CHAPTER FIVE

SUMMARY OF FINDINGS, CONCLUSIONS AND SUGGESTIONS

- Study in a Nutshell
- Major findings of the Study
- Tenability of Hypotheses
- Education implication Derived
- Suggestions for further Research
The chapter presents the summary of the study. It includes the
Restatement of the Problem, Objectives and Hypotheses of the Study and the
Methodology followed for the study. The chapter also presents the major
findings and conclusions drawn from the study. Educational implications and
Suggestion for Further Research are also given at the end of the chapter.

**Study in a Nutshell**

Present study was conducted to find the relative effectiveness of
Student Teams Achievement Divisions (STAD) Strategy of Cooperative
Learning and Technology Enriched Task Based Language Teaching
(TETBLT) over Activity Oriented Method of Teaching in terms of
Achievement in English and Self Regulation of standard VIII students. The
study was also to find out the effect of Instructional Strategies (STAD,
TETBLT and AOMT) Metacognitive Awareness on Achievement in English
and Self Regulation of Standard VIII students. A preliminary study was also
conducted on Attitude of Secondary School Teachers towards Instructional
Strategies.

**Restatement of the Problem**

The present study was stated as **Effect of Student Teams
Achievement Divisions Strategy and Technology Enriched Task Based
Language Teaching on Achievement in English and Self Regulation of
Standard VIII Students.**

**Variables of the study**

The independent, dependent and the control variables selected for this
present study were as the following:
Independent Variables.

Independent Variables selected for the study were Instructional Strategies (Student Teams Achievement Divisions (STAD) Strategy of Cooperative Learning, Technology Enriched Task Based Language Teaching (TETBLT) and Activity Oriented Method of Teaching) and Metacognitive Awareness.

Dependent Variable.

Achievement in English (Total and Skill Wise Scores) and Self Regulation were treated as Dependent variables.

Control Variables.

Variables controlled for the present study were Pre Experimental Status in terms of Achievement in English (Total and Skill Wise Scores) and Self Regulation, Verbal Intelligence, Nonverbal Intelligence and Classroom Environment.

Objectives of the Study

The present study included following objectives:

1. To explore the attitude of Secondary School English teachers towards Instructional Strategies in general and Cooperative Learning strategies and Task Based Language teaching in particular.

2. To study whether there exists any significant difference in the mean Achievement in English (Total and Skill wise scores) of the Experimental Group I (STAD), Experimental Group II (TETBLT) and the Control Group (AOMT) for the Total Sample, Boys and Girls.
3. To study whether there exists any significant difference in the mean Gain score of Achievement in English (Total and Skill wise Scores) of the Experimental Group I (STAD), Experimental Group II (TETBLT) and the Control Group (AOMT) for the Total Sample, Boys and Girls.

4. To study whether there exists any significant difference in the mean Self-regulation scores of the Experimental Group I (STAD), Experimental Group II (TETBLT) and the Control Group (AOMT) for the Total Sample, Boys and Girls.

5. To study whether there exists any significant difference in the mean Gain Score of Self-regulation of the Experimental Group I (STAD), Experimental Group II (TETBLT) and the Control Group (AOMT) for the Total Sample, Boys and Girls.

6. To study the effectiveness of Student Teams Achievement Divisions (STAD) Strategy of Cooperative Learning over Activity Oriented Method of Teaching (AOMT), if any, in terms of Achievement in English (Total and Skill wise scores) of standard VIII Students.

7. To study the effectiveness of Technology Enriched Task Based Language Teaching (TETBLT) over Activity Oriented Method of Teaching (AOMT), if any, in terms of Achievement in English (Total and Skill wise scores) of standard VIII Students.

8. To study the effectiveness of Student Teams Achievement Divisions (STAD) Strategy of Cooperative Learning over Technology Enriched Task Based Language Teaching (TETBLT), if any, in terms of Achievement in English (Total and Skill wise scores) of standard VIII Students.
9. To study the effectiveness of Student Teams Achievement Divisions (STAD) Strategy of Cooperative Learning over Activity Oriented Method of Teaching (AOMT), if any, in terms of Self-regulation of standard VIII Students.

10. To study the effectiveness of Technology Enriched Task Based Language Teaching (TETBLT) over Activity Oriented Method of Teaching (AOMT), if any, in terms of Self-regulation of standard VIII Students.

11. To study the effectiveness of Student Teams Achievement Divisions (STAD) Strategy of Cooperative Learning over Technology Enriched Task Based Language Teaching (TETBLT), if any, in terms of Self-regulation of standard VIII Students.

12. To study the main effect of Independent Variables (Instructional Strategies and Metacognitive Awareness) on Achievement in English (Total and Skill wise Scores) of standard VIII Students for the Total Sample, Boys and Girls.

13. To study the interaction effect of Independent Variables (Instructional Strategies and Metacognitive Awareness) on Achievement in English (Total and Skill wise Scores) of standard VIII Students for the Total Sample, Boys and Girls.

14. To study the main effect of Independent Variables (Instructional Strategies and Metacognitive Awareness) on Self-regulation of standard VIII Students for the Total Sample, Boys and Girls.

15. To study the interaction effect of Independent Variables (Instructional Strategies and Metacognitive Awareness) on Self-regulation of standard VIII Students for the Total Sample, Boys and Girls.
Hypotheses of the Study

The present study was designed to test the following hypotheses:

On the basis of the review of literature, the experiment was designed to test the following hypotheses.

1. There will be no significant difference in the mean Achievement in English (Total and Skill wise Scores) of the Experimental Group I (STAD), Experimental Group II (TETBLT) and the Control Group (AOMT) for the Total Sample, Boys and Girls.

2. There will be no significant difference in the mean Gain score of Achievement in English (Total and Skill wise Scores) of the Experimental Group I (STAD), Experimental Group II (TETBLT) and the Control Group (AOMT) for the Total Sample, Boys and Girls.

3. There will be no significant difference in the mean Self-regulation scores of the Experimental Group I (STAD), Experimental Group II (TETBLT) and the Control Group (AOMT) for the Total Sample, Boys and Girls.

4. There will be no significant difference in the mean gain score of Self-regulation of the Experimental Group I (STAD), Experimental Group II (TETBLT) and the Control Group (AOMT) for the Total Sample, Boys and Girls.

5. Students taught through Student Teams Achievement Divisions (STAD) Strategy of Cooperative Learning will not differ significantly than students taught through Activity Oriented Method of Teaching (AOMT), if any, in terms of Achievement in English (Total and Skill wise scores) of standard VIII Students.
6. Students taught through Technology Enriched Task Based Language Teaching (TETBLT) will not differ significantly than students taught through Activity Oriented Method of Teaching (AOMT), if any, in terms of Achievement in English (Total and Skill wise scores) of standard VIII Students.

7. Students taught through Student Teams Achievement Divisions (STAD) Strategy of Cooperative Learning will not differ significantly than students taught through Technology Enriched Task Based Language Teaching (TETBLT), if any, in terms of Achievement in English (Total and Skill wise scores) of standard VIII Students.

8. Students taught through Student Teams Achievement Divisions (STAD) Strategy of Cooperative Learning will not differ significantly than students taught through Activity Oriented Method of Teaching (AOMT), if any, in terms of Self-regulation of standard VIII Students.

9. Students taught through Enriched Task Based Language Teaching (TETBLT) will not differ significantly than students taught through Activity Oriented Method of Teaching (AOMT), if any, in terms of Self-regulation of standard VIII Students.

10. Students taught through Technology Student Teams Achievement Divisions (STAD) Strategy of Cooperative Learning will not differ significantly than students taught through Technology Enriched Task Based Language Teaching (TETBLT), if any, in terms of Self-regulation of standard VIII Students.

11. There will be no significant main effects of Independent Variables (Instructional Strategies and Metacognitive Awareness) on
Achievement in English (Total and Skill wise Scores) of standard VIII Students for the Total Sample, Boys and Girls.

12. There will be no significant interaction effect of Independent Variables (Instructional Strategies and Metacognitive Awareness) on Achievement in English (Total and Skill wise Scores) of standard VIII Students for the Total Sample, Boys and Girls.

13. There will be no significant main effects of Independent Variables (Instructional Strategies and Metacognitive Awareness) on Self-regulation of standard VIII Students for the Total Sample, Boys and Girls.

14. There will be no significant interaction effect of Independent Variables (Instructional Strategies and Metacognitive Awareness) on Self-regulation of standard VIII Students for the Total Sample, Boys and Girls.

Methodology

The methodology adopted for the study is outlined in this section. The study was conducted in three phases. First phase was a preliminary phase in which the researcher conducted a survey to study the attitude of Secondary School Teachers towards Instructional Strategies.

In the second phase, the study was found to find out the relative effectiveness of Student Teams Achievement Divisions (STAD) Strategy of Cooperative Learning, and Technology Enriched Task Based Language Teaching (TETBLT) over Activity Oriented Method of Teaching with regard to Achievement in English (Total and Skill wise Scores) and Self Regulation of standard VIII students.
In the third phase, researcher tried be find out the main and interaction effect, of Instructional Strategies (Student Teams Achievement Divisions (STAD) Strategy, Technology Enriched Task Based Language Teaching (TETBLT) and Activity Oriented Method of Teaching) and Metacognitive Awareness on Achievement in English (Total and Skill wise Scores) and Self Regulation of standard VIII students.

**Design of the study.**

The present study was conducted by employing Quasi Experimental Design. The Non Equivalent Groups Pretest Posttest Control and Comparison Groups Design used. In the present study, Experimental Group I was taught through the Student Teams Achievement Divisions (STAD) Strategy of Cooperative Learning; Experimental Group II was taught through the Technology Enriched Task Based Language Teaching (TETBLT) and the Control group, through the Activity Oriented Method of Teaching (AOMT).

**Sample for the study.**

Standard VIII Students studying in the Kerala syllabus schools where the population considered for the experimental study. The sample of consisted of three intact classrooms of 45 students each Total 135 students, in the Experimental Group I, II and the Control Group.

**Selection of Topics for Treatment.**

The topics for the treatment in the present study were selected from the syllabus prescribed for standard VIII students of Kerala for the academic year 2014-15. The topics selected were Unit III and Unit IV. The syllabus, curriculum, teacher's manual, textbook, and other learning materials have been studied in detail in advance. The researcher also consulted with the concerned teachers and experts for appropriate guidance and instructions.
Learning Materials and Tools Used for the Study.

The following learning materials and tools were used to measure the variables during the treatment in the Experimental and Control groups respectively.

Scale of Attitude Towards Instructional Strategies in Teaching English (Hameed & Sabna, 2014)

Scale of Attitude towards Instructional Strategies in Teaching English composed of three sections, I, II and III. In the first section in items to assess the attitude of Secondary School Teacher towards Instructional Strategies used in teaching English. Section II comprises items to assess the attitude of teachers towards Cooperative Learning Strategies. Section III consists of items to assess the attitude of teachers towards Task Based Language Teaching. In total, the final tool consists of 80 items in which positive and negative items.

Lesson Transcripts for Student Teams Achievement Divisions Strategy of Cooperative Learning (Hameed & Sabna, 2014).

The investigator prepared Lesson Transcripts for Student Teams Achievement Divisions Strategy of Cooperative Learning following the four phases (Details are given in Chapter 3) designed by Slavin (1995). These Lesson Transcripts were used for treatment in the Experimental Group I.

Lesson Transcripts for Technology Enriched Task Based Language Teaching – TETBLT (Hameed & Sabna, 2014).

The investigator prepared Lesson Transcripts for Technology Enriched Task Based Teaching (TETBLT) following the three phases (Details are given in Chapter 3) designed by Willis (1996). These Lesson Transcripts were used for treatment in the Experimental Group II.
Lesson Transcripts for Activity Oriented Method of Teaching (Hameed & Sabna, 2014). The Lesson Transcripts for Activity Oriented Method of Teaching which is the prevailing strategy practiced in secondary Schools in Kerala. These lesson transcripts were used for treatment in the Control group.

Scale of Metacognitive Awareness - SMA (Hameed, Sabna & Meharunnisa, 2014).

It is a three point scale with 52 items in final scale developed by six components namely, Knowledge of Self, Preparation and planning for learning, Conditional Knowledge, Selecting and using learning strategies, Monitoring and evaluating strategies and Evaluating of self.

Achievement Test in English- ATE (Hameed & Sabna, 2014).

The test is prepared on the basis of the two units ‘As We Shall We Reap’ and ‘Within and Without’ of English of standard VIII. This test was used as Pretest and Post-test on the selected units for treatment. The test consists of objective type items to evaluate the performance of students in English of the selected topics.

Test of Listening Skill in English- TLSE (Hameed & Sabna, 2014).

The test of listening English included stories, newspaper reports, announcement and picture based statements which were read out by the teacher. Based on this, objective type items were used to assess the listening skill of students.

Test of Speaking Skill in English- TSSE (Hameed & Sabna, 2014).

The Test of Speaking Skills in English is intended to assess the skill of students in speaking English. The Test includes items for speech construction
and picture description. The Test of Speaking Skills in English was evaluated using Speaking Test Rubrics which included evaluation criteria based on organisation, fluency, pronunciation, accuracy/grammar and vocabulary. Speaking Test Rubrics used for assessment.

**Speaking Evaluation Rubrics –SER (Hameed & Sabna, 2014).**

The Skill of Speaking was evaluated using Speaking Test Rubrics which included evaluation criteria based on organisation, fluency, pronunciation, accuracy/grammar and vocabulary.

**Test of Reading Comprehension in English – TRCE (Hameed & Sabna, 2014).**

Test of Reading Comprehension is used to evaluate the reading comprehension in English among students. The test includes objective type items for evaluating comprehension, grammar and vocabulary. The test also included descriptive type item for summarizing passage.

**Test of Writing Skill in English- TWSE (Hameed & Sabna, 2014).**

Test of Writing Skill in English evaluates the writing skill of students in English. The test includes descriptive items encompassing notice writing, poster preparation, formal and informal letter writing, proverb expansion, essay writing, preparing biography, diary writing and newspaper report writing.

**The Self-Regulation Questionnaire (SRQ) (Miller & Brown, 1991).**

In the present study, Self-Regulation Questionnaire -SRQ(Miller & Brown, 1991) is adapted to assess the Self-regulation among VIII standard students and was used as pretest and posttest of Self-regulation, before and after and the experimentation respectively. The researcher used seven step process in the original tool.
Verbal Group Test of Intelligence - VGTI (Kumar, Hameed & Prasanna, 1997).

For the present study, Verbal Intelligence - the Confounding variable was assessed using the Verbal Group Test of Intelligence (VGTI) developed by Kumar, Hameed, & Prasanna (1997). The test comprises of five subtests of twenty multiple choice items (Totally 100 items) by five components Verbal Analogy, Verbal classification, Numerical Reasoning, Verbal Reasoning and Comprehension.


Standard Progressive Matrices Test, developed by Raven (1958) was used to assess the Confounding Variable, Non-verbal Intelligence. The test comprises of five subtest of twelve items each and the maximum total score is 60.


This Inventory was used to assess the classroom environment of students. Twelve important areas of classroom situations were mentioned in the inventory to explain to students how to get a clear idea of the classroom environment.

General Data Sheet for Assessing Socio-Economic Status (SES).

To assess the Socio-Economic Status of the Students of Experimental and Control groups, this General Data Sheet was used. To collect the information regarding Income, Education and occupation of parents, nine columns each for father and mother, are included in the General Data Sheet.
Experimental Process.

Researcher contacted the heads of two schools and got the prior permission to conduct the experiments. Considering the feasibility and practicality, the researcher selected Experiment Group I and the Control from DGHSS Tanur, Malappuram, and Experiment Group II from GHSS, Niremerathur, Malappuram. The three groups were given same pre-test to measure the Pre-experimental Status in terms of Achievement in English and Self Regulation which were measured using standardized tools.

Treatment.

- Experiment Group I was taught using Student Teams Achievement Divisions (STAD) Strategy of Cooperative Learning. Twenty class periods each having a time duration of an average 40 minutes was prepared, according to the steps prepared by Slavin (1995).

- Experiment Group II was taught using and Technology Enriched Task Based Language Teaching –TETBLT.

- Control group was taught using the Activity Oriented Method of Teaching.

The topics selected and the time span was same for all the three groups selected.

During the course of the experiment, data on other variables such as Verbal Intelligence, Non-Verbal Intelligence, Metacognitive Awareness, Classroom Environment, and Socio-Economic status were collected from all the three groups using valid tools. Post Tests on Achievement in English and Self Regulation were conducted after the treatments in the respective groups.
After the data collection procedures, all the response sheets were scored in accordance with respective test manuals and scoring keys separately for each group. Scores of each tool were tabulated so as to do the analysis procedure.

**Statistical Techniques Used for the Study.**

The investigator followed both descriptive and inferential statistical techniques so as to reach the findings of the present study. The major statistical techniques used for the analysis were,

*Percentage Analysis* was used to find out the Attitude of Secondary School English Teachers towards the prevailing Instructional Strategies.

*Basic Descriptive Statistics* such as Mean, Median, Mode, Standard Deviation, Skewness and Kurtosis of each variable were calculated for Total Sample and separately for Boys and Girls. Nature of the distribution was identified using the measured descriptive statistics.

*One Way Analysis of Variance (ANOVA)* was employed to study whether there exists significant difference between the Experimental Group I (STAD), Experimental group II (TETBLT) and Control Group (AOMT) in case of Mean scores and Gain scores of Achievement in English (Total and Skill Wise) and Self Regulation without controlling the effects of Control variables. Graphical representations are also made suitably to compare the individual Post test scores and Gain scores of the three groups. It was also used to equate the Experimental Groups and the Control Group in terms of the Pre Experimental status of Achievement in English (Total and Skill Wise) and Self Regulation, Verbal Intelligence, Non-verbal Intelligence, Classroom Environment and, Socio-Economic Status.
Effect size was employed to find how much the effect of Instructional Strategies (STAD and TETBLT) on Achievement in English (Total and Skill Wise) and Self Regulation.

Two way Factorial Analysis of Covariance (ANCOVA) was used to find out the effectiveness of Student Teams Achievement Divisions (STAD) Strategy and Technology Enriched Task Based Language Teaching (TETBLT) over Activity Oriented Method of Teaching in terms of Achievement in English (Total and skill wise Scores) and Self Regulation after controlling the Covariates (Pre Experimental Status in terms of Achievement, Verbal Intelligence, Non Verbal Intelligence and Classroom Environment singly and in Combination).

Two-way Analysis of Variance (ANOVA) was employed to examine the main and interaction effects of Independent Variables (Instructional Strategies and Metacognitive Awareness) on Dependent Variables (Achievement in English Language- Total and Skill-wise scores and Self Regulation). In the study, 3 x 3 Factorial ANOVA consists of three levels of Instructional Strategies and three levels of Metacognitive Awareness.

Scheffe' Test of Post-hoc Comparison was used to compare the adjusted criterion means of the Experimental and Control groups to determine the advantageous groups in Covariance Analysis. In One Way ANOVA and Two Way ANOVA also, Scheffe' Test was used as a follow up analysis to study the group difference.

Major findings of the Study

Major findings of the present study are summarized in this section. Results are presented under two heads; Results of Preliminary Survey and Major Findings.
Results of Preliminary Survey

Preliminary analysis was done at the initial stage of the research so as to find the Attitude of Secondary School English Teachers towards Instructional Strategies used in Secondary School English Classrooms.

In Section I, out of 50 teachers, 14% of teachers are having high and positive attitude, 70% of teachers are having moderate attitude, and 16% of teachers are having low and negative attitude towards Instructional Strategies in teaching English.

In Section II, out of 50 teachers, 30% of teachers are having high and positive attitude, 50% of teachers are moderate attitude, 16% of teachers have low and negative attitude towards Cooperative Learning Strategies in English.

In Section III, out of 50 teachers; 20% of teachers are having high and positive attitude, 68% of teachers are having moderate attitude and 16% teachers are having low and negative attitude towards implementing Task based language teaching in English language teaching.

In all the sections, taken together, Secondary teachers have a moderate level of attitude towards Instructional Strategies used in Secondary School English Classrooms.

Major Findings

A concise discussion of the major findings of the study is presented in this section of the report. One Way ANOVA, was used to compare the three groups of Instructional strategies for relevant variables. Two Way Factorial ANCOVA was employed to investigate the effectiveness of Student Teams Achievement Divisions (STAD) Strategy and Technology Enriched Task
Based Language Teaching (TETBLT) over Activity Oriented Method of Teaching) in terms of Achievement in English (Total and skill wise) and Self Regulation. In ANCOVA, Pre Experimental Status of Achievement in English (Total and Skill Wise scores) and Self Regulation, Verbal Intelligence, Non-verbal Intelligence and Classroom Environment as Covariates singly and in combination is used as covariates. In addition to the Covariance Analysis, Two way ANOVA were undertaken to examine the main and interaction effects of Instructional Strategies ((STAD,TETBLT and Control) and Metacognitive Awareness and Achievement in English (Total and Skill Wise)and Self Regulation for Total Sample, Boys and Girls.

Results of One Way ANOVA.

One Way ANOVA was done be find whether there exist any significant difference between Experimental Group I (STAD), Experimental group II (TETBLT), and the Control Group (Total Sample, Boys and Girls) in case of Mean scores and Gain Scores of Achievement in English (Total and Skill wise scores) and Self Regulation, without controlling the covariates. Scheffe' Test of Post-hoc Comparison was used as a follow-up analysis, wherever the Independent Variable (Instructional Strategies) have significant effect on Achievement in English (Total and Skill wise scores) and Self Regulation, to determine the group, which caused the group difference in terms of the Dependent Variable.

One Way Analysis of Variance for Mean Achievement in English.

The One Way Analysis of Variance was executed to find the effect of Instructional Strategies (STAD, TETBLT and Control) on Achievement in English (Total and Skill wise scores) for the Total Sample, Boys and Girls, and is presented in the following order.
1) **Effect of Instructional Strategies (STAD, TETBLT and Control - AOMT) on Achievement in English (Total and Skill wise Scores) for the Total Sample.**

The main effect of Instructional Strategies (STAD, TETBLT, Control) on Achievement in English (Total score and Skill wise Scores) is significant \((p<.01)\) for the Total Sample. Mean Achievement in English (Total score and Skill wise Scores) differ significantly among STAD, TETBLT, Control groups.

i) STAD group shows significantly higher levels of Achievement in English (Total score and Skill wise Scores) than Control group \((p <.01)\).

ii) TETBLT group shows significantly higher levels of Achievement in English (Total score and Skill wise Scores) than Control group \((p <.01)\).

iii) STAD group shows significantly higher levels of Achievement in English (Total and Skill wise Scores) than TETBLT Group \((p <.01)\) for the Total sample.

**Effect size.**

Effect Size was calculated using Cohen's \(d\) for Achievement in English (Total and Skill wise Scores) to measure the magnitude of effect as the mean difference were found significant for Total sample.

The Value Cohen’s \(d\) for Achievement in English (Total score) is greater than 0.8 and come under the category 'Large'.

The value of Cohen’s \(d\) for Achievement in English (Listening Skill) is greater than 0.8. and the effect size come under the Cohen's category' Large'
Cohen’s d for Achievement in English (Speaking Skill) is greater than 0.5 and this come under the category 'Medium'.

value of Cohen’s d for Achievement in English (Reading) is greater than 0.8 and the effect size come under the Cohen's category' Large'.

Cohen’s d for Achievement in English (Writing Skill) is greater than 0.8. So the effect size come under the Cohen's category 'Large'.

Hence it can be inferred that STAD Strategy has Large effect in enhancing Achievement in English (Total score and Skill wise scores) except Listening which has a medium effect in enhancing Achievement in English, of standard VIII students when compared to TETBLT.

2) Effect of Instructional Strategies (STAD, TETBLT and Control - AOMT) on Achievement in English (Total and Skill wise Scores) for Boys.

The main effect of Instructional Strategies (STAD, TETBLT, Control) on Achievement in English (Total score and Skill wise Scores) is significant ($p<.01$) for the Boys. Mean Achievement in English (Total score and Skill wise Scores) differ significantly among STAD, TETBLT, Control groups.

i) STAD group shows significantly higher levels of Achievement in English (Total and Skill wise) than the Control group ($p < .01$).

ii) TETBLT group shows significantly higher levels of Achievement in English (Total and Skill wise Scores) than Control group ($p < .01$), except Listening Skill ($p < .05$).

iii) STAD groups shows significantly higher levels of Achievement in English (Total) than the TETBLT group ($p < .05$). STAD groups shows significantly higher levels of Achievement in English (Skill wise
scores in Listening \((p < .01)\), Reading and Writing \((p < .05)\), than TETBLT group, except for Speaking skill \((p = \text{n.s.})\).

3) **Effect of Instructional Strategies (STAD, TETBLT and Control - AOMT)) on Achievement in English (Total and Skill wise Scores) for the Girls.**

The effect of Instructional Strategies (STAD, TETBLT, Control) on Achievement in English (Total score and Skill wise Scores) is significant \((p < .01)\) for Girls. Mean Achievement in English (Total score and Skill wise Scores) differ significantly among STAD, TETBLT, Control groups.

i) STAD group shows significantly higher levels of Achievement in English (Total and Skill wise) than Control group \((p < .01)\).

ii) TETBLT group shows significantly higher levels of Achievement in English (Total and Skill wise Scores) than Control group \((p < .01)\), except Listening Skill \((p < .05)\).

iii) STAD groups shows significantly higher levels of Achievement in English (Total and Skill wise scores) than the TETBLT group \((p < .01)\).

**One Way Analysis of Variance for Mean Scores Gain Scores of Achievement in English.**

The One Way Analysis of Variance was executed to find the effect of Instructional Strategies (STAD, TETBLT and Control) on Mean Gain Scores of Achievement in English (Total and Skill wise scores) for the Total Sample, Boys and Girls, and is presented in the following order.
4) Effect of Instructional Strategies (STAD, TETBLT and Control - AOMT) on Mean Gain Scores of Achievement in English (Total and Skill wise Scores) for the Total Sample

The main effect of Instructional Strategies (STAD, TETBLT, Control) on Mean Gain Scores of Achievement in English (Total score and Skill wise Scores) is significant \((p<.01)\) for the Total Sample. Mean Gain Scores of Achievement in English (Total score and Skill wise Scores) differ significantly among STAD, TETBLT, Control groups.

i) STAD group shows significantly higher levels of Mean Gain Scores of Achievement in English (Total score and Skill wise Scores) than Control group \((p <.01)\).

ii) TETBLT group shows significantly higher levels of Mean Gain Scores of Achievement in English (Total score and Skill wise Scores) than Control group \((p <.01)\).

iii) STAD group shows significantly higher levels of Mean Gain Scores of Achievement in English (Total and Skill wise Scores) than TETBLT Group \((p<.01)\).

5) Effect of Instructional Strategies (STAD, TETBLT and Control - AOMT) on Mean Gain Scores of Achievement in English (Total and Skill wise Scores) for the Boys.

The main effect of Instructional Strategies (STAD, TETBLT, Control) on Mean Gain Scores of Achievement in English (Total score and Skill wise Scores) is significant \((p<.01)\) for the Boys. Mean Gain Scores of Achievement in English (Total score and Skill wise Scores) differ significantly among STAD, TETBLT, Control groups.
STAD and TETBLT on Achievement and Self Regulation

i) STAD group shows significantly higher levels of Mean Gain Scores of Achievement in English (Total and Skill wise) than Control group \((p < .01)\).

ii) TETBLT group shows significantly higher levels of Mean Gain Scores of Achievement in English (Total and Skill wise Scores) than Control group \((p < .01)\).

iii) STAD groups shows significantly higher levels of Mean Gain Scores of Achievement in English (Total) than the TETBLT group \((p < .05)\). STAD groups shows significantly higher levels of Achievement in English (Skill wise scores \((p < .05)\), except in Listening skills \((p < .01)\).

6) Effect of Instructional Strategies (STAD, TETBLT and Control - AOMT) on Mean Gain Scores of Achievement in English (Total and Skill wise Scores) for Girls.

The main effect of Instructional Strategies (STAD, TETBLT, Control) on Mean Gain Scores of Achievement in English (Total score and Skill wise Scores) is significant \((p < .01)\) for Girls. Mean Gain Scores of Achievement in English (Total score and Skill wise Scores) differ significantly among STAD, TETBLT, Control groups.

i) STAD group shows significantly higher levels of Mean Gain Scores of Achievement in English (Total score and Skill wise Scores) than Control group \((p < .01)\).

ii) TEBLT group shows significantly higher levels of Mean Gain Scores of Achievement in English (Total score and Skill wise Scores) than Control group \((p < .01)\).
iii) STAD group shows significantly higher levels of Mean Gain Scores of Achievement in English (Total and Skill wise Scores) than TETBLT Group ($p<.01$).

**One Way Analysis of Variance for Mean Self Regulation.**

The One Way Analysis of Variance was executed to find the effect of Instructional Strategies (STAD, TETBLT and Control) on Self Regulation for the Total Sample, Boys and Girls, and is presented in the following order.

7) **Effect of Instructional Strategies (STAD, TETBLT and Control - AOMT) on Self Regulation of Standard VIII Students for Total Sample.**

The main effect of Instructional Strategies (STAD, TETBLT, Control) on Self Regulation is significant ($p<.01$) for the Total Sample. Mean Self Regulation differ significantly among STAD, TETBLT, Control groups.

i) STAD group shows significantly higher levels of Self Regulation than Control group ($p<.01$).

ii) TEBLT group shows significantly higher levels of Self Regulation than Control group ($p<.01$).

iii) STAD group shows significantly higher levels of Self Regulation than TETBLT Group ($p<.01$).

**Effect Size**

Effect Size was calculated using Cohen’s d for Self Regulation to measure the magnitude of effect as the mean difference were found significant for Total sample.

The values of Cohen’s d for Self Regulation are greater than 0.5. So the effect size come under the Cohen's category 'medium' and hence it can be
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inferred that Student Teams Achievement Division (STAD) strategy has medium effect in enhancing Self Regulation of standard VIII students when compared to Technology Enriched Task Based Language Teaching (TETBLT).

8) **Effect of Instructional Strategies (STAD, TETBLT and Control - AOMT) on Self Regulation of Standard VIII Students for Boys.**

The main effect of Instructional Strategies (STAD, TETBLT, Control) on Self Regulation is significant \((p<.01)\) for the Boys. Mean Self Regulation differ significantly among STAD, TETBLT, Control groups.

i) STAD group shows significantly higher levels of Self Regulation than Control group \((p <.01)\).

ii) TEBLT group shows significantly higher levels of Self Regulation than Control group \((p <.01)\).

iii) STAD group shows significantly higher levels of Self Regulation than TETBLT Group \((p<.05)\).

9) **Effect of Instructional Strategies (STAD, TETBLT and Control - AOMT) on Self Regulation of Standard VIII Students for Girls.**

The main effect of Instructional Strategies (STAD, TETBLT, Control) on Self Regulation is significant \((p<.01)\) for Girls. Mean Self Regulation differ significantly among STAD, TETBLT, Control groups.

i) STAD group shows significantly higher levels of Self Regulation than Control group \((p <.01)\).

ii) TEBLT groups shows significantly higher levels of Self Regulation than Control group \((p <.01)\).
iii) STAD group shows significantly higher levels of Self Regulation than TETBLT Group ($p<.05$).

**One Way Analysis of Variance for Mean Gain Score of Self Regulation.**

The One Way Analysis of Variance was executed to find the effect of Instructional Strategies (STAD, TETBLT and Control) on Mean gain Scores Self Regulation for the Total Sample, Boys and Girls, and is presented in the following order

10) Effect of Instructional Strategies (STAD, TETBLT and Control - AOMT)) on mean Gain scores Self Regulation for the Total Sample.

The main effect of Instructional Strategies (STAD, TETBLT, Control) on Mean Gain scores of Self Regulation is significant ($p<.01$) for the Total Sample. Mean Self Regulation differ significantly among STAD, TETBLT, Control groups.

i) STAD group shows significantly higher levels of Self Regulation than Control group ($p<.01$).

ii) TEBLT group shows significantly higher levels of Self Regulation than Control group ($p<.01$).

iii) STAD group shows significantly higher levels of Self Regulation than TETBLT Group ($p<.01$).
11) Effect of Instructional Strategies (STAD, TETBLT and Control - AOMT) on mean Gain scores Self Regulation for Boys.

The main effect of Instructional Strategies (STAD, TETBLT, Control) on Mean Gain scores of Self Regulation is significant ($p<.01$) for Boys. Mean Self Regulation differ significantly among STAD, TETBLT, Control groups.

i) STAD group shows significantly higher levels of Self Regulation than Control group ($p <.01$).

ii) TETBLT group shows significantly higher levels of Self Regulation than Control group ($p <.01$).

iii) STAD group shows significantly higher levels of Self Regulation than TETBLT Group ($p< \text{n.s.}$).

12) Effect of Instructional Strategies (STAD, TETBLT and Control - AOMT) on mean Gain scores Self Regulation for Girls.

The main effect of Instructional Strategies (STAD, TETBLT, Control) on Mean Gain scores of Self Regulation is significant ($p<.01$) for Girls. Mean Self Regulation differ significantly among STAD, TETBLT, Control groups.

i) STAD group shows significantly higher levels of Self Regulation than Control group ($p <.01$).

ii) TETBLT group shows significantly higher levels of Self Regulation than Control group ($p <.01$).

iii) STAD group shows significantly higher levels of Self Regulation than TETBLT Group ($p <.01$).
Results of the Covariance Analysis for Achievement in English

Results of ANCOVA done to find out the effectiveness of Student Teams Achievement Divisions (STAD) Strategy and Technology Enriched Task Based Language Teaching (TETBLT) over Activity Oriented Method of Teaching) in terms of Achievement in English (Total and skill wise) after controlling the Covariates (Pre Experimental Status in terms of Achievement, Verbal Intelligence, Non Verbal Intelligence and Classroom Environment in Combination) for Total Sample is presented in the following section.

13) Effectiveness of Instructional Strategies on Achievement in English (Total Score and Skill Wise) – Pre Experimental Status in Achievement Controlled

i. Effectiveness of STAD and TETBLT Groups over the Control Group in terms of Achievement in English (Total and Skill wise score) is significant \((p<.01)\) for the Total Sample. Achievement in English (Total and Skill wise score) differ significantly among STAD, TETBLT, and AOMT groups even after controlling the Pre Experimental Status in Achievement in English (Total and Skill wise score).

ii. STAD group shows significantly higher levels of Achievement in English (Total and Skill wise score) than Control group \((p<.01)\).

iii. TETBLT Group shows significantly higher levels of Achievement in English (Total and Skill wise score) than Control group \((p<.01)\).

iv. STAD group shows significantly higher levels of Achievement in English (Total and Skill wise score) than TETBLT Group \((p<.01)\) for Total Sample.
14) Effectiveness of Instructional Strategies on Achievement in English (Total Score and Skill Wise) – Verbal Intelligence as Covariate.

i. Effectiveness of STAD and TETBLT Groups over the Control Group in terms of Achievement in English (Total and Skill wise score) is significant \((p<.01)\) for the Total Sample. Achievement in English (Total and Skill wise score) differ significantly among STAD, TETBLT, and AOMT groups even after controlling the Verbal Intelligence in Achievement in English (Total and Skill wise score).

ii. STAD group shows significantly higher levels of Achievement in English (Total and Skill wise) score than Control group \((p<.01)\).

iii. TETBLT Group shows significantly higher levels of Achievement in English (Total and Skill wise) score than Control group \((p<.01)\).

iv. STAD group shows significantly higher levels of Achievement in English (Total and Skill wise) score than TETBLT Group \((p<.01)\) for Total Sample.

15) Effectiveness of Instructional Strategies on Achievement in English (Total Score and Skill Wise) – Non-Verbal Intelligence as Covariate.

i. Effectiveness of STAD and TETBLT Groups over the Control Group in terms of Achievement in English (Total and Skill wise score) is significant \((p<.01)\) for the Total Sample. Achievement in English (Total and Skill wise score) differ significantly among STAD, TETBLT, and AOMT groups even after controlling the Non-Verbal Intelligence in Achievement in English (Total and Skill wise score).
ii. STAD group shows significantly higher levels of Achievement in English (Total and Skill wise) score than Control group \( (p<.01) \)

iii. TETBLT Group shows significantly higher levels of Achievement in English (Total and Skill wise) score than Control group \( (p<.01) \).

iv. STAD group shows significantly higher levels of Achievement in English (Total and Skill wise) score than TETBLT Group \( (p<.01) \) for Total Sample.

16) Effectiveness of Instructional Strategies on Achievement in English (Total Score and Skill Wise) – Classroom Environment as Covariate.

i. Effectiveness of STAD and TETBLT Groups over the Control Group in terms of Achievement in English (Total and Skill wise score) is significant \( (p<.01) \) for the Total Sample. Achievement in English (Total and Skill wise score) differ significantly among STAD, TETBLT, and AOMT groups even after controlling the Classroom Environment in Achievement in English (Total and Skill wise score).

ii. STAD group shows significantly higher levels of Achievement in English (Total and Skill wise) score than Control group \( (p<.01) \).

iii. TETBLT Group shows significantly higher levels of Achievement in English (Total and Skill wise) score than Control group \( (p<.01) \).

iv. STAD group shows significantly higher levels of Achievement in English (Total and Skill wise) score than TETBLT Group \( (p<.01) \) for Total Sample.
17) **Effectiveness of Instructional Strategies on Achievement in English (Total and Skill wise – Four Covariates in Combination).**

i. Effectiveness of STAD and TETBLT Groups over the Control Group in terms of Achievement in English (Total and Skill wise score) is significant \( (p<.01) \) for the Total Sample. Achievement in English (Total and Skill wise score) differ significantly among STAD, TETBLT, and AOMT groups even after controlling the Covariates in Combination on Achievement in English (Total and Skill wise score).

ii. STAD group shows significantly higher levels of Achievement in English (Total and Skill wise) score than Control group \( (p<.01) \).

iii. TETBLT Group shows significantly higher levels of Achievement in English (Total and Skill wise) score than Control group \( (p<.01) \).

iv. STAD group shows significantly higher levels of Achievement in English (Total and Skill wise) score than TETBLT Group \( (p<.01) \) for Total Sample.

**Results of the Covariance Analysis for Self Regulation**

Results of ANCOVA done to find out the effectiveness of Student Teams Achievement Divisions (STAD) Strategy and Technology Enriched Task Based Language Teaching (TETBLT) over Activity Oriented Method of Teaching) in terms of Self Regulation after controlling the Covariates (Pre Experimental Status in terms of Achievement, Verbal Intelligence, Non Verbal Intelligence and Classroom Environment in Combination) for Total Sample is presented in the following section.
18) Effectiveness of Instructional Strategies on Self Regulation – Pre Experimental Status in Achievement Controlled

i) Effectiveness of STAD and TETBLT Groups over the Control Group in terms of Self Regulation of standard VIII students is significant ($p<.01$) for the Total Sample. Self Regulation score differ significantly among STAD, TETBLT, and AOMT groups even after controlling the Pre Experimental Status in Self Regulation.

ii) STAD group shows significantly higher levels of Self Regulation than Control group ($p<.01$)

iii) TETBLT Group shows significantly higher levels of Self Regulation than Control group ($p<.01$).

iv) STAD group shows significantly higher levels Self Regulation than TETBLT Group ($p<.01$) for Total Sample.

19) Effectiveness of Instructional Strategies on Self Regulation (Total Score and Skill Wise) – Verbal Intelligence as Covariate.

i) Effectiveness of STAD and TETBLT Groups over the Control Group in terms of Self Regulation of standard VIII students is significant ($p<.01$) for the Total Sample. Self Regulation score differ significantly among STAD, TETBLT, and AOMT groups even after controlling the Verbal Intelligence.

ii) STAD group shows significantly higher levels of Self Regulation than Control group ($p<.01$)

iii) TETBLT Group shows significantly higher levels of Self Regulation than Control group ($p<.01$).
iv) STAD group shows significantly higher levels of Self Regulation than TETBLT Group ($p<.01$) for Total Sample.

20) Effectiveness of Instructional Strategies on Self Regulation (Total Score and Skill Wise) – Non- Verbal Intelligence as Covariate.

i) Effectiveness of STAD and TETBLT Groups over the Control Group in terms of Self Regulation of standard VIII students is significant ($p<.01$) for the Total Sample. Self Regulation score differ significantly among STAD, TETBLT, and AOMT groups even after controlling the Non-Verbal Intelligence.

ii) STAD group shows significantly higher levels of Self Regulation than Control group ($p<.01$)

iii) TETBLT Group shows significantly higher levels of Self Regulation than Control group ($p<.01$).

iv) STAD group shows significantly higher levels of Self Regulation than TETBLT Group ($p<.01$) for Total Sample.

21) Effectiveness of Instructional Strategies on Self Regulation – Classroom Environment as Covariate.

i) Effectiveness of STAD and TETBLT Groups over the Control Group in terms of Self Regulation of standard VIII students is significant ($p<.01$) for the Total Sample. Self Regulation score differ significantly among STAD, TETBLT, and AOMT groups even after controlling the Classroom Environment.

ii) STAD group shows significantly higher levels of Self Regulation than Control group ($p<.01$)
iii) TETBLT Group shows significantly higher levels of Self Regulation than Control group ($p<.01$).

iv) STAD group shows significantly higher levels of Self Regulation than TETBLT Group ($p<.01$) for Total Sample.

22) Effectiveness of Instructional Strategies on Self Regulation-
Four Covariates in Combination

i). Effectiveness of STAD and TETBLT Groups over the Control Group in terms of Self Regulation of standard VIII students is significant ($p<.01$) for the Total Sample. Self Regulation differ significantly among STAD, TETBLT, and AOMT groups even after controlling the Covariates in Combination in case of Self Regulation.

ii) STAD group shows significantly higher levels of Self Regulation score than Control group ($p<.01$)

iii) TETBLT Group shows significantly higher levels of Self Regulation score than Control group ($p<.01$).

iv) STAD group shows significantly higher levels of Self Regulation score than TETBLT Group ($p<.01$) for Total Sample.

Results of the Two Way Analysis of Variance (ANOVA) for Achievement in English

In the present study, Two Way ANOVA was utilized to examine whether any change in the levels of the Independent Variables (Instructional Strategies and Metacognitive Awareness) create variation in Achievement in English (Total score and Skill Wise score) or not. Scheffe's Test of Post-hoc Comparison was used as a follow-up analysis, wherever the Independent Variables have significant main effect on Achievement in English (Total
score and Skill Wise score). Results of the Analysis of Variance for Achievement in English (Total score and Skill Wise score) for the Total Sample, Boys and Girls are presented briefly in this section of the findings.

Two way Analysis of Variance (ANOVA) for Achievement in English (Total and Skill wise Scores).

The results of Two Way ANOVA undertaken to investigate the main and interaction effects of Instructional Strategies (STAD, TETBLT, and Control) and Metacognitive Awareness on Achievement in English (Total and Skill wise Scores) are summarised in this section.

23. Main and of interaction effects of Instructional Strategies and Metacognitive Awareness on Achievement in English (Total and Skill wise Scores) for Total Sample.

The $F$-values, obtained for the main effect of Instructional Strategies on Achievement in English (Total and Skill wise Scores) are significant ($p < .01$).

The $F$-values, obtained for the main effect of Metacognitive Awareness on Achievement in English (Total and Skill wise Scores) are not significant ($p = n.s.$)

The $F$-values, obtained for the interaction effect of Instructional Strategies and Metacognitive Awareness on Achievement in English (Total and Skill wise Scores) for Total sample are not significant ($p = n.s.$).

Scheffe' Test of Post-hoc Comparison Based on Three Groups of Instructional Strategies

The F ratio obtained for the comparison between three groups of Instructional strategies (STAD- Control, STAD-TETBLT and TETBLT) for
the variable Achievement in English (Total and for relevant skills) for the Total Sample, are found significant ($p < .01$). There exists significant difference between the three levels of Instructional Strategies (STAD Strategy, TETBLT and AOMT) for the Total sample.

STAD and TETBLT groups reported significantly higher Achievement in English (Total and for relevant Skillwise Scores) than the Control Group for Total sample.

In all comparisons, STAD Group reported significantly higher Achievement in English (Total and Skillwise Scores) than the TETBLT group.

Among the three Instructional Strategies STAD group contribute much to Achievement in English (Total and Skillwise Scores) than TETBLT and AOMT.

24) Main and interaction effects of Instructional Strategies and Metacognitive Awareness on Achievement in English (Total and Skill wise Scores) for Boys.

The $F$-values, obtained for the main effect of Instructional Strategies on Achievement in English (Total and Skill wise Scores) are significant ($p < .01$).

The $F$-values, obtained for the main effect of Metacognitive Awareness on Achievement in English (Total and Skill wise Scores) are not significant ($p = n.s.$)

The $F$-values, obtained for the interaction effect of Instructional Strategies and Metacognitive Awareness on Achievement in English (Total and Skill wise Scores) for Boys are not significant ($p = n.s.$).
Scheffe' Test of Post-hoc Comparison Based on Three Groups of Instructional Strategies

The F ratio obtained for the comparison between three groups of Instructional strategies (STAD- Control, STAD-TETBLT and TETBLT) for the variable Achievement in English (Total and skillwise scores) for the Boys, are found significant, except for some skills. There exists significant difference between the three levels of Instructional Strategies (STAD Strategy, TETBLT and AOMT) for Boys.

STAD and TETBLT groups reported significantly higher Achievement in English (Total and for Skillwise Scores) than the Control Group for Boys.

In all comparisons, STAD Group reported significantly higher Achievement in English (Total and for Skillwise Scores) than the TETBLT group.

Among the three Instructional Strategies STAD contribute much to Achievement in English than TETBLT and AOMT.

25) Main and interaction effects of Instructional Strategies and Metacognitive Awareness on Achievement in English (Total and Skill wise Scores) for Girls.

The F-values, obtained for the main effect of Instructional Strategies on Achievement in English (Total and Skill wise Scores) are significant ( \( p < .01 \)).

The F-values, obtained for the main effect of Metacognitive Awareness on Achievement in English (Total and Skill wise Scores) are not significant ( \( p = n.s. \))
The $F$-values, obtained for the interaction effect of Instructional Strategies and Metacognitive Awareness on Achievement in English (Total and Skill wise Scores) for Girls are not significant ($p = n.s.$).

**Scheffe' Test of Post-hoc Comparison Based on Three Groups of Instructional Strategies**

The F ratio obtained for the comparison between three groups of Instructional strategies (STAD- Control, STAD-TETBLT and TETBLT) for the variable Achievement in English (Total and for relevant skills) for the Girls, are found significant, except for some skills. There exists significant difference between the three levels of Instructional Strategies (STAD Strategy, TETBLT and AOMT) for Boys.

STAD and TETBLT groups reported significantly higher Achievement in English (Total and Skillwise Scores) than the Control Group for Girls.

In all comparisons, STAD Group reported significantly higher Achievement in English (Total and Skillwise Scores) than the TETBLT group.

Among the three Instructional Strategies STAD contribute much to Achievement in English than TETBLT and AOMT.

**Analysis of Variance for Self Regulation**

Two way ANOVA was undertaken to study the main and interaction effects of Instructional Strategies and Metacognitive Awareness on Self Regulation for the Total sample, Boys and Girls. The results of two-way ANOVA are presented and discussed in this subsection of analysis.
**STAD and TETBLT on Achievement and Self Regulation**

26) **Main and Interaction Effects of Instructional Strategies and Metacognitive Awareness on Self Regulation for Total Sample.**

*F*-values obtained for the main effect of Instructional Strategies on Self Regulation is significant (*p*<.01).

The *F*-value, obtained for the main effect of Metacognitive Awareness on Self Regulation for the Total sample is not significant, (*p* = .n.s.).

The *F*-value obtained for the interaction effect of Instructional Strategies and Metacognitive Awareness on Self Regulation for Total sample is not significant, (*p* = n.s.).

**Scheffe' Test of Post-hoc Comparison Based on Three Groups of Instructional Strategies for Total Sample**

*F* ratio obtained for the comparison between three groups of Instructional strategies (STAD- Control, STAD-TETBLT and TETBLT) are found significant (*p*<.01).

From the result it is revealed that there exists significant difference between the three levels of Instructional Strategies (STAD Strategy, TETBLT and AOMT) with reference to the mean Self Regulation for the Total sample.

STAD and TETBLT groups reported significantly higher Self Regulation than the Control Group for Total sample.

In all comparisons, STAD Group reported significantly higher Self Regulation than the TETBLT group.

Among the three Instructional Strategies STAD contribute much to Self Regulation than TETBLT and AOMT.
Main and Interaction Effects of Instructional Strategies and Metacognitive Awareness on Self Regulation for Boys.

F-values obtained for the main effect of Instructional Strategies on Self Regulation is significant \((p<.01)\).

The \(F\)-value, obtained for the main effect of Metacognitive Awareness on Self Regulation for Boys is not significant, \((p=\text{n.s.})\).

The \(F\)-value obtained for the interaction effect of Instructional Strategies and Metacognitive Awareness on Self Regulation is not significant, \((p=\text{n.s.})\).

Scheffe' Test of Post-hoc Comparison Based on Three Groups of Instructional Strategies for Boys.

F ratio obtained for the comparison between three groups of Instructional strategies (STAD- Control, STAD-TETBLT and TETBLT) are found significant \((p<.01)\).

From the result it is revealed that there exists significant difference between the three levels of Instructional Strategies (STAD Strategy, TETBLT and AOMT) with reference to the mean Self Regulation for Boys.

STAD and TETBLT groups reported significantly higher Self Regulation than the Control Group for Boys.

In all comparisons, STAD Group reported significantly higher Self Regulation than the TETBLT group.

Among the three Instructional Strategies STAD contribute much to Self Regulation than TETBLT and AOMT.
28) **Main and Interaction Effects of Instructional Strategies and Metacognitive Awareness on Self Regulation for Girls.**

*F*-values obtained for the main effect of Instructional Strategies on Self Regulation is significant (*p* < .01).

The *F*-value, obtained for the main effect of Metacognitive Awareness on Self Regulation for Girls is not significant, (*p* = n.s.).

The *F*-value obtained for the interaction effect of Instructional Strategies and Metacognitive Awareness on Self Regulation is not significant, (*p* = n.s.).

**Scheffe' Test of Post-hoc Comparison Based on Three Groups of Instructional Strategies for Girls.**

F ratio obtained for the comparison between three groups of Instructional strategies (STAD- Control, STAD-TETBLT and TETBLT) are found significant (*p* <.01).

From the result it is revealed that there exists significant difference between the three levels of Instructional Strategies (STAD Strategy, TETBLT and AOMT) with reference to the mean Self Regulation for Girls.

STAD and TETBLT groups reported significantly higher Self Regulation than the Control Group for Girls.

In all comparisons, STAD Group reported significantly higher Self Regulation than the TETBLT group.

Among the three Instructional Strategies STAD contribute much to Self Regulation than TETBLT and AOMT.
Tenability of Hypotheses

The tenability of the hypotheses stated for the present experimental study are examined on considering the major findings of the study.

1. Hypothesis one states that “There will be no significant difference in the mean Achievement in English (Total and Skill wise Scores) of the Experimental Group I (STAD), Experimental Group II (TETBLT) and the Control Group (AOMT) for the Total Sample, Boys and Girls.

For the Total Score, Analysis of the data revealed that the effect of Instructional Strategies on Mean Achievement in English (Total and Skill wise scores is significant $(p<.01)$ in 15 out of 15 ANOVA. Mean scores of the Achievement differ significantly among STAD, TETBLT, and AOMT for the Total Sample, Boys and Girls. Thus the first hypothesis is rejected.

2. Hypothesis two states that “There will be no significant difference in the mean Gain score of Achievement in English (Total and Skill wise Scores) of the Experimental Group I (STAD), Experimental Group II (TETBLT) and the Control Group (AOMT) for the Total Sample, Boys and Girls”.

For the Total Score, Analysis of the data revealed that the effect of Instructional Strategies on Mean Gain of Achievement in English (Total and Skill Wise scores is significant $(p<.01)$ for 15 out of 15 ANOVA. Mean gain scores of the Achievement differ significantly among STAD, TETBLT, and AOMT for the Total Sample, Boys and Girls. Thus the second hypothesis is rejected.

3. Hypotheses three states that “There will be no significant difference in the mean Self-regulation scores of the Experimental Group I (STAD),
Experimental Group II (TETBLT) and the Control Group (AOMT) for the Total Sample, Boys and Girls.”.

Analysis of the data revealed that the effect of Instructional Strategies on Mean Self Regulation scores is significant (p<.01) for Total Sample Boys and Girls in 3 out of 3 ANOVA. Mean Self Regulation differ significantly among STAD, TETBLT, and AOMT for the Total Sample, Boys and Girls. Hence the third hypothesis is rejected.

4. Hypothesis four states that “There will be no significant difference in the mean gain score of Self-regulation of the Experimental Group I (STAD), Experimental Group II (TETBLT) and the Control Group (AOMT) for the Total Sample, Boys and Girls.”

Analysis of the data revealed that the effect of Instructional Strategies on Mean Gain scores of Self Regulation scores is significant (p<.01) for Total Sample, Boys and Girls in 3 out of 3 ANOVA. Mean Gain scores of Self Regulation differ significantly among STAD, TETBLT, and AOMT for the Total Sample, Boys and Girls. Hence the fourth hypothesis is rejected.

5. Hypothesis five states that “Students taught through Student Teams Achievement Divisions (STAD) Strategy of Cooperative Learning will not differ significantly than students taught through Activity Oriented Method of Teaching (AOMT), if any, in terms of Achievement in English (Total and Skill wise scores) of standard VIII Students”.

In the ANCOVA for Achievement in English (Total and Skill wise Scores), significant F-values (p<.01) were obtained for Instructional Strategies in 25 out of 25 ANCOVA when Pre-Experimental status in terms of Achievement in English (Total and Skill wise Scores), Verbal Intelligence, Non-verbal Intelligence and Classroom Environment are controlled singly and
in combination. Results of the Post-hoc comparison also yielded significant difference \((p<.01)\) in favour of the STAD Strategy over Activity Oriented Method of Teaching. Therefore, the result of ANCOVA with the Dependent Variable, Achievement in English (Total and Skill wise Scores) revealed the effectiveness of STAD Strategy over Activity Oriented Method of Teaching. Hence the fifth hypothesis is rejected.

6. Hypothesis six states that “Students taught through Technology Enriched Task Based Language Teaching (TETBLT) will not differ significantly than students taught through Activity Oriented Method of Teaching (AOMT), if any, in terms of Achievement in English (Total and Skill wise scores) of standard VIII Students.”.

In the ANCOVA for Achievement in English (Total and Skill wise Scores), significant F-values \((p<.01)\) were obtained for Instructional Strategies in 25 out of 25 ANCOVA when Pre-Experimental status in terms of Achievement in English (Total and Skill wise Scores), Verbal Intelligence, Non-verbal Intelligence and Classroom Environment are controlled singly and in combination. Results of the Post-hoc comparison also yielded significant difference \((p<.01)\) in favour of the TETBLT Strategy over Activity Oriented Method of Teaching. Therefore, the result of ANCOVA with the Dependent Variable, Achievement in English (Total and Skill wise Scores) revealed the effectiveness of TETBLT Strategy over Activity Oriented Method of Teaching. Hence the sixth hypothesis is rejected.

7. Hypothesis seven states that “Students taught through Student Teams Achievement Divisions (STAD) Strategy of Cooperative Learning will not differ significantly than students taught through Technology Enriched Task Based Language Teaching (TETBLT), if any, in terms of Achievement in English (Total and Skill wise scores) of standard VIII Students”.
In the ANCOVA for Achievement in English (Total and Skill wise Scores), significant F-values (p<.01) were obtained for Instructional Strategies in 25 out of 25 ANCOVA when the four covariates are controlled singly and in combination. Results of the Post-hoc comparison also yielded significant difference (p<.01) in favour of the STAD Strategy over TETBLT. Therefore, the result of ANCOVA with the Dependent Variable, Achievement in English (Total and Skill wise Scores) revealed the effectiveness of STAD Strategy over TETBLT. Hence the seventh hypothesis is rejected.

8. Hypothesis eight states that “Students taught through Student Teams Achievement Divisions (STAD) Strategy of Cooperative Learning will not differ significantly than students taught through Activity Oriented Method of Teaching (AOMT), if any, in terms of Self-regulation of standard VIII Students”.

In the ANCOVA Self Regulation, significant F-values (p<.01) were obtained for Instructional Strategies in 9 out of 9 ANCOVA the four covariates are controlled singly and in combination. Results of the Post-hoc comparison also yielded significant difference (p<.01) in favour of the STAD Strategy over Activity Oriented Method of Teaching. Therefore, the result of ANCOVA with the Dependent Variable, Self Regulation revealed the effectiveness of STAD Strategy over Activity Oriented Method of Teaching. Hence the eighth hypothesis is rejected.

9. Hypothesis nine states that “Students taught through technology Enriched Task Based Language Teaching (TETBLT) will not differ significantly than students taught through Activity Oriented Method of Teaching (AOMT), if any, in terms of Self-regulation of standard VIII Students”.
In the ANCOVA Self Regulation, significant F-values (p<.01) were obtained for Instructional Strategies in 9 out of 9 ANCOVA when the four covariates are controlled singly and in combination. Results of the Post-hoc comparison also yielded significant difference (p<.01) in favour of the TETBLT over Activity Oriented Method of Teaching. Therefore, the result of ANCOVA with the Dependent Variable, Self Regulation revealed the effectiveness of TETBLT over Activity Oriented Method of Teaching. Hence the ninth hypothesis is rejected.

10. Hypothesis ten states that “Students taught through Technology Student Teams Achievement Divisions (STAD) Strategy of Cooperative Learning will not differ significantly than students taught through Technology Enriched Task Based Language Teaching (TETBLT), if any, in terms of Self-regulation of standard VIII Students.”.

In the ANCOVA for Self Regulation, significant F-values (p<.01) were obtained for Instructional Strategies in 9 out of 9 ANCOVA when the four covariates are controlled singly and in combination. Results of the Post-hoc comparison also yielded significant difference (p<.01) in favour of the STAD Strategy over TETBLT. Therefore, the result of ANCOVA with the Dependent Variable, Self Regulation revealed the effectiveness of STAD Strategy over TETBLT. Hence the tenth hypothesis is rejected.

11. Hypothesis eleven states that “There will be no significant main effects of Independent Variables (Instructional Strategies and Metacognitive Awareness) on Achievement in English (Total and Skill wise Scores) of standard VIII Students for the Total Sample, Boys and Girls”.

Significant main effect of Instructional Strategies on Achievement in English (Total and Skill wise Scores) was found in 15 out of 15 ANOVA
undertaken for the Total sample, Boys and Girls. For the main effect of Metacognitive Awareness on Achievement in English (Total and Skill wise Scores), none out of 15 ANOVA yielded significant main effect for Total sample, Boys and Girls. Hence the eleventh hypothesis is partially rejected.

12. Hypothesis twelve states that “There will be no significant interaction effect of Independent Variables (Instructional Strategies and Metacognitive Awareness) on Achievement in English (Total and Skill wise Scores) of standard VIII Students for the Total Sample, Boys and Girls.

No significant interaction effect of the Independent Variables (Instructional Strategies and Metacognitive Awareness) on Achievement in English (Total score and Skill Wise score) of standard VIII students for the Total Sample, Boys and Girls were found in 15 ANOVA undertaken for the purpose. Hence the twelfth hypothesis is not rejected.

13. Hypothesis thirteen states that “There will be no significant main effects of Independent Variables (Instructional Strategies and Metacognitive Awareness) on Self-regulation of standard VIII Students for the Total Sample, Boys and Girls.

Significant main effect of Instructional Strategies was found in 9 out of 9 ANOVA undertaken for the Total sample, Boys and Girls. Whereas, no significant main effect of the Metacognitive Awareness on Self Regulation of standard VIII students for the Total Sample, Boys and Girls is found in 9 ANOVA. Hence the thirteenth hypothesis is rejected partially.

14. Hypothesis fourteen states that “There will be no significant interaction effect of Independent Variables (Instructional Strategies and
Metacognitive Awareness) on Self-regulation of standard VIII Students for the Total Sample, Boys and Girls.

No significant interaction effect of the Independent Variables (Instructional Strategies and Metacognitive Awareness) on Self Regulation of standard VIII students for the Total Sample, Boys and Girls were found in 9 ANOVA undertaken for the purpose. Hence the fourteenth hypothesis is not rejected.

**Educational Implications Derived**

In the present study, STAD (Student Teams Achievement Divisions) Strategy of Cooperative Learning was found more effective than the Technology Enriched Task Based Language Teaching (TETBLT) and Activity Oriented Method of Teaching (AOMT) on Achievement in English and Self Regulation. The transition from the traditional competitive classroom to a cooperative one does not slow down the performance of the students; rather it was found that it improves the performances of learners with regard to English Language Achievement.

Cooperative Learning strategies provide teachers with effective ways to respond to individual differences prevailing among students by promoting four language skills such as TETBLT found and Writing along with Self Regulation. STAD proved to be more practical and more acceptable for students compared to other strategies. It was observed that sometimes the students found to be hesitant to ask for clarifications whenever they had doubts that arise during the learning process. In groups, however, they seemed to be more interactive in simply explaining and clarifying the same topic that lead to greater success. Important skills such as TETBLT found and Writing are easily achieved through cooperative group activities.
The use of STAD in classroom demonstrates students how to work as a team and shows them that learning is much more fun when everyone is part of it. A conducive environment without threat of competition allows the child to flourish and reach its full potential in a relaxed atmosphere. Creating classrooms in which diversity among the students is embraced and in which all students achieve academically is challenging, but not impossible.

Cooperative Learning provides the strategy for improving academic achievement, enhancing mutual concerns, making learning enjoyable and nurturing safe, caring environments. If used in the context of collaboration, it definitely enhances English language learning leading to higher achievement for every child. The results of the present study suggest that teachers in English Language, should give a serious consideration and to have a favorable attitude towards this method. STAD could be initiated by student’s involvement in explaining and receiving explanation in which the skills can be easily understood.

The use of STAD Strategy of Cooperative Learning in English is a suitable teaching/ learning strategy for minimising gender differences in students’ achievement in English. Teacher training colleges and universities should emphasize STAD as an effective strategy of teaching English. Education stakeholders should encourage teachers to use this strategy in teaching English so that students share their intellect, co-exist harmoniously, and learn in teams/groups without anxiety and enjoy English lessons thereby promoting Self Regulated learning among students.

The results of the study revealed that teaching English using STAD has positive effect on the student’s achievement. It seems reasonable to consider using this technique in today’s classroom. Teachers’ objections to cooperative techniques may come from the perceived increase in time and effort required,
the loss of feeling in control in the traditional lecture style classroom, or the fear that all the required material will not be covered. Efforts should be made by the teachers to create suitable STAD learning environment especially in English classes for enhanced achievement and self regulation.

Co-operative Learning assigns a new role to the teacher. It is the teacher who converts the passive listeners in the classroom into active learners and achievers by implementing Co-operative Learning strategies in perfect way. The teacher thus becomes a facilitator in learning process to actively encourage the student to help each other and learn from each other, participate in discussions, and engage in problems solving in a free democratic way. A merit of Cooperative Learning environment is that it does not require a great deal of expertise on the part of the instructor or much time to prepare and implement. Coupled with direct instruction, Cooperative Learning holds great promise as a supplement to textbook instruction by providing students opportunities to apply English skills and concepts, reason and problem solving with peers, use language to discuss concepts, and make connections to other skills and disciplines.

Carefully constructed lessons, using the “lesson preparation,” “lesson instruction,” and “lesson evaluation” components can offer students rich learning opportunities in English teaching. The students who are instructed using STAD which gives more emphasize on cooperation among group members. Students can ensure that all group members have attained the same comprehension about the lesson and obtained nearly the same learning achievement. This is because, in the learning process that uses Cooperative Learning strategy, it is expected that all students will attain abilities alike. Students routinely work in groups to help each other in discourses. During the group work, the task of group members is to master the lessons that are presented by teachers, and help their group members to master the lesson, and
to collaboratively achieve a common goal. This will in turn help students to develop skills that relate to their fellow human beings which will be very useful for their life outside the school.

Students will strive to carry out the assigned Discourse well, which in turn can acquire learning achievement. Furthermore, for a group of students who have a positive belief about science has faith that everything that is done well will surely yield maximum results or attain success. Thus, the positive faith about English language would rightly enable the students to learn it effectively and efficiently for enhanced English language Learning and achievement among the students.

STAD ensures full involvement of students ensuring increased individual responsibility in group work. There is a need to modify teaching and learning of English teaching especially in focusing basic skills proficiency at the secondary schools. In order to ensure students’ improved performance in English language, teachers, policy makers as well as the Ministry of Education all have important role to play in this exercise.

Teachers who want to use a new intuitional method in class should be firm in their stance. From the study, it was realized that it took some weeks before the students got adjusted to the new teaching approach. Hence, if a teacher is not firm, he or she might rescind his or her decision and resort to the traditional lecture approach with the fear that the use of the new Instructional Strategies would not yield the desired results. Schools and district authorities should organize workshops for teachers on theory and practice about the use of STAD as a Cooperative Learning approach in the classroom. The facilitators of such workshops should be experts in the fields of Cooperative Learning strategy so as to clear all doubts teachers may have about the approach and other group activities.
This is because, this study has proved that students at any schools and all levels. The study revealed that, small as well as smaller groups’ studies were all effective in using the Cooperative Learning approach. Thus, teachers should use group sizes based on the sample size of their class. Students can also be put into mixed ability groups to practice peer tuition. This is so because students explain concept to each other, they do so at their own cognitive maturity level. Their understanding of grammar and language skills may be improved as student solved problems together.

The school can also organize periodic in-service trainings by infusing STAD Strategy of Cooperative Learning for non-professional teachers as and when they join the staff or take teaching appointment. Teachers who are enthusiastic and pleasurable users of language, can be models of best practices in language learning. STAD Strategy of Cooperative Learning is an important input for teaching in English. Student Teams Achievement Division (STAD) activities may require more teacher preparation of group material and monitoring of group activities, the rewards and benefits for both the teacher and students go a long way. They appear likely to positively influence a school’s academic and social climates as well.

Based on the findings of the study Technology Enriched Task Based Language Teaching is very effective on Achievement in English and Self Regulation of standard VIII students. Technology can be utilized for adopting modern styles which satisfies both visual and auditory senses of the students. In this regard, the role of teacher is that of a “scaffolder” and scrupulously providing safety nets, allows student to build up knowledge, and become part of the teaching process through enriched teaching and learning experiences. Moreover, it allows teachers to guide more and teach less. It also allows students to have more control of their own learning. Task-based instruction provided learners with opportunities to use the English language contextually,
and to explore it through situational activities. Task Based Language Teaching with technology enrichment helps students to practice English in an anxiety free classroom setting through learning by doing.

The content of the English textbook of secondary schools should be reconsidered and task based learning activities should be included in teaching English as a foreign language. Technology Enriched Task Based Language Teaching (TEBLT) based learning is student centered in the sense that students are encouraged to use language relatively through the tasks they are asked to perform. Language learners can understand texts without conscious focus on the language forms.

There must be provision for adequate Instructional Strategies and vivid approaches for enriched English language skills. English language skills should be included in the students' evaluation program to prepare the students for the summative written achievement tests as these tests alone cannot measure the all language skills very effectively and comprehensively. Technology incorporated facilities can be effectively utilised especially in crowded classrooms for enhanced English Language Learning and achievement among the students. Any academic reform that aims to bring about a systematic improvement in English can take advantage of the current research efforts of the STAD strategy and TETBLT strategy. The practicing English teachers can utilise STAD strategy and TETBLT exclusively for curricular transaction for effective language teaching.

Suggestions for Further Research

Findings of the present study made the investigator to suggest the following areas where further researches are needed.
1. The study can be extended to investigate the effectiveness of Cooperative Learning Strategy on creativity and language proficiency of secondary and higher secondary students.

2. The study can be extended to investigate the effect of STAD and TETBLT with other student specific variables like Motivation, creativity on productive skills.

3. The study can also be extended to investigate the effect of STAD, TETBLT Strategies with achievement in receptive skills.

4. The study can be extended to other disciplines such as science and other languages.

5. Replication of the study to higher levels of education such as Higher Secondary, college level classes to examine the effectiveness of technology enriched classroom on creativity and productive skills.

6. The research can be expanded to compare the impact of the cooperative strategy and task based language teaching for primary and secondary education

7. Other Cooperative Learning Strategies like Teams-Games Tournaments (TGT), Group Investigation (GI), Team Assisted Individualisation (TAI), etc. can be experimented.

8. Independent effect of the STAD and TETBLT can be replicated in the same sample.
9. Teacher training materials for Cooperative Learning strategies and technology enriched task based language teaching can be developed.

10. A longitudinal study on the effect on STAD, TETBLT on language learning can be undertaken.