teaching English in secondary school level.
2. To develop an instructional strategy based on Blended learning Approach to enhance Listening skill in English, Speaking skill in English, Learner satisfaction and to reduce English language anxiety of the students at secondary school level.
3. To find out the effectiveness of the Blended learning Approach over Current practices of teaching to enhance Listening skill in English, Speaking skill in English, Learner satisfaction and to reduce English language anxiety of the students at secondary school level for Total sample and Subsample based on gender.

Hypotheses of the Study

The hypotheses formulated and tested for the study are:

1. There is no significant difference in the pre-test mean scores of Listening skill in English of the Experimental and Control groups for
 - a) Total sample
 - b) Subsample boys
 - c) Subsample girls
2. There is no significant difference in the pre-test mean scores of Speaking skill in English of the Experimental and Control groups for
 - a) Total sample
 - b) Subsample boys
 - c) Subsample girls
3. There is no significant difference in the pre-test mean scores of English language anxiety of the Experimental and Control groups for
 - a) Total sample
 - b) Subsample boys
 - c) Subsample girls
4. There is no significant difference in the pre-test mean scores of Learner satisfaction of the Experimental and Control groups for
 - a) Total sample
 - b) Subsample boys
 - c) Subsample girls
5. There is significant difference in the mean pre-test and post-test scores of Listening skill in English of the Experimental group for
 - a) Total sample
 - b) Subsample boys
 - c) Subsample girls

6. There is significant difference in the mean pre-test and post-test scores of Speaking skill in English of the Experimental group for
 - a) Total sample
 - b) Subsample boys
 - c) Subsample girls
7. There is significant difference in the mean pre-test and post-test scores of English language anxiety of the Experimental group for
 - a) Total sample
 - b) Subsample boys
 - c) Subsample girls
8. There is significant difference in the mean pre-test and post-test scores of Learner satisfaction of the Experimental group for
 - a) Total sample
 - b) Subsample boys
 - c) Subsample girls
9. There is significant difference in the mean Post-test scores of Listening skill in English between the Experimental and Control groups for
 - a) Total sample
 - b) Subsample boys
 - c) Subsample girls
10. There is significant difference in the mean Post-test scores of Speaking skill in English between the Experimental and Control groups for
 - a) Total sample
 - b) Subsample boys
 - c) Subsample girls

11. There is significant difference in the mean Post-test scores of English language anxiety between the Experimental and Control groups for
 - a) Total sample
 - b) Subsample boys
 - c) Subsample girls
12. There is significant difference in the mean Post-test scores of Learner satisfaction between the Experimental and Control groups for
 - a) Total sample
 - b) Subsample boys
 - c) Subsample girls
13. There is significant difference in the mean gain scores of Listening skill in English between the Experimental and Control groups for
 - a) Total sample
 - b) Subsample Boys
 - c) Subsample girls
14. There is significant difference in the mean gain scores of Speaking skill in English between the Experimental and control groups for
 - a) Total sample
 - b) Subsample boys
 - c) Subsample girls
15. There is significant difference in the mean change scores of English language anxiety between the Experimental and Control groups for
 - a) Total sample
 - b) Subsample boys
 - c) Subsample girls

16. There is significant difference in the mean gain scores of Learner satisfaction between the Experimental and Control groups for
 - a) Total sample
 - b) Subsample boys
 - c) Subsample girls

17. There is significant difference in the adjusted mean scores of Listening skill in English between the Experimental and Control groups by considering Pre-test Listening, Pre-test Speaking, Non-Verbal Intelligence, Classroom Environment and Socio-Economic Status as covariates for
 - a) Total sample
 - b) Subsample boys
 - c) Subsample girls

18. There is significant difference in the adjusted mean scores of Speaking skill in English between the Experimental and Control groups by considering Pre-test Listening, Pre-test Speaking, Non-Verbal Intelligence, Classroom Environment and Socio-Economic Status as covariates for
 - a) Total sample
 - b) Subsample boys
 - c) Subsample girls

19. There is significant difference in the adjusted mean scores of English language anxiety between the Experimental and Control groups by considering Pre-test Listening, Pre-test Speaking, Non-Verbal Intelligence, Classroom Environment and Socio-Economic Status as covariates for
 - a) Total sample

b) Subsample boys

c) Subsample girls

20. There is significant difference in the adjusted mean scores of Learner satisfaction between the Experimental and Control groups by Considering Pre-test Listening, Pre-test Speaking, Non-Verbal Intelligence, Classroom Environment and Socio-Economic Status as covariates for

a) Total sample

b) Subsample boys

c) Subsample girls

Methodology

The methodology adopted for the study is explained below in brief with the help of a diagrammatic representation.

Design of the study.

The design employed for the preliminary phase was survey method. The design adopted for the Experimental phase was Pre-test – Post-test Equivalent group design.

Sample of the study

Sample for the preliminary survey was 50 English language secondary school teachers, and for the Experiment were 90 secondary school students.

Tools used for the study.

The details of the various tools developed and standardised by the investigator and the standardised tools which were adopted are briefly listed below.

Questionnaire on teachers perception towards prevailing strategies and constraints in teaching English (Aruna & Anju, 2014).

This questionnaire was prepared by the investigator with the help of supervising teacher.

This questionnaire was focused on three main areas, namely,

- a) The prevailing strategies in teaching English,
- b) The constraints experienced by the teachers in adopting the prevailing strategies in teaching English, and
- c) The suggestive measures to rectify or overcome the constraints in implementing the prevailing strategies to teach English in secondary school level.

The tool is validated by the experts opinion.

Lesson transcripts based on Blended learning approach (Aruna & Anju, 2016).

The lesson transcripts for teaching English are based on the Blended learning approach. The transcripts are based on the Five Stage Model developed by Salmon (2005), namely, Access and Motivation, Online socialisation, Information exchange, Knowledge construction and Development. This is validated by the experts in the field of education.

Lesson transcripts for Current practices of teaching (Aruna & Anju, 2016).

The lesson transcripts for teaching English at secondary level based on current practices which is Constructivist method of teaching. This is validated by the experts in the field.

Test of Listening Skill in English (Aruna & Anju, 2016).

The test of Listening Skill in English is a test developed by the researcher with the help of the supervising teacher to measure listening skill in English of 8th standard students belonging to Experimental and Control groups. This test is used for both pre-test and post-test by the investigator to collect data on Listening skill in English. The final test for Listening Skill in English consists of 40 objective items in total. As a part of standardization procedure, validity is ensured by content validity, face validity and reliability is confirmed by test-retest method.

Test of Speaking skill in English (Aruna & Anju, 2016).

The test of Speaking Skill in English is a test to measure Speaking skill in English of 8th standard students belonging to Experimental and Control groups, with the help of the supervising teacher. This test is used for both pre-test and post-test by the investigator to collect data on speaking skill in English. The final test for Speaking Skill in English consists of 12 items in total. As a part of standardization procedure, validity is ensured by content validity, face validity and reliability is confirmed by inter-rater reliability.

Scale of English language anxiety (Aruna & Anju, 2016).

This is a 5 point Likert type rating scale, which is intended to measure the English language anxiety of 8th standard students belong to Experimental and Control groups. This test is used both as pre-test and post-test by the investigator to collect data on English language Anxiety. The final form of the test consisted of 40 items in total (As a part of standardization procedure, validity ensured by content validity and face validity, and reliability is confirmed by test-retest method.

Scale of Learner Satisfaction (Aruna & Anju, 2016).

This scale is also a 5 point Likert type scale, which is prepared to measure the satisfaction level of the learners in English of the 8th standard students belonging to Experimental and Control group. This test is used as pre-test and post-test by the investigator to collect data on Learner satisfaction. The final form of the test consisted of 20 items in total. As a part of standardization procedure, validity is ensured by content validity, face validity and reliability is confirmed by test-retest method.

Standard Progressive Matrices Test (Raven, 1958).

This test is a standardized non-verbal intelligence test that consists of 5 sets using two dimensional patterns and puzzles which changes in series. It carries 60 marks in total.

Classroom Environment Inventory (Aruna & Sureshan, 1998).

This inventory is standardised by the authors and is used for measuring the classroom environment. It covers 12 different dimensions with 47 items in total.

General Data Sheet (Aruna & Anju, 2016).

General data sheet is used to measure the Socio-Economic Status of the students. It consisted of 3 sections namely personal details, family's financial position and the employment status of family.

Statistical techniques used for the study.

1. Percentage Analysis
2. Basic Descriptive Statistics
3. Skewness and Kurtosis

4. Mean difference analysis
5. Single factor ANCOVA
6. Effect size (Cohen's and Partial eta squared)
7. Bonferroni's Post Hoc analysis

Major Findings of the Study

Both quantitative and qualitative analysis of data and findings of the study are sequentially presented below. The findings are mainly summarised into two heads (i) Findings of the Preliminary survey and (ii) Findings of the Experiment.

Findings of the Preliminary Survey

In this first phase of the study, a preliminary survey was conducted to identify the prevailing strategies adopted for teaching English language at secondary school level, its constraints and the suggestive measures to overcome the constraints. Following are the results of the preliminary survey.

1. Prevailing strategies adopted for teaching English Language at secondary level

The questionnaire administered during the first phase revealed that the English language teachers were already practiced at least or aware of majority of the strategies to teach English. The most practiced strategies were:

- Issue based learning strategies
- Cooperative learning
- Collaborative learning
- Mentoring

- Individualised Instruction
- Group instruction

The least practiced strategies were:

- Blended learning
- Integrated instruction
- Team teaching

The English language teachers were aware of the benefits of these instructional strategies.

2. Constraints experienced by the English language teachers in implementing strategies for teaching English language

In this session, the English language teachers revealed the constraints they felt while adopting these strategies in their classrooms. Those constraints were categorised under three heads. They are from the part of students, from the part of teachers and general constraints. The major hindrances identified were

- Lack of training
- Lack of proper attainment of curricular objectives in the previous classes.
- Student's communication apprehension
- Student's general feeling of anxiety towards a foreign language
- Lack of time
- Lack of learning resources
- Heavy content/ syllabus
- Overcrowded classroom

3. Suggestive measures to overcome the constraints and alternative solutions for effective teaching of English at secondary level

The suggestions, English language teachers put forwarded the following suggestions to overcome the constraints in the teaching – learning process:

- Orientation and short term training programs in educational technological innovations
- Reduce the syllabus
- Reduction in class strength
- Make sure the students are attaining curricular objectives effectively in each respective class.
- Teacher's training should be given by well-trained teachers
- Avail good library and reading room
- Adequate infrastructure including language lab
- Provide effective learning materials to supplement the textbook

Findings of the Experiment

The following are the results of the experiment conducted to study the effectiveness of Blended Learning Approach in enhancing Listening and Speaking skill in English, Learner Satisfaction and in reducing English language anxiety of secondary school students.

1. Mean Difference Analysis

Mean difference analysis was done to check whether there exists any significant difference between Experimental and Control groups on listening skill and speaking skill in English, English language anxiety and learner satisfaction at secondary school level.

(i) Mean difference in Pre-test scores

Mean difference analysis based on the Pre-test scores of Experimental and Control groups were carried out and the results and findings are given below.

Variable	t-value	Level of significance
Total sample	1.27	N S
Listening Skill in English		
Sub sample Boys	.97	N S
Subsample Girls	.81	N S
Speaking skill in English		
Total sample	1.22	N S
Sub sample Boys	.82	N S
Subsample Girls	.90	N S
English language Anxiety		
Total sample	1.32	N S
Sub sample Boys	1.15	N S
Subsample Girls	.78	N S
Learner Satisfaction		
Total sample	1.79	N S
Sub sample Boys	.88	N S
Subsample Girls	.82	N S

N S : Not Significant

The mean difference findings suggest that the t-values obtained by comparing the Experimental and Control groups were not significant. Hence it can be concluded that the Experimental and Control groups were similar in performance considering Listening and Speaking skills in English, English language anxiety and Learner satisfaction.

(ii) Mean difference in Post-test scores

Mean difference analysis based on the Post-test scores of Experimental and Control groups were carried out and the results and findings are given below.

Variable		t-value	Level of significance
Listening Skill in English	Total sample	3.30	.01
	Sub sample Boys	2.18	.05
	Subsample Girls	2.45	.01
Speaking skill in English	Total sample	3.99	.01
	Sub sample Boys	2.76	.01
	Subsample Girls	2.79	.01
English language Anxiety	Total sample	2.49	.01
	Sub sample Boys	1.76	.05
	Subsample Girls	1.86	.05
Learner Satisfaction	Total sample	2.63	.01
	Sub sample Boys	2.19	.05
	Subsample Girls	1.79	.05

**p < .01, *p < .05

The t-values obtained by comparing the mean Post-test scores of Experimental and Control groups are significant. Hence it can be concluded that there is significant difference in the Listening and Speaking skills in English, English language anxiety and Learner satisfaction for Total sample, Subsample Boys and Subsample girls.

(iii) Mean difference in Gain/Change scores.

Mean difference analysis based on the Gain / Change scores of Experimental and Control groups were carried out and the results and findings are given below.

Variable		t-value	Level of significance
Listening Skill in English	Total sample	4.15	.01
	Sub sample Boys	2.33	.05
	Subsample Girls	3.61	.01
Speaking skill in English	Total sample	4.15	.01
	Sub sample Boys	5.37	.01
	Subsample Girls	3.96	.01
English language Anxiety	Total sample	2.93	.01
	Sub sample Boys	1.01	NS
	Subsample Girls	4.27	.01
Learner Satisfaction	Total sample	3.23	.01
	Sub sample Boys	1.87	.05
	Subsample Girls	2.72	.01

**p <.01, *p <.05, NS: Not significant

The t-values obtained by comparing the Mean Gain scores of Listening skill, Speaking Skill and learner Satisfaction and Mean Change scores of English Language Anxiety of secondary school students, are significant at .01 and .05 level except for English language anxiety for Subsample boys.

Hence it can be concluded that the Experimental and Control groups differ significantly in the Listening skill, Speaking Skill, English Language Anxiety and learner Satisfaction of secondary school students for Total sample, Subsample Boys and Subsample girls, except for English language anxiety in Subsample boys.

Discussion.

As per the summary of the t-test values, the t-values obtained for Pre-test didn't not indicate any significance. Hence it is concluded that the

Experimental and Control groups are similar in terms of Listening skill, Speaking skill, English language anxiety and learner satisfaction for the Total sample, Subsample boys and the Subsample girls.

The t-values obtained for the post-test were found significant. The inference can be concluded as the Experimental group is superior to the Control group in terms of Listening skill, Speaking skill, English language anxiety and Learner satisfaction for the Total sample, Subsample boys and the Subsample girls.

The t-values obtained for the gain/change scores were found significant. The inference can be concluded as the Experimental group found more improved than the Control group in terms of Listening skill, Speaking skill, English language anxiety and Learner satisfaction for the Total sample, Subsample boys and the Subsample girls, except for English language anxiety in Subsample boys.

Analysis of Co-variance

From the findings of the result of Analysis of Covariance it can be inferred that Blended Learning Approach is more effective than current instructional practices in enhancing Listening skill, Speaking Skill and Learner Satisfaction and in reducing English Language Anxiety of secondary school students for Total sample, subsample Boys and subsample Girls, except in reducing English Language Anxiety for subsample Boys and in enhancing learner Satisfaction for subsample Girls.

Blended learning approach is effective in enhancing Listening skill in English of secondary school students for Total sample, subsample Boys and subsample Girls belonging to the experimental group.

The post-test score in Listening skill in English belonging to the secondary school students is greater than the pre-test scores for Total sample, Subsample boys and Subsample girls which indicate the improvement in Listening skill in English after intervention. The difference is significant between mean pre-test and post-test scores of Listening skill in English for Total sample, Subsample boys and Subsample girls.

Total pre-test and post-test: $M_{Pre} 20.84, M_{Post} 25.76; t(44) = 3.53, p < .01$

Boys pre-test and post-test: $M_{Pre} 20.88, M_{Post} 25.79; t(23) = 2.55, p < .01$

Girls pre-test and post-test: $M_{Pre} 20.81, M_{Post} 25.71; t(20) = 2.38, p < .05$

The graphical representations were also shown to support the result. Hence it can be summed up by stating that the Blended learning approach is effective in enhancing the Listening skill in English of the secondary school students for Total sample, Subsample boys and Subsample girls.

Blended learning approach is effective in enhancing Speaking skill in English of secondary school students for Total sample, subsample Boys and subsample Girls belonging to the experimental group.

The post-test score in Speaking skill in English belonging to the secondary school students is greater than the pre-test scores for Total sample, Subsample boys and Subsample girls which indicate the improvement in Speaking skill in English after intervention. The difference is significant

between mean pre-test and post-test scores of Speaking skill in English for Total sample, Subsample boys and Subsample girls.

Total pre-test and post-test: $M_{Pre} 15.44, M_{Post} 19.56; t(44) = 3.64, p < .01$

Boys pre-test and post-test: $M_{Pre} 15.29, M_{Post} 19.67; t(23) = 2.85, p < .01$

Girls pre-test and post-test: $M_{Pre} 15.62, M_{Post} 19.43; t(20) = 2.42, p < .05$

The graphical representations were also shown to support the result. Hence it can be summed up by stating that the Blended learning approach is effective in enhancing the Speaking skill in English of the secondary school students for Total sample, Subsample boys and Subsample girls.

Blended learning approach is effective in reducing English language anxiety of secondary school students for Total sample, subsample Boys and subsample Girls belonging to the Experimental group.

The post-test score in English language anxiety belonging to the secondary school students is lower than the pre-test scores for Total sample, Subsample boys and Subsample girls which indicates the reduction in English language anxiety after intervention. The difference is significant between mean pre-test and post-test scores of English language anxiety for Total sample and Subsample girls.

Total pre-test and post-test: $M_{Pre} 100.04, M_{Post} 79.82; t(44) = 2.65, p < .01$

Boys pre-test and post-test: $M_{Pre} 101.67, M_{Post} 81.42; t(23) = 1.77, p < .05$

Girls pre-test and post-test: $M_{Pre} 98.19, M_{Post} 78.00; t(20) = 1.99, p < .05$

The graphical representations were also shown to support the result. Hence it can be summed up by stating that the Blended learning approach is effective in reducing English language anxiety of the secondary school students for Total sample and Subsample girls, and is not effective for Boys.

Blended learning approach is effective in enhancing Learner satisfaction of secondary school students for Total sample, subsample Boys and subsample Girls belonging to the Experimental group.

The post-test score in Learner satisfaction belonging to the secondary school students is greater than the pre-test scores for Total sample, Subsample boys and Subsample girls which indicate the improvement in Learner satisfaction after intervention. The difference is significant between mean pre-test and post-test scores of Learner satisfaction for Total sample, Subsample boys and Subsample girls.

Total pre-test and post-test: $M_{Pre} 49.87, M_{Post} 61.89; t(44)=3.22, p < .01$

Boys pre-test and post-test: $M_{Pre} 49.08, M_{Post} 60.29; t(23)=1.99, p < .05$

Girls pre-test and post-test: $M_{Pre} 50.76, M_{Post} 63.71; t(20)=2.68, p < .05$

The graphical representations were also shown to support the result. Hence it can be summed up by stating that the Blended learning approach is effective in enhancing the Learner satisfaction of the secondary school students for Total sample, Subsample boys and Subsample girls.

Blended learning approach is more effective than the current instructional practices in enhancing Listening skill in English of secondary school students for Total sample, subsample Boys and subsample Girls.

Test of significance of difference between mean pre-test scores of Listening skill in English belonging to the Experimental and Control groups of secondary school students indicate that the difference between the Experimental and Control groups is not significant for the Total sample, subsample Boys and subsample Girls. Hence the Experimental and Control

groups are similar in their pre-experimental status in Listening skill in English for Total sample, Subsample boys and Subsample girls.

Total pre-test: $M_{Exp}20.84$, $M_{Ctrl} 19.2$; $t(88) = 1.27$, $p > .05$

Boys pre-test: $M_{Exp}20.88$, $M_{Ctrl} 18.9$; $t(42) = .97$, $p > .05$

Girls pre-test: $M_{Exp}20.81$, $M_{Ctrl} 19.44$; $t(44) = .81$, $p > .05$

The post-test score of Listening skill in English belonging to the Experimental group of secondary school students is greater than the post-test scores of control group of secondary school students for Total sample, Subsample boys and Subsample girls which indicate the improvement in Listening skill in English after intervention. The difference is significant between mean pre-test and post-test scores of Listening skill in English for Total sample, Subsample boys and Subsample girls.

Total post-test: $M_{Exp}25.76$, $M_{Ctrl} 21.60$; $t(88) = 3.30$, $p < .01$

Boys post-test: $M_{Exp}25.79$, $M_{Ctrl} 21.50$; $t(42) = .218$, $p < .05$

Girls post-test: $M_{Exp}25.71$, $M_{Ctrl} 21.68$; $t(44) = 2.45$, $p < .01$

The mean gain scores of the Experimental group in Listening skill in English is greater than the Control group for Total sample, Subsample boys and Subsample girls. The mean gain scores indicate the improvement after the intervention for the Experimental and Control group. There was statistical significance in the mean difference analysis for Total sample, Subsample boys and Subsample girls. It can be inferred from the effect size calculations and Cohen's d that the effect of Blended learning Approach in enhancing the Listening skill in English of secondary school students is large when compared to the current instructional practices for Total sample and Subsample girls, but the effect is medium for Subsample boys.

Total gain score: $M_{Exp}4.91, M_{Ctrl} 2.40; t(88)=4.15, p< 01, d= .87$, Large
 Boys gain score: $M_{Exp}4.92, M_{Ctrl} 2.60; t(42)=2.33, p<05, d=.72$, Medium
 Girls gain score: $M_{Exp}4.90, M_{Ctrl} 2.24; t(44)= 3.61, p<01, d=1.02$, Large
 The results were substantiated by graphical representations too.

The F values obtained for the effect of instructional strategy on dependent variable, Listening skill in English language belong to the Experimental group for Total sample, Subsample boys and Subsample girls, after adjusting the mean scores of the 5 covariates, namely, Pre-test Listening, Pre-test Speaking, Classroom Environment, Non-Verbal Intelligence and Socio-Economic Status, the combined effect of these 5 covariates, indicate that the instructional strategy on Listening skill in English is found to be significant for Total sample, Subsample boys and Subsample girls.

The adjusted mean scores were compared using Bonferroni's test of post hoc comparison. It is found that the two groups differed significantly by the t-values. The greater adjusted means are associated with the experimental group. Partial eta squared values also support this result.

Hence it is clear that the difference in the post-test scores in the Listening skill can be associated with the influence of Blended learning approach for Total sample, Subsample boys and Subsample girls of secondary school.

Blended learning approach is more effective than the current instructional practices in enhancing Speaking skill in English of secondary school students for Total sample, subsample Boys and subsample Girls.

Test of significance of difference between mean pre-test scores of Speaking skill in English belonging to the Experimental and Control groups

of secondary school students indicate that the difference between the Experimental and Control groups is not significant for the Total sample, subsample Boys and subsample Girls. Hence the Experimental and Control groups are similar in their pre-experimental status in Speaking skill in English for Total sample, Subsample boys and Subsample girls.

Total pre-test: $M_{Exp} 15.44, M_{Ctrl} 14.09; t(88) = 1.22, p > .05$

Boys pre-test: $M_{Exp} 15.29, M_{Ctrl} 13.95; t(42) = .82, p > .05$

Girls pre-test: $M_{Exp} 15.61, M_{Ctrl} 14.20; t(44) = .90, p > .05$

The post-test score of Speaking skill in English belonging to the Experimental group of secondary school students is greater than the post-test scores of Control group of secondary school students for Total sample, Subsample boys and Subsample girls which indicate the improvement in Speaking skill in English after intervention. The difference is significant between mean pre-test and post-test scores of Speaking skill in English for Total sample, Subsample boys and Subsample girls.

Total post-test: $M_{Exp} 19.56, M_{Ctrl} 15.40; t(88) = 3.99, p < .01$

Boys post-test: $M_{Exp} 19.67, M_{Ctrl} 15.35; t(42) = 2.76, p < .01$

Girls post-test: $M_{Exp} 19.43, M_{Ctrl} 15.44; t(44) = 2.79, p < .01$

The mean gain scores of the Experimental group in Speaking skill in English is greater than the control group for Total sample, Subsample boys and Subsample girls. The mean gain scores indicate the improvement after the intervention for the Experimental and Control groups. There was statistical significance in the mean difference analysis for Total sample, Subsample boys and Subsample girls. It can be inferred from the effect size calculations and Cohen's *d* that the effect of Blended learning Approach in

enhancing the Speaking skill in English of secondary school students is large when compared to the current instructional practices for Total sample and Subsample girls but for Subsample boys the effect is medium.

Total gain score: $M_{Exp}4.11$, $M_{Ctrl} 1.31$; $t(88)=4.15$, $p<01$, $d=1.39$, Large

Boys gain score: $M_{Exp}4.38$, $M_{Ctrl} 1.40$; $t(42)=5.37$, $p< 01$, $d=1.63$, Large

Girls gain score: $M_{Exp}3.81$, $M_{Ctrl} 1.24$; $t(44)=3.96$, $p<01$, $d=1.67$, Large

The results were substantiated by graphical representations too.

The F values obtained for the effect of instructional strategy on dependent variable, Speaking skill in English language belong to the Experimental group for Total sample, Subsample boys and Subsample girls, after adjusting the mean scores of the 5 covariates, namely, Pre-test Listening, Pre-test Speaking, Classroom Environment, Non-Verbal Intelligence and Socio-Economic Status the combined effect of these 5 covariates indicate that the instructional strategy on Speaking skill in English is found to be significant for Total sample, Subsample boys and Subsample girls.

The adjusted mean scores of Speaking skill were compared using Bonferroni's test of post hoc comparison. It is found that the two groups differed significantly by t-values. The greater adjusted means are associated with the experimental group. Partial eta squared values also support this result.

Hence it is clear that the difference in the post-test scores in the Speaking skill can be associated with the influence of Blended learning approach for Total sample, Subsample boys and Subsample girls of secondary school.

Blended learning approach is more effective than the current instructional practices in reducing English language anxiety of secondary school students for Total sample, subsample Boys and subsample Girls.

Test of significance of difference between mean pre-test scores of English language anxiety belonging to the Experimental and Control groups of secondary school students indicate that the difference between the Experimental and Control groups is not significant for the Total sample, subsample Boys and subsample Girls. Hence the Experimental and Control groups are similar in their pre-experimental status in English language anxiety for Total sample, Subsample boys and Subsample girls.

Total pre-test: $M_{Exp} 100.04, M_{Ctrl} 110.22; t(88) = 1.32, p > .05$

Boys pre-test: $M_{Exp} 101.67, M_{Ctrl} 114.95; t(42) = 1.15, p > .05$

Girls pre-test: $M_{Exp} 98.19, M_{Ctrl} 106.44; t(44) = .78, p > .05$

The post-test score of English language anxiety belonging to the Experimental group of secondary school students is lower than the post-test scores of Control group of secondary school students for Total sample, Subsample boys and Subsample girls indicate the reduction in English language anxiety after intervention. The difference is significant between mean pre-test and post-test scores of English language anxiety for Total sample, Subsample boys and Subsample girls.

Total post-test: $M_{Exp} 79.82, M_{Ctrl} 97.93; t(88) = 2.49, p < .01$

Boys post-test: $M_{Exp} 81.42, M_{Ctrl} 99.70; t(42) = 1.76, p > .05$

Girls post-test: $M_{Exp} 78, M_{Ctrl} 96.52; t(44) = 2.79, p < .05$

The mean change scores of the Experimental group in English language anxiety are lower than the Control group for Total sample,

Subsample boys and Subsample girls. The mean change scores indicate the decrease after the intervention for the Experimental and Control groups. There was statistical significance in the mean difference analysis for Total sample, and Subsample girls, except for Subsample boys. It can be inferred from the effect size calculations and Cohen's d that the effect of Blended learning Approach in reducing the English language anxiety of secondary school students is medium for Total sample and Large for Subsample girls, except for Subsample boys which has a small effect size when compared to the current instructional practices.

Total change score: M_{Exp} 20.22, M_{Ctrl} 12.29; $t(88)=2.93$, $p<01$, $d=.67$,
Medium

Boys change score: M_{Exp} 20.25, M_{Ctrl} 15.25; $t(42)=1.01$, $p>05$, $d=.15$,
Small

Girls change score: M_{Exp} 20.19, M_{Ctrl} 9.92; $t(88)=4.27$, $p< 01$, $d=1.22$,
Large

The results were substantiated by graphical representations too.

The F values obtained for the effect of instructional strategy on dependent variable, English language anxiety belong to the Experimental group after adjusting the mean scores of the 5 covariates, namely, Pre-test Listening, Pre-test Speaking, Classroom Environment, Non-Verbal Intelligence and Socio-Economic Status. The and combined effect of these 5 covariates for Total sample and for Subsample boys after adjusting the mean scores of Socio-Economic Status, and for the Subsample girls, after adjusting the mean scores of Non-verbal intelligence, Socio-Economic Status and the combined

effect indicate, that the instructional strategy on Speaking skill in English is found to be significant for the Total sample and Subsample girls.

The adjusted mean scores of English language anxiety were compared using Bonferroni's test of post hoc comparison. It is found that the two groups differed significantly by t-values for Total sample and Subsample girls. The lower adjusted means are associated with the experimental group. Partial eta squared values also support this result.

Hence it is clear that the difference in the post-test scores in the English language anxiety can be associated with the influence of Blended learning approach for Total sample and Subsample girls of secondary school.

Blended learning approach is more effective than the current instructional practices in enhancing Learner satisfaction in English of secondary school students for Total sample, subsample Boys and subsample Girls.

Test of significance of difference between mean pre-test scores of Learner satisfaction belonging to the Experimental and Control groups of secondary school students indicate that the difference between the Experimental and Control groups is not significant for the Total sample, subsample Boys and subsample Girls. Hence the Experimental and Control groups are similar in their pre-experimental status in Learner satisfaction for Total sample, Subsample boys and Subsample girls.

Total pre-test: $M_{Exp} 49.87, M_{Ctrl} 45.24; t(88) = 1.17, p > .05$

Boys pre-test: $M_{Exp} 49.08, M_{Ctrl} 43.85; t(42) = .88, p > .05$

Girls pre-test: $M_{Exp} 50.76, M_{Ctrl} 46.36; t(44) = .82, p > .05$

The post-test score of Learner satisfaction belonging to the Experimental group of secondary school students is greater than the post-test scores of Control group of secondary school students for Total sample, Subsample boys and Subsample girls indicate the improvement in Learner satisfaction after intervention. The difference is significant between mean pre-test and post-test scores of Learner satisfaction for Total sample, Subsample boys and Subsample girls.

Total post-test: M_{Exp} 61.89, M_{Ctrl} 53.87; $t(88) = 2.63$, $p < .01$

Boys post-test: M_{Exp} 60.29, M_{Ctrl} 50.20; $t(42) = 2.19$, $p < .05$

Girls post-test: M_{Exp} 63.71, M_{Ctrl} 56.80; $t(44) = 1.79$, $p < .05$

The mean gain scores of the Experimental group in Learner satisfaction is greater than the control group for Total sample, Subsample boys and Subsample girls. The mean gain scores indicate the improvement after the intervention for the Experimental and Control group. There was statistical significance in the mean difference analysis for Total sample, Subsample boys and Subsample girls. It can be inferred from the effect size calculations and Cohen's d that the effect of Blended learning Approach in enhancing the Learner satisfaction of secondary school students is large when compared to the current instructional practices for Total sample and Subsample girls, and for Subsample boys the effect is medium.

Total gain score: M_{Exp} 12.02, M_{Ctrl} 4.00; $t(88)=3.23$, $p < .01$, $d=.69$, Medium

Boys gain score: M_{Exp} 11.21, M_{Ctrl} 4.05; $t(42)=1.87$, $p < .05$, $d=.55$, Medium

Girls gain score: M_{Exp} 12.95, M_{Ctrl} 3.96; $t(44)=2.72$, $p < .01$, $d=.83$, Large

The results were substantiated by graphical representations too.

The F values obtained for the effect of instructional strategy on dependent variable, Learner satisfaction belong to the Experimental group for

Total sample, Subsample boys and Subsample girls, after adjusting the mean scores of the 5 covariates, namely, Pre-test Listening, Pre-test Speaking, Non-Verbal Intelligence, Classroom environment and Socio-Economic Status. The combined effect of these 5 covariates, indicate that the instructional strategy on Learner satisfaction is found to be significant for Total sample and Subsample boys. For subsample girls, after adjusting the mean score of the covariate classroom environment, the result indicate that the instructional strategy on Learner satisfaction is found to be significant and it contributed largely on the combined effect to make the effect of classroom environment non-significant, as even after the other four covariates namely, Pre-test Listening, Pre-test Speaking, Non-Verbal Intelligence and Socio-Economic Status found significant individually after adjusting the mean scores.

The adjusted mean scores of Learner satisfaction were compared using Bonferroni's test of post hoc comparison. It is found that the two groups differed significantly by the t-values for the Total sample, Subsample boys and Subsample girls. The greater adjusted means are associated with the Experimental group. Partial eta squared values also support this result.

Hence it is clear that the difference in the post-test scores in the Learner satisfaction can be associated with the influence of Blended learning approach for Total sample, Subsample boys and Subsample girls of secondary school.

Hence it can be concluded from the mean difference analysis of pre-test scores, post-test scores and gain/change scores between the two groups namely Experimental and Control group, and from the results of ANCOVA and Post hoc comparison that the instructional strategy Blended learning approach is more effective than the current instructional practices in enhancing Listening skill in English, Speaking skill in English, Learner satisfaction and in reducing English language anxiety for the secondary school students.

Tenability of Hypotheses

First Hypothesis

- First hypothesis states that *there will be no significant difference in the pre-test mean scores of Listening skill in English of the Experimental and Control groups for*
 - a) *Total sample*
 - b) *Subsample Boys*
 - c) *Subsample girls*

The t value obtained for the mean Pre-test scores of the Listening skill in English for the Total sample, Subsample boys and Subsample girls reveals that there exists no significant differences in the Pre-test scores of Listening skill in English for the Total sample, Subsample boys and Subsample girls for the Experimental and Control groups.

Therefore the first hypothesis is fully substantiated.

Second Hypothesis

- Second hypothesis states that *there is no significant difference in the pre-test mean scores of speaking skill in English of the Experimental and Control groups for*
 - a) *Total sample*
 - b) *Subsample Boys*
 - c) *Subsample girls*

The t value obtained for the mean Pre-test scores of the Speaking skill in English for the Total sample, Subsample boys and Subsample girls reveals that there exists no significant differences in the Pre-test scores of

Speaking skill in English for the Total sample, Subsample boys and Subsample girls for the Experimental and Control groups.

Therefore the second hypothesis is fully substantiated.

Third Hypothesis

- Third hypothesis states that *there is no significant difference in the pre-test mean scores of English language anxiety of the Experimental and Control groups for*
 - a) *Total sample*
 - b) *Subsample Boys*
 - c) *Subsample girls*

The t value obtained for the mean Pre-test scores of the English language anxiety for the Total sample, Subsample boys and Subsample girls reveals that there exist no significant differences in the Pre-test scores of English language anxiety for the Total sample, Subsample boys and Subsample girls for the Experimental and Control groups.

Therefore the third hypothesis is fully substantiated.

Fourth Hypothesis

- Fourth hypothesis states that *there is no significant difference in the pre-test mean scores of Learner satisfaction of the Experimental and Control groups for*
 - a) *Total sample*
 - b) *Subsample Boys*
 - c) *Subsample girls*

The t value obtained for the mean Pre-test scores of the Learner satisfaction for the Total sample, Subsample boys and Subsample girls

reveals that there exist no significant differences in the Pre-test scores of Learner satisfaction for the Total sample, Subsample boys and Subsample girls for the Experimental and Control groups.

Therefore the fourth hypothesis is fully substantiated.

Fifth Hypothesis

- Fifth hypothesis states that *there is significant difference in the mean pre-test and post-test scores of Listening skill in English of the Experimental group for*
 - a) *Total sample*
 - b) *Subsample Boys*
 - c) *Subsample girls*

The t value obtained for the mean pre-test and post-test scores of Listening skill in English of the Experimental group for Total sample, Subsample Boys and Subsample girls reveals that there exists a significant difference in the mean pre-test and post-test scores of Listening skill in English of the Experimental group for Total sample, Subsample Boys and Subsample girls.

Therefore the fifth hypothesis is fully substantiated.

Sixth Hypothesis

- Sixth hypothesis states that *there is significant difference in the mean pre-test and post-test scores of Speaking skill in English of the Experimental group for*
 - a) *Total sample*
 - b) *Subsample Boys*

c) *Subsample girls*

The t value obtained for the mean pre-test and post-test scores of Speaking skill in English of the Experimental group for Total sample, Subsample Boys and Subsample girls reveals that there exists a significant difference in the mean pre-test and post-test scores of Speaking skill in English of the Experimental group for Total sample, Subsample Boys and Subsample girls.

Therefore the sixth hypothesis is fully substantiated.

Seventh Hypothesis

- Seventh hypothesis states that *there is significant difference in the mean pre-test and post-test scores of English language anxiety of the Experimental group for*
 - a) *Total sample*
 - b) *Subsample Boys*
 - c) *Subsample girls*

The t value obtained for the mean pre-test and post-test scores of English language anxiety of the Experimental group for Total sample, Subsample Boys and Subsample girls reveals that there exists a significant difference in the mean pre-test and post-test scores of English language anxiety of the Experimental group for Total sample, Subsample Boys and Subsample girls.

Therefore the seventh hypothesis is fully substantiated.

Eighth Hypothesis

- Eighth hypothesis states that *there is significant difference in the mean pre-test and post-test scores of Learner satisfaction of the Experimental group for*
 - a) *Total sample*
 - b) *Subsample Boys*
 - c) *Subsample girls*

The t value obtained for the mean pre-test and post-test scores of Learner satisfaction of the Experimental group for Total sample, Subsample Boys and Subsample girls reveals that there exists a significant difference in the mean pre-test and post-test scores of Learner satisfaction of the Experimental group for Total sample, Subsample Boys and Subsample girls.

Therefore the eighth hypothesis is fully substantiated.

Ninth Hypothesis

- Ninth hypothesis states that *there is significant difference in the mean Post-test scores of Listening skill in English between the Experimental and control groups for*
 - a) *Total sample*
 - b) *Subsample Boys*
 - c) *Subsample Girls*

The t value obtained for the mean post-test scores of Listening skill in English of the Experimental and Control groups for Total sample, Subsample Boys and Subsample girls reveals that there exists a significant

difference in the mean post-test scores of Listening skill in English of the Experimental and Control groups for Total sample, Subsample Boys and Subsample girls.

Therefore the ninth hypothesis is fully substantiated.

Tenth Hypothesis

- Tenth hypothesis states that *there is significant difference in the mean Post-test scores of Speaking skill in English between the Experimental and control groups for*
 - a) *Total sample*
 - b) *Subsample Boys*
 - c) *Subsample Girls*

The t value obtained for the mean post-test scores of Speaking skill in English of the Experimental and Control groups for Total sample, Subsample Boys and Subsample girls reveals that there exists a significant difference in the mean post-test scores of Speaking skill in English of the Experimental and Control groups for Total sample, Subsample Boys and Subsample girls.

Therefore the tenth hypothesis is fully substantiated.

Eleventh Hypothesis

- Eleventh hypothesis states that *there is significant difference in the mean Post-test scores of English language anxiety between the Experimental and control groups for*
 - a) *Total sample*

b) *Subsample Boys*

c) *Subsample Girls*

The t value obtained for the mean post-test scores of English language anxiety of the Experimental and Control groups for Total sample, Subsample Boys and Subsample girls reveals that there exists a significant difference in the mean post-test scores of English language anxiety of the Experimental and Control groups for Total sample, Subsample Boys and Subsample girls.

Therefore the eleventh hypothesis is fully substantiated.

Twelfth Hypothesis

- Twelfth hypothesis states that *there is significant difference in the mean Post-test scores of Learner satisfaction between the Experimental and control groups for*

a) *Total sample*

b) *Subsample Boys*

c) *Subsample Girls*

The t value obtained for the mean post-test scores of Learner satisfaction of the Experimental and Control groups for Total sample, Subsample Boys and Subsample girls reveals that there exists a significant difference in the mean post-test scores of Learner satisfaction of the Experimental and Control groups for Total sample, Subsample Boys and Subsample girls.

Therefore the twelfth hypothesis is fully substantiated.

Thirteenth Hypothesis

- Thirteenth hypothesis states that *there is significant difference in the mean gain scores of Listening skill in English between the Experimental and control groups for*
 - a) *Total sample*
 - b) *Subsample boys*
 - c) *Subsample girls*

The t value obtained for the mean gain scores of Listening skill in English of the Experimental and Control groups for Total sample, Subsample Boys and Subsample girls reveals that there exists a significant difference in the mean gain scores of Listening skill in English of the Experimental and Control groups for Total sample, Subsample Boys and Subsample girls.

Therefore the thirteenth hypothesis is fully substantiated.

Fourteenth Hypothesis

- Fourteenth hypothesis states that *there is significant difference in the mean gain scores of Speaking skill in English between the Experimental and control groups for*
 - a) *Total sample*
 - b) *Subsample boys*
 - c) *Subsample girls*

The t value obtained for the mean gain scores of Speaking skill in English of the Experimental and Control groups for Total sample, Subsample Boys and Subsample girls reveals that there exists a significant difference in

the mean gain score of Speaking skill in English of the Experimental and Control groups for Total sample, Subsample Boys and Subsample girls.

Therefore the fourteenth hypothesis is fully substantiated.

Fifteenth Hypothesis

- Fifteenth hypothesis states that *there is significant difference in the mean change scores of English language anxiety between the Experimental and control groups for*
 - a) *Total sample*
 - b) *Subsample Boys*
 - c) *Subsample girls*

The t value obtained for the mean change scores of English language anxiety of the Experimental and Control groups for Total sample and Subsample girls reveals that there exists a significant difference in the mean change scores of English language anxiety of the Experimental and Control groups for Total sample and Subsample girls for the Experimental and Control groups and significant differences was not found for Subsample Boys.

Therefore the hypotheses 15(a) & 15(c) are substantiated and 15(b) is rejected.

Sixteenth Hypothesis

- Sixteenth hypothesis states that *there is significant difference in the mean gain scores of Learner satisfaction between the Experimental and control groups for*
 - a) *Total sample*

b) *Subsample Boys*

c) *Subsample girls*

The t value obtained for the mean gain scores of Learner satisfaction of the Experimental and Control groups for Total sample and Subsample girls reveals that there exists a significant difference in the mean gain scores of Learner satisfaction of the Experimental and Control groups for Total sample and Subsample girls and Subsample Boys for the Experimental and Control groups.

Therefore the hypotheses are fully substantiated

Seventeenth Hypothesis

- Seventeenth hypothesis states that *there is significant difference in the adjusted mean scores of Listening skill in English between the Experimental and control groups by considering Pre-test Listening, Pre-test Speaking, Non-Verbal Intelligence, Classroom Environment and Socio-Economic Status as covariates for*

a) *Total sample*

b) *Subsample Boys*

c) *Subsample girls*

Statistically significant difference was found in the adjusted mean scores of Listening skill in English of the Experimental and Control groups after controlling the individual as well as combined effect of the covariates Pre-test Listening, Pre-test Speaking, Non-Verbal Intelligence, Classroom Environment and Socio-Economic Status for Total sample, Subsample Boys and Subsample girls.

Therefore the seventeenth hypothesis is fully substantiated.

Eighteenth hypothesis

- Eighteenth hypothesis states that *there is significant difference in the adjusted mean scores of Speaking skill in English between the Experimental and control groups by considering Pre-test Listening, Pre-test Speaking, Non-Verbal Intelligence, Classroom Environment and Socio-Economic Status as covariates for*
 - a) *Total sample*
 - b) *Subsample Boys*
 - c) *Subsample girls*

Statistically significant difference was found in the adjusted mean scores of Speaking skill in English of the Experimental and Control groups after controlling the individual as well as combined effect of the covariates Pre-test Listening, Pre-test Speaking, Non-Verbal Intelligence, Classroom Environment and Socio-Economic Status for Total sample, Subsample Boys and Subsample girls.

Therefore the eighteenth hypothesis is fully substantiated.

Nineteenth hypothesis

- Nineteenth hypothesis states that *there is significant difference in the adjusted mean scores of English language anxiety between the Experimental and control groups by considering Pre-test Listening, Pre-test Speaking, Non-Verbal Intelligence, Classroom Environment and Socio-Economic Status as covariates for*
 - a) *Total sample*
 - b) *Subsample Boys*
 - c) *Subsample girls*

Statistically significant difference was found in the adjusted mean scores of English language anxiety of the Experimental and Control groups after controlling the individual as well as combined effect of the covariates Pre-test Listening, Pre-test Speaking, Non-Verbal Intelligence, Classroom Environment and Socio-Economic Status for Total sample, Subsample Boys and Subsample girls.

Therefore the nineteenth hypothesis is fully substantiated.

Twentieth hypothesis

- Twentieth hypothesis states that *there is significant difference in the adjusted mean scores of Learner satisfaction between the Experimental and control groups by considering Pre-test Listening, Pre-test Speaking, Non-Verbal Intelligence, Classroom Environment and Socio-Economic Status as covariates for*
 - a) *Total sample*
 - b) *Subsample Boys*
 - c) *Subsample girls*

Statistically significant difference was found in the adjusted mean scores of Learner satisfaction of the Experimental and Control groups after controlling the individual as well as combined effect of the covariates Pre-test Listening, Pre-test Speaking, Non-Verbal Intelligence, Classroom Environment and Socio-Economic Status for Total sample, Subsample Boys and Subsample girls.

Therefore the twentieth hypothesis is fully substantiated.

Conclusion

The detailed investigation of the prevailing system of instructional strategies for teaching English to the secondary school students reveal that the teachers are aware of the most of the instructional strategies in teaching English at secondary level and are using them or at least used them for a couple of time. However, there are some instructional strategies which are rarely used by the English language teachers. The English language teachers had identified and are aware of the different constraints they are facing and the suggestive measures too.

The main objective of the study is to check the effectiveness of Blended learning approach in enhancing Listening skill in English, Speaking skill in English, Learner satisfaction and in reducing English language anxiety of the secondary school students. The major conclusions derived from the study after the analysis and summarisation are listed below.

The Listening skill in English of students taught through the instructional strategy based on Blended learning approach is significantly higher than that of those taught through the current instructional practices for the Total sample and Subsamples based on gender. So it can be concluded that the Blended learning approach was effective in enhancing Listening skill in English of the secondary school students than the current instructional practices irrespective of the gender.

The Speaking skill in English of students taught through the instructional strategy based on Blended learning approach is significantly higher than that of those taught through the current instructional practices for

the Total sample and Subsamples based on gender. So it can be concluded that the Blended learning approach was effective in enhancing Speaking skill in English of the secondary school students than the current instructional practices, irrespective of the gender.

The English language anxiety of students taught through the instructional strategy based on Blended learning approach is significantly lower than that of those taught through the current instructional practices for the Total sample and Subsample girls based on gender. So it can be concluded that the Blended learning approach was effective in reducing English language anxiety of the secondary school students than the current instructional practices for Total sample and Subsample Girls, except Subsample boys. The Socio-economic status is the major contributor in the result of Subsample boys.

The Learner satisfaction of students taught through the instructional strategy based on Blended learning approach is significantly greater than that of those taught through the current instructional practices for the Total sample and Subsamples based on gender. So it can be concluded that the Blended learning approach was effective in enhancing Learner satisfaction of the secondary school students than the current instructional practices for Total sample, Subsample boys and Subsample Girls. But for the Subsample girls, the classroom environment was the major contributing factor in the learner satisfaction.

The conclusion that can be derived from both qualitative and quantitative analysis of the present study is that the Blended learning

approach is effective in enhancing the Listening skill in English, Speaking skill in English, Learner satisfaction and in reducing the English language anxiety for Total samples and Subsamples based on gender, except for the Subsample boys in reducing English language Anxiety of the secondary school students.

Educational Implications of the Study

The preliminary survey shows that there are many constraints the language teachers face while teaching English language to the students.

1. This study reveals how to customise the teaching learning process to cater to individual needs, scaffolding their weak areas while helping them learn at their own pace.
2. Nowadays, it is very difficult to separate children from the new technological devices like mobile phone, computers, TV etc. This study indicates a practical solution to utilise their screen time by turning it into a quality time by involving the online and offline educational games and programs onto it.
3. The present study can be utilised while framing government policies for enhancing educational practices in general and language skills in particular.
4. The positive and far reaching effects of the Blended learning approach over current instructional practices are shown in this study.
5. The study describes a model of blending online and face-to-face teaching in secondary schools.

6. The student satisfaction level shows the positive approach towards the Blended learning; hence it can be adopted to other difficult subjects to shift the learning process to a new level.
7. The study helps in changing the perspective to learning, while focusing on the weakness of the students and changing their learning pattern for the betterment.
8. The study can be taken as a basis for taking policies on institutional / government level in resolving the constraints in the English teaching-learning process.
9. The English language teachers can practice the Blended learning approach for curricular transactions or integrate this in their teaching practices.
10. The study has brought out a major constraint which was raised by the practicing English language teachers is the lack of proper attainment of curricular objectives of the previous classes which can be achieved by Blended learning.

Suggestions for Improving Educational Practices/

Educational implications

1. Educators should recognise the importance of Blended learning in language learning.
2. Students should use Blended learning to overcome their difficulties in their language learning.
3. Blended learning approach is one of the best effective approaches for the students to enhance their Listening and Speaking skill in English, which are the major step in their future educational and career prospects.

4. The students can get world class educational materials in various forms with which a teacher can sculpture most long lasting positive impact on the students.
5. Blended Learning can be used in schools to reduce English language anxiety.
6. The teachers can recommend this teaching and can use steps of Blended learning for taking the class.
7. Teachers need to be trained for using Blended learning practices in classroom.
8. Teachers and the school authorities should make use of the computer lab they have, for teaching all the subjects to the students on alternative basis.
9. Blended learning can be used to overcome the time, pace and place barrier.
10. Blended learning can be used as the most effective method for the differently abled or children with special needs.

Suggestions for Further Research

1. The study can be extended to the higher secondary, college level to investigate the effectiveness of Blended learning on language proficiency.
2. The study can be extended to other receptive skills.
3. Independent effect of other covariates can be investigated further on the English language anxiety.
4. The study can be extended to other disciplines.
5. A longitudinal study on the effectiveness of Blended learning can be conducted.

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Appendices

Appendix I

UNIVERSITY OF CALICUT
DEPARTMENT OF EDUCATION

QUESTIONNAIRE ON TEACHERS' PERCEPTION TOWARDS PREVAILING STRATEGIES AND CONSTRAINTS IN TEACHING ENGLISH

Dr P.K Aruna
Professor

Anju Aravind.M
Research Scholar

1. The prevailing strategies and methods in this school

	Yes	No	Expected Outcomes
a. Issue Based	<input type="checkbox"/>	<input type="checkbox"/>	<input type="text"/>
b. Blended Learning	<input type="checkbox"/>	<input type="checkbox"/>	<input type="text"/>
c. Computer Assisted Instruction	<input type="checkbox"/>	<input type="checkbox"/>	<input type="text"/>
d. Assignment, Projects	<input type="checkbox"/>	<input type="checkbox"/>	<input type="text"/>
e. Cooperative Learning	<input type="checkbox"/>	<input type="checkbox"/>	<input type="text"/>
f. Collaborative Learning	<input type="checkbox"/>	<input type="checkbox"/>	<input type="text"/>
g. Activity Oriented	<input type="checkbox"/>	<input type="checkbox"/>	<input type="text"/>
h. Mentoring	<input type="checkbox"/>	<input type="checkbox"/>	<input type="text"/>
i. Seminars	<input type="checkbox"/>	<input type="checkbox"/>	<input type="text"/>
j. Team teaching	<input type="checkbox"/>	<input type="checkbox"/>	<input type="text"/>
k. Group instruction	<input type="checkbox"/>	<input type="checkbox"/>	<input type="text"/>
l. Individualized Instruction	<input type="checkbox"/>	<input type="checkbox"/>	<input type="text"/>
m. Integrated Instruction	<input type="checkbox"/>	<input type="checkbox"/>	<input type="text"/>
n. Inclusive Instruction	<input type="checkbox"/>	<input type="checkbox"/>	<input type="text"/>
o. Workbook practice	<input type="checkbox"/>	<input type="checkbox"/>	<input type="text"/>
p. Debate	<input type="checkbox"/>	<input type="checkbox"/>	<input type="text"/>
q. Speech	<input type="checkbox"/>	<input type="checkbox"/>	<input type="text"/>
r. Article writing	<input type="checkbox"/>	<input type="checkbox"/>	<input type="text"/>
s. Discussion	<input type="checkbox"/>	<input type="checkbox"/>	<input type="text"/>

2. Constraints in teaching English as a second language

	Yes	No
a. Lack of training	<input type="checkbox"/>	<input type="checkbox"/>
b. Time	<input type="checkbox"/>	<input type="checkbox"/>
c. Learning experience and resources	<input type="checkbox"/>	<input type="checkbox"/>
d. Self-motivation	<input type="checkbox"/>	<input type="checkbox"/>
e. Expert teachers	<input type="checkbox"/>	<input type="checkbox"/>
f. Any other reasons		
	<input type="text"/>	

3. Suggestions for the betterment

- a.
- b.
- c.
- d.
- e.
- f.

	Yes	No
4. ICT enhances students' learning	<input type="checkbox"/>	<input type="checkbox"/>
5. ICT makes course more interesting	<input type="checkbox"/>	<input type="checkbox"/>
6. ICT gives opportunity to learn more	<input type="checkbox"/>	<input type="checkbox"/>
7. ICT can't address the needs of school system	<input type="checkbox"/>	<input type="checkbox"/>
8. ICT provides better learning experiences	<input type="checkbox"/>	<input type="checkbox"/>
9. I can connect the computer and its peripherals	<input type="checkbox"/>	<input type="checkbox"/>
10. I can access information on CD/DVD	<input type="checkbox"/>	<input type="checkbox"/>
11. I can communicate online with other students on homework/assignment	<input type="checkbox"/>	<input type="checkbox"/>
12. I can organize electronic files into folders	<input type="checkbox"/>	<input type="checkbox"/>
13. I can use spreadsheet to make predictions.	<input type="checkbox"/>	<input type="checkbox"/>
14. I can introduce animation into slides	<input type="checkbox"/>	<input type="checkbox"/>
15. My school has the following facilities	Yes	No
a. Smart classroom	<input type="checkbox"/>	<input type="checkbox"/>
b. Internet	<input type="checkbox"/>	<input type="checkbox"/>
c. Multimedia Projector	<input type="checkbox"/>	<input type="checkbox"/>
d. Mike	<input type="checkbox"/>	<input type="checkbox"/>
e. Speaker	<input type="checkbox"/>	<input type="checkbox"/>
f. Audio Tapes/CDS	<input type="checkbox"/>	<input type="checkbox"/>
g. More than 10 working computers	<input type="checkbox"/>	<input type="checkbox"/>
h. Photocopiers	<input type="checkbox"/>	<input type="checkbox"/>
i. Headset	<input type="checkbox"/>	<input type="checkbox"/>
j. Printer	<input type="checkbox"/>	<input type="checkbox"/>

Appendix II

UNIVERSITY OF CALICUT
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LESSON TRANSCRIPT BASED ON BLENDED LEARNING APPROACH

Name of the teacher : Anju Aravind M	Standard : VIII
Name of the School : DGHSS, Tanur	Strength : 45
Subject : English	Duration : 40 mins
Topic : The Song of Flower	

Title: The Song of Flower		
To enable the learner to		
<ul style="list-style-type: none">- Develop the language skill- Listen and comprehend literary text forms like songs- Organise ideas and express orally in the class- Speak English confidently.- Reduce anxiety towards English language		
<u>Specific Objectives</u>		
To enable the learner to		
<ul style="list-style-type: none">- Analyse songs based on the listening of the text- Listen, understand and communicate in real life scenarios- Present a speech before the class		
<u>Pre requisite</u>		
<ul style="list-style-type: none">- The individual should have the capability to listen and comprehend in English.- He/she should be able to communicate in simple English.- He/she should be having basic operational skills in computer knowledge.		
Stage	Student Activities	Tutor Activities
Stage 1 Access and Motivation	<ul style="list-style-type: none">• Setting up of computer systems and accessing (Logging in).	<ul style="list-style-type: none">• Welcomed and encouraged• Appropriate guidance when required.

<p>Stage 2 Online socialisation</p>	<ul style="list-style-type: none"> • Sending and receiving messages 	<ul style="list-style-type: none"> • Introduction to the class. • Briefed about the ground rules of the class. • Briefed about Netiquette.
<p>Stage 3 Information Exchange</p>	<ul style="list-style-type: none"> • Activity 1: Comic strip The teacher explained the students the difference between a metaphor and a simili using https://www.youtube.com/watch?v=JPEmb8Qov0 She then discussed the various metaphors used in the poem “The story of a flower”. Then in order to verify the understanding of metaphor by the students , the teacher asked questions to the students 	<ul style="list-style-type: none"> • Facilitated structured activities • Encouraged discussions • Summarised results.
<p>Stage 4 Knowledge construction</p>	<p>Activity 1: Audio / video activity</p> <ul style="list-style-type: none"> • The class was presented with a video regarding “The story of a flower “by Khalil Gibran, which is linked to https://www.youtube.com/watch?v=sgMseyONcc4https://www.youtube.com/watch?v=sgMseyONcc4. The audio was played twice and the following questions were asked to create discussion among the students. a) What is the poem about? b) What happens in the poem? c) What does the flower symbolises <p>Activity 2: Telephone</p> <ul style="list-style-type: none"> • Make two teams of students and place them in a line. The end of each team line should be at the black board • The teacher then whispers a sentence to the student standing far away from the 	<ul style="list-style-type: none"> • Facilitated open activities. • Asked questions. • Encouraged student activities and discussions. • Facilitated open activity • Improves the pronunciation and clarity of students through self-learning

	<p>whiteboard, and then has them whisper the message they heard to the next student. Each student whispers to the next until the end of the line. The last student writes the message on the board. The winner is the team with the most accurate spelling, pronunciation and content.</p>	
<p>Stage 5 Development</p>	<p>Activity :1 Song gap fill</p> <ul style="list-style-type: none"> • Divide the class into five equal groups. Give each group the song lyrics with some words missing. The teacher then puts the missing words in a box. • Play that song for the respective group. Pausing if necessary. The aim is for the students to fill in the missing words. • At the end, go through the answers to see which student/ pair got the most correct. <p>Activity 1: Appreciation</p> <ul style="list-style-type: none"> • The teacher divided the class into 5 groups with 9 students each. • She readout the poem “The story of a flower “to the students and played the song from https://www.youtube.com/watch?v=sgMseyONcc4https://www.youtube.com/watch?v=sgMseyONcc4. • After that she instructed each group to prepare a sample appreciation on the poem. • After carrying out the discussion within the group, the prenominated leader of the group who had completed 	<ul style="list-style-type: none"> • Facilitated open activity • Improves the pronunciation and listening skills of students • Responded only when required. Supported.

	<p>the task first inform the teacher.</p> <ul style="list-style-type: none">• Thereafter she waited for others to finish.• Once all five groups are done, she examined the result.• Thereafter one member as nominated by each group presented their appreciation in front of the class.• After the completion of all 5 appreciations, discussions were carried out within the class.• Then the final appreciation of the song was given by the teacher.	
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Appendix III

UNIVERSITY OF CALICUT
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LESSON TRANSCRIPT BASED ON CURRENT INSTRUCTIONAL PRACTICES

Name of the teacher	: Anju Aravind M	Standard	: VIII
Name of the School	: DGHSS, Tanur	Strength	: 45
Subject	: English	Duration	: 40 mins
Topic	: The Light on the Hills		

Title: The Light on the Hills

- To enable the learner to**
- Develop the language skill
 - Listen and comprehend literary text forms like songs
 - Organise ideas and express orally in the class
 - Speak English confidently.
 - Reduce anxiety towards English language

Specific Objectives

- To enable the learner to**
- Analyse songs based on the listening of the text
 - Listen, understand and communicate in real life scenarios
 - Present a speech before the class

Pre requisite

- The individual should have the capability to listen and comprehend in English.
- He/she should be able to communicate in simple English.
- He/she should be having basic operational skills in computer knowledge.
- He/she should be able to communicate in simple English.

Learning aids

- Pictures comprehending words/personalities
- Flowchart describing the stories/character

Process	Product
<p><u>Introduction</u></p> <p>Teacher entered the class with a smiling face. Teacher made rapport with the students through some informal talks.</p> <p>Listening to narration Teacher presented the story given in the course book with proper tone, voice and intonation.</p> <p>Reading by the learner Teacher asked the learner to read the passage silently.</p> <p>Collaborative reading Difficulties are removed with the help of others.</p> <p>Global comprehension Teacher asked simple questions based on the narrative.</p> <p><u>Activity 1</u></p> <p>The teacher divided the class into 5 groups with 9 students each. Teacher read out the story “The light on the hills” to the students twice. After that she distributed one set of cards bearing pictures of the situations pertaining to the story to each group and she instructed them to place/number the card based on the chronological order of the events happened as in the story. After carrying out the discussion within the group, the pre-nominated leader of the group which had completed the task first inform the teacher. Thereafter she waited for others to finish. Once all five groups are done, she examined the result. Thereafter one member as nominated by each group presented their solution in front of the class. After the completion of all 5 solutions, discussions were carried out within the class. Then the final solution was given by the teacher.</p> <p><u>Activity 2</u></p> <p>As in the story “The light on the hills”, the protagonist when walking with his little sister discussed his ambition to be a painter once he grew up. Likewise, everyone in this class has some goals to achieve once you grew up. So let us discuss your ambition in front of the whole class after 5 minutes of discussion.</p> <p>Oral presentation Teacher asked one of the members to present their solution.</p> <p>Follow up Prepare a simple story for the next day to present orally.</p>	<p>Responded appropriately.</p> <p>Listened carefully</p> <p>Read silently</p> <p>Responded appropriately</p> <p>Discussed and completed the task.</p> <p>Presented in front of the class.</p>

Appendix IV

UNIVERSITY OF CALICUT
DEPARTMENT OF EDUCATION

TEST OF LISTENING SKILL

(DRAFT)

Dr. P.K. Aruna

Professor

Anju Aravind. M

Research Scholar

Name of School: DGHSS, Tanur

Class : VIII

Subject : English

Time : 40 min

Instructions:

You are not allowed to answer questions or interrupt the examiner at any point.

- a) You are being tested on your listening skills.
- b) You will hear a set of recordings of the listening inputs or listen to a reading of listening input.
- c) Each of the recordings will be played twice.
- d) You are required to answer a set of questions based on each of the listening inputs.
- e) The assessments consist of 6 sections/parts.
- f) You are required to attempt all four parts of the assessment.
- g) Familiarize yourself with the questions of the worksheet. It will help you to answer the questions later on.
- h) After you have listened to the input, you will be given time to answer the question in your worksheet.
- i) You may answer the questions on your worksheet while listening.
- j) Do not interact /comment before moving out of the examination room.

PART I

Listen to the passage carefully and answer the following questions given below

Waking up at Rescue Zoo

“Taroom! Taaarroomm! Tah-rah-rah-roomm!” the elephant called.

The trumpeting noise was so loud that it made Andrea Parker’s bedroom window shake.

Andrea opened her eyes and smiled. “OK, OK, I’m up!” she said.

After a final stretch, she leaped out of bed. She pulled on her jeans and T-shirt before putting on the necklace she always wore – a pretty silver chain with a charm in the shape of a lion’s paw print. She looked in the mirror as she brushed her wavy brown hair.

Andrea pulled on her shoes and looked out of her bedroom window. She could see the hippos swimming in the lake. The stripy zebras and tall, patterned giraffes were in the grassy green fields. There were the pink flamingos all standing on one leg by the pond. She could also see the windmill that powered the zoo with its sails turning in the wind, and the elephant enclosure next door.

Andrea didn’t think it was unusual to have an elephant in her garden, because she lived in Uncle Horace’s zoo!

“Good Morning to you too, George,” she called down happily.

The tip of a long, grey trunk appeared from behind a tall tree, followed by the tusks, head and huge flapping ears of George the African elephant. He lifted his trunk up high and waved at her, his wise old eyes twinkling.

“Taroom!” he trumpeted again.

“No, George, no school for me today. It’s half term,” she called back. “Listen, I’ll come and say hello later on, OK? And I’ll bring you a treat.”

Elephants munched on tree bark, leaves and grass most of the time.

George flapped his ears and gave a final, happy trumpet.

OK, I’ll see if I can find you some bananas!” Andrea laughed

Living at Rescue Zoo wasn’t the only amazing thing about Andrea’s life. She also had a very special secret – she could talk to the animals her uncle rescued!

(Adapted from *The Lonely Lion Cub* by Amelia Cobb)

1. Who made the trumpeting noise?

- (a) the elephant
- (b) the giraffes
- (c) the flamingos
- (d) the hippos

(a)
(b)
(c)
(d)

2. What made Andrea's window shake?

- (a) the wind
- (b) a trumpet
- (c) the loud noise
- (d) the powerful windmill

(a)
(b)
(c)
(d)

3. Which animals did Andrea see in the fields?

- (a) the hippos and the flamingos
- (b) the zebras and the giraffes
- (c) the zebras and the flamingos
- (d) the giraffes and the hippos

(a)
(b)
(c)
(d)

4. Identify the elephant 'trumpeting' from the pics below.



(a) (b) (c) (d)

(a)
(b)
(c)
(d)

5. How was Andrea's life?

- (a) It was boring.
- (b) It was ordinary.
- (c) It was dull.
- (d) It was incredible

(a)
(b)
(c)
(d)

6. Choose the fruit mentioned in this passage from the pics below.



(a)



(b)



(c)



(d)

(a)
(b)
(c)
(d)

7. Why did George wake up Andrea?

- (a) She had to feed the animals.
- (b) She had to get ready for school.
- (c) She must speak to her uncle.
- (d) She must go shopping.

(a)
(b)
(c)
(d)

8. What did Andrea keep to herself?

- (a) that she could talk to animals
- (b) that she was on holiday
- (c) that she was going to visit George
- (d) that she was going to try to find some bananas

(a)
(b)
(c)
(d)

Part - II

9. Transcript of the police announcement:

Here is an announcement by a police officer on a local city channel. This is regarding an alleged criminal who is evading the arrest. Anyone who has a clue can come forward and inform the police at 100. So, here is the description-

The criminal has a broad face with a thick moustache and a beard. Which one of the following faces are they describing?



a b. c. d.

(a)
(b)
(c)
(d)

10. Transcript of the signboard:

Rajesh does not want people walking around in his vegetable garden that he has nurtured with great care. What should be the sign board he should place in front of it?



a b c d

(a)
(b)
(c)
(d)

11. Transcript of the news:

Thimpu, May 16: Twelve Indians were among the 15 people killed when their 20-seater aircraft slammed into a cliff in western Bhutan, less than seven months after 10 Indian tourists were killed in an air accident. Six people miraculously survived the crash.

- a. There was an explosion before the crash
- b. The crash was a consequence of collision with a cliff
- c. There have been several air crashes in the recent past
- d. Indians always die in the air crashes in and around Bhutan

(a)
(b)
(c)
(d)

12. Transcript of a speech:

City dwellers often depend on cars, buses or metros to travel from one place to another. Bicycles used to be a popular mode of travel once. I think we need to popularise them once again if we need to tackle the pollution problem. The speaker advocates the use of _____ now; listen to an environment activist who is talking to one of his friends.

- a. Car
- b. Bus
- c. Metro
- d. Bicycle

(a)
(b)
(c)
(d)

13. Transcript

A B-chip has been developed. In addition to spelling out the age-based ratings, letters will be displayed to warn parents if a show contains violence or other objectionable content. A group of major networks and producers have agreed to go along with the system, but DD will not.

What does the B-chip do?

- a) It allows the cable company to monitor what tv programs you watch
- b) It turns your TV into a "virtual reality" computer.
- c) It allows parents to block out certain programs, so their children cannot watch them.
- d) It reduces the use of the remote control device.

(a)
(b)
(c)
(d)

14. Transcript

I forgot it when I left home this morning. This made me angry because it is very useful. I used to carry it daily to wherever I go. I don't like it very much but I need it. Not every person has one, but I think most people do. Some people like to look at it and now many people play games with it. Mine is quite light. What is it?

- a. TV
- b. Car
- c. Wallet
- d. Mobile Phone

(a)
(b)
(c)
(d)

PART III

Dakku lifted the lid of his desk cautiously and peered at the big ripe mango which was resting on his reading book. There was a great gnawing in his stomach as he had not eaten since lunch-time and it had been only split pea soup with two dumplings in it. That was since 12.30 p.m. He wondered if he dared take two quick bites before teacher returned from the toilet. He put out his hand to take it then drew it away again. It was too big a risk he decided. The juice would be all over his fingers and, besides, Teacher would smell it. It was a quarter to five. He would wait until five, when he hoped teacher would let him go home.

He bit another piece from the pencil he was holding and his eyes wandered listlessly round the room and finally fastened on the open door before him from which teacher's plump figure would emerge at any moment. He was writing an essay on 'Birds' and there seemed so little he could say. He did not know many birds anyway. There was only the blackbird and the sparrow, and perhaps seagulls.

Why couldn't teacher give him a composition on something he knew about – crabbing, for instance? He could write pages about that.

His mind was brought back abruptly to the present as Teacher appeared.

'Finished yet? You don't have to take the whole evening to write one piece of composition.'

'Yes sir,' he said.

He had only written six lines which were really only a list of the few birds he knew, and some like the nightingale and the swallow that he had read about. It was better to get it over though. To wait longer was only to prolong the agony.'

‘Bring it here!’

He rose slowly and pushed back the chair with his right calf. It escaped harshly and tottered for a moment, before it crashed to the floor.

‘Put some life in you, boy. That’s all you can do. This can liven you up, you know,’ and he stretched out his hand towards the leather strap which remained either curled up like a lazy snake on his desk, or hung languorously from his shoulder. No one would suspect that there was such a deadly sting in its tail.

15. The story is mainly about
- a) eating in class.
 - b) Dakku’s hunger.
 - c) Dakku’s fear for teacher
 - d) preparing for examination

(a)
(b)
(c)
(d)

16. Why was there a gnawing in dakku’s stomach?
- a) Dakku was hungry.
 - b) Dakku had stomach problems.
 - c) Dakku’s fear for teacher
 - d) Dakku’s fear for examination.

(a)
(b)
(c)
(d)

17. What two things in this passage indicate that Dakku was tense?
- a) Dakku was biting the pencil and his eyes was wandering round the room.
 - b) Dakku rose slowly and pushed back the chair with his right calf.
 - c) Dakku lifted the lid of his desk cautiously and peered at the big ripe mango which was resting on his reading book.
 - d) Dakku put out his hand to take it then drew it away again.

(a)
(b)
(c)
(d)

18. What was the topic of the essay Dakku writing?
- a) Flowers.
 - b) Animals.
 - c) Birds.
 - d) Teacher.

(a)
(b)
(c)
(d)

19. Why had Dakku written only six lines?
- a) He didn’t like writing.
 - b) He didn’t know much about the topic.
 - c) He is afraid of the teacher.
 - d) He forgot what he knew.

(a)
(b)
(c)
(d)

20. Why was teacher angry with Dakku?

- a) For eating in class.
- b) Dakku's did not complete the essay.
- c) Dakku's fear for teacher
- d) For not preparing for examination

(a)
(b)
(c)
(d)

21. From the passage you can tell:

- a) Teacher did not like to use the strap.
- b) Dakku was very afraid of teacher.
- c) There was no tension in teacher classroom.
- d) Teacher was an expert teacher.

(a)
(b)
(c)
(d)

22. The word 'cautiously' means:

- a) quickly b) carefully c) fastly d) suddenly

(a)
(b)
(c)
(d)

23. Give out the word which is the antonym of the word 'languorously' from the following.

- a) vigorously.
- b) lethargically
- c) languidly.
- d) sluggishly.

(a)
(b)
(c)
(d)

PART IV

After hearing the recording, label the map with not more than two words.

Calicut University is one of the well-established and prestigious education center in India which is built in 4000 acres of land in Thenjipalam, Malappuram district. It is the largest university in Kerala which was set up in 1968. It is located next to national highway 17 which connects Calicut to Tirur. The University lays its emphasis on fostering quality human resource and promoting productive research that benefit both local communities and wider humanity.

Now I may take you to the premise of the University as such. The University has one main gate with both separate entrance for vehicles entering and leaving the University.

If we continue to go straight from the IN gate, that is along the Gandhi road and turn first left, the seminar hall is immediately on to the left. The right of the seminar hall is the Men's hostel. Back to the Gandhi road and turn left, cross the divider and continue straight the Nehru road that is opposite to the OUT gate,

Pareeksha Bhavan will be to the first right where all the exams for the University are conducted.

Continue straight along the Nehru road, Baby crush and the Children's park will be towards the second and third right respectively. Children's park will be open to the public only after 4 O'clock in the evening.

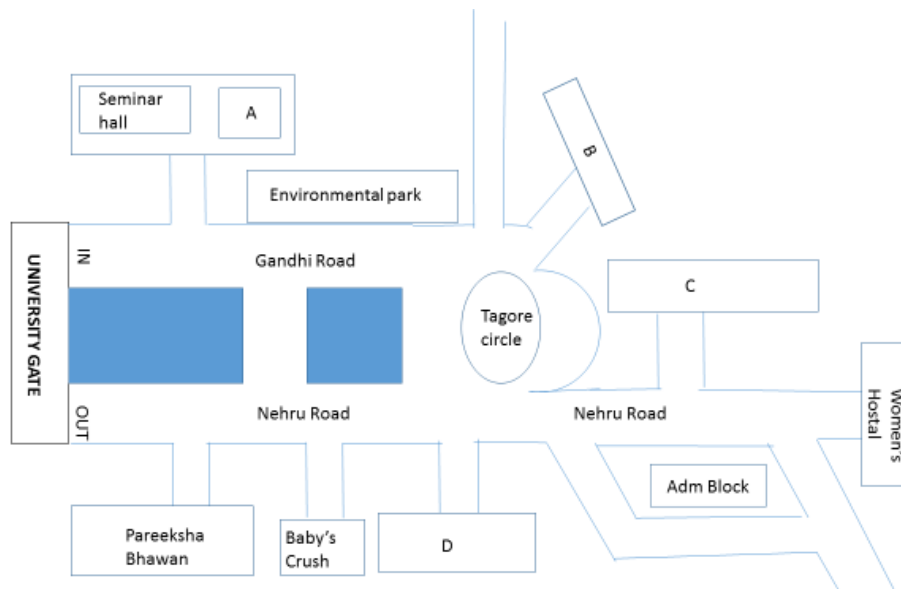
Along the Gandhi road, 50 meters from Seminar hall we reach the University Environmental park. It is the home for many peculiar varieties of flora and fauna. The entrance to this park is restricted to the general public and all students less those from biology field.

Go straight along the Gandhi road, we hit the Tagore circle which is the center of attraction for various events happening inside the University. The University library is to the second left of the Tagore circle, while the first left is the road leading back to NH17.

Go around the Tagore circle take the third left that is first left after the University Library, you will rejoin the Nehru road.

Go straight along the Nehru road, take first left and you will reach the Education Department. In front of the Education department, after crossing the Nehru road is the Administrative building of the University.

Continue straight along the Nehru road for about 3 km is the Women's Hostel.



24. A is _____
25. B is _____
26. C is _____
27. D is _____

28. You will hear a sentence with words or phrases. Find the word or phrase that is incorrect. There are four choices for you to choose. You should choose the most appropriate answer to complete the question.

The Himalayas are considered to be the long mountain ranges in the world

- a) Are
- b) Long
- c) Ranges
- d) In

(a)
(b)
(c)
(d)

29. You will hear four different words. Find out the odd one which is having a different pronunciation for the letter 'i'.

- a) fine
- b) night
- c) nine
- d) six

(a)
(b)
(c)
(d)

30. You will hear four different words. Find out the odd one which is having a different pronunciation for the letter 'o'.

- a) open
- b) close
- c) old
- d) do

(a)
(b)
(c)
(d)

PART V

Some words have the same sound as other words, but they have different meanings and spellings. Choose the correct word for the sentence after hearing the sentence.

31. There are _____ many people in the lift. The maximum load capacity of the lift is 10. So five have to get out.

- a) too
- b) two

(a)
(b)

32. Most of the employees in my work place are _____.

- a) mails
- b) males

(a)
(b)

33. The reason of her illness is believed to be caused by defective _____.

- a) genes
- b) jeans

(a)
(b)

34. We saw a _____ while climbing the mountain.

- a) dear
- b) deer

(a)
(b)

35. Did u _____ what I said?

- a) here
- b) hear

(a)
(b)

PART VI

Riddles

36. What begins with the letter 't', is full of 't' and finishes with 't'?

37. Which is the biggest English alphabet that contains most water in it?

38. Can you guess what is at the end of a rainbow?

39. What would weigh more, one pound cotton or one pound iron?

40. In a single-storey house, there is a red chair, red bed, red computer, red flowers, red table, red carpet- everything around is of red colour. What is the colour of the staircase?

41. I have a face and two hands but no arms or legs, what am I?

PART VII

Listen to the passage very carefully and choose the words from the box below and drop them into the relevant spaces.

How	And	again	if	from	Also
-----	-----	-------	----	------	------

42. Many things you buy, especially the instructions for household goods, have texts in English. Ask your friend or colleague to read these out to you, _____ try to make notes.

43. Use cooking recipes to learn listening: Use google or similar search engines to find the recipes in English of any kind of food that you want to cook. Get a friend to read out this recipe to you and see _____ much you understand.

44. TV is a great device for listening. Instead of looking at the screen, ___ all the time to not at all (sit with your back to the TV). You can practice listening skills.
45. Try to make a habit of listening to the news at least once a day in English. Make notes of number, dates, figures etc. that you hear. Then look through your notes and see _____ you can remember what they represent.
46. You can use phone calls to practice listening. The world is full of recorded information lines. You can _____ call hotels, airlines etc. and hear how they speak and then make enquires.

Appendix V

UNIVERSITY OF CALICUT
DEPARTMENT OF EDUCATION

TEST OF LISTENING SKILL

(FINAL)

Dr. P.K. Aruna

Professor

Anju Aravind. M

Research Scholar

Name of School: DGHSS, Tanur

Class : VIII

Subject : English

Time : 40 min

Instructions:

You are not allowed to answer questions or interrupt the examiner at any point.

- a) You are being tested on your listening skills.
- b) You will hear a set of recordings of the listening inputs or listen to a reading of listening input.
- c) Each of the recordings will be played twice.
- d) You are required to answer a set of questions based on each of the listening inputs.
- e) The assessments consist of 6 sections/parts.
- f) You are required to attempt all four parts of the assessment.
- g) Familiarize yourself with the questions of the worksheet. It will help you to answer the questions later on.
- h) After you have listened to the input, you will be given time to answer the question in your worksheet.
- i) You may answer the questions on your worksheet while listening.
- j) Do not interact /comment before moving out of the examination room.

PART I

Listen to the passage carefully and answer the following questions given below

Waking up at Rescue Zoo

“Taroom! Taaarroomm! Tah-rah-rah-roomm!” the elephant called.

The trumpeting noise was so loud that it made Andrea Parker’s bedroom window shake.

Andrea opened her eyes and smiled. “OK, OK, I’m up!” she said.

After a final stretch, she leaped out of bed. She pulled on her jeans and T-shirt before putting on the necklace she always wore – a pretty silver chain with a charm in the shape of a lion’s paw print. She looked in the mirror as she brushed her wavy brown hair.

Andrea pulled on her shoes and looked out of her bedroom window. She could see the hippos swimming in the lake. The stripy zebras and tall, patterned giraffes were in the grassy green fields. There were the pink flamingos all standing on one leg by the pond. She could also see the windmill that powered the zoo with its sails turning in the wind, and the elephant enclosure next door.

Andrea didn’t think it was unusual to have an elephant in her garden, because she lived in Uncle Horace’s zoo!

“Good Morning to you too, George,” she called down happily.

The tip of a long, grey trunk appeared from behind a tall tree, followed by the tusks, head and huge flapping ears of George the African elephant. He lifted his trunk up high and waved at her, his wise old eyes twinkling.

“Taroom!” he trumpeted again.

“No, George, no school for me today. It’s half term,” she called back. “Listen, I’ll come and say hello later on, OK? And I’ll bring you a treat.”

Elephants munched on tree bark, leaves and grass most of the time.

George flapped his ears and gave a final, happy trumpet.

OK, I’ll see if I can find you some bananas!” Andrea laughed

Living at Rescue Zoo wasn’t the only amazing thing about Andrea’s life. She also had a very special secret – she could talk to the animals her uncle rescued!

(Adapted from *The Lonely Lion Cub* by Amelia Cobb)

1. Who made the trumpeting noise?

- (a) the elephant
- (b) the giraffes
- (c) the flamingos
- (d) the hippos

(a)
(b)
(c)
(d)

2. What made Andrea's window shake?

- (a) the wind
- (b) a trumpet
- (c) the loud noise
- (d) the powerful windmill

(a)
(b)
(c)
(d)

3. Which animals did Andrea see in the fields?

- (a) the hippos and the flamingos
- (b) the zebras and the giraffes
- (c) the zebras and the flamingos
- (d) the giraffes and the hippos

(a)
(b)
(c)
(d)

4. Identify the elephant 'trumpeting' from the pics below.



(a) (b) (c) (d)

(a)
(b)
(c)
(d)

5. How was Andrea's life?

- (a) It was boring.
- (b) It was ordinary.
- (c) It was dull.
- (d) It was incredible

(a)
(b)
(c)
(d)

6. Choose the fruit mentioned in this passage from the pics below.



(a)



(b)



(c)



(d)

(a)
(b)
(c)
(d)

7. Why did George wake up Andrea?
 (a) She had to feed the animals.
 (b) She had to get ready for school.
 (c) She must speak to her uncle.
 (d) She must go shopping.

(a)
(b)
(c)
(d)

8. What did Andrea keep to herself?
 (a) that she could talk to animals
 (b) that she was on holiday
 (c) that she was going to visit George
 (d) that she was going to try to find some bananas

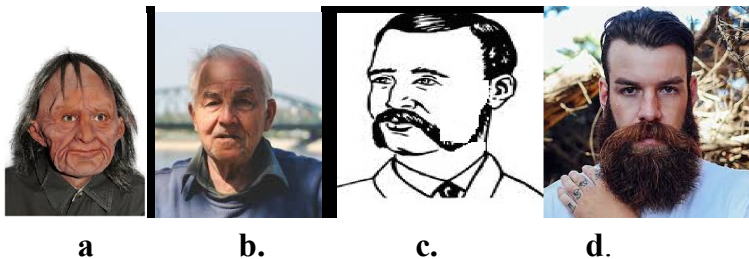
(a)
(b)
(c)
(d)

Part - II

9. Transcript of the police announcement:

Here is an announcement by a police officer on a local city channel. This is regarding an alleged criminal who is evading the arrest. Anyone who has a clue can come forward and inform the police at 100. So, here is the description-

The criminal has a broad face with a thick moustache and a beard. Which one of the following faces are they describing?



(a)
(b)
(c)
(d)

10. Transcript of the signboard:

Rajesh does not want people walking around in his vegetable garden that he has nurtured with great care. What should be the sign board he should place in front of it?



(a)
(b)
(c)
(d)

11. Transcript of the news:

Thimpu, May 16: Twelve Indians were among the 15 people killed when their 20-seater aircraft slammed into a cliff in western Bhutan, less than seven months after 10 Indian tourists were killed in an air accident. Six people miraculously survived the crash.

- a. There was an explosion before the crash
- b. The crash was a consequence of collision with a cliff
- c. There have been several air crashes in the recent past
- d. Indians always die in the air crashes in and around Bhutan

(a)
(b)
(c)
(d)

12. Transcript of a speech:

City dwellers often depend on cars, buses or metros to travel from one place to another. Bicycles used to be a popular mode of travel once. I think we need to popularise them once again if we need to tackle the pollution problem. The speaker advocates the use of _____ now; listen to an environment activist who is talking to one of his friends.

- a. Car
- b. Bus
- c. Metro
- d. Bicycle

(a)
(b)
(c)
(d)

13. Transcript

A B-chip has been developed. In addition to spelling out the age-based ratings, letters will be displayed to warn parents if a show contains violence or other objectionable content. A group of major networks and producers have agreed to go along with the system, but DD will not.

What does the B-chip do?

- a) It allows the cable company to monitor what tv programs you watch
- b) It turns your TV into a "virtual reality" computer.
- c) It allows parents to block out certain programs, so their children cannot watch them.
- d) It reduces the use of the remote control device.

(a)
(b)
(c)
(d)

14. Transcript

I forgot it when I left home this morning. This made me angry because it is very useful. I used to carry it daily to wherever I go. I don't like it very much but I need it. Not every person has one, but I think most people do. Some people like to look at it and now many people play games with it. Mine is quite light. What is it?

- a. TV
- b. Car
- c. Wallet
- d. Mobile Phone

(a)
(b)
(c)
(d)

PART III

Dakku lifted the lid of his desk cautiously and peered at the big ripe mango which was resting on his reading book. There was a great gnawing in his stomach as he had not eaten since lunch-time and it had been only split pea soup with two dumplings in it. That was since 12.30 p.m. He wondered if he dared take two quick bites before teacher returned from the toilet. He put out his hand to take it then drew it away again. It was too big a risk he decided. The juice would be all over his fingers and, besides, Teacher would smell it. It was a quarter to five. He would wait until five, when he hoped teacher would let him go home.

He bit another piece from the pencil he was holding and his eyes wandered listlessly round the room and finally fastened on the open door before him from which teacher's plump figure would emerge at any moment. He was writing an essay on 'Birds' and there seemed so little he could say. He did not know many birds anyway. There was only the blackbird and the sparrow, and perhaps seagulls.

Why couldn't teacher give him a composition on something he knew about – crabbing, for instance? He could write pages about that.

His mind was brought back abruptly to the present as Teacher appeared.

'Finished yet? You don't have to take the whole evening to write one piece of composition.'

'Yes sir,' he said.

He had only written six lines which were really only a list of the few birds he knew, and some like the nightingale and the swallow that he had read about. It was better to get it over though. To wait longer was only to prolong the agony.'

‘Bring it here!’

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‘Put some life in you, boy. That’s all you can do. This can liven you up, you know,’ and he stretched out his hand towards the leather strap which remained either curled up like a lazy snake on his desk, or hung languorously from his shoulder. No one would suspect that there was such a deadly sting in its tail.

15. The story is mainly about

- a) eating in class.
- b) Dakku’s hunger.
- c) Dakku’s fear for teacher
- d) preparing for examination

(a)
(b)
(c)
(d)

16. Why was there a gnawing in dakku’s stomach?

- a) Dakku was hungry.
- b) Dakku had stomach problems.
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- d) Dakku’s fear for examination.

(a)
(b)
(c)
(d)

17. What two things in this passage indicate that Dakku was tense?

- a) Dakku was biting the pencil and his eyes was wandering round the room.
- b) Dakku rose slowly and pushed back the chair with his right calf.
- c) Dakku lifted the lid of his desk cautiously and peered at the big ripe mango which was resting on his reading book.
- d) Dakku put out his hand to take it then drew it away again.

(a)
(b)
(c)
(d)

18. What was the topic of the essay Dakku writing?

- a) Flowers.
- b) Animals.
- c) Birds.
- d) Teacher.

(a)
(b)
(c)
(d)

19. Why had Dakku written only six lines?

- a) He didn’t like writing.
- b) He didn’t know much about the topic.
- c) He is afraid of the teacher.
- d) He forgot what he knew.

(a)
(b)
(c)
(d)

20. Why was teacher angry with Dakku?

- a) For eating in class.
- b) Dakku's did not complete the essay.
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- d) For not preparing for examination

(a)
(b)
(c)
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21. From the passage you can tell:

- a) Teacher did not like to use the strap.
- b) Dakku was very afraid of teacher.
- c) There was no tension in teacher classroom.
- d) Teacher was an expert teacher.

(a)
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(c)
(d)

22. The word 'cautiously' means:

- a) quickly b) carefully c) fastly d) suddenly

(a)
(b)
(c)
(d)

23. Give out the word which is the antonym of the word 'languorously' from the following.

- a) vigorously.
- b) lethargically
- c) languidly.
- d) sluggishly.

(a)
(b)
(c)
(d)

PART IV

After hearing the recording, label the map with not more than two words.

Calicut University is one of the well-established and prestigious education center in India which is built in 4000 acres of land in Thenjipalam, Malappuram district. It is the largest university in Kerala which was set up in 1968. It is located next to national highway 17 which connects Calicut to Tirur. The University lays its emphasis on fostering quality human resource and promoting productive research that benefit both local communities and wider humanity.

Now I may take you to the premise of the University as such. The University has one main gate with both separate entrance for vehicles entering and leaving the University.

If we continue to go straight from the IN gate, that is along the Gandhi road and turn first left, the seminar hall is immediately on to the left. The right of the seminar hall is the Men's hostel. Back to the Gandhi road and turn left, cross the divider and continue straight the Nehru road that is opposite to the OUT gate,

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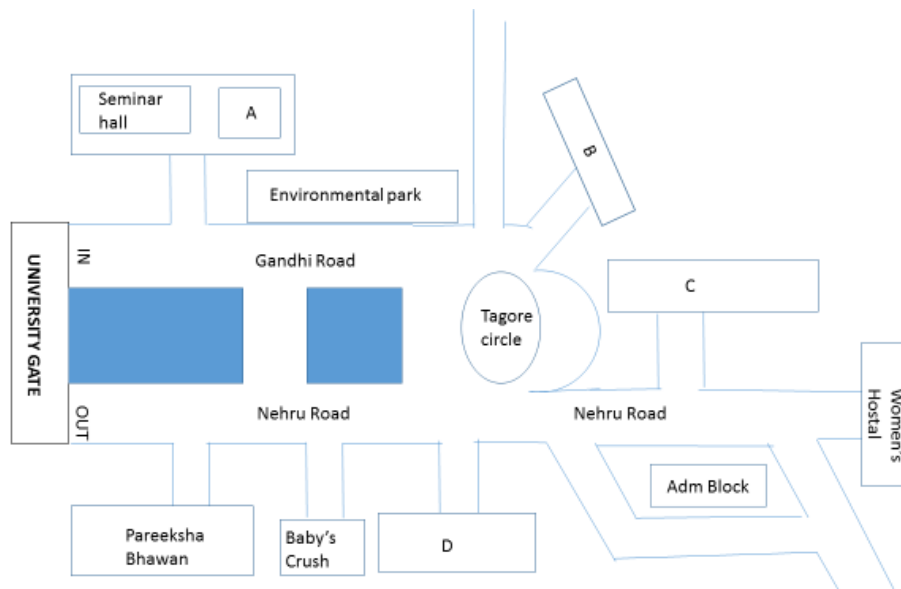
Along the Gandhi road, 50 meters from Seminar hall we reach the University Environmental park. It is the home for many peculiar varieties of flora and fauna. The entrance to this park is restricted to the general public and all students less those from biology field.

Go straight along the Gandhi road, we hit the Tagore circle which is the center of attraction for various events happening inside the University. The University library is to the second left of the Tagore circle, while the first left is the road leading back to NH17.

Go around the Tagore circle take the third left that is first left after the University Library, you will rejoin the Nehru road.

Go straight along the Nehru road, take first left and you will reach the Education Department. In front of the Education department, after crossing the Nehru road is the Administrative building of the University.

Continue straight along the Nehru road for about 3 km is the Women's Hostel.



24. A is _____
25. B is _____
26. C is _____
27. D is _____

28. You will hear a sentence with words or phrases. Find the word or phrase that is incorrect. There are four choices for you to choose. You should choose the most appropriate answer to complete the question.

The Himalayas are considered to be the long mountain ranges in the world

- a) Are
- b) Long
- c) Ranges
- d) In

(a)
(b)
(c)
(d)

29. You will hear four different words. Find out the odd one which is having a different pronunciation for the letter 'i'.

- a) fine
- b) night
- c) nine
- d) six

(a)
(b)
(c)
(d)

30. You will hear four different words. Find out the odd one which is having a different pronunciation for the letter 'o'.

- a) open
- b) close
- c) old
- d) do

(a)
(b)
(c)
(d)

PART V

Some words have the same sound as other words, but they have different meanings and spellings. Choose the correct word for the sentence after hearing the sentence.

31. There are _____ many people in the lift. The maximum load capacity of the lift is 10. So five have to get out.

- a) too
- b) two

(a)
(b)

32. Most of the employees in my work place are _____.

- a) mails
- b) males

(a)
(b)

33. The reason of her illness is believed to be caused by defective _____.

- a) genes
- b) jeans

(a)
(b)

34. We saw a _____ while climbing the mountain.

- a) dear
- b) deer

(a)
(b)

35. Did u _____ what I said?

- a) here
- b) hear

(a)
(b)

PART VI

Listen to the passage very carefully and choose the words from the box below and drop them into the relevant spaces.

How	And	again	if	from	Also
-----	-----	-------	----	------	------

- 36. Many things you buy, especially the instructions for household goods, have texts in English. Ask your friend or colleague to read these out to you, _____ try to make notes.
- 37. Use cooking recipes to learn listening: Use google or similar search engines to find the recipes in English of any kind of food that you want to cook. Get a friend to read out this recipe to you and see _____ much you understand.
- 38. TV is a great device for listening. Instead of looking at the screen, _____ all the time to not at all (sit with your back to the TV). You can practice listening skills.
- 39. Try to make a habit of listening to the news at least once a day in English. Make notes of number, dates, figures etc. that you hear. Then look through your notes and see _____ you can remember what they represent.
- 40. You can use phone calls to practice listening. The world is full of recorded information lines. You can _____ call hotels, airlines etc. and hear how they speak and then make enquires.

Appendix VI
UNIVERSITY OF CALICUT
DEPARTMENT OF EDUCATION
TEST OF SPEAKING SKILL
(DRAFT)

Dr. P.K Aruna
Professor

Anju Aravind. M
Research Scholar

Name of School: DGHSS, Tanur
Subject: English

Class: VIII
Time: 40 min

INSTRUCTIONS

- a) The speaking test will be conducted for two students at a time.
- b) Students should not have pen, paper, mobile phone etc.
- c) The teacher will be an Interlocutor and an assessor both.

I. GENERAL INTRODUCTION

(The Teacher makes the students feel comfortable)

Teacher: Good morning, I am ----- Hope you are looking forward to this
brief interaction.

Student A: Yes -----/ I am -----

Teacher: And what about you? (Looking at student B)

Student B: -----

Teacher: What do you do in your spare time? (To Student B) Student B: -----

Teacher: And how about you? (To student A)

Student A: -----

Teacher: What makes you special? (To student A) Student A: -----

Teacher: What about you? (To Student B) Student B: -----

Teacher: What do admire in other people? (To student A)

Student A: -----

Teacher: How about you? (To Student B) Student B: -----

Teacher: Thank you, this is the end of the first part of the test.

Teacher: What about you? (To Student B) Student B: -----

Teacher: What do you admire in other people? (To student A)

Student A: -----

Teacher: How about you? (To Student B) Student B: -----

Teacher: Thank you, this is the end of the first part of the test.

II MINI PRESENTATION

Now, in this part of the test, candidates are given a topic with some points. They have a minute to prepare on the given topic and two minutes for the presentation.

Students are given the following sets of inputs on cards or papers. Three options are given. Only one option has to be used at a time.

Teacher: (To both A and B) Here is your topic. Both of you prepare your presentation on it. You are given one minute for preparation. Please use pencil and paper for writing points. After one minute I am going to ask you to present your views on the topic. I can ask anyone of you first. So be prepared and get ready. (Teacher hands over one card with cues to both A & B)

1. Mobile phones in school

- a) Security
- b) Multiple uses
- c) Distraction

If the student is not able to speak at length the teacher could ask rounding off questions

Do you think mobile phones should be allowed in school?

Give two advantages of carrying a mobile phone to school.

Do you think advantages outweigh the disadvantages?

2. Changing Concepts and Methodologies of Teaching-learning in India

- a) Examination Pattern
- b) Variety of Subjects
- c) Assessment Parameters

If the student is not able to speak at length the teacher could ask rounding off questions

Do you like this present system of evaluation?

Do you learn better when you are stress free?

Do you think some students take this system very casually?

3. An incident that changed my life.

- a) What it is
- b) What it is about
- c) How it affected me

If the student is not able to speak at length the teacher could ask rounding off questions

What was that specific quality that remained with you?

What did you learn?

How would you like to be now?

III Pair Interaction

Students respond to visual/ verbal stimulus. Students look at the pictures and talk together for three minutes

- 1. Elderly –sad and lonely, neglected by their family members. Dependent on others for their physical needs. Money not adequate to meet the expenses of medicines.



- 2. Child marriage.



IV Students to briefly summarize a tale or story they heard from somebody beforehand, or they may create their own stories in English for two minutes.

V Enumerate the advantages and disadvantages of being a Child Closing

Thank you very much. That was the end of your test. The Teacher retrieves the pencil and paper

Appendix VII
UNIVERSITY OF CALICUT
DEPARTMENT OF EDUCATION
TEST OF SPEAKING SKILL
(FINAL)

Dr. P.K Aruna
Professor

Anju Aravind. M
Research Scholar

Name of School: DGHSS, Tanur

Class: VIII

Subject: English

Time: 40 min

INSTRUCTIONS

- a) The speaking test will be conducted for two students at a time.
- b) Students should not have pen, paper, mobile phone etc.
- c) The teacher will be an Interlocutor and an assessor both.

I. GENERAL INTRODUCTION

(The Teacher makes the students feel comfortable)

Teacher: Good morning, I am ----- Hope you are looking forward to this brief interaction.

Student A: Yes -----/ I am -----

Teacher: And what about you? (Looking at student B)

Student B: -----

Teacher: What do you do in your spare time? (To Student B) Student B: -----

Teacher: And how about you? (To student A)

Student A: -----

Teacher: What makes you special? (To student A) Student A: -----

Teacher: What about you? (To Student B) Student B: -----

Teacher: What do admire in other people? (To student A)

Student A: -----

Teacher: How about you? (To Student B) Student B: -----

Teacher: Thank you, this is the end of the first part of the test.

Teacher: What about you? (To Student B) Student B: -----

Teacher: What do you admire in other people? (To student A)

Student A: -----

Teacher: How about you? (To Student B) Student B: -----

Teacher: Thank you, this is the end of the first part of the test.

II MINI PRESENTATION

Now, in this part of the test, candidates are given a topic with some points. They have a minute to prepare on the given topic and two minutes for the presentation.

Students are given the following sets of inputs on cards or papers. Three options are given. Only one option has to be used at a time.

Teacher: (To both A and B) Here is your topic. Both of you prepare your presentation on it. You are given one minute for preparation. Please use pencil and paper for writing points. After one minute I am going to ask you to present your views on the topic. I can ask anyone of you first. So be prepared and get ready. (Teacher hands over one card with cues to both A & B)

1. Mobile phones in school

- a) Security
- b) Multiple uses
- c) Distraction

If the student is not able to speak at length the teacher could ask rounding off questions

Do you think mobile phones should be allowed in school?

Give two advantages of carrying a mobile phone to school.

Do you think advantages outweigh the disadvantages?

2. Changing Concepts and Methodologies of Teaching-learning in India

- a) Examination Pattern
- b) Variety of Subjects
- c) Assessment Parameters

If the student is not able to speak at length the teacher could ask rounding off questions

Do you like this present system of evaluation?

Do you learn better when you are stress free?

Do you think some students take this system very casually?

3. An incident that changed my life.

- a) What it is
- b) What it is about
- c) How it affected me

If the student is not able to speak at length the teacher could ask rounding off questions

What was that specific quality that remained with you?

What did you learn?

How would you like to be now?

III Pair Interaction

Students respond to visual/ verbal stimulus. Students look at the pictures and talk together for three minutes

- 1. Elderly –sad and lonely, neglected by their family members. Dependent on others for their physical needs. Money not adequate to meet the expenses of medicines.



- 2. Child marriage.



IV Closing

Thank you very much. That was the end of your test. The Teacher retrieves the pencil and paper

Appendix VIII

UNIVERSITY OF CALICUT
DEPARTMENT OF EDUCATION

ENGLISH LANGUAGE ANXIETY SCALE (DRAFT)

Dr. P.K. Aruna
Professor in Education

Anju Aravind. M
Research Scholar

Instructions: The following statements are related with your foreign language anxiety. Five options are given with each statement. Read each statement carefully and mark your response in the given column by putting a [X] mark towards the option you want to select.

Sl. No.	Statements	Strongly Agree	Agree	Neither Agree nor Disagree	Disagree	Strongly Disagree
1.	I don't worry making mistakes when I speak in English.					
2.	I never like talking in English in front of others.					
3.	I am not comfortable in my English classes.					
4.	I am very much worried when I get a chance to speak in English.					
5.	It gives me nightmares thinking of using English in front of others.					
6.	I feel very much tensed when attending my English classes.					
7.	I feel very happy to use English in my conversation.					
8.	I feel very comfortable when I get a chance to present something in English.					
9.	I hate participating in group discussion in English language.					
10.	I am comfortable while attending tests in English language.					
11.	I am very much tensed and nervous while attending tests in English language.					

Sl. No.	Statements	Strongly Agree	Agree	Neither Agree nor Disagree	Disagree	Strongly Disagree
12.	English is a difficult language to learn.					
13.	I feel very comfortable if I am being asked any questions in English language classes.					
14.	I am not comfortable while delivering any ideas in English.					
15.	I am very much afraid that I don't understand the teacher when she speaks in English.					
16.	I am afraid to speak in English without preparation.					
17.	I am very comfortable to take more English classes.					
18.	I am very much confident to attend tests in English language.					
19.	I am not at all embarrassed to answer in English language in classes.					
20.	I am not embarrassed in knowing that I am making mistakes in English language.					
21.	I feel worried that others are evaluating my presentation in English language.					
22.	I prefer to be silent in English language class.					
23.	I am surprised why people become nervous while attending English language tests.					
24.	I am highly confident in speaking in English language with native speaker.					
25.	I get embarrassed when someone corrects my English.					
26.	I feel anxious about my English classes even though I prepare well.					
27.	I feel confident when my mistakes are corrected					
28.	I feel my English teacher is eager to correct every mistake I make.					
29.	I am frightened to have eye contacts with people speaking in English.					

Sl. No.	Statements	Strongly Agree	Agree	Neither Agree nor Disagree	Disagree	Strongly Disagree
30.	I am afraid to see someone looking into my eyes when I speak.					
31.	I feel that English language is very difficult to learn as it is an outside language.					
32.	I feel practicing spoken English is the best way to improve my efficiency in English.					
33.	I want to improve my English language skills.					
34.	I feel uncomfortable if I hear someone speaking in English to me.					
35.	I feel worried to interact with the foreigners.					
36.	I am not able to understand the meaning and gets confused while reading English.					
37.	I can feel my heart pounding when someone speaks to me in English.					
38.	I am under tremendous stress while preparing for English language tests.					
39.	I am not able to interact with the other students of my English language class.					
40.	I always feel that my colleagues are better than me in English language class.					
41.	I feel shy and lack of confidence while speaking in English in front of others.					
42.	I am very much relaxed in English classes compared to my other classes.					
43.	I am falling short of words while speaking in English with others.					
44.	I am very much afraid of rejection when I make mistakes in English language.					
45.	I am not able to think in English.					

Appendix IX

UNIVERSITY OF CALICUT
DEPARTMENT OF EDUCATION

ENGLISH LANGUAGE ANXIETY SCALE (FINAL)

Dr. P.K. Aruna
Professor in Education

Anju Aravind. M
Research Scholar

Instructions: The following statements are related with your foreign language anxiety. Five options are given with each statement. Read each statement carefully and mark your response in the given column by putting a [X] mark towards the option you want to select.

Sl. No.	Statements	Strongly Agree	Agree	Neither Agree nor Disagree	Disagree	Strongly Disagree
1.	I don't worry making mistakes when I speak in English.					
2.	I never like talking in English in front of others.					
3.	I am not comfortable in my English classes.					
4.	I am very much worried when I get a chance to speak in English.					
5.	It gives me nightmares thinking of using English in front of others.					
6.	I feel very much tensed when attending my English classes.					
7.	I feel very happy to use English in my conversation.					
8.	I feel very comfortable when I get a chance to present something in English.					
9.	I hate participating in group discussion in English language.					
10.	I am comfortable while attending tests in English language.					
11.	I am very much tensed and nervous while attending tests in English language.					

Sl. No.	Statements	Strongly Agree	Agree	Neither Agree nor Disagree	Disagree	Strongly Disagree
12.	English is a difficult language to learn.					
13.	I feel very comfortable if I am being asked any questions in English language classes.					
14.	I am not comfortable while delivering any ideas in English.					
15.	I am very much afraid that I don't understand the teacher when she speaks in English.					
16.	I am afraid to speak in English without preparation.					
17.	I am very comfortable to take more English classes.					
18.	I am very much confident to attend tests in English language.					
19.	I am not at all embarrassed to answer in English language in classes.					
20.	I am not embarrassed in knowing that I am making mistakes in English language.					
21.	I feel worried that others are evaluating my presentation in English language.					
22.	I prefer to be silent in English language class.					
23.	I am surprised why people become nervous while attending English language tests.					
24.	I am highly confident in speaking in English language with native speaker.					
25.	I get embarrassed when someone corrects my English.					
26.	I feel anxious about my English classes even though I prepare well.					
27.	I feel my English teacher is eager to correct every mistake I make.					
28.	I am frightened to have eye contacts with people speaking in English.					
29.	I feel practicing spoken English is the best way to					

Sl. No.	Statements	Strongly Agree	Agree	Neither Agree nor Disagree	Disagree	Strongly Disagree
	improve my efficiency in English.					
30.	I want to improve my English language skills.					
31.	I feel worried to interact with the foreigners.					
32.	I am not able to understand the meaning and gets confused while reading English.					
33.	I can feel my heart pounding when someone speaks to me in English.					
34.	I am under tremendous stress while preparing for English language tests.					
35.	I am not able to interact with the other students of my English language class.					
36.	I always feel that my colleagues are better than me in English language class.					
37.	I feel shy and lack of confidence while speaking in English in front of others.					
38.	I am very much relaxed in English classes compared to my other classes.					
39.	I am falling short of words while speaking in English with others.					
40.	I am very much afraid of rejection when I make mistakes in English language.					

Appendix X

UNIVERSITY OF CALICUT
DEPARTMENT OF EDUCATION

LEARNER SATISFACTION SCALE (DRAFT)

Dr. P.K. Aruna
Professor in Education

Anju Aravind. M
Research Scholar

Instructions: The following questions are related with your learners satisfaction scale. You are supposed to rate the questions in terms of 1-5, where 5 being the highest and 1 being the lowest. Read each questions carefully and mark your response in the given column by putting 1-5.

Sl. No.	Statements	Strongly Agree	Agree	Neither Agree nor Disagree	Disagree	Strongly Disagree
1.	Was the teacher having adequate knowledge about the subject?					
2.	Was the teacher able to convey the knowledge about the subject to students clearly?					
3.	Was the teacher approachable for necessary clarifications on queries raised?					
4.	Was the teacher able to utilize training aids effectively to assist her class?					
5.	Do the teacher raise the previous days discussed topics regularly?					
6.	Was the mode of communication as per the understanding of the students?					
7.	Was training aids adequately used as a mode of instruction for the benefit of students?					
8.	Is the practical classes adequately placed in the syllabus?					
9.	Was the teacher able to communicate with the students clearly?					

Sl. No.	Statements	Strongly Agree	Agree	Neither Agree nor Disagree	Disagree	Strongly Disagree
10.	Was the time period sufficient enough to cover the entire syllabus?					
11.	How was the interaction between the teacher and student?					
12.	Was the teacher approachable for the clarification of queries?					
13.	Did the interaction with the teacher being the best in you?					
14.	Was the interaction with the teacher fruitful enough to identify your weak areas and to strengthen it?					
15.	Were the tests prepared by the teacher allowed student to connect with the course content/ syllabus?					
16.	Was the teacher trying to know whether the students are understanding the subject?					
17.	Was adequate discipline maintained in the class?					
18.	Is the practical classes adequately placed in the syllabus?					
19.	Was the mix of theoretical and practical classes planned properly?					
20.	Was the technology utilized by teacher to alleviate the knowledge base of the students?					
21.	Was the fatigue limit of students looked into by the teacher during finishing the syllabus?					
22.	Was the technology utilized by the teacher helped the students to think and learn more deeply?					
23.	Was the technology used by teacher non-productive and boring?					
24.	Was adequate technology used in classroom by teacher for teaching the syllabus?					
25.	Did this technology allowed more students to participate at a level that is suitable for them?					
26.	Did the teacher use the technology which is user friendly?					

Appendix XI

UNIVERSITY OF CALICUT
DEPARTMENT OF EDUCATION

LEARNER SATISFACTION SCALE (FINAL)

Dr. P.K. Aruna
Professor in Education

Anju Aravind. M
Research Scholar

Instructions: The following questions are related with your learners satisfaction scale. You are supposed to rate the questions in terms of 1-5, where 5 being the highest and 1 being the lowest. Read each questions carefully and mark your response in the given column by putting 1-5.

Sl. No.	Statements	Strongly Agree	Agree	Neither Agree nor Disagree	Disagree	Strongly Disagree
1.	Was the teacher having adequate knowledge about the subject?					
2.	Was the teacher able to convey the knowledge about the subject to students clearly?					
3.	Do the teacher raise the previous days discussed topics regularly?					
4.	Was the mode of communication as per the understanding of the students?					
5.	Was training aids adequately used as a mode of instruction for the benefit of students?					
6.	Was the teacher able to communicate with the students clearly?					
7.	How was the interaction between the teacher and student?					
8.	Was the teacher approachable for the clarification of queries?					
9.	Did the interaction with the teacher being the best in you?					

Sl. No.	Statements	Strongly Agree	Agree	Neither Agree nor Disagree	Disagree	Strongly Disagree
10.	Was the interaction with the teacher fruitful enough to identify your weak areas and to strengthen it?					
11.	Were the tests prepared by the teacher allowed student to connect with the course content/ syllabus?					
12.	Was the teacher trying to know whether the students are understanding the subject?					
13.	Was adequate discipline maintained in the class?					
14.	Was the mix of theoretical and practical classes planned properly?					
15.	Was the technology utilized by teacher to alleviate the knowledge base of the students?					
16.	Was the fatigue limit of students looked into by the teacher during finishing the syllabus?					
17.	Was the technology utilized by the teacher helped the students to think and learn more deeply?					
18.	Was the technology used by teacher non-productive and boring?					
19.	Did this technology allowed more students to participate at a level that is suitable for them?					
20.	Did the teacher use the technology which is user friendly?					

Appendix XII

STANDARD PROGRESSIVE MATRICES

SETS A,B,C,D AND E

RESPONSE SHEET

Name

Ref No.

Place

Date

Age

Birthday.....

Test Started.....

Test Ended.....

A		B		C		D		E	
1		1		1		1		1	
2		2		2		2		2	
3		3		3		3		3	
4		4		4		4		4	
5		5		5		5		5	
6		6		6		6		6	
7		7		7		7		7	
8		8		8		8		8	
9		9		9		9		9	
10		10		10		10		10	
11		11		11		11		11	
12		12		12		12		12	

Appendix XIII

STANDARD PROGRESSIVE MATRICES

SETS A, B, C, D AND E

SCORINGS KEYS

A		B		C		D		E	
S.No	Ans	S.No	Ans	S.No	Ans	S.No	Ans	S.No	Ans
1	4	1	2	1	8	1	3	1	7
2	5	2	6	2	2	2	4	2	6
3	1	3	1	3	3	3	3	3	8
4	2	4	2	4	8	4	7	4	2
5	6	5	1	5	7	5	8	5	1
6	3	6	3	6	4	6	6	6	5
7	6	7	5	7	6	7	5	7	1
8	2	8	6	8	1	8	4	8	6
9	1	9	4	9	7	9	1	9	3
10	3	10	3	10	6	10	2	10	2
11	4	11	4	11	1	11	5	11	4
12	5	12	5	12	2	12	6	12	5

Appendix XIV

UNIVERSITY OF CALICUT
DEPARTMENT OF EDUCATION

CLASSROOM ENVIRONMENT INVENTORY

(Secondary Level)

Dr. P.K. Aruna
Lecturer in Education

Sureshan, K.
Unnikrishnan, M.
M.Ed. Students

Instructions

The following statements given below are related with your classroom learning. Two responses are given for each statement (Yes/No). Separate answer sheet is provided. Read each statement carefully and mark your response in the answer sheet by putting 'X' in the relevant circle.

1. Adequate number of benches, desks, tables and chairs are provided in the classroom.
2. Teacher changes the place where the students sit.
3. There is enough space in our classroom for hanging charts, maps and pictures.
4. Students can see the charts, pictures and maps fixed in the classroom.
5. There is adequate space and facilities in the classroom to study by conducting experiments.
6. There is a bulletin board in our class.
7. A manuscript magazine is published from the class.
8. Teacher persuades the students to draw or write articles in manuscript magazine.
9. Students feel fear when teacher comes in the classroom.
10. Teacher talks with each student in the class.
11. Class starts and ends in the right time.
12. Students are told how to behave in the classroom.
13. Teacher gives advices or punishments to students who are not obedient in the class.
14. We feel angry and sadness while teacher punishes.
15. Teacher takes personal interest to know each student in the class.
16. Conduct art and sport competition or quiz competitions by making students in different group.
17. Teacher appreciates the group or student who win the competition.
18. Art club and science club are formed and working in our class.
19. Teacher encourages the student to participate in club activities.
20. Students help each other in their studies.

21. Students are friendly in our class.
22. Some students make problem in our class.
23. Conduct discussion in the class about the importance of place visited during study tour.
24. Students show competition in the field of their study.
25. Students feel difficulty in completing in some academic matters.
26. Teacher trains the students to prepare and handle teaching aids.
27. Teacher trains the students to do their workbook and other exercises without mistakes.
28. Teacher help the students to prepare themselves for quiz competition and general knowledge test etc.
29. Teacher makes discussions on new inventions and current affairs.
30. Students express their opinions in their classroom discussions.
31. Teacher encourages the students to participate in the classroom discussions.
32. Teacher trains the students in writing essays related to new inventions and current affairs.
33. Teacher trains the students in writing essays related to their study tour program.
34. Teacher gives consideration to the opinion of the students.
35. Teacher encourages the self-study method of the students.
36. Teacher takes his class in way that all students can clearly hear and understand.
37. Teacher encourages the students to say the answers.
38. Teacher uses charts, maps, models and other teaching aids suitable for the lesson.
39. Students have doubts related to their subjects.
40. Teacher clears the doubts of the students on their lesson.
41. Teacher writes on the blackboard clearly and systematically.
42. Teacher trains the students to make teaching aids using cheap and waste materials.
43. Teacher encourages the students to observe the nature.
44. Teacher makes awareness about the importance of environmental cleanliness and protection of nature.
45. Teacher inspire the students to participate in 'Vijnanothsava+' and other public examinations.
46. Teacher tells the reference books useful for getting more knowledge about the subject studied.
47. Teacher gives inspiration to the students for joining voluntary organizations like scouts and guides.

Appendix XV

CLASSROOM ENVIRONMENTAL INVENTORY

RESPONSE SHEET

SL. No	YES	NO
1		
2		
3		
4		
5		
6		
7		
8		
9		
10		
11		
12		
13		
14		
15		
16		
17		
18		
19		
20		
21		
22		
23		
24		

SL. No	YES	NO
25		
26		
27		
28		
29		
30		
31		
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34		
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