CHAPTER V

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CHAPTER V

SUMMARY AND CONCLUSIONS

5.1 Summary of the Study

The present research study was carried out with the general objective of
making a critical analysis of the teaching and testing procedure obtaining in
Residential and non-residential secondary schools under different managements
in Karnataka.

The report of the research study was divided into five chapters.

In the first chapter a general introduction consisting of education in general
and of the importance of secondary education in particular in the entire system
of education was given. It was followed by a brief account of the historical
development of secondary education in India, through five stages: (1) From the
beginning of the British rule to Wood's Despatch (1854); (2) From 1854 to the
Indian Universities Commission 1902; (3) From 1902 to Montford Reforms
1921; (4) From 1921 to India's Independence 1947, and (5) From 1947
onwards. The study also required a brief appraisal of the development of
secondary education in Karnataka. The account was presented in two phases,
one, the region-wise, account of development of secondary education in
Karnataka prior to the States reorganization, i.e., before 1956 and two, after the
States reorganization.

The historical account of the development of secondary education was
followed by a brief review of quantitative expansion of secondary education in
India and its implications. The meaning and importance of quality in secondary education was discussed. The crucial role of the teacher in education in general and in the setting of the secondary education in particular was highlighted. A brief account of the development of residential schools was presented and assessment of the ethos and contributions of residential schools was made followed by their present state of affairs leading to the genesis of the problem.

The researcher being working as a teacher in a secondary school managed by the Indian Railways had come across, during her contact with the children in the school, several problems with the children like truancy, irregularity in attending classes and to their home assignments, parental background and home atmosphere and such other problems. Under the circumstances, the researcher contemplated on the advantages of residential schools. Her curiosity to find out the approaches to the teaching-learning processes adopted in residential schools motivated the researcher to take up the present problem for investigation. The problem of the research study was stated as follows:

'A critical Analysis of Teaching and Testing procedures in Residential and non-Residential secondary schools under different Managements in Karnataka'.

Some of the terms used in the articulation of the problem, like Teaching, Testing, Residential, non-Residential Management were defined in the context of the research study. With the conviction that research is the one method by which one finds solutions to educational problems, and that the teaching and testing procedures can be attained in a better way only by research guided by
proper philosophy of education, the need of the study was brought home. A special emphasis is being laid on the processes in secondary education including, among other crucial things, the methodology of teaching and evaluation procedures and educational technology. Also, there is greater emphasis on access to and equity in secondary education. A major challenge is to devise and organise a system of secondary education which would widen access to and ensure quality education.

The ethos of residential schools makes one take for granted their superiority over non-residential schools as far as quality education is concerned. But innovations are necessary in any dynamic system of education. Assessment of innovations implemented is even more necessary in order to sustain innovative programmes and institutionalize them to the extent possible.

Curriculum transaction in the classroom involves teaching and testing, an aspect that reveals teacher competency at every step. Quality in education being contingent upon teacher competency, procedures of teaching and testing assume all the more importance. Hence, there is a need for a critical inquiry into the teaching and testing procedures in secondary schools, residential and non-residential, and suggest measures for improvement.

The importance of the study was discussed in the context of human resource development and the micro reality of the classroom transactions. There is an interactive relationship between educational innovation and national development. Education makes an important contribution to the creation and
formation of a new man and a new society based on democratic values. Human resource development is the process of increasing the knowledge, the skills and the capacities of all the people in a society. Human resource development is a necessary condition for achieving the political, cultural, social and economic goals of a nation. Education is the sole means to achieve human resource development. The catalytic action of education in the human resource development process needs to be planned meticulously and executed with great sensivity. Secondary education has the crucial responsibility of human resource development by enabling the whole population to join hands in the task of nation building.

The teacher as the main agent of social change and development is the principal means of implementation of educational programmes. In post-Independence India lots of efforts have been made to revamp, reshape and revitalize secondary education. But it is observed that the changes and innovations contemplated upon have not penetrated through the classroom. Unless the classroom reality changes, no other change any where carries any value. Quality education needs to be up-to-date in content as well as in methods. The newest knowledge about the process of learning should find its way into the classroom. The sole objective of classroom activities through teacher pupil interaction is to create conditions to foster the required development in the pupils by providing quality education. The present research study aimed at finding out the classroom realities in the residential and non-
residential secondary schools in Karnataka by making a critical analysis of the teaching and testing procedures as they obtain today and offering suggestions for further improvement.

The research study had the following specific objectives:

1. To make a critical analysis of the current teaching and testing practices in Residential and non-Residential secondary schools under different managements in Karnataka.
2. To study the competency of the teachers in the classroom activities context.
3. To know the students performance in Science, Mathematics, Social science and language at IX standard.
4. To make suggestions for updating the teaching and testing practices in the classroom.

The study proceeded with following assumptions:

1. There is no difference in the teaching and testing procedures in Residential and non-Residential secondary schools under different managements in Karnataka.
2. There is no difference in the student's performance in all subjects in Residential and non-Residential secondary schools under different managements in Karnataka.
3. There is no difference in the competency of the teachers in the classroom activities context in Residential and non-Residential secondary schools under different managements in Karnataka.

The sample of the study consisted of the following three Residential secondary schools and four non-Residential schools:

Residential:
1. Karnataka Police Residential School, Dharwad managed by the State Government.
2. University Public School, Dharwad managed by the Karnataka University.
3. Buddha Rakkita residential School, Dharwad, under the management of private body.

Non-Residential:
1. R.L.S. High School, Dharwad.
2. K.N.K. Girl's High School, Dharwad

All the four schools are severally managed by different private organizations.

The data for the study were collected from the seven secondary schools selected as sample of the study.
The scope of the study encompassed the observation and analysis of the teaching and testing activities current in the seven secondary schools selected as the sample of the study.

The study was co-relational in nature and the descriptive method of research was used for the study.

The following devices were used as tools of the study:

1. Video recording for live classroom observations.
2. Observation schedule for lesson transcripts.
3. Illustration of the transcript of each category.

The observation schedule used for collection and analysis of data for the study consisted of the following sixteen categories as components of the teaching and testing procedures in the secondary schools selected as sample of the study:


Video cassette recording of the lessons observed providing both verbal and non-verbal classroom behaviour were transcribed and analysed in relation to the sixteen categories of classroom transaction.
Analysis of testing procedures in the schools selected as sample of the study was made on the verbal performance of pupils during their participation in all the possible categories of classroom transaction.

The data relating to the sixteen categories of the observation schedule were tabulated and analysed descriptively subjecting the data to simple percentage analysis. The data were then interpreted and conclusions were drawn.

Regarding the limitations of the study, it was mentioned that the study was purely limited to the observation of the classroom transactions in the secondary schools chosen as sample of the study. The study did not probe into any infrastructural conditions or facilities obtaining in the schools. The study also did not take into consideration any variables like sex, individual differences of pupils, sex, age, qualifications, experience etc., of teachers affecting classroom transactions.

The first chapter of the research report concluded with the presentation of the chapter wise break up of the design of the research report.

The second chapter of the research report was earmarked for The review of the literature related to the problem of the study. A brief review of the related studies both in India and abroad in the area of the present investigation was presented. In the process of reviewing the related studies the researcher came across several research studies on teachers, students and classroom situations carried out by several individual researchers in addition to studies made through the center for Advanced studies in Education at the University of Baroda and
also some studies sponsored by the National Council of Educational Research and Training. A few studies carried on individual bases were also presented.

Review of some studies concerning the aspects like teacher personality traits, classroom verbal behaviour, teaching strategy, teaching efficiency, teaching effectiveness, and learning outcome.

The following were the foreign studies reviewed: Monoroe (1952), Ryans (1960), Flanders (1962), and Heil and Washborne (1962).

The review account of the related studies was followed by a summary of the review and guidelines obtained for the present study. The aspects teaching and testing involve mainly teacher-pupil interaction in the classroom. As such, teacher behaviour occupies the center stage in the activity of curriculum transaction in the classroom. The review of related studies helped the researcher in defining the objectives of her study, designing the tools of the study and analyzing the data. Today it is possible to observe and measure the entire-pupil classroom climate, the verbal and non-verbal teacher behaviour because of the video recording as a tool of observation of classroom behaviours. This provided the researcher with guidelines to employ video recording as tool of collecting data for her study by recording observation of the actual classroom environment involving teaching and testing procedures in the secondary schools chosen as sample of the study.

The finding of the literature reviewed revealed, among other things, factors like blackboard work, correcting oral mistakes, explaining difficult points,
general knowledge, hand writing, knowledge of the subject, maintaining
discipline, power of the oral expression, revision of the main points, skill in
questioning, use of material aids were found to make teaching effective. Some
observations pointed out that verbal behaviour of the teacher dominated the
classroom climate while high creative teachers increased pupil participation by
praising, accepting and developing their ideas. The classroom behaviour of
teachers was found to have positive relation with the achievement of pupils.

Some findings pointed out that a majority of the teachers followed traditional
methods such as lecture or question – answer method. According to the
findings of some studies teaching behaviour of secondary school teachers was
found to have eight skills, viz., questioning, explanation, blackboard writing,
reinforcement, introducing a lesson, summarization and explanation. The researcher
found a very close affinity between these skills and the sixteen categories of
classroom processes chosen for analysis in her own study.

The finding that teachers with a positive attitude towards the profession,
classroom teaching, child-centred practices and the educational processes
reacted to ideas and feelings of pupils and frequently created the required set in
the classroom was found to be having a direct bearing on the present study.
Science teachers used higher order questions to a greater extent and memory
and the routine type of questions to a less extent than social science teachers.
The verbal creativity of pupils was found to be significantly related with teacher
verbal behaviour. According to the findings of some studies classroom verbal
behaviour of teachers determined the general tone of the classroom and had a positive relationship with the achievement and interest of pupils.

The lecturing-problem-solving approach, questioning-answering-feedback-problem-solving approach were found to be equally effective to the development of applicational ability in science. Oratorical and traditional styles were found to be inferior to emphatic and democratic styles of teaching science. Teachers with higher class means on several learning outcomes emphasized pupils centred method, utilized the laboratory, used project and laboratory discussion combination methods for solving new problems.

The findings of the studies thus reviewed provided the researcher with the guidelines for the analysis of the data for her study.

In the third chapter of the study report methodology adopted for the study was described. The procedural details of the study contained nature of the study, restatement of the problem, objectives of the study, assumption of the study, identification of the information needed to solve the problem, tools of the study, sampling and data collection, design of the procedure for data collection, expression of data, category system, the theoretical frame work, categories conceptualized, statistical tool used for analysis of the data, video analysis and interpretation of data-analysis and transcript analysis, and limitations of the study specified as below.

The research study made an attempt to make a critical analysis of the teaching and testing procedures in residential and non-residential secondary
schools under different managements in Karnataka. The nature of the study was correlational and descriptive. The specific objectives of the study were: (1) to make a critical analysis of the current teaching and testing practices in residential and non-residential secondary schools under different managements in Karnataka; (2) to study the competency of the teacher; (3) to know the student's performance in science, mathematics, social science and language at IX standard, and (4) to make suggestions for updating the teaching and testing practices in the classroom.

The study was carried out with the assumptions that (i) there was no significant difference in the teaching and testing procedures in residential secondary schools and non-Residential Secondary schools in Karnataka; (ii) there was no significant difference in the student's performance in all subjects in Residential and non-Residential secondary schools in Karnataka, and (iii) There was no significant difference in the competency of teachers in the classroom activities contest in Residential and non-Residential secondary schools under different managements in Karnataka.

The following were the tools of the study: (1) video tape recording of live classroom processes, (2) observation schedule of lesson transcripts consisting of sixteen categories of classroom transactions, and (3) Illustration of categorizing the skills.
The sample of the study consisted of three residential secondary schools and four non-residential secondary schools managed by different agencies in the twin cities of Dharwad and Hubli as under:

Residential Secondary Schools:

1. Karnataka Police Residential School, Dharwad managed by the Karnataka State Government.
2. University Public School, Dharwad managed by the Karnataka University, Dharwad.

Non-Residential Secondary Schools:

1. R.L.S. High school, Dharwad,
2. K.N.K. Girls High School, Dharwad,
3. St. Michael’s High School, Hubli, and

All the four above are managed severally by different private organizations.

The data concerning the teaching and testing procedures were collected from the above mentioned sample over a period of 9 months during the 1999-2000 academic session through the device of video tape recording. The video tape recorded observations were transcribed to enable the researcher to analyse and interpret the data under each category descriptively.

The simple percentage analysis technique as a statistical tool was used to analyse and interpret the data. The video tape observations on both verbal and non-verbal classroom behaviour were analysed. The teaching component category wise data obtained from the lesson transcripts of the video tape observations were subjected to the simple percentage analysis, interpretation was made and conclusions were drawn.

The chapter of the was concluded with defining the limitations of the study. The study was purely limited to observation of the classroom transactions involving teaching and testing procedures in the secondary schools chosen as sample and did not probe into any infrastructural conditions obtaining in the Residential and non-Residential schools. The study did not take into consideration any variables affecting the classroom transaction. Also, analysis of the testing procedures in the schools was made only on the evidence of the pupil's verbal performance during the teaching and testing process.
The fourth chapter contained the analysis and interpretation of the data. Transcripts of lessons obtained by the video cassette recording technique were analysed and frequencies of classroom behaviour related to the sixteen categories and their percentages were tabulated. Each table comprised the tallies of the occurrences of the teaching component, and tallies representing the frequencies and percentages of occurrence of a particular component.

The table No 1 projected the whole picture of the video recording observation made the school, subject, unit and topic of the lesson.

The next sixteen tables presented the analysis of the teaching components corresponding to the sixteen categories of the classroom processes.

Under each table, the description and significance of the category and the sub-components were presented followed by their analysis in terms of frequencies of occurrence and their percentages.

The present, the fifth and the concluding chapter of the study report contains the summary of the research study made in the preceding paragraphs, major findings and the conclusions of the study that are to follow.
5.2 Major Findings of the Study:

The analysis of the data presented in the preceding chapter has enabled the researcher to arrive at the following objective based conclusions and major findings of the study with reference to the teaching and testing procedures obtaining in the residential and the non-residential secondary schools under different managements in Karnataka.

Objective – 1:

To make a critical analysis of the current teaching and testing practices of Residential and non-Residential secondary schools under different managements in Karnataka.

Findings:

(i) With reference to the skill of introducing a lesson:

(a) The teachers in the Residential secondary schools started the lessons abruptly, i.e., without any kind of introduction in 16% of the lessons. This kind of abruptly starting a lesson was not found in the non-Residential secondary schools. Thus, the incidence of starting a lesson in an abrupt manner was found to be prevalent more in the Residential secondary schools as compared to the non-Residential secondary schools.

(b) The incidence of asking sequential questions leading to the topic was found to be 1.3% in the Non-Residential Secondary Schools whereas the
incidence of asking sequential questions did not occur in the Residential secondary schools.

(c) Recapitulation of the previous work done as a strategy of introducing a lesson occurred more in the Residential Secondary Schools (80%) than in the Non-Residential Secondary Schools (50%).

(d) Giving information on a new topic or lesson was found to be 04% in the Residential Secondary Schools, whereas this component was found to be 36.6% in the Non-Residential Secondary Schools.

(ii) As regards the skill of questioning as a teaching device:

(a) The incidence of specific questioning was far more frequent in the Residential Secondary Schools (48.6%) than in the Non-Residential Secondary Schools (14.82%).

(b) The incidence of questioning relevant to the topic was found to be 38.64% in the Residential Secondary Schools and 74.07% in the Non-Residential Secondary Schools.

(c) The incidence of questioning by the teacher to prompt the pupils to give the expected response was found to be 12.5% in the Residential Secondary Schools whereas it was 11.11% in the Non-Residential Secondary Schools.

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(iii) On the skill of explaining as a classroom strategy:

(a) Keeping up continuity relevant to the topic in the process of explaining was found to be 56.92% in the Residential secondary schools and 89.28% in the Non-Residential Secondary Schools.

(b) Making beginning and concluding statements as a teaching component in explaining as a classroom strategy occurred only in the Residential Secondary Schools (23.08%) while the component was found to be totally missing in the Non-Residential Secondary Schools (00%).

(c) Covering essential points as a component of the skill of explaining was found to be 20.00% in the Residential Secondary Schools as against 72% in the Non-Residential Secondary Schools.

(iv) Regarding blackboard work as a teaching device:

(a) Legibility of handwriting as a component of blackboard work in the Classroom was found to be 25.35% in the Residential Secondary Schools as compared to 14.03% in the Non-Residential Secondary Schools.

(b) The incidence of points written brief and simple as a component of blackboard work was found to be 59.16% in the Residential Secondary School and 64.02% in the Non-Residential Secondary Schools.

(c) The skill of drawing diagrammes and illustrations on the blackboard was found to be 15.49% in the Residential Secondary Schools as against 21.05% in the Non-Residential Secondary Schools.
(v) Concerning the use of teaching aids as a teaching strategy:

(a) Relevant use of teaching aids as a component was found to be 27.50% in the Residential Secondary Schools and 10.72% in the Non-Residential Secondary Schools.

(b) The incidence of the use of teaching aids appropriate to the pupils' level was found to be 22.50% in the Residential Secondary Schools and 28.57% in the Non-Residential Secondary Schools.

(c) The component proper display and use of teaching aids was found to be 50% in the Residential Secondary Schools and 61.17% in the Non-Residential Secondary Schools.

(d) The incidence of not displaying any teaching aid was found to be 0% in both the Residential and the Non-Residential Secondary Schools.

(vi) Regarding students' participation in the classroom processes:

(a) The occurrence of the incidence of providing opportunity to pupils to increase participation by asking questions was found to be 68.96% in the Residential Secondary Schools as compared to 75.47% in the Non-Residential Secondary Schools.

(b) Creating climate or set in the classroom for students' participation was found to be 17.24% in the Residential Secondary Schools whereas it was found to be 14.4% in the Non-Residential Secondary Schools.
(c) The incidence of calling upon the pupils' physical participation was found to be 13.79% in the Residential Secondary Schools as against 10.52% in the Non-Residential Secondary Schools.

(vii) Regarding writing work as a category of classroom processes:

(a) Legibility and neatness as a component of writing work was found to be 64.21% in the Residential Secondary Schools and 54.54% in the Non-Residential Secondary Schools.

(b) Adequate spacing between two letters or words as a teaching component was found to be 21.06% in the Residential Secondary Schools as compared to 32.48% in the Non-Residential Secondary Schools.

(c) Use of capital letters as a component of writing work was found to be 14.73% in the Residential Secondary Schools and 12.98% in the Non-Residential Secondary Schools.

(viii) Regarding reading work as a category of teaching - learning process

(a) Reading work audible and clear to all the pupils in the class was found to be 82.95% in the Residential Secondary Schools as against 80.33% in the Non-Residential Secondary Schools.

(b) The incidence of reading work given to pupils was found to be 17.05% in the Residential Secondary Schools and 19.67% in the Non Residential Secondary Schools.
(ix) As regards evaluation of pupils' participation in the classroom processes:

(a) The incidence of rewarding the attending behavior of the pupils was found to be 41.29% in the Residential Secondary Schools and 41.09% in the Non-Residential Secondary Schools.

(b) The occurrence of the component of giving directions to pupils was found to be 19.36% in the Residential Secondary Schools while it was found to be 16.44% in the Non-Residential Secondary Schools.

(c) The incidence of asking questions as a technique of evaluation was found to be 26.46% in the Residential Secondary Schools whereas it was 31.52% in the Non-Residential Secondary Schools.

(d) Using silence / non-verbal ques as a strategy of evaluating pupils' participation in the classroom processes was found to be 12.90% in the Residential Secondary Schools and 10.95% in the Non-Residential Secondary Schools.

(x) On giving assignment to pupils as a category of curriculum transaction:

(a) The incidence of assignment being relevant to the content taught was found to be 74.46% in the Residential Secondary Schools and 54.54% in the Non-Residential Secondary Schools.

(b) The incidence of assignment being adequate to the content taught was found to be 25.53% in the Residential Secondary Schools whereas it was 45.46% in the Non-Residential Secondary Schools.
(c) The incidence of assignment not given was found to be 00% in both the Residential and the Non-Residential Secondary Schools.

(xi) Regarding closing or achieving closure of a lesson:

(a) The incidence of consolidation of the major points covered during transacting the lesson was found to be 6.78% in the Residential Secondary Schools while it was 11.36% in the Non-Residential Secondary Schools.

(b) The incidence of summarization as a component of achieving closure of a lesson was found to be 33.89% in the Residential Secondary Schools as against 40.92% in the Non-Residential Secondary Schools.

(c) The incidence of linking the present knowledge with the past knowledge was found to be 35.59% in the Residential Secondary Schools while it was 27.27% in the Non-Residential Secondary Schools.

(d) The incidence of creating sense of achievement as a component of achieving closure of a lesson was observed to be 23.73% in the Residential Secondary Schools whereas it was 20.45% in the Non-Residential Secondary Schools.
(xii) Regarding content organization as a teaching component:

(a) The frequency of occurrence of the sequential development of the content was 26.16% in the Residential Schools while it was 19.30% in the Non-Residential Secondary Schools.

(b) The frequency of occurrence of the logical development of the content was 73.84% in the Residential Secondary Schools while it was 80.70% in the Non-Residential Secondary Schools.

(xiii) Regarding the use of the text book:

(a) The incidence of making use of the text book was found to be 82.36% in the Residential Secondary Schools whereas it was 60% in the Non-Residential Secondary Schools.

(b) The incidence of the use of the Text book not made was found to be 17.64% in the Residential Secondary Schools while it was 40% in the Non-Residential Secondary Schools.

(xiv) On maintaining discipline in the Classroom:

(a) The incidence of maintaining discipline was found to be 91.94% in the Residential Secondary Schools and 84.42% in the Non-Residential Secondary Schools.

(b) The incidence of pupils following teachers' instructions was found to be 8.06% in the Residential Secondary Schools while it was found to be 15.58% in the Non-Residential Secondary Schools.
(xv) Regarding classroom management as a strategy of curriculum transaction:

(a) The incidence of the teacher being related with pupils democratically as a component of classroom management was found to be 79.16% in the Residential Secondary Schools and 69.69% in the Non-Residential Secondary Schools.

(b) The incidence of the teacher calling the pupils by their names was found to be 8.34% in the Residential Secondary Schools while it was found to be 7.58% in the Non-Residential Secondary Schools.

(c) The incidence of the teacher checking the appropriate behavior of the pupils as a component of classroom management was observed to be 12.50% in the Residential Secondary Schools whereas it was 22.73% in the Non-Residential Secondary Schools.

(xvi) Regarding the method employed in curriculum transaction:

(a) The incidence of employing the textbook method was found to be 13.43% in the Residential Secondary Schools and 26.66% in the Non-Residential Secondary Schools.

(b) The incidence of employing the story telling method was found to be 37.32% in the Residential Secondary Schools and 13.30% in the Non-Residential Secondary Schools.
The incidence of employing the lecture method was found to be 41.90% in the Residential Secondary Schools and 55.56% in the Non-Residential Secondary Schools.

The incidence of employing the discussion method was found to be 7.4% in the Residential Secondary Schools and 4.44% in the Non-Residential Secondary Schools.

Assumption - 1.

There is no difference in the teaching and testing procedures in the Residential and non-Residential secondary schools under different managements in Karnataka.

Findings

It was found that the above assumption with which the research study proceeded held good with certain modifications as follows:

The Residential secondary schools in Karnataka made a difference for the better with reference to some of the skills related to the various categories of teaching and testing procedures while the non-Residential secondary schools in Karnataka made a difference for the better with reference to some of the others skills related to the various categories of teaching and testing procedures and both the Residential and non-Residential secondary schools in Karnataka displayed almost equal competency in some of the skills in regard to the various categories of teaching and testing procedures.
Objective - 2:

To study the competency of the teachers in the classroom activities context.

Findings:

(i) Teacher's competency in the skill of introducing a lesson:

(a) In exercising the skill of introducing a lesson so as to effectively motivate learning activity teachers in the Non-Residential Secondary Schools were found to be more competent than the teachers in the Residential Secondary Schools.

(b) In exercising the skill of asking sequential questions while introducing a lesson, teachers in the Non-Residential Secondary Schools were found to be more competent than the teachers in the Residential Secondary Schools.

(c) In exercising the skill of doing recapitulation of the previous work done while introducing a lesson, teachers in the Residential secondary Schools were found to be more competent than the teachers in the Non-Residential Secondary Schools.

(d) In exercising the skill of giving information on the topic while introducing a lesson teachers in the Non-Residential Secondary Schools were found to be more competent than the teachers in the Residential Secondary Schools.
(ii) Teachers competency in questioning as a component of curriculum transaction:

(a) In exercising the skill of questioning specific, teachers in the Residential Secondary Schools were found to be more competent than the teachers in the Non-Residential Secondary Schools.

(b) In exercising the skill of questioning relevant to the topic, teachers in the Non-Residential Secondary Schools were found to be more competent than the teachers in the Residential Secondary Schools.

(c) In exercising the skill of questioning prompted to lead to pupils' expected answer, teachers in the Residential Secondary Schools were found to be more or less as competent as the teachers in the Non-Residential Secondary Schools.

(iii) Teachers competency in explaining as a component of classroom processes:

(a) In exercising the skill of keeping up continuity relevant to the topic as a subcomponent of explaining, teachers in the Non-Residential Secondary Schools were found to be more competent than the teachers in the Residential Secondary Schools.

(b) In exercising the skill of making beginning and concluding statements in the process of explaining as a component of classroom transactions, teachers in the Residential Secondary Schools were found to be more competent than the teachers in the Non-Residential Secondary Schools.
(c) In exercising the skill of covering essential points in the process of explaining as a component of classroom processes, teachers in the Residential Secondary Schools were found to be more competent than the teachers in the Non-Residential Secondary Schools.

(iv) Teachers competency in doing black-board work as a component of classroom transactions:

(a) In exercising the skill of attaining legibility of handwriting as a component of black-board work, teachers in the Residential Secondary Schools were found to be more competent than the teachers in the Non-Residential Secondary Schools.

(b) In exercising the skill of writing on the black-board the points in a brief and simple manner, teachers both in the Residential and the Non-Residential Secondary Schools were almost found to display equal competency.

(c) In exercising the skill of drawing diagrammes and illustrations on the black-board, teachers in the Non-Residential Secondary Schools were found to be somewhat more competent than the teachers in the Residential Secondary Schools.

(v) Teachers competency in making use of teaching aids as a component of curriculum transaction:
(a) In exercising the skill of making relevant use of teaching aids, teachers of Residential Secondary Schools were found to be more competent than the teachers in the Non-Residential Secondary Schools.

(b) In exercising the skill in the use of teaching aids appropriate to the pupils' level, teachers in the Non-Residential Secondary Schools were found to be more competent than the teachers in the Residential Secondary Schools.

(c) In exercising the skill of proper display and use of teaching aids in the process of presenting a lesson, teachers in the Non-Residential Secondary Schools were found to be more competent than the teachers in the Residential Secondary Schools.

(vi) Teacher's competency in eliciting pupils participation in the classroom processes:

(a) In exercising the skill of providing opportunity for pupils to increase participation by asking questions, teachers in the Non-Residential Secondary Schools were found to be more competent than the teachers in the Residential Secondary Schools.

(b) In exercising the skill of creating climate for pupil participation teachers in Residential Schools were found to be more or less as competent as the teachers in the Non-Residential Secondary Schools.
(c) In employing the device of calling upon the pupils’ physical participation in the classroom processes, teachers both in the Residential and the Non-Residential Secondary Schools were found to be competent more or less at the same level.

(vii) Teachers competency in inculcating among pupils right kind of habits in writing work:

(a) In helping the pupils achieve legibility and neatness as characteristics of a good hand-writing, teachers in the Residential Secondary Schools were found to be more competent than the teachers in the Non-Residential Secondary Schools.

(b) In helping the pupils master the skill of adequate spacing between two letters or words in writing work, teachers in the Non-Residential secondary Schools were found to be more competent than the teachers in the Residential Secondary Schools.

(c) In helping the pupils cultivate proper habits of using capital letters in writing work, teachers in both the Residential and the Non-Residential Secondary Schools were found to be competent at the same level.

(viii) Teacher's competency in developing among pupils reading skills:

(a) In guiding pupils to acquire the skill of reading audible and clear to all the pupils in the class, teachers in the Residential Secondary Schools were
found to be more competent than the teachers in the Non-Residential Secondary Schools.

(b) In providing opportunities for pupils in doing reading work, teachers in both the Residential and Non-Residential Secondary Schools were found to be competent at the same level.

(ix) Teachers competency in evaluating pupils' participation in the teaching-learning process and pupils' achievement in terms of their attending behavior:

(a) In responding rightly by rewarding the attending behavior of the pupils, teachers in the Residential Secondary Schools were found to be as competent as the teachers in the Non-Residential Secondary Schools.

(b) In displaying the insight of giving directions to pupils, teachers in the Residential Secondary Schools were found to be marginally more competent than the teachers in the Non-Residential Secondary Schools.

(c) In employing the device of asking questions to evaluate pupils' attending behavior and their achievement, teachers in the Non-Residential Secondary Schools were found to be more competent than the teachers in the Residential Secondary Schools.

(d) In employing the device of silence/non-verbal question to evaluate pupils' attending behavior and their achievement teachers both in the
Residential Secondary Schools and in the Non-Residential Secondary Schools were found to be competent almost at the same level.

(x) Teachers' competency in carrying out the task of giving assignment to pupils:

(a) In the skill of giving assignment to pupils relevant to the content taught teachers in the Residential Secondary Schools were found to be more competent than the teachers in the Non-Residential Secondary Schools.

(b) In the skill of giving assignment to pupils adequate to the content covered, teachers in the Non-Residential Secondary Schools were found to be more competent than the teachers in the Residential Secondary Schools.

(xi) Teachers competency in achieving closure of the lesson:

(a) In exercising the skill of consolidation of the bits of learning while achieving closure of the lesson, teachers in the Non-Residential Secondary Schools were found to be more competent than the teachers in the Residential Secondary Schools.

(b) In displaying the skill of summarization of the content covered, teachers in the Non-Residential Secondary Schools were found to be more competent than the teachers in the Residential Secondary Schools.

(c) In exercising the skill of linking the present knowledge with the past knowledge of the pupils in the process of achieving closure of the lesson.
teachers in the Residential Schools were found to be more competent as compared to the teachers in the Non-Residential Secondary Schools.

(d) In succeeding in the task of creating sense of achievement in the pupils, teachers in the Residential Schools were found to be almost as competent as the teachers in the Non-Residential Secondary Schools.

(xii) Teachers competency in regard to content organization as a category of classroom processes:

(a) In displaying the skill in the task of sequential development of the content as a component of content organization, teachers in the Residential Secondary Schools were found to be more competent than the teachers in the Non-Residential Secondary Schools.

(b) In displaying the skill in the task of logical development of the content as a component of content organization, teachers both in the Residential and the Non-Residential Secondary Schools were found to be competent at almost the same level.

(xiii) Teachers competency in the use of text book in the process of presenting the lesson:

In making use of the textbook teachers in both the Residential and the Non-Residential Secondary Schools were found to be almost equally competent taking into consideration the nature of the subject taught.
(xiv) Teachers competency in maintaining discipline in the classroom:
(a) In maintaining the required kind of discipline in the classroom, teachers in the Residential Secondary Schools were found to be more competent than the teachers in the Non-Residential Secondary Schools.
(b) In carrying out the task of making the pupils follow the teacher's instructions interrelated to the content as a component of maintaining discipline in the classroom, teachers in the Non-Residential Secondary Schools were found to be more competent as compared to the teachers in the Residential Secondary Schools.

(xv) Teachers competency in classroom management:
(a) In regard to the teacher being related to pupils democratically, teachers in the Residential Secondary Schools were found to be more competent as compared to the teachers in the Non-Residential Secondary Schools.
(b) In attending to pupils individually by calling the pupils by their name, teachers in both the Residential and the Non-Residential Secondary Schools were found to be competent almost at the same level.
(c) In managing the task of checking appropriate behavior on the part of the pupils, teachers in the Non-Residential Secondary Schools were found to be more competent than the teachers in the Residential Secondary Schools.
(xvi) Teachers competency in effectively employing method of teaching:

(a) In making use of the textbook method in presenting the lesson, teachers in the Non-Residential Secondary Schools were found to be more competent as compared to the teachers in the Residential Secondary Schools.

(b) In resorting to the story telling method, teachers in the Residential Secondary Schools were found to be more competent than the teachers in the Non-Residential Secondary Schools.

(c) In employing the lecture method in presenting the lesson, teachers in the Non-Residential Secondary Schools were found to be more competent than the teachers in the Residential Secondary Schools.

(d) In adopting the lecture method for presenting the lesson, teachers in the Residential Secondary Schools were found to be more competent than the teachers in the Non-Residential Secondary Schools.

assumption 2

There is no difference in the competency of the teacher in the classroom activities context in the Residential and non-Residential secondary schools in Karnataka.
Findings

It was found that the above assumption regarding the competency of the teachers in the classroom activities context held good with marginal variation as follows:

The Residential secondary schools exhibited greater teacher competency with reference to some of the components of the various categories of teaching and testing procedures while the non-Residential secondary schools displayed greater teacher competency with reference to some other components of the various categories and both Residential and non-Residential secondary schools displayed almost equal teacher competency in regard to some other various categories to teaching and testing procedures.

Objective – 3:

To know the students’ performance in Science, Mathematics, Social Sciences and language at ix standard.

Findings:

(i) Students performance in the Non-Residential Secondary Schools was found to be satisfactory when they responded to the sequential questions leading to the topic asked by the teacher while introducing a lesson. Encouraged by the students’ performance the teachers spent sufficient time in asking a good number of questions leading to the topic.
(ii) During the process of recapitulation of the previous work done as a strategy of introducing a lesson by the teacher, students performance was found to be encouraging in both the Residential and Non-Residential Secondary Schools.

(iii) Students' performance when they responded to the various questions asked by the teacher in the process of presenting a lesson was found to be adequate in both the Residential and Non-Residential Secondary Schools.

(iv) Students performance regarding the black board work in mathematics classes was found to be satisfactory in both the Residential and Non-Residential Secondary Schools.

(v) Students performance in response to the use of teaching aids by the teacher in both the Residential and the Non-Residential Secondary Schools was found to be at the expected level.

(vi) Students in both the Residential and Non-Residential Secondary Schools made efforts to make the maximum use of the teacher’s attempt to provide opportunity to them by asking questions and calling upon their physical participation in transacting the curriculum.

(vii) Students performance in both the Residential and the Non-Residential Secondary Schools in reading-work both silent and aloud – in language lessons was found to be satisfactory.
(viii) In the incidences of the teachers’ efforts in both the Residential and the Non-Residential Secondary Schools to evaluate the students’ attending behavior, the students performed well by positively responding to the teachers directions, his interceptive silence, his non-verbal cues and by initiating and asking questions.

(ix) At the points of consolidation and summarization during the process of achieving closure of the lesson by the teachers, students performance in both the Residential and the Non-Residential Secondary Schools was found to be adequate.

(x) Students performance in maintaining discipline in the class both in the Residential and Non-Residential Secondary Schools was found to be satisfactory, and the tallies representing the frequencies percentage of occurrence of the particular component.

Table No.1 projected the whole picture of the video recording observations made the school, subject, unit, and topic of the lesson.

Assumption –3

There is no difference in the students performance in all the subjects in the Residential and non-Residential secondary schools under different management in Karnataka.
Findings

On the evidence of the students verbal and non-verbal behaviour in the classroom activities context, it was found that there was almost no difference in the students performance in all the subjects in the Residential and non-Residential secondary schools under different managements in Karnataka.

The management variable

It was found that the management variable did not make any considerable difference in the quality of teaching and testing practices in the Residential and non-Residential secondary schools under different managements in Karnataka.

5.3 Conclusions of the Study

As discussed at an earlier stage, the observation schedule used for collection of data for the research study at hand consisted of sixteen categories as components of the teaching and testing procedures in the secondary schools selected as sample of the study. Statistical analysis of the tabulated data was made using the sample percentage device on the evidence of which were brought to light the major findings of the study with reference to each category.
The process enabled the researcher to arrive at the following conclusions related to the research study.

The Residential Secondary Schools are better placed with reference to some of the skills related to the various categories of classroom practices regarding the teaching and testing procedures while the non-Residential Secondary schools are better placed with reference to some of the other skills related to the various categories of classroom practices and both the types of secondary schools exhibit almost equal competency in some of the skills with reference to the various categories.

Residential Secondary Schools: -

Recapitulation of the previous work done as a strategy of introducing a lesson is done in a greater measure.

The skill of questioning as a teaching device is exhibited to a satisfactory extent.

Making of beginning and concluding statements as a teaching component of explaining as a classroom strategy is practiced.

Legibility of hand writing as a component of blackboard work is striking.

The skill of relevant use of teaching aids is exhibited in a greater measure.

The component of assignment being relevant to the content taught obtains in a greater measure.
Similarly, the skill of linking the present knowledge with the past knowledge as a part of closing a lesson also obtains in a greater measure. The skill of sequential and logical development of the content is exhibited to a greater degree.

The textbook method and the discussion method are used in a slightly greater measure.

Classroom discipline is maintained almost invariably.

Democratic behaviour is exhibited by the teacher to a greater extent.

The story telling method is employed in a satisfactory proportion.

Non-Residential Secondary Schools:

The practice of starting a lesson with some kind of introduction is followed in some measure.

Similarly, asking sequential questions leading to the topic is done while introducing a lesson.

Giving information on a new topic or lesson is done to a greater degree.

The performance in the skills of questioning relevant to the topic is better.

Similarly, keeping up continuity relevant to the topic in the process of explaining is far better.

Covering essential points as a component of the skill of explaining is also far better.
The aspect of the points written brief and simple as also the skill of
drawing diagram's and illustrations as components of blackboard work are
slightly better.
The skill of proper display and use of teaching aids appropriate to the
pupils level is better exhibited.
The performance in the activity of providing opportunity to pupils to
increase participation by asking questions is better.
Regarding writing work the skill of spacing between two letters or words is
better executed.
The skill of asking questions as a technique of evaluation of pupils'
participation is slightly better exhibited.
The activity of giving assignment adequate to the content taught is better
achieved.
In the skills of consolidation of the major points covered, summerisation
and creating sense of achievement among pupils as components of
closing a lesson, the performance is better.
The phenomenon of pupils following teacher's instructions is seen in a far
greater measure.
The activity of the teacher checking the appropriate behaviour of the
pupils as a part of classroom management is far better exhibited.
The textbook method and the lecture method are used more in executing
a lesson.
Equal performance:

Almost equal performance is seen in both the Residential and the non-Residential secondary schools in the following aspects of teaching and testing procedures: questioning by the teacher to prompt the pupils to give the expected response; creating climate or set in the classroom for students’ participation; calling upon students’ physical participation; providing opportunity to pupils for reading and reading work being audible and clear to all the pupils in the class; rewarding the attending behaviour of the pupils; giving directions to pupils, using silence or non-verbal cues for evaluating pupils’ participation; and the teacher calling the pupils by their names as a part of classroom management.

Competency of the teacher

The Residential Secondary Schools exhibit greater teacher competency with reference to some of the components of the various categories of teaching and testing procedures while the non-Residential secondary schools display greater teacher competency with reference to some other components of the various categories and both the types of secondary schools display almost equal teacher competency with reference to some other components of the various categories of teaching and testing procedures.
In the Residential Secondary Schools:
Teacher competency in a greater measure is recorded in the following aspects of the teaching and testing procedures: doing recapitulation of the previous work done while introducing lesson; exercising the skill of questioning specific; displaying the skill of making beginning and concluding statements and covering essential points in the process of explaining; attaining legibility of handwriting as a component of blackboard work; making relevant use of teaching aids; helping pupils in achieving legibility and neatness as characteristics of good handwriting; guiding pupils in acquiring the skill of reading audible and clear to all the pupils in the class; giving directions to pupils as a component of pupils' participation in the teaching and learning processes; giving assignment to pupils relevant to the content taught; linking the present knowledge with the past knowledge of the pupils in the process of closing a lesson; attaining sequential development of the content as a component of content organization; maintaining discipline conducive to teaching and learning in the classroom; being related to pupils democratically, and employing the story telling method and the discussion method.

In the non-Residential Secondary Schools:
Teacher competency in a greater measure recorded in the following aspects of the teaching and testing procedures: introducing a lesson so as to effectively motivate learning activity; asking sequential questions and
giving information on the topic while introducing a lesson; questioning relevant to the topic; keeping up continuity relevant to the topic as a component of explaining; drawing diagram's and illustrations on the blackboard; using teaching aids appropriate to the pupils' level and the proper display and use of teaching aids; providing opportunity for pupils for increasing pupils participation by asking questions; guiding the pupils in mastering the skill of adequate spacing between two letters or words in writing work; asking questions to evaluate pupils' attending behaviour and their achievement; giving assignment to pupils adequate to the content covered; consolidating the bits of learning and summarizing while closing a lesson ; making the pupils follow the teachers instructions interrelated to the content as a component of maintaining discipline in the classroom; checking appropriate behaviour of the pupils; and employing text-book method and the lecture method.

No difference in teacher competency

There is not much difference between the Residential and the non-Residential secondary schools regarding teacher competency in the following aspects of the teaching and testing procedures: questioning prompted to lead to pupils expected answer; writing points brief and simple on the blackboard; calling upon the pupils physical participation in the classroom processes; guiding the pupils in cultivating proper habits of
using capital letters in writing work; providing opportunities for pupils for
doing reading work; rewarding the attending behaviour of the pupils;
making use of the device of silence/no-verbal cues to evaluate pupils' attending behaviour and their achievement; achieving logical development of the content as a component of content organization; making use of the textbook; and calling the pupils by their name as a component of classroom management.

Students' performance in different subjects

On the evidence of the pupils' verbal behaviour and physical participation in the teaching and testing procedures in both the Residential and the non-Residential Secondary Schools, the performance of the pupils in Science, Mathematics, Social Sciences and languages at the IX standard is adequate and satisfactory with reference to the following areas of classroom processes: responding to the sequential questions leading to the topic asked by the teacher while introducing a lesson; participating in the process of recapitulating in the process of the previous work done while introducing a lesson; responding to the lesson; doing blackboard work when called upon by the teacher; responding to the use of teaching aids by the teacher; making efforts to derive the benefits of the teachers' attempts to provide opportunity for participation in the classroom processes; doing reading work—both silent and aloud responding to the teacher's directions, his use of silence and non-verbal cues by initiating and
asking questions; participating actively at his stage of consolidation and summarization during the process of closing a lesson by the teacher; and co-operating with the teacher in maintaining classroom discipline

Management Variable

The management variable of the sample does not make any considerable difference in the qualify of teaching and testing procedures in the classroom processes.

5.4 Suggestions for Improvement in the Teaching and Testing Procedures in Residential and Non-Residential Secondary Schools in Karnataka.

Urged by the insights gained on completing the present study the researcher is inclined to make the following suggestions for improvement in the teaching and testing procedures in the Residential and the non-Residential Secondary Schools in Karnataka.

The mindset of teachers needs to undergo a radical change by instilling more and more awareness of the need for changing the classroom realities.

Teachers beinbeued the conviction regarding the effectiveness of pupil centred classroom processes.

The utility of the category system of classroom processes be disseminated to teachers by providing access to the literature produced on the subject by different institutions and agencies.
Emphasis be laid as far as possible on adopting the discussion method and providing self activity to pupils in curriculum transaction.

Pupils be encouraged to make the maximum use of the laboratory and the library in the school.

Co-curricular activities be harnessed to the curricular requirements.

Verbal teacher participation in the classroom be minimized to the extent that any further decrease in it should not decrease pupil participation.

The use of the non-verbal behaviour on the part of the extent to which pupil participation increases.

Teachers be induced to go through the pedagogic literature regularly.

Arrangements be made for assignments and tests for teachers in their subject areas periodically.

Orientation and refresher courses for teachers to sustain among them the awareness of the need for changing the classroom situations be organized with follow up and feed back.
5.5 Suggestions for Further Research

In the process of conducting the present study the researcher felt the need for taking up further research at the individual level or institutional on some of the areas connected with the classroom processes in the Residential and the non-Residential Secondary Schools in Karnataka.

Some of such problems are suggested below:

A critical Inquiry into the impact of Infrastructural conditions on classroom processes in Residential and non-Residential Secondary Schools in Karnataka.

A critical study of the skill of questioning as a teaching device exercised by teachers in Residential and non-Residential Secondary Schools in Karnataka.


A comparative study of teaching and testing procedures in residential Secondary Schools under the management of the central Government and Residential Secondary Schools under the management of the state Government.

A critical study of the correlation between Academic and professional qualifications of the members of the teaching staff and the quality of
teaching and testing procedures in Residential and non-Residential secondary Schools in Karnataka

A critical Inquiry into comparative merits of male and female teachers in their impact on the quality of teaching and testing procedures in the Residential Secondary Schools in Karnataka.

A critical analysis of the impact of teaching experience of the staff on teaching and testing procedures in Residential Secondary Schools in Karnataka.

A critical appraisal of plans and programmes designed for achieving qualitative improvement in teaching and testing procedures in Residential Secondary schools in Karnataka.