Chapter 3

Research Methodology

3.0 Introduction

This chapter starts with the research questions and discusses the research design of the study in detail. The population, sample of the study comprising the schools, teachers, learners and the face of the researcher are also discussed in this chapter. In addition to this, the research framework adopted for the study, the factors affecting the framework and the choice of the framework are also discussed.

Later, the instruments used for data collection, i.e. a detailed description of the tools employed for data collection, such as content analysis, questionnaires, interview protocols of both the teacher as well as learner interviews, classroom observation schedule and checklists are discussed in the order of their occurrence in the design of the study. Further, the different stages of the research are also presented in this chapter.

Alongside the description of the settings and design of the study, the mode of data collection, the method of data analysis, the methodology and triangulation adopted for the study are also discussed here. This chapter tries to present the methodology of the study by discussing the method adopted for conducting the study, procedure of data collection, the approach that guided this study, and the research design.

3.1 Research questions

The primary purpose of this study, as mentioned earlier, was to seek answers to questions on the role of evaluation in pedagogy which in fact could lead to diagnosis
and remediation, and thus enhancement of learning. It was assumed that evaluation provided more comprehensive evidence on which instruction could be based, and this evidence, which could be seen as diagnostic in nature, was useful for the teacher to plan in advance the possible strategies that could be useful to help learners overcome their learning problems. Hence, the research questions that helped in framing the design of the study were:

RQ 1: How does evaluation help the teachers in understanding learner problems?
RQ 2: How does diagnosis help the teachers in modifying instruction?

RQ 3: How does diagnosis and remediation help the learners overcome learning problems?

RQ 4: To what extent the implementation of CCE has proved helpful for the teacher in monitoring learner progress?

3.2 Population

The population of the study comprised of schools, teachers and learners. The present population was selected considering certain aspects such as the organization, teacher’s professional background and learner’s level. This selection was felt most appropriate based on the reason that with immediate effect from the time CCE was initiated, Kendriya Vidyalayas (KVs) have been a part of the shift from what used to be summative dominant to a continuous comprehensive evaluation where formative assessment is given due importance and the learner’s ability is not judged based on one final exam.
3.3 Sample

The target sample that was chosen for the study was based on the type of schools (Kendriya Vidyalayas) and the level of education (classes eight and nine) which followed the Central Board of Secondary Education (CBSE) syllabus. This choice was made with an anticipation that these schools, though located in different areas in Hyderabad and Secunderabad, shared a few commonalities in terms of their administration, infrastructure, teachers and learners. The reason behind opting for urban schools was also to suit the convenience of the researcher and to have a uniformity of classroom culture, location, exposure and so on.

The following sections present a detail of the sample.

3.3.1 Schools

The schools selected for the study were Kendriya Vidyalayas located in and around Hyderabad. A total of six schools were finalised for conducting the study. All the schools provided a good-infrastructure that included lab facilities, power point projectors, audio-visual aids, etc. and were also endowed with surroundings that aided to the overall development of the learner. The classrooms were spacious and the learner seating was placed comfortably allowing the teacher to move between freely and interact with all the learners effectively. All the learners also had a clear view of the teacher. The teacher-learner ratio in all the classrooms ranged from 1: 40 to 1:50. The sampling method followed for this study was based on the principles of cluster sampling and convenience.
3.3.2 Teachers profile

A total of twenty teachers were approached for the purpose of this study of which six teachers were contacted during the preliminary phase to administer questionnaire-I. In the main study, eight teachers provided their responses to questionnaire-II, five teachers provided the opportunity to conduct classroom observations, and six teachers participated in teacher interviews. However, the teachers who provided responses to questionnaires and the teachers who were part of classroom observations were also part of the teacher interviews. All the teachers approached for the study were post graduates with a minimum degree in teaching. All the teachers had attended pre-service training and most of them had also attended in-service training. Most of the teachers exhibited a positive attitude towards research and were interested in exploring the limitations of their classrooms. They had shown positive attitudes while interacting and had taken a keen interest in understanding and discussing the different aspects that were looked upon during the study.

3.3.3 Learners profile

Kendriya Vidyalaya schools majorly catered to the educational needs of the children of transferable Central Government employees including military and Central Government personnel from various parts of the country. Therefore, the learners belonged to a mixed group having different cultural and social backgrounds. A total of one hundred and fifty-five learners were approached for this study. Informal interviews and discussions which were semi-structured and open-ended were made with these learners in groups to gather information on the formative assessment that the learners had been part of. The major focus of this was to examine if there was any sort of difficulty or ambiguity with formative assessments and if they were able to
visualise any difference in the teacher and the evaluation system after the introduction of CCE.

3.3.4 The face of the researcher

The researcher was not a part of the sample and was a non-participatory agent in the sense that the researcher was involved in classroom observations, evaluation of course book, teacher manuals and test scripts. However, the researcher participated in the process through observation and evaluation which included discussions with the teachers regarding lesson plans, methodology, strategies used, the criteria used in assessment and so on.

Bolitho (2012), also presents the viewpoint that as a researcher entering the classroom i.e. an outsider, and highlights that the ways in which the presence of an outsider would impact the behavior of the teacher and the learner cannot be planned. In his words:

> Whatever their purpose, an observer is, at best, an invited guest and, at worst, an intimidating presence in a classroom. A teacher has to find a way of explaining the appearance of the observer to his/her students and this may be a delicate matter, especially if the lesson is to be assessed. No observed lesson is ever completely normal, and the visible presence of a ‘foreign body’ is all too often a distraction for both teacher and learners. As an invited observer, but also as an assessor, I have frequently realized that I was witnessing a ‘staged’, one-off lesson, sometimes even pre-rehearsed, that bore little or no resemblance to what happens between teacher and class on a day-to-day basis (Bolitho, 2012, p.11).
Bolitho (2012), draws our attention to the fact that an outsider can be sometimes seen as an intimidating presence and a distraction in the classroom to the teacher and to the learners. He also mentions that the observed classroom, in a way cannot be completely normal. Therefore, deliberate efforts were made to minimise the distraction that could be caused by the presence of the researcher. Informal discussions were made with the learners before and after the scheduled classroom observations to make the learner feel at ease with the presence of the researcher and to get familiar with the learners. This was planned to minimise the anonymity with the researcher and in this process the learners were also encouraged to interact and ask questions to the researcher.

3.4 Research framework

A framework for research was designed taking into consideration all the factors that were to be considered while conducting the study. The following section presents a brief discussion on the factors that affected the choice of framework.

3.4.1 Choice of framework

An overview of the framework i.e. the research procedure is presented in this section. First, a preliminary study was planned to gather basic information about the target sample to identify if they corresponded to the requirements for conducting the study. This was done with the help of questionnaire-I. Later, informal discussions with teachers were made which aided in planning and preparing for classroom observations and interviews necessary for the main study. Classroom observations were planned to gather the required data needed for the study. Since it was felt necessary to document the observations, classroom instructions were video or audio recorded according to
the convenience of the teacher. Classroom observations were also aimed at getting details about the teaching strategies employed by teachers consciously or unconsciously to help learners overcome their learning difficulties. By being a part of the process of analysing question papers along with the teachers, it was also possible to closely examine the assessment procedure and its implications on pedagogy.

Besides this, teacher interviews were planned where discussions related to the learner’s performance, formative assessment, teaching and learning were made. It was during these interviews that an understanding of the teacher’s awareness of learner problems and teacher’s aptitude to diagnose learner problems was established. Learner interviews were conducted to gather information on assessment as well as on the instruction that followed the assessment. The following Flow chart presents a graphical representation of the entire framework that was adopted for conducting this study:

Figure 3.1 Research Framework Adopted for the Study
3.4.2 Factors affecting the choice of framework

The research framework discussed above was planned taking into consideration the role of the learner, role of the teacher as an evaluator, role of CCE and the mode of evaluation. The following sections present how these factors affected the choice of framework.

3.4.2.1 Role of the learner

Since the study aimed at using evaluation for diagnosing learner problems, using diagnosis for helping the learner overcome these problems and identifying teacher strategies that aim at fostering learner progress and finally analysing the role of CCE in enabling the teacher monitor learner progress, it was inevitable to design a framework for this study without considering the role of the learner. The learner, in a way, was the focal element of the study in terms of identifying their learning problems, understanding learning strategies and monitoring learner progress.

3.4.2.2 Role of the teacher as an evaluator

In order to examine the impact of evaluation on learner progress, it was felt necessary to explore the role of the teacher as an evaluator. Since it was the teacher who had to have the attitude and aptitude to use evaluation not only to access learning but also for various other purposes, it was felt necessary to consider the role of a teacher as an evaluator while designing the desired framework for conducting this study.

3.4.2.3 Role of CCE

The present study emphasises the role of evaluation and diagnosis in understanding learner difficulties and helping them overcome these difficulties after the implementation of CCE into the CBSE schools. So, in order to finalise the framework
required for the study it was important to explore the change in the assessment practices and the role of CCE in bringing these changes.

3.4.2.4 Mode of evaluation

While considering the role of the learners, the role of the teachers and the role of CCE, it was also necessary to understand the mode of evaluation used not only to diagnose learner problems but also to use this diagnosis for devising remedial instruction. Therefore, understanding the mode of evaluation was also felt necessary while deciding the framework for this research.

3.5 Methodology

Since this study was exploratory in nature, it largely employed a qualitative mode of data analysis. However, quantification of data was also used wherever required using tools in order to validate various qualitative observation modes. The approach used in this study was mainly qualitative in nature adopting certain quantitative methods for data analysis which could be said to form a mixed method of research.

Qualitative methods were employed wherever there was a necessity to examine, appreciate and analyse subjective feelings and opinions. On one hand, (as part of qualitative method) data collection involved open ended questions that were used to elicit opinions of the respondents on various issues related to the teacher, the learner, teaching-learning and assessment. On the other hand, (as part of quantititative method) data collection also involved five point Likert scale, yes/no questions and multiple choice questions to gather information about teacher beliefs and their awareness on CCE. The responses were later tabulated and quantified in the form of charts as part of data analysis. Therefore, the data collection involved gathering data both in text
form as well in numeric form, so that the methodology finally represented a mixed method i.e. both qualitative and quantitative in nature.

Furthermore, this study was an attempt to examine the role of assessment in the teaching-learning process where the teachers can modified instruction to suit the needs of the learner and helped the learner overcome learning difficulties. It was also an attempt to study how teachers modified instruction based on the observations made in assessments about the problems learners face in learning. It involved an understanding of the different ways in which assessment could be used other than for measuring learning and also the different ways in which the teacher could use diagnosis for remedial actions. This study also took into consideration the textbook, teacher manuals and test scripts that included question papers and answer sheets from formative assessments conducted in the class.

The study had the following components:

Collection of information about

a) The process of teaching-learning and assessment in the actual classroom

b) Learner problems in learning

c) Teacher’s ability to diagnose learner problems based on the information obtained after evaluation

d) Methodology adopted and strategies used by the teachers to help learners overcome learning difficulties

As mentioned in section 1.9, the study was conducted in two phases, the preliminary study and the main study (which included seven stages). The next segment presents a detail of the stages involved in the study in the form of a flow chart.
3.5.1 Stages of the study

As mentioned earlier, the study which had eight different stages was conducted in two phases. A detailed description of the stages was already presented in section 1.9. This chapter presents a diagram representing the stages in the form of a flow chart.

![Figure 3.2: Stages of the Study](image)

3.5.1.1 Preliminary study

A small scale preliminary study was conducted to evaluate the feasibility of the main study, to make predictions about the appropriate sample size required to conduct the
study and improve the research design. The preliminary study was felt necessary to explore the existing conditions and teacher notions on introducing CCE. This preliminary stage served multiple purposes like fine-tuning the procedure for data collection, altering the design, finalising on the structure, sensitising to the problems to be faced during the study, fine-tuning the questionnaire and checklist, standardising tools, enhancing validity and reliability issues. Its primary purpose was to get familiar with the current practices in classroom assessment and also to form a substantial basis for the argument proposed for the study. As part of a preliminary study, while interacting with a few teachers from CBSE schools, it was found that teachers were more conscious about diagnosis, washback and remedial instruction after the implementation of CCE in their syllabus.

A questionnaire (Questionnaire–I) was designed in order to gather basic information about CCE, and training on CCE. Information such as, training provided to the teachers while and after the implementation of CCE, the number of hours allotted for teaching English after the implementation of the new method of evaluation, the number of formative tests conducted during each term and the teacher perceptions about the implementation of CCE into the school system were gathered to get the fundamental idea of the present classroom scenario.

A detailed description of the questionnaire-I used at this stage is given in the section 3.6.2 which describes the design, format, and description, nature of administration, analysis and interpretation of questionnaire-I.
3.5.1.2 Main study

The purpose of the main study was to capture the complexity involved in the assumptions, practices and possibilities that exist in the daily classroom and was designed to examine the role of evaluation in diagnosis, remediation and learner progress. Based on the information gathered from the preliminary study, the main study was designed. The eight stages in the main study included two teacher interviews, questionnaire distribution, classroom observation, analysis of test scripts, and learner interviews. Also, analysis of teacher manuals was done with the help of a checklist to have an understanding of the support available to the teacher in preparing their lesson plans.

3.6 Tools

Keeping the aims in view and to increase the validity of the findings, the data was collected with the help of the following tools which were administered in a natural setting i.e. the classroom. This section discusses the tools used for data collection in the preliminary study and the main study.

To answer the research questions mentioned earlier, necessary tools were used to gather information that would enable to understand the role of the teacher, learner and evaluation in everyday classroom. The following sections present a detailed discussion on the tools used for data collection.

3.6.1 Content analysis

A brief discussion on the documents which constitute the preamble on CCE, teacher manuals etc. was provided in chapter 2 to provide the required information on the
functions and objectives behind the implementation of CCE. The discussion also tried to broaden the understanding of the teacher, the learner, learning problems, evaluation, the shifts in evaluation, merits and demerits of the shift, diagnosis and remediation, and learner progress. It was this component that helped the researcher in triangulating the data as well. A brief analysis of the resource available on teachers, CCE and teacher manuals was done as part of the study.

3.6.2 Questionnaires

As mentioned in chapter I, the objectives of this research were i) to examine how teachers used evaluation to diagnose learner problems; ii) to investigate how diagnosis could be used to modify instruction; iii) to examine how teachers used diagnosis and remediation to monitor learner progress and; iv) to analyse the role of CCE in helping teachers plan remedial instruction to suit the learner needs. Therefore this entails that the study needed an analysis of i) teachers understanding and knowledge of the role of evaluation in diagnosing learner problems, ii) role of diagnosis in modifying instruction iii) teacher’s interpretation of learner problems, remediation and learner progress and iv) role of CCE in diagnosis and remediation.

In order to gather information about implementing CCE into the classroom and to identify with the teacher’s conception of CCE, two questionnaires were developed, where the first questionnaire (Questionnaire–I) was used as part of the preliminary study to gather basic information about the teacher’s background and the classroom process that exists in the present day. The second questionnaire (Questionnaire– II) was developed keeping in mind the information required to further the study and get a clear understanding of certain aspects such as teacher’s methodology, textbook,
teacher manuals, evaluation procedures, learners, and CCE. The purpose of the tool was to know the participants, their understanding of CCE, learner problems, conception and usefulness of the whole process of evaluation as a part of teaching and learning. Therefore, the main objective behind finalising on this tool was to give a holistic picture of the present system of evaluation.

Accordingly, the segments of the questionnaire were arranged and the participants were expected to fill in their responses. They were assured confidentiality of the data and use the same for research purposes only.

3.6.2.1 Questionnaire design

The process of designing the questionnaires: Two questionnaires were prepared to gather the required information and were administered in stages 1 and 3 of the study. The researcher designed the questionnaires based on the knowledge that was acquired during a similar kind of study conducted for M.Phil dissertation (Oruganti, 2012). Concepts and formats were borrowed from the questionnaires presented in the dissertation. However, several modifications were made by taking advice from experts in the area to prepare the questionnaires. The questionnaires were designed keeping in mind the information required. Space was provided for any other extra information by the respondents.

3.6.2.2 Format of questions

Both the questionnaires had yes/no questions, multiple choice questions, open ended questions and three point and five point Likert scale questions where the respondents were asked to give their opinion based on their agreement to the statement.
Yes/no questions were asked and to make sure that there was clarity in their response the respondents were also asked to elaborate on their choice of agreement. Multiple choice questions were asked to facilitate a selection of choices by providing clues for each question and to gather information that can make it more comprehensive. By asking to select more than one option it was made possible to provide a range of options to the respondents and also limiting their choices to what was required and relevant.

Open ended questions were asked to provide scope to articulate the respondent’s views freely at their own comfort. This was intended as it would be helpful to acknowledge and appreciate the variation in response accurately. The option ‘any other’ was provided for a few reasons such as to gather extra information that would be useful and to provide scope for the respondents to articulate freely in case their understanding of the options provided was different and so on.

3.6.2.3 Description of the questionnaire-I

As mentioned in earlier two questionnaires were used for data collection. The following is the description of questionnaire-I used in the preliminary phase of the study:

The questionnaire-I was divided into three sections covering the areas of personal information, information/perceptions about CCE, and training on CCE.

Section-I had seven questions and all the questions were focused on gathering information about the teacher such as the teacher’s educational qualification, teaching experience, classes taught, in-service training attended and so on. Section-II had five questions. The first question was aimed at eliciting information about the number of
days allotted for teaching English, the duration of each period, the average number of learners in each class, the number of formative assessments conducted per term, the weight given for scholastic and co-scholastic aspects in terms of percentage and so on.

The second question tried to capture the degree of agreement against thirteen statements related to formative assessment on a three point scale. This question was mainly aimed at understanding the teacher’s conception of formative assessment and its purpose. Questions three to five (Q3-Q5) aimed at gathering teacher opinions regarding the introduction of CCE into the Indian classrooms.

The last section i.e. Section-III also had five questions which tried to gather information about the training provided on CCE, the number of days of training, its effectiveness, difficulties faced, and the usefulness of the training for teachers in implementing CCE into the classroom.

3.6.2.4 Description of questionnaire-II

The questionnaire-II was divided into five sections covering two aspects: general information and specific information. Sections-I and II were intended to gather general information about the teacher and the learner. Sections- III, IV and V were intended to gather specific information about the methodology, textbook, teacher manuals and other materials and evaluation which are presented later on. To gather the required data, different modes of answers were chosen depending on the type of questions for balancing between objectivity, researcher's bias and objectives of using a questionnaire. The questions were subsequently shared with the supervisor, who helped in finalising it with critical comments on structure, format and content.

As mentioned earlier, Section-I was intended to gather general information about the teacher. It had nine questions (Q1-Q9) which included teacher’s name, educational
qualification, teaching experience, grades teaching currently, in-service training on 
CCE attended and so on.

Section-II included three questions, question ten, eleven and twelve (Q10-Q12) which 
were intended to examine the teacher’s description of a learner. Question ten (Q10) 
was aimed at gathering information about the learner’s age, the level of competency, 
diversity, ability to speak/write/read and so on. Extra space was also provided for the 
teacher to provide any other relevant information. Question eleven (Q11) was aimed 
at knowing the learner and learner problems from the teacher’s perspective. Question 
twelve (Q12) was mainly intended to explore the steps the teacher took to help the 
learner overcome these problems.

Section III was mainly aimed at gathering information on the teacher’s methodology 
and covered questions thirteen to twenty-seven (Q13-Q27). This section aimed at 
putting together information such as teacher’s lesson plans, teacher dairies, classroom 
techniques/procedures, tasks and activities used in the classroom methodology, and so 
on. Questions thirteen to seventeen (Q13-Q17) tried to gather information about 
teacher’s lesson plans, teacher’s reflection on these lesson plans, adopting new 
techniques, teacher diaries or journals. In question eighteen (Q18), based on a lesson 
from their textbook, teachers were asked to talk about how they begin, progress and 
end a lesson, the type of activities used in the classroom, the feedback provided to the 
learner and the role of the learners in the classroom. Teachers were asked to refer to 
lesson 1 ‘The Best Christmas Present in the World’ of class VIII English textbook as 
it was already taught in all schools. This question was mainly intended to examine the 
methodology adopted by the teacher and to capture the different possible ways of 
interpreting a text. Questions nineteen to twenty-one (Q19-Q21) were mainly aimed
to gather information about the classroom technique/procedure generally used by the
teacher in the class. Question twenty-two (Q22) attempted to find out the type of tasks
used by the teachers and the sources that the teachers relied for designing the
tasks/activities. A few options such as ‘colleagues’, ‘resource books’, ‘self-developed’
were provided to the teachers and the option ‘any other’ was also provided to know
about the other possible sources other than the ones that were listed. Question twenty-
three (Q23) was mainly intended to elicit from the teachers, any one activity that they
had used in the classroom which was not part of the textbook. Question twenty-four
(Q24) was aimed at finding out the teacher’s concept of learner errors. This question
was intended to know if teacher viewed errors as mistakes or as developmental errors.
Question twenty-five (Q25) was intended to find out from the teacher, if, while
teaching an activity, the teacher focused was more on fluency or accuracy or the focus
was only on the successful completion of the task. This was done to examine the
teacher’s objective behind administering an activity. Besides, the teachers were also
asked to give reasons to support their choice. Question twenty-six (Q26) intended to
enquire about the different ways in which a teacher responds to the errors that learners
make in the classroom. Five different options (which included simply correcting the
errors orally, underlining the errors, explaining in the written form on a paper,
explaining personally when and why the learner was wrong or providing the correct
alternative form) were provided along with the option ‘any other’ in order to provide
scope for the teacher to provide ample responses. Question twenty-seven (Q27) tried
to enquire if teachers encouraged interaction among learners through pair/group work
or not.

Section-IV, which focused mainly on the textbook, teacher manuals and other
materials, had questions twenty-eight to thirty (Q28-Q30) and was mainly focused on
gathering information on the textbook, the teacher manuals and other materials that the teacher used in the classroom. Question twenty-eight and twenty-nine (Q28-Q29) were intended to gather information about the textbook, the teacher’s opinion on the textbook and also the way they planned to teach it. Question twenty-nine (Q29) tried to enquire whether the teacher felt the textbook could be taught fully within the allotted time i.e. within the academic year. Question thirty (Q30) was focused on finding out the choice of additional materials used in the classroom. The options that were provided to the teachers included guides, grammar books, dictionary, songs, newspaper, question papers, pictures and photographs. Along with this, the option ‘any other’ was also included in order to provide space to know about other options. Question thirty-one (Q31) tried to elicit from the teachers any three points that were emphasised in the CCE teacher manuals. This was done with the intention to emphasise the objectives behind implementing CCE and to highlight the role of evaluation in teaching and learning.

Section-V included Questions thirty-two to forty-four (Q32-44) and was mainly aimed at understanding evaluation from a teacher’s perspective. Questions thirty-two and thirty-three (Q32-Q33) were intended to gather information about teacher’s view on the relationship between assessment and the development of the learner and the internal assessment schedule employed in the classroom. Question thirty-four (Q34) aimed at gathering information on a five point scale about the usefulness of CCE through seven statements. The scale was measured among responses ranging from ‘strongly agree’ to ‘agree’, ‘partially agree’, ‘disagree’, and ‘strongly disagree’. A total of seven statements were provided to which teachers were expected to indicate their state of agreement. This was mainly done to capture the teacher’s notion of CCE and the different uses of evaluation. Questions thirty-five and thirty-six (Q35-Q36)
tried to capture teacher’s view on two aspects, first, on CCE being useful for teachers for multiple purposes other than measuring learning and second, on formative assessment providing scope for teachers to identify learner problems. Question thirty-seven and thirty-eight (Q37-38) were intended to find out from the teacher’s point of view if identifying learner problems provided scope to the teachers to develop and use suitable remedial measures to help the learner overcome their difficulties and if employing suitable remedial measures could enhance the learner’s learning performance. In all the above questions, information was gathered by asking the teacher to elaborate on their opinion by giving reasons. Question thirty-nine (Q39) was aimed at knowing more about formative assessment in detail in terms of the guidelines used for setting the question paper and the criteria used for correcting the answer sheets. Question forty (Q40) was asked to know about the teacher’s opinion on the testing of listening and speaking skills. Question forty-one (Q41) was mainly intended to find out if the teachers had a role in preparing the question paper. This was done by asking the teachers to choose from one or more than one option that were provided to them which included giving feedback to - all learners, to learners who perform well in the assessment, to learners who were unable to perform well in the assessment and to learners who have problems in learning. Teachers were asked to elaborate on their choice of option in order to know if there were any other alternative opinions. Question forty-two (Q42) was intended to explore the kind of feedback that teachers give to the learners. Question forty-three (Q43) was intended to gather the teacher’s opinion on the extent to which scores actually measured the learning ability or the performance of the learner.
Space for any other information that teachers would like to provide was given in the form of question forty-four (Q44) to gather any other relevant information that was left out.

3.6.2.5 Piloting and finalising the questionnaire

To find out whether the questions were reader friendly and to avoid the possibility of ambiguity with language and format, questionnaire–II was administered to two teachers with similar teaching experience and background who were not part of the sample. The finalised questionnaire was to be used for the main study of the research.

This was mainly done to check the clarity of items, instruction and layout, to eliminate ambiguity and difficulty of words, to check readability for the target audience, to identify redundancy, ambiguity and omissions and, to check the extent to which the respondents could answer the questions with ease.

3.6.2.6 Nature of administration

The questionnaires were finalised after they were piloted to two teachers to check if the questions asked were clear in terms of language, context and content. It was mainly done to check ambiguity and vagueness in meaning and difficulty in technical words.

The finalised questionnaires were administered to selected teachers after a discussion with the teacher about CCE, learner level, formative assessment, lesson plan and so on. Teachers were requested to present their true responses and were given two days to one week time to respond to the questionnaire. They were assured confidentiality and informed that their responses would be used only for research purposes.
3.6.2.7 Analysis and interpretation of questionnaires

Process, analysis and interpretation:

The next chapter presents the different techniques used to interpret the questionnaires and the data obtained through questionnaires-I and II interpreted qualitatively and quantitatively. Further, it presents the Yes/no questions in percentage and analyses the open-ended questions using document analysis where attempts are made to find out broad patterns. The responses that were categorised, tallied, tabulated are presented in the form of percentages. However, the section that follows a five-point Likert scale where options were given for each question and the respondents had to make their preference on a five-point ranking scale are also quantitatively analysed and presented in percentages.

3.6.3 Classroom observations

Classroom observations are a means of getting direct information of the actual data. Sarantakos (2013) mentions about observations as unique first-hand information that provides data where other methods fail to do so. According to him:

Observation is a unique method that can be employed in the areas where other methods are unsuitable and therefore offers several advantages. (Sarantakos, 2013, p.247).

Therefore, it can be said that classroom observations are believed to provide actual data from the practices which the questionnaires and interviews might not provide. According to the convenience of the teacher and the learner, the classrooms proceedings were recorded and videotaped to capture different perspectives. Classroom observation schedule was developed with an intention not to disturb the
natural process of teaching and learning. Five teachers were approached for classroom observation based on the availability of schools and teachers. Teachers were identified based on their teaching experience, educational qualification and similarities. Informal discussions with these teachers before and after the classroom observations were made keeping in mind the information required on lesson plans and the activities used while teaching. An attempt was made to observe classes that covered a minimum of two formative assessment cycles i.e. FA1 and FA3. The teachers were contacted on a regular basis to have a better idea of their academic year plan. During classroom observations, the researcher preferred to sit at the back corner of the class to get a clear view of all the learners and the teacher in action. The researcher observed the actual classroom practice in the teaching and learning of English. The main purpose of classroom observations was to familiarise with the real life situations that the teachers faced and to identify the strategies that the teacher used to help the learner overcome learning problems that were informed to the teacher through assessment. As a result, informal discussions were also made to examine the teacher’s intentions behind adopting a certain methodology. A checklist was used to make note of all the information necessary. In some cases, detailed notes of the classroom observations were also taken in order to have sufficient record, if required. The checklists and researcher’s notes were summarised and used in data analysis. The observation mainly focused on the following issues-

- Physical condition of the classroom
- The lesson
- Tasks/activities
- Methodology
- Interaction between teacher and learners
- Skills emphasised
- Use of language
- Use of learning techniques
- Use of teaching strategies

3.6.3.1 Analysis and interpretation of classroom observations

Process of analysis and interpretation:

In the next chapter, classroom observation data is described thematically and presented in a descriptive way. The data is presented in a way that it would yield information about teacher practices and classroom methodology.

3.6.4 Interview protocol

The study employed interviews as an additional tool to gather required data on how teachers and learners perceived evaluation and learner problems. The teacher and learner interviews that were devised were semi-structured and were mainly intended to provide information on certain aspects pertaining to teacher, methodology, assessment, diagnosis and remediation. Both, teacher and learner interviews were conducted to gather further information that would help supplement the data collected via questionnaires, classroom observations etc.

3.6.4.1 Teacher interviews

To supplement information obtained from the questionnaires, teacher interviews were conducted in phase-II. Based on the willingness of the teachers, the interviews were audio recorded and detailed notes were taken in case of informal discussions, which were transcribed and later presented for analysis. In both teacher interviews and informal discussions, the questions included yes/no and open ended questions.
Teacher interviews were intended to gather information from the teachers in order to investigate the teacher’s point of view on the following issues:

- Introduction and usefulness of CCE
- The difference in the teacher before and after the implementation of CCE
- The difference in the learner before and after the implementation of CCE
- Role of evaluation has to play in understanding the learner and learner problems
- The extent to which diagnosis and remediation can help the learner overcome learning difficulties
- Recommendations and suggestions that can help improve the current stage

Similarly, informal discussions with teachers were mainly intended to gather the required information on the following aspects:

- Learner’s performance in the formative assessment
- Difficulties faced by the learners
- Problems identified in terms of learning difficulty or difficulty in formative assessments
- Type of diagnosis made on learner problems and learner progress
- Using diagnosis to modify further instruction and plan remedial teaching

The teacher interviews were mainly aimed at gathering information on their perception of CCE, the role of evaluation in understanding learner problems, issues related to learner progress, diagnosis, washback, formative assessment, the follow-up, remedial teaching and so on. The questions asked during the informal discussions with the teachers varied in structure depending on the context. The questions were
modified accordingly. However, Appendix-VII provides the sample of the questions that were used during informal interviews with the teachers.

3.6.4.2 Learner interviews

The learner interviews were more of informal talks and were semi-structured and open ended. The learners were interviewed in groups to investigate if they were familiar with the shift after the implementation of CCE. The questions that were asked to the learners were aimed at gathering information on the following issues:

- About the classroom before and after the implementation of CCE
- Their attitude towards assessment (formative and summative)
- Problems faced with assessment (formative and summative)
- Difficulty level of the exams (formative and summative)
- About the teacher before and after the implementation of CCE

Learner interviews were mainly used to gather information on three aspects, which were CCE, formative assessments and the teacher. They were mainly intended to know about the difficulties that the learners faced with regard to assessment or the methodology the teacher adopted in the classroom, the evaluation procedures used for assessment or any other.

3.6.4.3 Analysis and interpretation of interviews

Process of analysis and interpretation:

The next chapter presents the data obtained qualitatively that provided in-depth information about the learners as well as the teacher’s beliefs and experiences. It also attempts to find the patterns, similarities and dissimilarities in the responses and the same are presented in a qualitative manner.
3.6.5 Checklists

The checklist is a widely used instrument to analyse and evaluate a method systematically. Though numerous checklists are available in the literature, to make it directly relevant for the purpose of the study, checklists were either created and or adapted keeping the reliability, validity and practicability factors in mind. Three checklists were developed to make a record of all that was necessary for the study and were put into use during classroom observations and analysis of test scripts. The following sections give a detail on the checklists used by emphasising the different sections that were designed to gather relevant information.

3.6.5.1 Checklist for classroom observation

Classroom observation checklists were used instrumentally for analysing and evaluating classrooms. The checklist had seven sections and was used in stages 3 and stage 6 of the framework developed for the study. The checklist was analysed on a five point Likert scale where the description of the points that were allotted was ‘4-Excellent’, ‘3-above Average’, ‘2-Average’, ‘1- Unsatisfactory’, ‘N-Not Applicable’. Space was provided after each section for the researcher to pen down other relevant details which surfaced in the classroom during observations. This was done to make sure that all the required details were documented properly. The following are the sections and their description:

Section-I: Classroom Details

This section gathered details of the class, the teacher, learners present, the lesson taught in terms of unit and topic, skill and objective perceived by the observer.
Section-II: Preparation

This section had four items and intended to find out the details of the preparation of the teacher in terms of organization, lesson plans, tasks prepared and teaching objectives.

Section-III: Presentation

This section contained six items and aimed at reporting how the class was presented in terms of instruction given to the learners, teacher stating objectives at the beginning of the lesson, the method used, teacher awareness of learner problems, teacher’s ability to hold learner’s interests and the questions asked while teaching.

Section-IV: Execution/Methods

This section had fourteen items that aimed at analysing how the teacher executed the lesson plan in terms of the variety of tasks/activities used, teaching materials planned and paced, techniques used, making clear to the learner of the use of the technique used, using appropriate activities according to the learner needs, authentic materials used, audio/video aids used, examples and illustrations provided, instructional aids used, use of challenging tasks, handling learner errors, feedback received from the learners and lesson plan executed.

Section-V: Personal Characters

This section contained six items and was aimed at analysing the characteristics of the teacher in terms of teacher’s appearance, classroom presence, awareness of learner needs, attitude towards answering learner queries, effectiveness in eliciting responses, and clarity of speech and presentation of topics.
Section-VI: Teacher-learner Interaction

This section had seven items and was intended to capture the level of teacher-learner interaction in terms of teacher attitude towards learner talk, learner’s participation, interaction and learners asking questions.

Section-VII: Reflection

This section contained three items and was intended to analyse the teacher’s reflective practices in terms of intentional use of strategies to help the learner, giving points/tips on how to overcome problems and help given in the form of extra work which focused on improving learning.

3.6.5.2 Checklist for teacher manuals evaluation

In the context of the present study, teacher manuals had a very important role to play. Since the inception of CCE, there was a Lacuna in the system in terms of the training provided to the teachers. Though training was provided to the selected teachers from each institution, the concern remained in how it had conceded and was made available to the rest of the teachers. However, the teacher manuals resume the role of providing guidance to the teachers on conferring the curricular objectives, aims, values and so on, including the functions and objectives of CCE. Here, the teacher manuals were a guide-book for the teacher in aiding the teacher in every step and every stage. Since systematic evaluation involves the use of formalised lists of criteria, a checklist for teacher manuals evaluation was felt necessary to see the effectiveness of the teacher manuals in providing necessary support to the teacher in every possible way.

A checklist developed by Hemsley (1997), was adapted and necessary changes were made to suit the current context. In this checklist, the teacher manuals evaluation
criteria was drawn partially from Cunningsworth and Kusel (1991), with additions from Coleman (1985). The checklist had twenty-five questions divided into two sets, one, for the purpose of global evaluation and the other, for the detailed evaluation. The responses to these questions were marked on a three point scale that is, ‘Yes’ (Y), ‘Not Sure’ (NS), ‘No’ (N). The following segment presents a detailed description of the checklist.

Section–I Global Evaluation

This section covered the fundamental aspects of teacher manuals and had nine questions (Q1-Q9) in total. Question one (Q1) tried to cover aspects such as availability and price. Questions two and three (Q2-Q3) attempted to check if the information and guidance provided are rationalised, and checked about the assumptions made about the users’ knowledge and experience of language teaching. Question four – seven (Q4-Q7) were intended to gather information on how the teacher manuals deepened users understanding of language teaching principles, advice given on teaching procedures, representation of cultural information in teaching materials and helpful things about language learning process. Besides, questions eight and nine (Q8-Q9) focused on looking at awareness of different language learning styles, strategies and suggestions on ways of using and developing them that were represented in the teacher manuals. Also, guidance on the different roles for the teacher with reference to the nature of each learning activity was also addressed in this section.
Section–II Detailed Evaluation

This section had sixteen questions (Q10-Q25) which endeavoured to evaluate the teacher manuals in detail. Questions ten and eleven (Q10-Q11) attempted to check if the teacher manuals were user-friendly and could be used to its full potential and if the objectives of the course were stated clearly. Question twelve (Q12) emphasised the teacher-learner relation implied in the teacher manuals taking into consideration the content and methods in it. Questions thirteen and fourteen (Q13-Q14) tried to examine if the teacher manuals were helpful in increasing and sustaining learner motivation and maximising learner opportunities. Also, question fifteen (Q15) checked on the appropriate ways that were suggested for the teacher to evaluate each activity, lesson and sequence of lessons. Question sixteen (Q16) checked on the information and guidance provided on handling language items. Moreover, questions seventeen and eighteen (Q17-Q18) highlighted the potential problems regarding language items and the difficulties in understanding the ‘cultural setting’ and background of the material and also checked if sufficient information and explanation were provided in the teacher manuals. Questions nineteen and twenty (Q19-Q20) aimed at gathering information on guidance in selecting and sequencing units and on planning, preparing and conducting lessons. Besides, questions twenty-one and twenty-two (Q21-Q22) emphasised the alternative routes when things did not go according to plan and the ways to correct learners’ language and the likely responses during correction. Questions twenty-three and twenty-four (Q23-Q24) enquired into the answers provided to tasks and the guidance provided for checking learning. Finally, question twenty-five (Q25) checked on how the objectives of CCE were negotiated to the teachers. It enquired into areas concerning the support provided to the teacher on diagnosing learner problems, providing feedback, modifying
instruction and planning for remediation, aiming for positive washback and monitoring learner progress.

3.6.5.3 Checklist for test scripts evaluation (question papers and answer sheets)

An analysis of question papers and answer sheets of the formative assessments I and III was done as part of data collection for the study.

Formative assessment I and III were formal ‘pen and paper’ assessments and Formative assessment II and IV were informal assessments where learners were assessed based on their performance in task sheets, projects, presentations, group discussions and classroom participation. Therefore, it was felt that formative assessment I and III would provide tangible information and an opportunity to gather and document information that was necessary to answer the research questions. However, this was finalised after discussing with the teachers as to suit their convenience and time frame. Question papers were analysed to know about various items used for assessment, to have an understanding of the purpose and the objectives for assessment and to some extent appraise the aptitude of the teacher in test construction. The answer sheets were also analysed not only to identify learner problems and the feedback given to the learners but also to get an overall understanding of the way these test scripts can be useful for the teachers to diagnose learner problems and use this diagnosis in planning remedial instructions.

The checklist used to analyse test scripts was designed considering the necessity to analyse the formative assessment conducted in the classroom. It intended to capture the assessment procedure adopted, the format of the questions used and the criteria used for assessment. By looking at the question papers and answer sheets, the
checklist not only tried to explore the assessment procedure adopted but also attempted to check for the issues related to validity and reliability that play a major role in assessing the learning abilities of a learner.

Two checklists were designed for this purpose, the first, to get details on question papers and the second on answer sheets. The first checklist had 11 elements which aimed at gathering checklists information about the guidelines used by the teacher for preparing the question paper, total number of marks, number of sections it was divided into, marks allotted for each section, tasks used, and the length of the paper and so on.

The first checklist, i.e. checklist for question paper analysis started with space for documenting general details such as date, name of the teacher, class, school and the formative assessment analysed. It had a total of fourteen items. Item one, two and three (item 1–3), were intended to document details about the class, the school and the formative assessment under analysis. Item four (item 4), was included to know about the guidelines used for setting the question paper and item five recorded the total number of marks that the paper was set for. Items six and seven (item 6-7), gathered information on the number of sections in the question paper and division of marks per section. Item eight (item 8), sought information on the time allotted for the learners to answer the paper. While item nine (item 9) checked if the instructions provided were clear or not, item ten (item 10), focused on knowing if the tasks used in the paper were either new to the learners or were similar to the tasks used while teaching or were the same as the tasks used while teaching. Item 11 (item 11), was intended to know if the question paper was ‘very short’, ‘short’, ‘as required’, ‘long’ or ‘very long’ for the learner’s level. Item twelve (item 12), was designed to record the type of
tasks used in the question paper. Next, item thirteen (item 13), focused on gathering details of the type of questions used in the question paper. Finally, item fourteen (item 14), provided space for documenting any other information, if available.

The second checklist was designed to gather information on the mode of assessment. This segment had five elements and was aimed at understanding the criteria used for evaluation, learning difficulties identified and the kind of feedback provided to the learner. Ample space for any other information was provided in both the segments to provide space to record any information that was required.

The second checklist, i.e. checklist for answer sheets analysis had a total of eight items. Items one, two and three (item 1-3), documented details about the class, the school and the formative assessment under analysis. Item four (item 4), intended to know about the criteria used for evaluation and item five (item 5), to know about the criteria used for allotting marks for each section. Item six (item 6), gathered information on the learning difficulties identified by the teacher if any. While item seven (item 7) looked into the type of feedback provided by the teacher, item eight (item 8), provided space to record any other information, if available.

**3.6.5.4 Analysis and interpretation of checklists**

Process of analysis and interpretation:

In the next chapter, the report prepared by the researcher on the teacher manuals designed for classes VII, VIII and IX are interpreted to arrive at the findings and their implications. The data is analysed and tabulated.
3.7 Triangulation

The main objective behind triangulating the data was to recheck the results for accuracy and authenticity by cross checking the data collected with the help of different research tools from different sources. In order to increase the validity and reliability of the findings, the data was examined from three different sources as it could provide sufficient support to arrive at the conclusions. Triangulation is often used to show that two or more methods were used in a study with the view to double or triple check the results. In other words, it uses multiple research techniques to examine a particular issue from many possible sources.

As Mackey and Gass (2005) state that a method cannot in itself provide enough support. It may take two or more independent sources to provide support for the study and its conclusions. Therefore, methodological triangulation (which involves using more than one method to gather data, such as interviews, questionnaires, observation and documents), was mainly adopted for collecting data and also data triangulation (which involves time, space and persons) was implemented to the maximum possible extent.

The data was analysed quantitatively and interpreted in percentage and presented in the form of tables and charts. The data, obtained in the form of text and field notes, was described thematically and the information obtained along with the findings was triangulated in analysis and description.
3.8 Conclusion

This chapter discussed the research questions, sample of the study, population which comprised a detailed description of schools, teachers, learners who were chosen for the study, research framework, and factors affecting it such as role of the learner, role of the teacher as an evaluator, role of CCE and the mode of evaluation along with the choice of framework, methodology adopted for conducting the study, the stages of the study which presented a detailed description of the preliminary study and main study, tools used for data collection which discussed content analysis, questionnaires, interviews, classroom observations, checklists, the process and analysis of the way the data is interpreted and triangulated in the next chapter.

The next chapter presents the data analysis and interpretation to arrive at meaningful findings ensuring credibility, validity and reliability of the study.