



Doctoral Thesis

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Improving evaluation of students: a metaevaluation study on CCE from the perspective of student evaluation standards

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Abstract

Student evaluation is essential for understanding what students are learning, how they are progressing, and how they can improve their performance. Continuous and Comprehensive Evaluation (CCE) was aimed at doing the same although it could only create a mixed response among various stakeholders. Therefore, understanding the pros and cons of the practice of CCE through the lens of *The Student Evaluation Standards* will definitely contribute to the development of a more effective student evaluation scheme. Besides, to have a comprehensive picture of the practice of CCE, the study analyses certain stakeholder and school factors to understand whether these factors have any influence on the implementation of CCE.

Taking into account the nature of the data, the study employs Statistical Software for Social Science (SPSS) for its analysis. Survey questionnaire mode is used for the data collection. Questionnaire of each group of stakeholders consisted of self-made questions and a few adapted questions. The survey covered 442 secondary school teachers, 25 head teachers, and 671 students predominantly in private CBSE schools of Kerala.

Statistical data analysis using factor analysis and mean scores comparison indicates that the implementation of CCE could observe the standards in general even though the practice has a number of drawbacks. Therefore, the results point out the necessity of modifying certain aspects of student evaluation practices in schools. Similarly, the empirical examination to comprehend the perspectives of various stakeholders with respect to their characteristics as well as school characteristics discloses that many of these characteristics have only small level significance in their perspectives on the exercise of CCE. Nevertheless, some of these factors demonstrate stronger relations between their perspectives and the implementation.

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1 Introduction and basic conceptualisation

1.1 Introduction

Evaluation has been one of the most important forces in the gradual degeneration of all school education over the last thirty years: evaluation with its craze for more and more objectivity in marking, with its endless desire to ensure that children fill their tender minds with numerous snippets of supremely useless information (Who built the Suez Canal? Where is the sun on November 19th? Who was Hare and what do you know about his apparatus?) has reduced education to a kind of gigantic and crazy quiz programme, where the winners get a free ticket to heaven via the IAS and the second-rankers a ticket to purgatory via the IITs and top executive posts; the others, without ranks, can walk—but neither to heaven nor to purgatory.

David Horsburgh

... We rob the child of his earth to teach him geography, of language to teach him grammar. His hunger is for the Epic, but he is supplied with the chronicles of facts and dates...

Rabindranath Tagore

Education is not the learning of facts but the training of the mind to think.

Albert Einstein

Education is one of the strongest pillars of any nation because it enables a country to form its citizens to become resourceful and efficient persons to lead a worthy life. There is nothing like education that transforms a person to a better person, a society to a better society, and a nation to a better nation. Therefore, the creation of a better world depends so much on providing the right kind of education according to the need and individual characteristics of each person. In an ever-changing world with the influence of vast knowledge, information, and technologies, it is one of the primordial responsibilities of every nation to ensure that its children receive the best education apt for their all-round development. Thereby, it can pave the way for narrowing the gap that exists between the developed countries and the poorly developed countries, and for the differences within each country.

In fact, after India's independence, different governments set up various commissions to study about the existing challenges and prevalent problems in education in the country. One of the main recommendations was to modify the examination system and assessment of students in schools and universities. The various commissions and curriculum frameworks contributed to the reformation of them considering the needs of the time. E.g. Madurai Workshop on Examination Reforms (1974 & 1988), Plan of Action by University Grants Commission (1971, 1973, & 1976), National Policy on Education (1986), Plan of Action (1992), National Curriculum Framework for Teacher Educators (2000), and National Curriculum Framework (2000 & 2005) etc. On various occasions, these different commissions explained the niceties of student evaluation and its role in improving on the quality of education in India, especially the National Curriculum Framework (2005).

National Curriculum Framework (NCF, 2005) proposed Continuous and Comprehensive Evaluation (CCE) to practice in schools with the purpose of helping students to make all-round development by undertaking the assessment of Scholastic and Co-scholastic performance of students without giving extra priority to none. In the evaluation of Scholastic aspects, all the school subjects like English, Hindi, Math, Social Science, Science, etc. can be tested with the help of written test, oral tests, practical tests, project work, seminar, diagnostic tests, quizzes, etc. In the evaluation of Co-scholastic aspects, personal and social qualities as truthfulness, cleanliness, punctuality, co-operation, emotional stability, interests, attitude, values (responsibility, honesty), and co-curricular activities like dance, drama, scouting, creative writing, etc. are tested (Monika, 2013). NCF (2005) observed that the previous evaluation practices were insufficient to consider the moto, psycho, and emotional domains of student's capacity in its evaluation. On the contrary, CCE would be capable of recognising students' unique talents through the continuous assessment and remedial measures. Added to it, there were other advantages under the practice of CCE such as reduction of exam stress, eliminating mugging up habit of students, promote real learning of concepts and significance, minimise/eliminate the impact of categorisation of students based on their exam score, etc. (Odunavar & N. B. Devaraju, 2016). National Focus Groups stated that, "If we

consider education as preparation for a meaningful life, the process of evaluation followed now, which measures and assesses a very limited range of faculties of mind, is highly inadequate and fails to give a true picture of an individual's abilities or progress towards the aims of education" (National Focus Group, 2006, p.23).

Hence, NCF (2005) proposed Continuous and Comprehensive Evaluation to practice in schools, which required much time and training before the implementation. When many schools remained hesitant about the scheme due to certain implementing difficulties, Central Board of Secondary Education (CBSE) took up the challenge boldly and developed a framework for practicing it. Thus, taking cues from the recommendations made by the NCF (2005), CBSE Board introduced CCE Scheme in its affiliated Schools all over the country starting from class sixth in 2006 and reaching at class tenth in 2010.

Statement of the problem

"Education is both a natural and a social process, wherein development of the uniqueness and individuality of the child is considered as the very essence of education, and at the same time initiating him/her into the society, for which school prepared him" (NCERT, 2014, p.40).

Temporary fails quite often influence students too negatively and turn out them victims of self-doubting. They are inclined to think pessimistically about their capacity for learning or any other activities worth doing. This is a common factor among many students in India generally. It is even worse when on one side scholastic performances are given too much importance by both parents and teachers and on the other side, non-scholastic performances are given little importance. This situation not only inflicts too much pressure upon students in the pursuit of securing good grades in terminal examinations, but also affects assessment practices as it can turn out to be an accomplice for pressing for only certain aims of evaluation. Overall, these defects in the evaluation practice can result in setting aside some fundamental purposes of evaluation. For example, all-round development of students is viewed as one of the principal aims of evaluation.

In this context, the introduction of CCE was expected to bring in some radical changes in the approach of stakeholders to examination and the evaluation of students. The working philosophy of CCE also supported this perception as it was based on the theories of modern educational psychology, especially social constructivism. NCF (2005) takes on that learning is a process of construction of knowledge, where learners actively construct their knowledge by connecting new ideas based on materials/activities presented to them – experience (pp. 127-128). Nonetheless, CCE could only win approximately the hearts of various stakeholders due to certain drawbacks that it encountered during the various phases of its implementation. This mixed acceptance of CCE among the stakeholders made the authorities to think over its efficacy and continuation in schools and eventually withdrew the scheme almost completely from schools. As a result of it, the previous evaluation practice was revived i.e. making assessment of students purely based on the performance of students in the annual written examinations since 2017 academic year. According to the latest report, a new curriculum is underway, which will have a reduced syllabus, so that students can also dedicate sufficient time for extra-curricular activities without the pressure of learning everything in a short period of time, in particular without compromising on their academic aspirations. Nevertheless, at the core of this concept, it does not seem to be very different from the one envisaged by the CCE, maybe some changes in the process of making internal assessment and awarding grades. This indicated that there exists some confusion over the integration of the curricular and the extra-curricular activities in the curriculum, above all in relation to the weightage to be allotted for different activities in the final grading of students at the end of the academic year. Thereby, the mentioned prospective curriculum can probably complicate the evaluation practices in schools alike CCE, especially considering the fact that new curriculum also emphasizes on the significance of extracurricular activities in the life of students for their all-round development. Therefore, the present study, a meta-evaluation of the implementation of CCE, can definitely help in throwing some light upon these uncertainties via the identification of some of the major advantages and disadvantages of its practice. The study attempts to look at the execution of CCE from the perspective of three main stakeholders (teachers, head teachers, and students) involved in its implementation,

and whereof, adapting the results to the new scheme of evaluation under the new curriculum for the benefits of all stakeholders.

For the development of the empirical part of the research, the study used survey questionnaires. The researcher himself developed these questionnaires adapting the standards of *The Student Evaluation Standards* (SES) to the context of CCE. Besides, some other validated questions were included in the questionnaire for understanding whether stakeholders' perspectives (teacher, head teacher, and student) varied according to certain factors, for instance, teachers' attitudes, school internal characteristics, and school external characteristics. For each stakeholder group, a separate questionnaire was developed with respect to their designation. Finally, the researcher was successful in collecting data from 25 CBSE Secondary Schools of different parts of Kerala (India) for conducting the analysis.

General objectives

According to NCF (2005), "A good evaluation and examination system can become an integral part of the learning process and benefit both the learners themselves and the educational system by giving credible feedback" (NCERT, 2005, p.71). With this purpose, NCF (2005) recommended Continuous and Comprehensive Evaluation (CCE) for the evaluation of students in schools. NCF (2005) highlighted that the implementation of CCE would bring in a number of advantages as indicated below:

- The prevalent evaluation system (summative examination) falls short of evaluating various aspects of students' talents, i.e. students' all round development was neglected. In CCE, student's distinct capacities are considered for the evaluation.
 - CCE targets to do away with rote learning and the "archaic" examination-oriented system and to replace it with the CCE system where the students get a platform for unlocking their creative talent within them.
 - CCE introduces a uniform and comprehensive pattern in education and will decrease the stress of board exams.
 - CCE promotes a student centred interactive classroom (constructive classroom)
-

- rather than the former teacher centred classroom – teacher as knowledge giver.
- CCE helps students to get out of ‘learn and forget’ syndrome and focus equally on non-scholastic aspects of education too.
 - CCE discourages unhealthy competition that caused enormous stress and anxiety among students, teachers, parents, school, etc. particularly among students.
 - CCE is helpful for identifying students’ individual capacities and nurture their talents. Besides, CCE assists in identifying students’ learning difficulties and employing remedial measures.

However, the few years of CCE implementation was not as successful as envisage by the promoters of CCE because while some aspects of CCE were in favour of its practice, some other factors were against it. Definitely, the goals of CCE as per the NCF (2005) were very relevant for ensuring the quality of education by properly conducting evaluation of students as well as paying attention to the well-being of students in schools. Nonetheless, in distinct phases of the implementation of CCE, it had to encounter with many serious challenges for carrying on the practice. As these drawbacks remained to be intact even after a few years of its implementation, the authorities finally decided to stop the exercise of CCE in schools in the academic year 2017onwards. In this context, the present study has more relevance as that seeks to understand the pros and cons of CCE’s implementation from the perspective of three primordial stakeholders of education i.e. teachers, head teachers, and students. The research results can certainly contribute to the development of a better student evaluation schemes in future.

The study has attempted to understand each stakeholders’ judgment on the practice of CCE through the lens of the four attributes (propriety, utility, feasibility, and accuracy) of *The Student Evaluation Standards*. Additionally, the researcher has taken effort to find out the influence of some important school effectiveness factors on the implementation of CCE I.e. certain school internal and external characteristics.

Concisely, the study has focused on understanding the following objectives in particular:

1. What are the stakeholders’ perspectives on the practice of CCE in CBSE secondary
-

schools in Kerala with respect to the propriety, utility, feasibility, and accuracy attributes?

2. What are the underlying dimensions in their perspectives on the practice of CCE with respect to the standards?
3. What is the relation between the stakeholders' perspectives on the practice of CCE and the school external and internal characteristics (type of school, size of school, socio-economic-family background of school, school region, type of head teacher, and school culture and climate)?
4. What is the relation between the stakeholders' perspective on the practice of CCE and their characteristics (*Teacher*: gender, qualification, age, and teaching experience, in-service training and sense of efficacy; *Head teacher*: gender, qualification, age, and experience as head teacher; *Student*: gender, class level, academic position & average grade)?

The data analysis has been done using SPSS, which is especially useful for social science researchers, particularly with big database for analysis. The study has extensively used factor analysis for understandings the underlying dimensions contained in the response of the various stakeholders and comparing them accordingly. The results of the research have been detailed in the chapter five and the discussion of the same is done in the following chapter i.e. chapter six.

Conceptual definitions

Evaluation: The systematic investigation and determination of the worth or merit of an object (Gullickson, 2005, p. 5).

Assessment: The process of collecting information about a student to aid in decisions making about the student's progress and development (Gullickson, 2005, p.5).

Assessment method: A strategy or technique teachers and others who evaluate students may use to acquire evaluation information (Gullickson, 2005, p.5).

Student evaluation: The process of systematically collecting and interpreting information that can be used (1) to inform students, and their parents/guardians where applicable, about the progress they are making towards attaining the knowledge, skills, attitudes, and behaviours to be learned or acquired; and (2) to inform the various personnel who make educational decisions (instructional, diagnostic, placement, promotion, graduation) about students (Gullickson, 2005, p.232).

Student evaluation system: All the procedures – including developing and choosing methods for assessment, collecting assessment information, judging and scoring student performance, summarizing and interpreting results, reporting evaluation findings – and policies that evaluators use to evaluate their students (Gullickson, 2005, p.232).

CCE: Continuous and Comprehensive Evaluation refers to a system of school-based evaluation introduced by CBSE Board in CBSE schools as well as all CBSE affiliated schools across the country to evaluate both scholastic and non-scholastic aspects of students' growth and development (CBSE, 2014, p.46).

Meta-evaluation: An evaluation of an evaluation (Gullickson, 2005, p.5).

Kerala: Kerala is one of the 29 states of India located in the extreme south of India.

CBSE Secondary Schools: It is a Curriculum Board under the Union Government of India for public and private schools.

Standard: A principle mutually agreed to by people engaged in the professional practice of evaluation that, if met, will enhance the quality and fairness of an evaluation (Gullickson, 2005. P.5).

Evaluator: Refer to teachers in this study.

Stakeholders: Any person legitimately involved in or affected by the evaluation. For example, students, their parents/guardians, teachers, and others who make decisions

that affect the student's education. In the present study, it stands for teachers, head teachers, and students (Gullickson, 2005, p.5).

Teacher: A person responsible for instruction and evaluation of students at a preschool, elementary school, secondary school, or tertiary institution (Gullickson, 2005, p. 5).

Head teacher: A teacher who is in charge of a school.

Student: Any person who is engaged in formal study, especially in classroom settings, and under the direction of a teacher or other supervisor (Gullickson, 2005, p.5).

Background and Justification of the study

CCE was an innovative scheme that aimed at assessing both scholastic and co-scholastic performance of students without discriminating unfairly against the co-scholastic activities in favour of scholastic. Traditional method of assessment was often criticised for being an exam-oriented assessment as it mostly tested only the memory capacity of students through terminal examinations. The two main drawbacks of the traditional method of evaluation were that first, it failed to check whether students really acquired the skills that they were supposed to master from the lessons of each academic year and secondly, non-scholastic performance of the students were not included in the final grading of students.

On most occasions, this type of assessment seldom serves neither the purpose of education nor the evaluation. All-round development of students is least cared in such situations when the focus of students and teachers is given on performing highly in the annual examinations and the securing good grades. Therefore, various commissions in different periods in India made recommendations to reform examination systems, so that it could serve better the purpose of student evaluation i.e. helping students recognise their strength for building upon it as well as addressing their difficulties in achieving it. Consequently, NCF (2005) insisted on implementing Continuous and Comprehensive Evaluation in schools. Thus, CBSE Board took not only the initiative in developing CCE Scheme but also implemented it in all schools under it in India and

abroad, which was later taken up by other Boards of Education too. Various research studies indicated that CCE could evoke positive as well as negative responses among distinct stakeholders. Yet, the practice of CCE was stopped from schools since 2017 owing to various reasons related to its implementation and effectiveness. In reality, it was a rollback of the student evaluation practice (dominated by a modus operandi of annual examinations that probably check memory capacity of the students), in most cases leaving some serious questions unanswered. Moreover, now the government is mulling over to introduce a new trimmed down curriculum with the purpose of aiding students to accommodate both curricular (scholastic) as well as extra-curricular activities¹ (co-scholastic). In this context, student evaluation can once again turn out to be confusing in the minds of the stakeholders unless there are elaborated and clearly laid down norms regarding how to implement them apart from confirming that schools have the required facilities for exercising them properly.

Along with it, it is very important to take in to account the finding of school efficacy literature. According to School Improvement and School Effectiveness Literature, successful implementation of educational policies and schemes depend much on certain factors such as school internal characteristics, school external characteristics, teacher characteristics, and other stakeholder characteristics. Therefore, the researcher believes that an investigative study considering these various factors can certainly contribute to the development of a sound evaluation scheme paying due attention to its feasibility dimension too. Undertaking a meta-evaluation study on these characteristics of CCE shall be helpful for finding some significant results beneficial for the formation of future educational policies in connection with student evaluation as well. As the researcher takes up a quantitative study, it can produce some meaningful results different to the many qualitative studies that have already been undertaken about CCE and its practices.

¹ No-detention policy will be changed by aug.2018; The Hindu

The results of the present study can certainly be beneficial for different stakeholders. For instance, teachers can avail them for improving on their teaching competency as well as conducting the evaluation of students by rectifying the flaws in their practice. Head teachers may utilise the results to comprehend the attitude and approaches of different teachers and students towards evaluation and thereby, they can guide them accordingly by providing not only the needful assistance, but also taking apt corrective measures to conduct the evaluation of students better. School management can utilise the results for recognising some areas they are not intact, particularly with respect to creating a better school culture and climate. Parents are generally very concerned about the education of their children and attach great importance to their performance in schools. A sound evaluation of the performance of students can give a clear picture of each students' aptitude as well as attitude to the parents. Thereby, parents are able to help their children with timely guidance regarding their career choice. Apart from these, the future Curriculum and Policy makers can avail the findings of the present research while formulating the future Curriculum and Policy for the schools in India. Counting all these factors, the study deserves to be taken forward to achieve the above-mentioned objectives for the benefits of education in general and the student evaluation in particular.

1.2 Presentation of the chapters

In order to understand the general objectives of the study and to explain their significance, the study follows a logical structure in the formation of the chapters. The first chapter introduces the importance and significance of the selected study topic and its impact on student evaluation, the stakeholders, policy makers etc. Alike, the first chapter gives an outline of the complete thesis and its structure. Besides, the chapter highlights how the present study can contribute to school education in general, especially, the evaluation of students in schools in India.

The second chapter is descriptive in nature. The first section demonstrates the Indian education system in brief, its goals, and importance of student evaluation in realising the educational aims. In the following section, the chapter is dedicated to illustrate the

gradual development of CCE Scheme and the other related topics such as the meaning of CCE, objectives of CCE, advantages of CCE, and assessment process in CCE. The conclusion part gives a view of the researcher regarding the chapter and its significance for taking forward the present study.

The third chapter titled 'Review of relevant research literature' is devoted to provide a solid foundation for both the research questions and the development of questionnaires for the data collection. This section enables an analytical reading of the various studies made on the practice of CCE from the point of view of its strength and gaps including the suggestions for improving the practice. This analytical reading not only paves the way for delimiting of the objectives and research questions, but also underpins the expected significance and contribution of the present study to develop new better student evaluation schemes and improve the evaluation of students in schools in general, especially CBSE schools. Besides, the chapter consists of another important section that discusses *The Student Evaluation Standards* and its four core attributes (*propriety, utility, feasibility, and accuracy*). An overview of 'The Student Evaluation Standards' is delineated here, which facilitates the discussion of the research results.

Methodology chapter elaborates upon the purpose, design, and procedure of the research. A detailed description of the population of the study and the samples are included in this section. Moreover, certain particular facts about the research instrument, validity, and reliability of the data are also described here. Above all, an explanation of exploratory factor analysis and the use of Statistical Package for Social Science (SPSS) contain in the methodology chapter as well.

The fifth chapter deals with the results of the analysis. Scores in questionnaires scales and items are discussed in this section. Some significant underlying factors explain the different characteristics of the stakeholders and their influence on the implementation of CCE. Similarly, an effort is made here to answer the general objectives of the study. The contribution of the fifth chapter leads to the sixth chapter where discussion is carried out in order to underpin the most relevant aspects of the research results. Further, there are directions for the possible future studies on the related themes along

with the mentioning of the limitations of the study. Thus, the thesis ends with a general conclusion.

2 Continuous and Comprehensive Evaluation (CCE) Scheme implementation

“We want that education by which character is formed, strength of mind is increased, the intellect is expanded, and by which one can stand on one’s own feet” (Swami Vivekananda – Indian Philosopher)

“The school, the classroom, and related learning sites are spaces where the core of educational activity takes place. These must become spaces where learners have experiences that help them achieve the desired curricular objectives” (NCERT, 2005, p.10).

The first chapter demonstrates to us that Continuous and Comprehensive Evaluation was an innovative scheme in favour of raising the quality of student evaluation taken by the CBSE Board in the direction of equipping students to stand on their own foot. CCE has a great working philosophy in support of it. Therefore, CBSE as well as CBSE affiliated schools introduced CCE after having conducted orientation courses for different stakeholders, especially for teachers and head teachers. In the present chapter, the various phases of the development of CCE and other factors related to its implementation have been elaborated in different sections in order to facilitate the readers to get a clear picture of CCE. As part of it, the initial section narrates about some important Commissions and Committees that initiated and guided the development of CCE. It aids the readers in comprehending better the relevance of CCE in Indian school education system as well as the significance of the present study. Then, the next section substantiates various topics related to CCE. For example, development of CCE, role played by National Curriculum Framework (2005) for the origin of CCE, objectives of CCE, methods of evaluation in CCE, particularly highlighting the importance of formative and summative assessments in CCE, and the expected benefits of grading system. The following section is utilised to give an overview of the research studies made on CCE, especially the relevant ones for the present study. The final section is utilised to draw some conclusions from the above-mentioned studies that are useful for the discussion of the present study.

2.1 Introduction

In ancient time, India followed 'Gurukula Vidhyabhyasam' (ancient system of education) where 'shishya' (student) used to live with 'guru' (teacher). Students were under the guru's guidance until the guru was convinced of that his disciples were capable of leading a worthy life in the society. Students learnt everything by listening to his guru. This practice was known as learning from 'Gurumukham' - face to face learning (M. Nair, 2016 & S. Kashalkar, 2013). 'Gurukula Vidhyabhyasam' was characterised by its natural way of teaching and learning. The curriculum developed by *Guru* (teacher) was student specific and special emphasis was given to student's total development based on his individual capacities. At that time, women were also given equal right to education and teaching in the ancient times (CBSE, 2014).

The book of laws the '*Manusmriti*' and the treatise on statecraft, the '*Arthashastra*' were among the influential works of India that reflected the outlook and understanding of the world at that time. Takshila University, established in 700 B.C., was the first university of the world. Nalanda University, built in 4 AD, was one of the best Universities of its time in the subcontinent. It was an exemplary example of ancient Indian system of education. It handled all branches of knowledge and housed up to 10,000 students at its peak. By the time of the visit of the Islamic scholar Alberuni (973-1048 AD), India already had a well-developed educational system (CCE Report, 2014). However, during the period of British Raj, Indian system of education slowly disappeared and it was replaced by the western education system, which continued in India for decades even after the independence (Patel J. I., 2013).

After India's independence in 1947, the first Prime Minister Jawaharlal Nehru aimed at making education within the reach of common man (mass) in India. Alike, India's first education minister Maulana Azad's visionary approach developed a uniform educational system for the entire nation under the control of the central government. It speeded up the growth and development of education in India post-independence (Patel J. I., 2013). Nevertheless, India being a big and culturally diverse country, the jurisdiction of the central government is limited to the realm of higher education, especially to science and

technology. Still, the development of national educational policies and curriculum framework falls within the jurisdiction of the central government (Patel J. I., 2013).

2.2 Present education in India

In India, education is provided by the public sector as well as the private sector, and both the Union Government and the States share the responsibilities. Ministry of Human Resource Development (MHRD), the National Council of Educational Research and Training (NCERT), and the State Council of Educational Research and Training (SCERT) for each state are the main bodies responsible for organisation of knowledge in schools (NCERT, 2014). NCERT is an autonomous organisation set up in 1961 by the Government of India to assist and advise the Central and State Governments on policies and programmes for qualitative improvement in school education. NCERT prepares and publishes model textbooks, and other related materials for school education. It also conducts research in areas related to school education. Organisation of pre-service and in-service training of teachers pertain to them (NCERT, 2000). SCERT endeavours to improve the quality of elementary and secondary education and teacher education. SCERT is concerned with the academic aspects of school education including the formulation of curriculum, preparation of textbooks, teachers' handbooks, and teacher training. It advises the Government on policy matters relating to school education (SCERT, 2012).

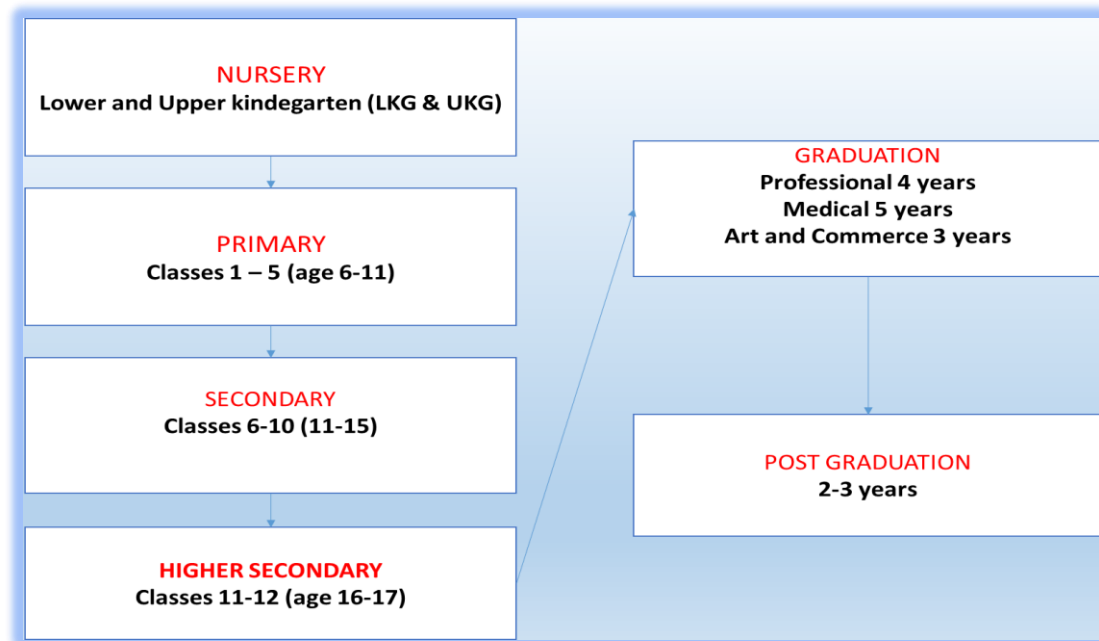
Pattern of education

India's education system is divided into different levels such as pre-primary level, primary level, elementary education, secondary education, undergraduate level, graduate, and post-graduate level.

“Central and most state boards uniformly follow the "10+2+3" pattern of education. In this pattern, a duration of 10 years of primary and secondary education is followed by 2 years of higher secondary education. The 10-year period is further divided into 5 years of primary education and 3 years of upper primary along with 2 years of high school. This pattern originated from the recommendation of the Education Commission of

1964–66. Finally, 3 years of college (universities) education is required for Bachelor's degree and with another two years of university education, Master's degree is awarded (Patel, 2013).

A diagram illustrating the education pattern exercised in India is shown below.



(CBSE, 2014).

Figure 1. Education pattern in India

Curriculum bodies governing school education

India being a big country, it has different curriculums with some differences in their goals. Even then, the core values remain the same i.e. provide quality education according to the need of the time. Among them, two main educational bodies are State Syllabus Board and Central Board of Secondary Education. State Syllabuses are dominant in their respective states whereas, CBSE syllabus dominates all over India. These various Boards update frequently their curriculum in terms of goals and aspirations of the country. The various curriculum bodies are listed below.

- The State Government Boards (the majority of Indian children are enrolled in the state curriculum).

- **The Central Board of Secondary Education (CBSE) – the population of the study present study.**
- The Council for the Indian School Certificate Examinations (CISC).
- The National Institute of Open Schooling (NIOS).
- International schools affiliated to the International Baccalaureate Programme and/or the Cambridge International Examinations.
- Islamic Madrasah schools, whose boards are controlled by local state governments, or autonomous, or affiliated with Darul Uloom Deoband.
- Autonomous schools like Woodstock School, The Sri Aurobindo International Centre of Education Puducherry, Auroville, Patha Bhavan, and Ananda Marga Gurukul.
- International boards like IB and IGCSE (Patel, 2013:41-42).

India is a federal nation. These different boards often update their curriculum based on the National Curriculum Framework prepared by Central Government, especially adapting them according to the needs of each state and purpose of education perceived by each board. Therefore, the individual states of the country have authority over their affairs. This assists each state in preparing and maintaining their educational system with the traits of cultural and traditional features. As a result of it, each state like Kerala has its own independent syllabus and curriculum that assure to provide quality education for its citizens. States prepare the syllabus basing on the directions given by the NCERT. Every state has its particular syllabus, which has the influence of regional features like language, culture, tradition etc. Nevertheless, when it comes to the national syllabuses, there is no much variation in the syllabuses except in the case of language. CBSE, NIOS, ICSE etc. are the important national syllabuses.

Central Board of Secondary Education (CBSE)

Central Board of Secondary Education (CBSE) is one of the most sought after curriculum bodies in India. The researcher availed CBSE affiliated schools from Kerala for the data collection for the present study. Therefore, it is advisable to make an outline of CBSE schools in relation to its status and stipulated goals, so that the readers may have a

sound idea about them. Additionally, it is mentioned in two small paragraphs about the reason behind the choice of Kerala for the data collection in this section.

The Central Board of Secondary Education (CBSE) is a registered society (Indian Societies Act 1860) and an autonomous organization under the Ministry of Human Resource Development (MHRD), Government of India. It is one of the principle National Boards of India in the field of education (CBSE, 2014).

Central Board of Secondary Education has its origin back to 1929, wherein the then Government of India passed a resolution to set up a joint Board of Rajputana (present Indian state Rajasthan), Central India and Gwalior. It was named as the 'Board of High School and Intermediate Education, Rajaputana'. It was one of the oldest and largest Board of Secondary Education in India, established in the year 1929. In the year 1962, the Board was reconstituted to serve the educational institutions more effectively and facilitate the educational needs of the central government employees who needed to often shift to different parts of the country due to their job transfer. The Board grew strongly from a meagre number of 309 schools in 1962 (CBSE, 2014, p.5) to 19316 schools at present in India apart from the 211 schools in 25 foreign countries as per the 2017 status.

CBSE schools function under the aegis of the Ministry of Human Resource Development. It is a special nature of CBSE syllabus that notwithstanding the geographical variations, the schools and students under CBSE enjoy and share common privileges as regards the curriculum, examinations, and academic innovations. CBSE claims that it takes the benefits of the latest educational research to the common person in a cost-effective manner (Aggarwal, 2015).

CBSE has many affiliated schools under different management bodies such as:

- *Kendriya Vidyalaya Sangathan.*
- Government/Government aided schools.
- *Navodaya Vidyalaya Samiti.*
- Central Tibetan Schools Administration.

- Educational trusts and Societies.
- Other independent/private schools (Samples schools are chosen from the private schools, as they are usually known for providing quality education).

CBSE Board intends to provide quality education to foster intellectual, social and cultural spirit among its learners. It tries to promote a learning process and environment, which empowers the future citizens of the modern world. CCE was a step taken in this direction by the CBSE Board for a holistic learning in their schools. CCE attempted to provide a stress-free learning environment that could develop competent, confident, and enterprising citizens who would promote harmony and peace (CCE Report, 2014).

Objectives of CBSE

- To raise the standard of school education.
- To make the services of the Board available to various educational institutions.
- To meet the educational needs of the students who have to move from state to state.
- To conduct examinations and such other examinations as it may consider fit (CBSE, 2014).

CBSE schools in Kerala

There are around 1249 schools affiliated to the Central Board of Secondary Education (CBSE) in Kerala and these schools differ from CBSE schools in other states only in the case of optional language as most states have their own proper mother language. Malayalam is the mother language of Kerala. Generally, CBSE schools have good reputation among parents for the quality of curriculum and education, which is affordable too. Therefore, parents looking for providing quality education to their children generally prefer CBSE schools because it is very expensive to educate in a reputed private school in India like in most other countries, particularly in Kerala. CBSE syllabus is widely practised in public schools as well. For this reason, every year the number of CBSE schools is on increase in this small state of India. The demand for CBSE syllabus education is often justified with the performance of the students in competitive

examinations. It is a national syllabus patterned in the international standards, which is more helpful for performing well in national level competitive examinations. At the same, it is not as tough as some international syllabuses like ICSE, IG nor as easy as some state syllabuses in comparison. Therefore, CBSE syllabus enables the students more competent in different fields, especially in public examinations for professional career.

The results of the data analysis also reflect this view and accordingly, students' performance is higher and many students have the highest grades 'A' and 'A+'. Some factors have really contributed to the better performance of the students. For example, Kerala state is ranked first in both social and literacy level among the 29 states in India (Prabhu. N, 2016). This advantage is conspicuous in the overall performance of the students participated in the study. Addition to the better socio-economic level of the state, the sampled schools are also reputed ones and this factor also favours the performance of students. In the recently concluded National Eligibility Test for recruiting students for medicine and engineering and some other disciplines, Kerala was one among the best-rated three states.

2.3 Various Commissions/Policies and step-by-step development of CCE

Every country should frequently analyse its educational policies and curriculum and update them according to the needs of the time. Like many countries, India also takes great efforts to update its educational practices as per the growing needs of the country. In the following section, a brief outline of the important Commissions and Policies that helped in the development of CCE is described. The reports by different commissions and their practice gave new insights and by stitching up these new insights into practice finally shaped up the CCE Scheme. One or the other way, these various Commissions and Reports played some major roles in the development of present education system of India.

The Indian University Commission (1902)

A strong step was taken in the direction to elevate the quality of education in Indian by the University Commission (1902) as they considered seriously the views shared by the Hunter Commission (1882). Hunter Commission stated, 'It is beyond doubt that the greatest evil from which the system of Indian university education suffers is that teaching is subordinated to examination and not examination to teaching' (in CBSE, 2014, p. 19).

The Calcutta University Commission (1917-19)

The Calcutta University Commission took the initiative for the creation of Boards of Secondary Education in order to end the domination of school education by the universities because previously the universities used to conduct independent matriculation examination for admitting students to universities. This commission also identified several shortcomings in the examination system and underlined that it was unhappy about alternative questions, the mechanical system of marking, grace marks, frequency of examinations, and so on.

The Hartog Committee Report (1929)

This committee criticized the academic bias of examinations at the school level. The Committee observed that the school examination was remained to be an instrument to supply the needs of university entrance and offered no opportunity for the majority of the students to take up industrial, commercial, or technical courses as a preparation of life.

The Sargent Plan (1944)

The Report of the Central Advisory Board for Post-War Educational Development in India, known as the Sargent Plan (1944), criticized the subordination of the high school curriculum to the requirements of universities, particularly in view of the fact that only one out of ten or fifteen high school leavers went on to a university.

The Committee on Secondary School Examination Council of India (1946)

To overcome the obstacle of the subordination of the high school curriculum to the requirements of universities, the Committee on Secondary School Examination Council of India (1946) proposed that there should be one examination at the end of the high school for serving both the purposes: the entry into universities and employment on leaving school.

The Secondary Education Commission or Mudaliar Commission (1952-53)

Mudaliar Commission reshuffled the concept of examination with many effective reformations. The commission elaborated the recommendations on examination reform like reduction in the number of external examinations, conduct of objective tests, and assessment of attainment of the students through a proper system of school records, weightage for in-school tests, symbolic rather than numerical marking for purposes of evaluation and grading, etc.

The All India Council for Secondary Education (1952)

After the Mudaliar Commission submitted its report, the Ministry of Education appraised these recommendations and started looking for ways of implementing them. For this purpose, the All India Council for Secondary Education was established (AICSE). The main function of this body was to advise the Government of India and state governments on the manner in which the recommendations of the commission could be implemented.

The Education Commission or the Kothari Commission (1964 – 66)

A Government Resolution appointed the Education Commission 1964-66 or Kothari Commission under the name of its Chairman Prof D. S. Kothari in July 1964. The purpose of the commission was to advise the Government of India on the national pattern of education and on the general principles and policies for development of education at all stages and in all aspects. The commission commenced its work on October 2, 1964 and submitted its report on June 26, 1966. The present education system is largely indebted

to the Kothari recommendations. Followings were the important recommendations of the commission:

- Evaluation at the lower primary stage should help pupils to improve their achievement in basic skills and development of habits and attitude. Besides, written work, examinations should include oral tests as a part of internal examinations.
- External examinations should be improved by raising the technical competence of paper-setters; orienting question papers to objectives other than the simple acquisition of knowledge.
- The certificate issued by the state board of school education on the basis of the results of the external examination should give the candidate's performance in different subjects for which he has appeared, and there should be no remark to the effect that he has passed or failed in the whole examination.
- Internal assessment by the schools should be comprehensive enough to evaluate all aspects of student growth, including those not measured by the external examinations. It should be descriptive as well as quantified. Teachers should be trained appropriately. The internal assessment should be shown separately from the external examination marks.

The National Policy on Education (1986)

National Policy on Education identified the following as the most important goals of education:

- Relating education to the needs of the society.
- Promotion of national integration.
- Equalisation of educational opportunity.
- Linking education with productivity and national development.
- Acceleration of social transformation (CBSE, 2014).

The Programme of Action (POA 1992)

The Programme of Action (POA 1992) elaborated that evaluation should focus on relevance, flexibility, and quality. The Committee suggested for removal of subjectivity in examination and de-emphasis of memorization. It specified the use of continuous and comprehensive internal evaluation of the scholastic and non-scholastic achievements of students and the introduction of semester system from the secondary stage in a phased manner and use of grades in place of marks. It also stressed on improving in the conduct of examinations, introduction of concomitant changes in instructional materials, and methodology.

Learning without Burden (1993)

The report of the National Advisory Committee appointed by the Ministry of Human Resource Development stated that, “board examination, taken at the end of Class X and XII, had remained rigid, bureaucratic, and essentially not very educative because of the amount of information they demand in a manner ready for instant recall”. The report of the National Advisory Committee had strong influence on the decision of National Policy on Education (1986) to take the decision in favour of recommending CCE as essential to take cares of student scholastic and non-scholastic learning.

Re-modelling of School Education Boards (1997)

A report of the Task Force on the role and the status of Boards of Secondary Education (1997) detailed about the philosophy of CCE. Moreover, it emphasised that the Board not only should promote CCE, but also should take the pioneering role in this regard. The Report of the Task Force observed that school Boards were expected to play the central role in the renovation of the school system. Therefore, the leadership should come from the Board. Once the boards get committed to this vital and supplementary system of evaluation, the innovation would come to be accepted by all (CBSE, 2014, p.24).

National Curriculum Framework (NCF) for School Education (2000)

NCF (2000) brought out by NCERT suggested that ‘comprehensive evaluation could take a holistic view of learners’ progress covering scholastic and Co-Scholastic aspect’ (in CBSE, 2014, p.24).

National Curriculum Framework (2005)

The National Curriculum Framework (2005) was a landmark in the history of school education because the recommendations made by NCF (2005) had the potentiality to take school education of India to new heights. It laid down the following core principles trying to incorporate some elements that was badly lacking in the education of system of India:

- Connecting knowledge to life outside the school.
- Ensuring that learning is shifted away from rote methods.
- Enriching the curriculum to provide for overall development of children rather than remain textbook centric.
- Making examinations more flexible and integrated into classroom life.
- Nurturing an overriding identity informed by caring concerns within the democratic polity of the country (NCERT, 2005, p.5).

The National Curriculum Framework 2005 portrayed child as a natural learner and give space to children to find out their voice and opportunities to nurture their curiosity and engage themselves with the world around. It considered attitudes, emotions and values as the integral part of cognitive development, moreover, NCF (2005) recommended for an internal school-based system of assessment, which could provide information on a child’s overall development in a continuous and comprehensive manner.

NCF (2005) proposing Examination Reforms stated that the Board had to consider as a long-term measure, making the Class X examination optional. Thereby, it could permit students continuing in the same school (and who do not need a board certificate) to an internal school exam instead.

Position Paper on 'Examination Reforms' (2006)

National Focus Group on Examination Reforms by NCERT worked out on reformations of examinations considering the recommendations of NCF (2005). Thus, it made the reformation of examination possible with the following recommendations:

- Elimination of excessive element of chance and subjectivity
- De-emphasis of memorization
- Introduction of Continuous and Comprehensive Evaluation (CCE) that incorporates both scholastic and non-scholastic aspects of education spread over the total span of the instructional time.
- Effective use of evaluation process by teachers, students and parents
- Improvement in the conduct of examinations
- Introduction of concomitant changes in the instructional materials and methodology
- Introduction of the semester system from the secondary stage in a phased manner
- The use of Grades in place of marks (Summary of National Focus Group on Examination Reforms, 2013).

National Focus Group on Examination Reforms (2006)

National Focus Group on Examination Reforms made up of educationists and experts from central and state government organizations, private bodies and individual made the recommendations:

- Tenth Grade Examination be made optional forthwith.
- Declare a grade rather than award a mark and
- Strengthen Continuous and Comprehensive Evaluation (National Focus Group, 2006).

The Annual Conference of Council of Boards of School Education (COBSE)

A presentation was made in the *Annual Conference of Council of Boards of School Education (COBSE)* in Delhi on 24 and 25 of August 2009 about making the Class X Board Examination optional. It made the following recommendations:

- “While agreeing to the introduction of the grading system to be gradually promoted both at the secondary and the senior secondary levels, all school boards should commit themselves to bring about the change within 2-3 years. For this purpose, there is an urgency to evolve suitable grading models. Contextually, the Conference took note of the considerable work already done by NCERT, CBSE and COBSE, and therefore, urged the boards to take advantage of their practical experience.”
- “There is a full agreement among the boards about the need to introduce the continuous and comprehensive evaluation in systematic manner to ensure the development of all aspects of students' personality. It is further, agreed that the idea of making the grades received in CCE a part of the annual examination or the examination conducted by the board should be pursued”.
- “There was no general consensus in making Class X examinations optional at present. However, the initiative of CBSE to make Class X examinations optional was appreciated and other boards would like to learn from the experiences of CBSE, before they adopt it” (in CBSE, 2014, p.25).

‘Circular 39’

Considering the above-indicated factors, Board issued ‘Circular 39’, which highlighted the examination reforms with a provision:

- There would be no Class X Examination for students studying in CBSE schools affiliated to the Board up to Class XII
 - CCE would be strengthened in all affiliated schools
 - Grading would be introduced in Class X from 2010 examination and in Class IX from the 2009-2010 under CCE.
-

Thus, after a long stretching history of various Commissions and Reports ended up in the evolvement of CCE, and the implementation of which was realised with the Circular 39 from the academic year 2009 -2010 academic year (in CBSE, 2014, p.25).

Table 1. Summary of the historical perspective

<i>Summary of the historical perspective</i>	
Commissions and Reports	Observations/recommendations/reformations
<i>Hunter Commission 1882</i>	<ul style="list-style-type: none"> ○ Teaching is subordinated to examination and not examination to teaching.
<i>The Indian University Commission (1902)</i>	<ul style="list-style-type: none"> ○ Recognised the view shared by Hunter Commission
<i>The Calcutta University Commission (1917-19)</i>	<ul style="list-style-type: none"> ○ Took the initiative for the creation of Boards of Secondary Education in order to end the domination of school education by universities ○ Identified several shortcomings in the examination system
<i>The Hartog Committee Report (1929)</i>	<ul style="list-style-type: none"> ○ criticized the academic bias of examinations at the school level ○ the school examination was remained to be an instrument to supply the needs of university entrance ○ Examinations did not offer opportunity for the majority of the students to take up industrial, commercial, or technical courses as a preparation of life.
<i>The Sargent Plan (1944)</i>	<ul style="list-style-type: none"> ○ criticized the subordination of the high school curriculum to the requirements of universities when only one out of ten or fifteen high school leavers went on to a university.
<i>The Committee on Secondary School Examination Council of India (1946)</i>	<ul style="list-style-type: none"> ○ There should be one examination at the end of the high school for serving both the purposes: <i>the entry into universities and employment on leaving school.</i>
<i>The Secondary Education Commission or Mudaliar Commission (1952-53)</i>	<ul style="list-style-type: none"> ○ Recommended reduction in the number of external examinations, conduct of objective tests, and assessment of attainment of the students through a proper system of school records, weightage for in-school tests, symbolic rather than numerical marking for purposes of evaluation and grading, etc.

<p><i>The All India Council for</i></p>	<ul style="list-style-type: none"> ○ Development of the All India Council for Secondary Education (AICSE) to advise the Government of India and state governments regarding the implementation of the
<p><i>The Education Commission or the Kothari Commission (1964 – 66)</i></p>	<ul style="list-style-type: none"> ○ Evaluation is to improve their achievement in basic skills and development of habits and attitude in primary stage. ○ External examinations should be improved by focusing on objectives rather than acquisition of knowledge. ○ The certificate should be issued based on the candidate's performance in different subjects without the remark to effect of passed or failed. ○ Internal assessment should be comprehensive enough to evaluate all aspects of student growth, teachers should be trained properly, and internal assessment should be shown separately from the external examination marks.
<p><i>The National Policy on Education (1986)</i></p>	<ul style="list-style-type: none"> ○ Relating education to the needs of the society ○ Promotion of national integration ○ Equalisation of educational opportunity ○ Linking education with productivity and national development ○ Acceleration of social transformation
<p><i>The Programme of Action (POA 1992)</i></p>	<ul style="list-style-type: none"> ○ Removal of subjectivity in examination and de-emphasis of memorization ○ <i>Use of continuous and comprehensive internal evaluation of the scholastic and non-scholastic achievements of students</i> ○ Introduction of semester system from the secondary stage ○ Use of grades in place of marks
<p><i>Learning without Burden (1993)</i></p>	<ul style="list-style-type: none"> ○ Board examination, taken at the end of Class X and XII, had remained rigid, bureaucratic, and essentially not very educative because of the amount of information they demand in a manner ready for instant recall.
<p><i>Re-modelling of School Education Boards (1997)</i></p>	<ul style="list-style-type: none"> ○ Entrusted the Board to take the initiative in promoting CCE and pioneering it.
<p><i>National Curriculum Framework (NCF) for School Education (2000)</i></p>	<ul style="list-style-type: none"> ○ Suggested that comprehensive evaluation could take a holistic view of learners' progress covering scholastic and co-scholastic aspect
<p><i>National Curriculum Framework (2005)</i></p>	<ul style="list-style-type: none"> ○ Connecting knowledge to life outside the school. ○ Ensuring that learning is shifted away from rote methods. ○ Enriching the curriculum to provide for overall development of children rather than remain textbook centric. ○ Making examinations more flexible and integrated into classroom life.

<i>Position Paper on 'Examination Reforms' (2006)</i>	<ul style="list-style-type: none"> ○ De-emphasis of memorization ○ <i>Introduction of Continuous and Comprehensive Evaluation (CCE) that incorporates both scholastic and non-scholastic aspects of education spread over the total span of the instructional time.</i> ○ Effective use of evaluation process by teachers, students and parents ○ <i>The use of Grades in place of marks.</i>
<i>National Focus Group on Examination Reforms (2006)</i>	<ul style="list-style-type: none"> ○ <i>Tenth Grade Examination be made optional forthwith.</i> ○ <i>Declare a grade rather than award a mark and</i> ○ <i>Strengthen Continuous and Comprehensive Evaluation.</i>
<i>The Annual Conference of Council of Boards of School Education (COBSE)</i>	<ul style="list-style-type: none"> ○ Agreed to the introduction of the grading system to be gradually promoted both at the secondary and the senior secondary levels. ○ Agreed to introduce the continuous and comprehensive evaluation and making the grades received in CCE a part of the annual examination. ○ Initiative of CBSE to make Class X examinations optional.
'Circular 39'	<ul style="list-style-type: none"> ○ There would be no Class X Examination for students studying in CBSE schools affiliated to the Board up to Class XII ○ CCE would be strengthened in all affiliated schools ○ Grading would be introduced in Class X from 2010 examination and in Class IX from the 2009-2010 under CCE.

The number of significant Policies, Committees, and Commissions with a long stretching history demonstrate how CCE evolvement happened. In the process at the initial stage, the intent of reformation was to free teaching from subordination to examination (The Indian University Commission). With this purpose, the Calcutta University Commission initiated to create a Board for Secondary Education to end the exam domination by universities. Moreover, the Commission identified several shortcomings in the exam practice. Hartog Committee Report highlighted these drawbacks, especially the academic bias of examinations, the status of examinations as tools to supply the needs of university entrance, and the limitation of the examinations that offered opportunities to only very few persons. The Sargent Plan agreed to it by reporting that the school curriculum served only one out of ten or fifteen. Therefore, the Committee on Secondary School Examination Council of India made it obligatory to conduct one examination that could serve both purposes: the entry into universities and employment

on leaving school. A basic concept of CCE could be identified in this recommendation because so far, school examination was conducted simply to serve the university entrance, on the contrary, here the Committee emphasised on the employability of the students after their high school learning that signalled the importance of recognising the diverse capacities of each individual for their future life. The reformation of examination until this stage could be termed as the first phase of developing a philosophy of examination of student performance that stressed on the peculiar status of high school examination as well as the importance of certifying the skills achieved by each individual after high school.

In the second phase, Mudaliar Commission guided the reformation by emphasising on the need to conduct external and internal examinations where focus should be given to students' attainment of various capacities rather than the knowledge. Moreover, it specified on introducing grade system instead of numerical marking. Later, as there was a lack of a central Board to advise the central as well as state governments, the All India Council for Secondary Education (AICSE) was established. Afterward, the Kothari Commission could bring in a sea of changes in Indian education system that could practically redefine the philosophy of examination in India. Among the many recommendations of the Commission, a few of them stood out exclusively such as the relevance of comprehensive evaluation, significance of indicating the internal assessment score separately from the external examination marks and the importance of training teachers properly. Added to the Kothari Commissions, the National Policy on Education widened the concept of education by linking it with personal, societal, and national growth. In the second phase of the reformation of examinations, the philosophy of evaluation found its way to the next stage, i.e. evaluation should aim at the growth of the individual as well as the development of the nation simultaneously.

Finally, the third phase of reformation of examinations marked the successful culmination of long awaited development of a comprehensive evaluation. The Commissions and their recommendations in this period steered clearly to the formulation of CCE. The philosophy of evaluation urged to the removal subjectivity and de-emphasis of memorization, the exercise of continuous and comprehensive internal

evaluation of the scholastic and non-scholastic achievements of students, and the use of grades instead of marks etc. (POA 1992). Learning without Burden observed that examinations centred on recalling of amount of information was rigid, bureaucratic and essentially not educative. Therefore, the Board was entrusted with to take the initiative to promote and pioneer CCE. On this background, NCF (2000) suggested that comprehensive evaluation could take a holistic view of learners' progress covering scholastic and co-scholastic aspect and NCF (2005) came out with a working philosophy of comprehensive evaluation. Based on the recommendations made by the NCF (2005), Position Paper on 'Examination Reforms' (2006) developed a working model for the comprehensive evaluation that advised to make Tenth Grade Examination be optional forthwith, declare a grade rather than award a mark and strengthen Continuous and Comprehensive Evaluation. In the following Annual Conference of Council of Boards of School Education (COBSE) not only agreed to introduce grading, CCE, and make Class X optional and but also asked CBSE to pioneer the implementation. In this situation, CBSE took the initiative to introduce CCE in all CBSE schools, and issued 'Circular 39'. The circular stated that there would be no Class X Examination for students studying in CBSE schools affiliated to the Board up to Class XII, CCE would be strengthened in all affiliated schools, and grading would be introduced in Class X from 2010 examination and in Class IX from the 2009-2010 under CCE.

In the above section, the decades extending history of exam reformations have been outlined, besides how these reformations have gradually led up to the development of CCE. Since the study is looking at the CCE implementation from the perspectives of *The Student Evaluation Standards*, an elaboration on the features of CCE with respect to its legal side, characteristics, objectives, expected advantages, expected benefits of CCE implementation, methods of evaluation in CCE etc. is very apt, especially for the development of research objectives. Therefore, the next section sketches out the CCE Scheme for a proper understanding of the research results and discussion.

2.4 Introduction of CCE

The long history of India's exam reformations finally resulted in the development of CCE with a solid philosophical ground, which was also concurrent with Gandhi's view of education that helps all-round development of an individual. Similarly, Howard Gardener's multiple intelligence theory (intelligence as multifaceted) reflects in the concept of CCE as well. Therefore, naturally the expectation of the promoters of CCE was equally high regarding the impact of CCE in raising the quality of student evaluation.

Even though the present research focuses on the implementation and effects of CCE only in higher courses i.e. from the 2009 academic years only when CCE was implemented in higher courses, an outline of the implementation of CCE in lower courses is also added in next passage, so that the track of CCE implementation could be understood better. Afterward, the following sections are dedicated to elaborate how CCE was formally introduced in higher courses by CBSE Board in its schools. These sections would definitely pave the way for taking forward the study to the next stages.

2.4.1 Introduction of CCE in lower courses

In the light of recommendations made by various Commissions and Policies, CBSE Board decided to introduce CCE for the all-round development of the students through the assessment of scholastic and co-scholastic performance of the students. Subsequently, CBSE introduced Continuous and Comprehensive Evaluation in the first phase in Classes I to VIII. As such, CCE was first implemented in Primary (Classes I-V) in 2004 (Vide Circular No 5/18/25 dated 13/3/2004, 29/3/2004, 12/6/2004 respectively) and in Middle (Classes VI-VII) in 2006 (Vide Circular No. 2 dated 31/01/2006). A significant change with the new method was doing away with the concept of pass/fail system up to Class V. Instead, the assessment focused on the positive aspects of the child's development during this stage. It facilitated the holistic approach learning. As a follow up, the Board decided to extend the CCE to Classes VI to VIII IN 2006.

2.4.2 Introduction of CCE in higher courses

In spite of the effective implementation of CCE in lower classes, the Board had certain qualms regarding the extension of CCE in classes IX and X. Therefore, CBSE Board followed some processes before the implementation of CCE in classes IX and X. They were Focus Group Discussion, Field Visits: interactions with stakeholders, Survey by MDI, Gurgaon Conference of Council of Boards of School Education (CBSE) and 16th National Sahodaya CBSE Conference (CCE Report, 2014).

Focus Group Discussion that consisted of groups of students, parents, teachers, principals, and educators. Besides them, there were officers from the MHRD, CBSE and Principals of the CBSE affiliated schools. They collaborated in various discussions that took place in different parts of India. Various interactive sessions were conducted from July 24 until 28 August 2009 with stakeholder in secondary education namely, students, parents, teachers, principals and educationists in major cities of India. Following were the points for discussion with stakeholders as well as Focus Groups:

- “External public exam is adversely affecting the teaching learning process especially in Classes IX and X.
- Academic excellence is not the only criteria for measuring future potential or success in life.
- CCE can be used for holistic assessment of a child. CCE would include: Scholastic and Co-Scholastic aspects.
- Online testing on demand (when the learner is ready) in lieu of Board Examination – Class X would provide certification of skills.
- Grading which is indirect and absolute would help to reduce stress and anxiety.
- Accreditation of schools will help to raise the quality and standards of institutions - provide parents with information about schools in an objective manner (CBSE, 2014, p.34).

Afterward, separate sessions were held with principals, students, teachers, and parents to evaluate their views with respect to the position of examinations. These stakeholders

filled in queries and the outcome of the analysis signalled positively to the implementation of CCE in its strengthened form; however, they were of the view that examinations should not be made optional.

A survey was also commissioned to know the perceptions of different stakeholders about the external public examination for Class X. the main stakeholders were students, parents, teachers, and principal who were approached to get their perception regarding the X public examination. The same survey was also executed online too. The following were the points for reflection:

- The anxiety and stress among all stakeholders due to one-time, year-end examination of Class X Board.
- Present coping mechanism.
- Planning of a Continuous and Comprehensive Assessment scheme for schools.
- Usefulness of the Class X Board Exams (CBSE, 2014, p.35).

Tool used for the data collection was questionnaires for different target groups. The first draft of questionnaires was prepared in a brainstorming with a group of principals. They were modified after a pilot test. The final questionnaires were developed for the following target group:

Students (Number of questions: 46)

Parents (Number of questions: 76)

Teachers (Number of questions: 70)

Principals and educators (Number of questions: 74)

About 14000 questionnaires were filled up by a sample of students, parents, principals, and teachers of CBSE affiliated schools. Simultaneously about 6000 responses were also obtained through CBSE's website as well.

Summary of findings of the survey:

Table 2. Summary of finding of the survey about CCE implementation

	Stakeholders	Responses Received	Factors identified, in determining perception towards public examination
1	Parents	4381	Child's examination strain, parent's seclusion, parental stain, ineffective pedagogy, child's performance anxiety, eustress, apprehension about child's admission, result obsession.
2	Principals	428	Student's examination strain, ineffective teaching pedagogy, eustress, result obsession, assessment and anxiety, poor coping skills worries about future of students, worries about school's image, concern for extracurricular activities.
3	Students	5119	Examination strain, seclusion, exam-stress, performance anxiety, apprehensions about admission, ineffective pedagogy, alternative assessment, result obsession.
4	Teacher	4083	Examination strain, seclusion, result obsession, teacher's strain, learning impediments, performance anxiety, assessment and admission apprehensions, low self-esteem, alternative pedagogy.

(CBSE, 2014, p.36).

Additionally, a short survey was also organized in order to get immediate response on the issue through mobile messages. The questions were the following:

“Do you think if Board Examination were not conducted, you will

- Have more time for conceptual clarity and learning experience?
- Have less stress and be mentally healthier.
- Find it equally useful if there is a well conducted exam at the school level” (CBSE, 2014, p.36).

SMS response summary

Of the 8750 SMS responses, to the question that if Board Exams were not conducted:

- -61% said that they would have more time for conceptual clarity and learning experience
- -68% said that they would have less stress and mentally healthy
- -53% said that they would find it equally useful if there is a well-conducted school examination (CBSE, 2014, p.37).

Response summary key analysis

- Strong indication that Board exams lead to stress and anxiety for students
- Opinion split but still favourable on well conducted school examination as a replacement for Board Exams
- Opinion split but still favourable learning experience in absence of Board Exams (CBSE, 2014, p.37).

The Annual Conference of Council of Boards of School Education (COBSE)

After considering the positive reports of the Focus Group Discussions, Filed Visits and Surveys about the introduction of CCE in classes IX & X, the Annual Conference of Council of Boards of School Education (COBSE) in Delhi on 24 and 25 of August 2009 made a presentation. It was about making the Class X Board Examination optional, introduction of grading system at both secondary and the senior secondary level and most importantly, about the need to introduce CCE to ensure the development of all aspects of students' personality. There was a full agreement among the boards about the introduction of CCE in schools. In this conference, CBSE took initiative to make class X examination optional in order to reduce the stress of the students in the CBSE affiliated schools.

Sixteenth National CBSE *Sahodaya* Conference

The 16 National CBSE Sahodaya Conference was held from 9-11 December 2009. It passed the following resolution on the introduction and implementation of the CCE:

- The Examination Reforms by the CBSE are timely and apt.
- The introduction of the CCE Scheme by CBSE needs to be strengthened, institutionalized and carried forward into the implementation stage by ensuring sustainable teacher empowerment and capacity building in designing tasks for learning, framing good test items and developing appropriate strategies for documentation and assessment of Co-Scholastic domains.
- The schools need to look beyond boundaries and teachers need to go beyond textbooks to create a learning environment conducive to real education” (CBSE, 2014, p.38).

As a result of the *Sahodaya* Conference, the Board implemented the CBSE Examination Reforms through CCE Workshops for its affiliated schools in phases. These training programs intended to prepare adequately the different stakeholders made up of mainly principals and teachers for the successful execution of CCE in schools. These formative trainings concentrated more on methods of collecting, recording, compiling, and interpreting evidences of learner growth.

Mandate to introduce the CCE Scheme

Subsequent to so many Committees/Commissions that spread over decades, and the final surveys and consultations with various stakeholders across the country along with the given mandate of CBSE, the Board decided to implement the Scheme with the following directions: (Vide Circular Nos. 39, 40, 42, 50, 51, 52, 54, 61,62 and 63(2009).

1. The Continuous and Comprehensive Evaluation (CCE) strengthened in all CBSE affiliated schools w.e.f. October 2009 in Class IX.
2. Class X Board Examination w.e.f.2011 for students of CBSE's Senior Secondary School and those who do not wish to move out of the CBSE system after Class X.

- a) The students studying in CBSE's Secondary Schools were required to appear in Board's external examination because they were leaving the Secondary School after Class X.
- b) An Optional Aptitude Test (now termed SGAI) developed by the CBSE was available to students' w.e.f 2011. The Aptitude Test along with other school records and CCE helped the students, parents and teachers in deciding the choice of subjects in Class XI. 5.2
- c) The new Grading system was introduced at Secondary School level (for Classes IX & X) effective from academic session 2009-10 (Vide Circular No. 40, dated 29/09/2009).

The CBSE Board finally took the strong decision to introduce CCE in its affiliated schools for the remaining two Classes viz. IX and X. Since the formal introduction was after many years of planning, studies, research etc. the expectation on the effectiveness of CCE was also high. The features of CCE also justify these expectations. The general characteristics of CCE, especially regarding the features that can positively influence on the evaluation of students and help them improve on their performance are delineated in the following sections.

2.5 Features of Continuous and Comprehensive Evaluation (CCE)

The Report of the International Commission on Education for 21st Century to UNESCO referred to four pillars of living of human individuals. Viz.

- physical
- intellectual
- mental
- spiritual

The Report indicates that all-round development of every individual means optimization of hidden potential in the physical, intellectual, mental, and spiritual planes. Similarly, in line with the views of UNESCO, The National Curriculum Framework (2005) underpinned the importance of all round development of individual through education. Therefore, it

specified that education must not focus on any particular aspect of students; rather it must concentrate on total capacity building of students with proper formation with a tinge of nurturing.

2.5.1 Meaning of Continuous and Comprehensive Evaluation

CCE was an attempt in this line to appreciate each individual with his/her unique capacity sharing the vision of many Indian Commissions and Committees, especially the National Curriculum Framework (2005).

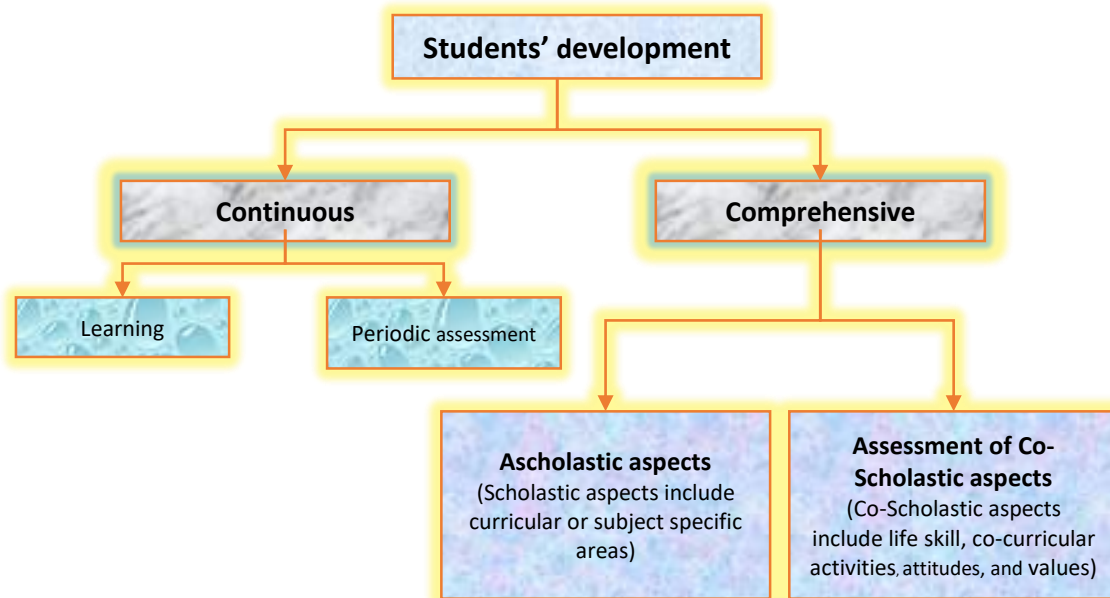
Continuous and Comprehensive Evaluation (CCE) refers to a system of school-based evaluation of students that covers all aspects of students' development. The 'continuous' aspect of CCE takes care of 'continual' and 'periodicity' aspect of evaluation. Continual means assessment of students in the beginning of instruction (placement evaluation) and assessment during the instructional process (formative evaluation) done informally using multiple techniques of evaluation. Periodicity means assessment of performance done frequently at the end of unit/ term (summative) [(CBSE, 2014, p.46)].

The '*comprehensive*' component of CCE deals with the assessment of all round development of the child's personality by assessing the *scholastic* as well as *co-scholastic* aspects of the pupil's growth.

- Scholastic aspects include curricular areas or subject specific areas, whereas Co-Scholastic aspects include life skills, co-curricular activities, attitudes and values.
- Assessment in Scholastic areas is done informally and formally using multiple techniques of assessment. This diagnostic evaluation takes place at the end of a unit/term. The causes of poor performance in some units are diagnosed using diagnostic tests. These are followed up with appropriate interventions.
- Assessment in Co-Scholastic areas is done using multiple techniques based on identified criteria, while assessment in Life Skills is done on the basis of Indicators of Assessment and checklists. The term Co-Scholastic refers to those aspects,

which are related to hand and heart (CBSE, 2014, p.46).

System of school-based evaluation of students that covers all aspects of students' development



(CBSE, 2014, p.46). *Figure 2. System of school-based evaluation of students.*

2.5.2 General and specific of objectives of CCE

Human resource development is one of the decisive factors for the development of a country. Therefore, education should be oriented towards building of true, sincere and hardworking citizens. The general and specified goals of CCE guide the individuals in this direction as indicated by the following general and specific objectives:

General objectives:

- To help develop cognitive, psychomotor and affective skills.
- To lay emphasis on thought process and de-emphasise memorization
- To make evaluation an integral part of teaching learning process
- To use evaluation for improvement of students achievement and teaching - learning strategies on the basis of regular diagnosis followed by remedial instruction

- To use evaluation as a quality control tool to maintain desired standards of performance
- To determine social utility, desirability or effectiveness of a programme and take appropriate decisions about the learner, the process of learning and the learning environment
- To make the process of teaching and learning a learner-centred activity (CBSE, 2014, p.47).

Specific Objectives:

- It helps the teacher to organize effective teaching strategies.
- Continuous evaluation helps in regular assessment of learner's progress (ability and achievement with reference to specific Scholastic and Co-Scholastic areas).
- Continuous evaluation identifies weaknesses and permits the teacher to ascertain an individual learner's strengths and weaknesses and his/her needs. It provides immediate feedback to the teacher, who can then decide whether a particular unit or concept needs re-teaching in the whole Class or whether a few individuals are in need of remedial instruction.
- By continuous evaluation, children can know their strengths and weaknesses. It provides the child a realistic self-assessment of how s/he studies. It can motivate children to develop good study habits, to correct errors, and to direct their activities towards the achievement of desired goals. It helps a learner to determine the areas of instruction in which more emphasis is required.
- Continuous and Comprehensive evaluation identifies areas of aptitude and interest. It helps in identifying changes in attitudes and value systems.
- It helps in making decisions for the future, regarding choice of subjects, courses and careers.
- It provides information/reports on the progress of students in Scholastic and Co-Scholastic areas and thus helps in predicting the future success of the learner. Continuous evaluation helps in bringing awareness of the achievement to the child, teachers and parents from time to time. They can look into the probable cause of the fall in achievement if any, and may take remedial measures of

instruction in which more emphasis is required. Many times, because of some personal reasons, family problems or adjustment problems, the children start neglecting their studies, resulting in a sudden drop in their achievement. If the teacher, child and parents do not come to know about this sudden drop in the achievement and the neglect in studies by the child and if it continues for a longer period then it will result in poor achievement and a permanent deficiency in learning for the child (CBSE, 2014, pp.48-49).

2.5.3 Expected advantages on the implementation of CCE

The implementation of CCE implied to have certain inbuilt advantages in the form of removing the Board examination, advantages of introducing grading instead of a numerical marking system together with the specific advantages of CCE. Beyond these inbuilt qualities, they have several collateral advantages as well. They have been illustrated in the below sections.

Removing the Board Examination

The enormous stress of the public examination even resulted in the suicide of students. It was a big concern for educationists to save students from extreme exam stress caused by the Board Examination. Therefore, Removing the Board examinations would certainly be a big relief for students, especially for the students of Class X.

- It would reduce the stress and the anxiety, which often builds up during and after the examination that might result in adverse impact on young minds.
- Reduce the dropout rate as there would be less fear and anxiety related to performance.
- Schools finish the entire syllabus much before time, follow it up with Pre-Board, and study leave. Now there would be greater focus on learning rather than teaching for the exams.
- The emphasis on conceptual clarification through experiential learning in the classroom would increase, as there would be more time available for transaction of curriculum (CBSE, 2014, p.49).

Advantages of introduction of CCE

CCE could be termed as one of the most innovative method, which has its roots in the basic concept of education envisaged by great educationists. Thereby, CCE was hoped to foster the true education in a number of ways, particularly:

- It would help the learners to develop holistically by also focusing on the Co-Scholastic aspects that are assessed as part of the Continuous and Comprehensive Evaluation scheme.
- Expected to prepare students for life by making students physically fit, mentally alert and emotionally balanced.
- The students will have more time on their hands to develop their interests, hobbies and overall personality.
- It will enable the students, parents and teachers to make an informed choice about subjects in Class XI.
- It will motivate learning in a friendly environment rather than in a fearful situation.
- It will equip students with life skills especially creative and critical thinking skills, social skills and coping skills, which kept them in good stead as they enter into a highly competitive environment of work (CBSE, 2014, p.49).

Advantages of Grading

One of the main reasons of students' stress emerged from the comparison of scores by student themselves, teachers or parents. Usually undue importance is being attached to exam score because for many parents, teachers their worthiness is associated with it. For some parents it is the questions of their prestige. Therefore, the introduction of grading in evaluation of students' performance was a right decision. The subsequent benefits grading are the followings:

- Grading minimizes misclassification of students on the basis of marks.
 - Grading eliminates unhealthy cutthroat competition among high achievers.
 - Grading reduces societal pressure and provides the learner with more flexibility.
-

- Grading leads to a focus on a better learning environment (CBSE, 2014, p.49).

2.5.4 Assessment in CCE

The advent of CCE was due to the initiatives taken by various Commissions to reform the examinations as these examinations failed to serve properly the purpose of evaluation (It has been delineated in the previous sections connected with the Various Commissions). It is because evaluation is an integral part of teaching-learning process. According to *The Student Evaluation Standards*, "Evaluation is the systematic investigation and determination of the worth or merit of an object" (Gullickson, 2005, p.5). Evaluation in schools provides an essential yardstick to judge the quality of students. It not only plays an important role in the educational system, but also provides motivation and a sense of purpose to both teachers and students to achieve set goals. Many research studies have already indicated that student learning has been adversely affected by memory checking examinations and teaching to test (Herman & Gibbons, 2001). "Evaluation is a systematic determination of merit, worth, and significance of something or someone using criteria against a set of standards. Evaluation need not be limited to 'achievement' with respect to particular syllabi" (CBSE, 2014, p.47). Therefore, NCERT has highlighted these characteristics in its observations of evaluation and has stated that evaluation in schools is usually limited to assessing students through examinations forgetting the fact that, "Examination is not assessment; it is only one of the tools of assessment" (NCERT, 2005). Some studies also show that students' learning is not promoting analytical and critical thinking skill, but rather promoting surface learning and rote learning lacking in-depth study. NCERT speaks of assessment as, "a crucial element of the teaching and learning process, is to be carried out for purposes beyond measurement during the instructional process which will engage and motivate learners by emphasising progress and achievement rather than failure and defeat. It added that assessment should not be treated as an index of school success; rather it should be a cause of that success by using it as a tool to promote greater student achievement" (NCERT, 2001, p.6). Another similar observation is that, "An assessment is a tool designed to observe students' behaviour and produce data that can be used to

draw reasonable inferences about what students know” (Pelligrino, Chudowski and Glaser 2001, p. 42).

When NCERT considered the introduction of CCE, they had these thoughts in their mind and recommended its implementation with confidence because of certain merits of CCE. The merit of CCE is that it employs two types of assessment, namely, *Formative and Summative assessment* to cover the various aspects of students’ personality in the assessment. By employing these two types of assessments, there is a more possibility of assessing the different aspects of students’ personality and accordingly, there is even more chance of making progress in their performance.

Formative Assessment (FA)

Formative Assessment is a tool used by the teacher to monitor students’ progress continuously in a non-threatening and supportive environment. It provides descriptive feedbacks to students on a regular basis, which creates opportunities for students to reflect upon their performance and make steady progress on it (CBSE, 2014). In the formative assessment, students also can play an important role in the way of selection of the activities, sometimes even doing the peer assessment as well. Formative evaluation helps in strengthening and improving the object being evaluated by examining the delivery of the program, the quality of its implementation, and the assessment of the context, procedures, inputs, etc. Effective practice of formative assessment is not only helpful for improving students’ performance and their esteem, but also reduce the workload of teachers (CBSE, 2014).

Features of Formative Assessment:

As formative assessment is conducted during the course of instruction, it provides continuous feedback to both teachers and learners. Hence, it allows teachers to modify their instruction and vary the methods according to the feedback of students learning. The views of Black and Wiliam of formative assessment as in CBSE (2014, p.51) is that ‘... often means no more than that the assessment is carried out frequently and is planned at the same time as teaching’ (Black and Wiliam, 1999). Similarly, Harlen perceives

formative assessment as in CBSE (2014, p.51) as something that '... provides feedback which leads to students recognizing the (learning) gap and closing it ... it is forward looking ...' (Harlen, 1998).

In CCE Formative Assessment includes all types of formal and informal tests. Teachers can elect activities as per the aptitude of the students from a pool of activities indicated by CCE. It contains activities such as class work, quizzes, homework, worksheets, oral test, assignment, group discussion, group activity, experiments, projects, and conversation/ Interview. Sometimes, Formative assessment has often been criticised for its being soft in its approach to evaluation, whereby, students can easily score high scores without much efforts.

Following are the stipulated advantages of Formative Assessment:

- Diagnostic and remedial
- Makes the provision for effective feedback
- Provides the platform for the active involvement of students in their own learning.
- Enables teachers to adjust teaching to take into account the results of assessment
- Recognizes the profound influence assessment has on the motivation and self-esteem of students, both of which are crucial influences on learning
- Builds on students' prior knowledge and experience in designing what is taught
- Incorporates varied learning styles into deciding how and what to teach
- Encourages students to understand the criteria that will be used to judge their work
- Helps students to support their peers and expect to be supported by them (CBSE, 2014, pp.50-51).

Summative Assessment (SA)

“Summative Assessment is carried out at the end of a course of learning. It measures or 'sums up' how much a student has learned from the course. It is usually a graded test, i.e., it is marked according to a scale or set of grades” (CBSE, 2014, p.51). It usually produces information of the performance of students at a particular period. Therefore, its merit in providing a clear picture of students' achievement is not only questionable, but also unscientific. “The paper pencil tests are basically a one-time mode of assessment and to exclusively rely on them to decide about the development of a child is not only unfair but also unscientific” (CBSE, 2014, p.51). According to Harlen (1998), Summative Assessment, “ ... looks at past achievements ... adds procedures or tests to existing work ... involves only marking and feedback grades to student ... is separated from teaching ... is carried out at intervals when achievement has to be summarized and reported” as in CBSE (2014, p.51). Black and Wiliam (1999) define Summative assessment 'measures' or 'sums up' how much a student has learned from the course as found in CBSE (2014, p.51) .

Features of Summative Assessment

Even though there are strong criticisms against summative assessment (as indicated in the above passage), it continues as one of the most commonly used tool to evaluate students, especially to report a summary of the learning. Additionally, it has the following advantages in the field of student evaluation:

- Assessment of learning
- Summative Assessment methods are the most traditional way of evaluating student work.
- Generally taken by students at the end of a unit or semester to demonstrate the “sum” of what they have or have not learned (CBSE, 2014, p.51).

Evaluation method of CCE

In CCE practice, Formative Assessment and Summative Assessment are both used to evaluate performance of students. The Formative assessments are conducted in Term wise while, Summative assessments are conducted twice in a Term. In total, there are four Formative Assessments (FA1, FA2, FA3 and FA4) and two Summative Assessments (SA1 and SA2) in an academic year. Accordingly, the syllabus for different subjects is bifurcated for the two terms in CCE in order to facilitate the purpose of teaching and assessment (CBSE, 2014, p.51). Through these assessments that include a variety of tests and assignments cover both scholastic and so- scholastic aspects of students performance.

In Formative Assessments, multiple modes such as assignments, quizzes, debates, group discussions, and projects are employed. However, only one pen and paper assessment is permitted for each subject on Formative Assessment. Besides, teachers have to apply group activities within the class and school hours only. Since projects and assignments are the most commonly applied classroom activities, teachers are advocated to include other modes of assessment too. Co-Scholastic areas consist of Life- Skills, Attitudes and Values, Co-Scholastic Activities and Health and Physical Education (CBSE, 2014, p.51).

The Summative Assessment is a written type examination carried out at the end of the term, which is comprised of objective type, short answer and long answer questions. For making evaluation comprehensive, both Scholastic and Co-Scholastic aspects are given due importance in the evaluation because in general summative results are more important. To avoid this situation, CCE insists on giving due recognition to the formative score as well (CBSE, 2014, p.51). The weightage of marks given for each term is equal i.e. 50% each. Accordingly, there are four Formative Assessments altogether for an academic year and each Term has two assessments of 10% marks. The Grades of the Co-Scholastic subjects are on a five-point scale (A+, A, B+, B and C).

There are two Summative Assessments altogether, which are conducted one each in each Term. The total marking scheme used in CCE is thus:

I Term: FA1 (10%) +FA2 (10%) +SA1 (30%) = 50%

II Term: FA3 (10%) +FA4 (10%) +SA2 (30%) = 50%

Accordingly, in a span of two Terms consisting of four Formative Assessments and two Summative Assessments, a student can score a maximum of 100 marks for each subject. Afterward, their total score of a subject is converted into grades in proportion to the percentage of the score as indicated below.

Table 3. Grading system in India

Marks	Grade	Grade Point
91-100	A1	10
81-90	A2	9
71-80	B1	8
61-70	B2	7
51-61	C1	6
41-50	C2	5
33-40	D	4
21-32	E1	-
20 & below	E2	-

2.6 Summary

The major part of the chapter has been dedicated to draw an outline of the origin of CCE and its implication in the Indian education. The advent of CCE happened because of so many Commissions, Reports and Policies. Moreover, several studies were undertaken

to ensure its effectiveness before its implementation in schools. Alike, a detailed section has been devoted to elaborate the various aspects of CCE, especially regarding its advantages, objectives, and the process involved in its practice. The whole chapter in general underpins the importance of CCE in Indian school education, particularly in the area of evaluation of students. Although CCE could influence significantly on improving the student evaluation practices in schools as expected by the educationists, the scheme was not without any drawbacks, especially regarding the level of the attainment of its propagated goals. Moreover, the scheme had to face numerous challenges in the realm of its implementation varying from stakeholder characteristics to school characteristics apart from the criticism of over workload caused by the implementation of CCE. Some studies have also highlighted certain drawbacks of the Scheme. However, the objectives of the present research study are different from the rest of the study in such way that the present investigation is attempting to look at the CCE implementation to understand its pros and cons on the ground of '*The Student Evaluation Standards*'. In the literature review chapter, '*The Student Evaluation Standards*' are dealt with in detail showing how they are relevant for the present research and in the development of its research objectives.

3 Review of relevant research literature

“Everybody is a genius. If you judge a fish by its ability to climb a tree, it will live its whole life believing that it is stupid” (Albert Einstein).

3.1 Introduction

A good number of studies already took place on CCE with respect to its implementation and influence on serving the purpose of education in general. These studies have revealed that CCE scheme has definitely its pros and cons. Although the research findings generally strengthen the views of the Committees about the benefits of CCE, it is not without any limitations, rather with some considerable drawbacks as it was highlighted by various studies. This situation also resulted in opening windows on some serious challenging questions in connection with the propriety, utility, feasibility, and accuracy aspects of the practice of CCE. Therefore, a study addressing the concerns demonstrated by these different studies will certainly contribute to develop a prospective student evaluation scheme with maximum merits and minimum demerits.

3.2 A review of studies made on CCE

The review of the already conducted research studies on CCE implementation has been a gateway for the present investigative study into the CCE characteristics, especially through the lens of *'The Student Evaluation Standards'* (SES). Thus, the reading of literature from the perspectives of the four attributes of *'SES'* (propriety, utility, feasibility, and accuracy) together with its standards has given sufficient scope for the development of the research questions and taking the present study forward. Accordingly, the researcher has made a selective reading of some of the investigative studies made on CCE. The observations arose from the reading have been elaborated in the following sections under the headings *'strengths and gaps on the implementation of CCE'* and *'suggestions'*.

3.2.1 Strengths and gaps on the implementation of CCE

The results of the numerous research studies on CCE have underpinned various positive sides of the practice consistent with the expected advantages of CCE on implementing it. These studies have highlighted many benefits of CCE in line with the expectations of the educationists as well as the advocates of the CCE Scheme. In a similar way, various studies have pointed out some shortcomings too. Therefore, the next section delineates both the pros and cons of the implementation of CCE disclosed by various investigations and it will certainly help us to have a balanced view of the implementation of CCE in schools in different parts of India. For facilitating readers' understanding, a reverse chronological order has been employed in their presentation.

An interesting study was conducted (**Bhattacharjee and Sarma, 2009**) on the status of co-scholastic activities of CCE in the school programme of the elementary schools. The sample of the study consisted of 50 elementary schools from three educational district blocks of one of the states in India. Primary data were collected through interview schedules, observations recorded in the invigilator's diary, focused group discussions with the respondent teachers of the sample schools, and interview with various school functionaries. The study found that co-scholastic activities did not find a proper place in the school routine, besides, teachers did not have any kind of formal training to handle the co-scholastic activities. Thereby, schools ignored the co-scholastic part of the curriculum. No evaluation was conducted on the activities for either half yearly or annually. Co-scholastic part of the curriculum was totally ignored in the school program. The study underlined that lack of proper planning, paucity of various facilities, lack of proper qualified staff, and over emphasis on academic programmes were some of the major problems for the effective implementation of CCE. The study recommended that these problems had to be sorted out for ensuring the success of these activities.

Nawani (2010) investigated about School Textbooks: understanding frameworks for analysis. The study indicated that the evolvement of their own models of CCE by each state had certain problems apart from the multiple challenges faced with the implementation. It stated that maintaining of registers, filling up assessment formats, tracking students' growth, collecting evidences, writing detailed descriptive portfolios,

etc. were extra works for teachers that did not go well with them. In some cases, CCE was criticised as a project-making racket for two reasons: either parents bought ready-made projects from the market instead of students doing the project or they spent their whole time on mindless projects instead of dedicating to do some creative work. Some teachers even complained that the focus of teachers had been shifted from teaching to maintaining assessment related records.

Jaiswal (2010) undertook a study about the attitude of para teachers and teachers as well as the attitude of male and female teachers towards CCE. The data were collected adopting the survey method of investigation from all primary and junior teachers of the district board schools of Dadraul block of Shahjahanpur district. It consisted of 20% teachers of all the primary and junior schools. Sampling was made using stratified random sampling technique. The study revealed that teachers' negative attitude towards the system affected its implementation and they were very unaware of the procedure of the system as well. Besides, it found that there was a significant difference between the attitude of male and female teachers towards the system. The study underpinned that the male teachers had more positive attitude towards CCE because of their mathematical skill compared to their counterparts. As per the findings, a certain level of mathematical skill is helpful for practising CCE, especially in the case of allotting grades to students.

Jadal (2011) attempted to examine the effectiveness of CCE as a device for qualitative improvement of primary education. It was a study applied on Class VII students in English subject with the help of ready prepared materials along with planned activities for the transaction of learning experience for assessment of various skills. The findings revealed that the attainment of concept and development of multiple abilities/mastery of skills was possible through CCE. Alike, CCE could create more interest, attention, and learning attitude in students in favour of the acquisition of different performances, skills. Besides, it enhanced the level of listening, reading, speaking, writing, and comprehension abilities among students.

K-12 in India in a National Research on CCE in (2012) observed that many schools invested heavily in the infrastructure for facilitating the practice of CCE, including digital aids for teachers. Moreover, schools made investments in the orientation of teachers to the CCE framework.

A research study was made on upper primary schools students' attitude towards Continuous and Comprehensive Evaluation (**Pazhanimurugan, Sivakumar, & Benjamin, 2011**). The Survey method was used for the study and it was carried out in Sivaganga district in the state of Tamilnadu. The seven govt. and aided schools with upper primary classes in the district were randomly selected for it. A questionnaire comprising of 21 questions on the implementation of CCE in Schools was used for the study. Content analysis was used for analysing open-ended questions. The results concluded that the number of formative assessments conducted per term varied with different students. Majority of the students revealed that teachers conducted three formative assessments in a term while twenty percentage of them revealed that teachers conducted four formative assessments. On the contrary, fifteen percent said that teachers conducted only one assessment per term and on the other hand, eight percent of them claimed that teachers conducted five assessments per term. The weightage given to the assessments were also varied. The study demonstrated that projects, assignments, quizzes, oral questions, and research works were used mainly for making formative scholastic assessments. Nonetheless, only forty-one percent students claimed to have been used all of them. Others used either of them. Assignments were the most commonly used item for internal assessment, whereas research work remained as the least used one. The study also signalled that female students' attitude towards CCE (96%) was higher than the male students' (91%). Alike, govt. school students had more favourable attitude to CCE than private school students did (94%). Similarly, govt. employee parents' attitude (97%) was higher than the private employee parents' attitude (90%).

Saxena & Namedeo (2012) made a study on the challenges faced by teachers while implementing CCE. The study highlighted that CCE was time consuming, as it required more time from teachers to plan lessons collectively, for designing formative activities,

and evolving additional teaching-learning materials. It was denoted that big classrooms were serious challenges for the effective implementation of CCE. The study stressed on the fact that the increase of project works and presentations had put students and teachers under more pressure. Moreover, many children concentrated on projects just for scoring the “grades” which in most cases would not have led to any real learning, as they were either done by siblings or parents or conveniently outsourced. Similarly, CCE demanded more time for the process of evaluation and thereby, teachers were left with very little time for teaching on many occasions. Alike, various modes used for recording pupil’s performance in scholastic and co-scholastic areas required a certain level of talent and versatility from teachers.

Singhal (2012) took efforts to explore teachers’ attitude towards CCE. The sample of the study consisted of 100 government teachers from various government schools located in South and North West Delhi region. Purposive and convenient sampling techniques were employed for the selection of government schools. Data were collected using questionnaire and semi-structured interview. The semi-structured interview comprised of five questions covering the areas such as opinion regarding the introduction of CCE, effects of CCE, problems encountered while the execution of CCE, suggestions to overcome the problems related to CCE, and help from state or schools. The study showed a moderate acceptability of the scheme among government teachers. In addition, the results of the study showed no significant difference in teachers’ attitude towards CCE in relation to sex and qualification. Most of the teachers were still unaware of the concept of CCE. There was a significant difference in teachers’ perception of CCE among the moderate and highly experienced teachers. Big number of students in a class, lack of training for teachers, lack of proper infrastructure, lack of teaching materials etc. were some of the major drawbacks underlined by the research. The study shared an interesting observation that students had started becoming less serious about their study probably because of the easy way of achieving certain percentage of score through the internal assessments.

Rao’s (2012) study of continuous assessment in classroom and prospects for improvement reported that the continuous assessment was treated more as a ritual and

mechanical process of an isolated activity far from teaching-learning process in many schools. The formative assessment was merely looked upon as assessing the projects, assignments and some activities, which were randomly chosen and given, without feedback mechanisms to improve learning. Moreover, learners' characteristics, their prior experiences, and abilities seemed to be not the concerns of teachers too while teaching or assessing. Hence, the assessment questions and items were poorly planned, and it tended to assess mainly the lower cognitive outcomes rather than the higher cognitive abilities such as applying, analysing, inferring, and evaluating. Similarly, report cards showed that the marks or grades used to report learners' performance did not reflect what had been concretely learnt or not by students. In the same manner, teachers seemed to regard 'assessment' as a distinct activity from teaching and conducted formative and summative assessments for specific number of times for the sake of accountability, rather than to benefit themselves and their students for further progress. Furthermore, students seemed to be constantly under the pressure of completing the overcrowded assignments and projects that were given in all subjects at the same period. In certain instances, it was also reported that teachers manipulated internal assessment as a power string and threat to control students. Regarding the assessment of personal and social qualities and the skills in areas like art and physical education, the assessment was mainly done in a haphazard manner without following any criteria. In most cases, the descriptive part of report cards reflected a stereotyped use of words and adjectives that had been picked up from the guidelines prescribed for reporting students' skills, abilities etc.

Sonawane & Isave (2012) made an investigation about the CCE practice at secondary schools. Population of the study was all the secondary schools and teachers in Pune district and the sample comprised of 30 schoolteachers selected by random sampling method. A survey research methodology was employed. The results indicated that evaluation practices were carried out in schools, but they were not exercised exactly as the viewpoints mentioned in the framework. It was found that there were lack of daily record maintenance and daily feedback. Further, the results observed that teachers failed not only to provide formative feedback but also remedial instruction to students.

Instead, they were just either discussed them in the PTA meeting or mentioned in the diary. The study also stressed that teachers did not prepare their own evaluation tools. Most importantly, teachers held the view that CCE was a hectic process for them.

Kumari's (2012) study was qualitative one and the method employed was a case study approach in Sai International School, Bhubaneswar. It was an analysis of ICT integrated Continuous Comprehensive Evaluation System at secondary level. The sample comprised of school authority, subject teachers teaching in classes IX and X and randomly selected four boys and four girls from each of the classes IX and X. The data so collected were analysed with the help of inductive analysis method. The tools for data collection were a questionnaire for the subject teachers, a semi structured interview schedule for the principal, a focus group discussion format for the students, and observation schedule for activities. The findings concluded that CCE system could become more effective and implementable if schools could incorporate ICT with evaluation tools and techniques. ICT integrated CCE system could help teachers to adopt various innovative practices for teaching-learning process, and provide flexibility to use different means of assessing learners that promote continuous and holistic development. Besides, the study found that ICT helped teachers to go beyond monotony and for better time management by organizing activities meant for the purpose of effective evaluation, and by keeping track of learners' performance in a progressive manner. Alike, providing alternative approaches of evaluation like power point presentation, online computer based test, e-portfolio, anecdotal records, observation checklist, rating scale etc. were giving immediate and automated feedback to learners, which could also improve the practices of tests and examination. In the view of the research results, ICT made evaluations were more inbuilt to the teaching-learning process. In addition to it, the findings highlighted some defects that affected the smooth execution of CCE such as big number of students in a classroom, variation in the total number of formative assessments, difference in the percentage given for these activities etc. Similarly, the study pointed out that number of periods allotted for scholastic assessments were unequal, and according to some teachers, syllabus was too lengthy to implement CCE to achieve its foreseen benefits. Besides, lack of materials and lack of awareness of various stakeholders about CCE affected the effectiveness of the

programme. Similarly, students often used to fail to present their assignments in time due to lack of awareness of CCE. Sometimes, teachers did not have a clear idea for selecting apt assessments for students considering their capacities too.

Kothari & Thomas (2012) made a study on the implementation of CCE in upper primary schools of Kerala. Sample of study was consisted of 75 upper primary teachers from 10 randomly selected schools in Ernakulum District (Kerala). The research tried to answer three questions, namely, implementation of CCE in classes, assessment of scholastic and co-scholastic aspects, and problems faced by teachers while implementing CCE. A questionnaire comprising of 21 questions on the implementation of CCE in schools was used apart from conducting unstructured interview for the collection of data from teachers. The results were positive as teachers (93%) executed various types of assessments, especially diagnostics tests for providing with remedial measures for poorly performing students, particularly using checklist and rating scales. All schools in the sample study organised co-curricular activities in the same manner. Teachers reported that they had proper time to implement CCE as per the academic year plan and they (80%) specified that the syllabus was suitable for CCE implementation. It was told that most of the teachers (73%) had attended workshops on CCE.

Mondal & Mete (2013) made an appraisal of CCE through a qualitative study. The study asserted that CCE helped classroom teachers to improve students learning through diagnosis of their performance. The study concluded that CCE has many advantages if it was implemented as per its directions, especially for identifying weaknesses of a learner at every stage with the assistance of multidimensional process of evaluation and thereby, helping students with remedial measures. Alike, it could reduce stress and anxiety, which often builds up during and after the examination. The study specified that schools needed a reasonable teacher-student ratio and changes in the nature of teacher-student relationship like from an unequal, hierarchical relationship to that of co-participants in a joint process of knowledge construction. Along with it, creation of adequate resources and opportunities in schools were necessary for the development of multiple facets of students' personalities.

Singh, Patel, & Desai (2013) conducted a study about the attitude of student teachers towards Continuous and Comprehensive Evaluation with reference to their gender, caste, and habitat. The population of the study constituted all students in the B.Ed. programme offered by the Faculty of Education and Psychology, University of Baroda, India. Sample population was made up of 139 students. To measure the attitude of the B.Ed. students towards CCE with respect to four components such as influence of continuous internal assessment, students' feeling about continuous internal assessment, shortcomings of the continuous internal assessment, and teaching-learning process. The results showed that the B.Ed. students had moderately favourable attitude towards continuous internal assessment. Besides, the study concluded that there was no significant difference in the attitude of male and female B.Ed. students towards continuous internal assessment. Similarly, it was denoted that there was no significant difference in the attitude of students belonging to rural and urban schools towards continuous internal assessment.

The CBSE Board envisaged that the implementation of CCE would definitely reduce the over stress caused by the terminal examinations and improve students' performance. A few studies on CCE also signalled positively in this line with respect to the expectation of the exponents of CCE. **Rajshree and Kumar (2013)** made a comparative study about the stress level of students under grading and numerical marking system of evaluation. Sample comprised of 200 boys and girls students of class 10th of both CBSE and Rajasthan Boards. Stratified Random Sampling method was followed in the study. Considering the comparative and analytical nature of the problem, the researcher followed Descriptive Survey Method. Purposive Method of Sampling was employed for selecting the schools for the respondent groups. Bist Battery of Stress Scales made by Abha Rani Bisht was the tool employed for the study that measured four components of stress viz. frustration, conflict, pressure, and anxiety through 13 sub-tests. The Scale for Academic Stress (SAS) was selected for the study. The results stated that there was no significant effect of the gender on students' examination stress studying under grading system of evaluation as well as under numerical system of evaluation. However, the study revealed that the new evaluation system laid an effect on the students on the level of examination stress. The results pointed out that numerical marking system

(traditional system) had a direct effect on the examination stress of the students. On the contrary, the grading system of evaluation put minimum examination stress, and thus, the students could perform better and yield better academic achievement.

Kaur (2013) took the effort to do a qualitative research about the perceptions of teachers and students on the effectiveness of Continuous and Comprehensive Evaluation System. The study stated that parents were also under too much pressure because of the new system of evaluation. The study underpinned that there was the need of changing the classroom culture in such a way that it should not be simply a place for delivering textbooks or a place where students compete with each other.

Ashita's (2013) study about how to use assessment to improve teaching and learning exposed some major problems that affected the effectual results of CCE. The study relied on qualitative data comprising of informal interviews, notes on classroom observation, analysis of students' answers etc. The findings of the study revealed that schools were not implementing CCE in the way it had been envisaged by the CBSE. Therefore, it could not succeed in enhancing educational quality rather it affected adversely for not being able to utilise students' potentials to the maximum. Besides, students were not adequately prepared for the rigors of higher education that resulted in making them unfit for today's workplace. Moreover, the study disclosed that parents and students had been quite uncomfortable with the methods involved in CCE.

Joshi (2013) investigated the Continuous Comprehensive Evaluation Scheme practice at Elementary School in Maharashtra. The researcher selected a survey research methodology for the study. As sample of the study 15 schools were selected by random sampling method. The researcher visited these elementary schools to know the status of the evaluation practice there. A questionnaire was prepared based on the viewpoints shared by the CCE framework. Qualitative analysis was done. Tools prepared for the evaluation were oral questions, paper pencil test, unit test, and assignment. They conducted monthly class test, unit test, and terminal test. The results of the study pointed out some drawbacks in the practice of CC, particularly in the evaluation processes. There were also the lack of daily record maintenance and daily feedback.

Alike, formative feedback was not provided and remedial instructions were discussed mostly in the PTA meeting or it was just mentioned in the diary alone. Similarly, teachers did not prepare their own evaluation tools. In addition to it, teachers were of the view that CCE was a hectic process for them.

Jayalekshmi & Pereira (2013) engaged in a study on the assessment practices in constructivist paradigm at the higher secondary level in Kerala. The purpose of the study was to bring out innovative practices in assessment at the Higher Secondary Level. A survey method was conducted by using tools such as questionnaire, interview schedule, and Focus Group Discussion points. The population consisted of teachers, students, and principals of higher secondary schools of Kerala. The sample consisted of 50 teachers of commerce, 500 students of commerce, and 10 principals of higher secondary schools. The study highlighted certain difficulties faced schools while implementing CCE in real classrooms such as the school system having fixed periods of one hour, absentees on account of doing other jobs in the case of students were of from poor social background, negative attitude of teachers, inability of the teachers to act as co-learner, researcher, social integrator, facilitator etc. Additionally, the results indicated that absence of healthy rapport among authorities, teachers and students, lack of textbooks integrating content with pedagogy for all subjects, and non-utilisation of library and ICT facilities provided by schools were also decreased the effectual practice of CCE.

Chaudhari (2014) investigated about the teaching related problems experienced by the secondary school teachers of Kheda district. The sample of the study consisted of 100 teachers randomly selected from rural and urban areas, among which 25 each male and female teachers were from urban areas and rural areas. The results highlighted the unavailability of adequate educational tools and facilities in schools, which allowed teaching work to be dominated by lecture method. At the same time, the managements and principals of these schools put pressure on teachers to bring better results in board examinations, so that the schools could receive more government aids. The study also noted that very less number of students were found interested in their studies, especially from rural schools. Alike, most of the parents from rural areas were unaware of their children's studies; therefore, the students' cooperation was missing in the

studies. Sometime, the children were engaged in household work or labour work that affected the effectiveness of teaching as well. Besides, the newly recruited teachers were given fixed salary with no leaves or other rights resulting in teachers' frustration. Due to lack of sufficient number of teachers in connection with the leaves of other teachers, there were problems in small schools. As a result of it, teachers experienced fatigue and tension caused by the overburden of teaching work, which diversely affected the efficacy of teaching.

Mishra & Mallik (2014) undertook a study related to perception of teachers, parents, and students about Continuous and Comprehensive Evaluation. Qualitative survey method was followed for the study. Samples of twenty elementary schools were selected randomly from Jaipur district of Odisha. Thirty elementary school teachers and fifty parents consisted of the sample of the study. The study used students from upper primary classes (VI to VIII) between the age group of 11 to 14 years. A questionnaire for teachers and an interview schedule for students were developed by the investigator in Odia language to collect the relevant data. Data were analysed by using both quantitative and qualitative data analysis techniques. The study highlighted that most of the teachers agreed that they were aware of CCE, however, their responses to the items showed the other way. Similarly, parents and community members were unaware of CCE. To make it even worse, teachers did not care about informing parents about the assessment results. Similarly, it was observed that lack of adequate teachers was one of the major reasons that hindered the teachers from implementing CCE scheme in its true spirit.

Deka (2014) conducted a quasi-experimental study on the effectiveness of CCE in the performance of students of social science. The study was experimental in nature. It attempted to compare the effectiveness of Continuous and Comprehensive Evaluation in the performance of class V students in social science studying in Kamrup (Rural) District. The similar students were selected based on marks obtained in their last annual examination and divided them into two groups i.e. control group and experimental group. Pre-test and post-test designs were used for achieving the objectives. The study revealed that performance of the students in social science evaluated by CCE was

significantly higher than those who were evaluated by traditional examination system. The selected V standard students could gain more knowledge in social science through CCE. Besides, as per the results, there was no significant difference between the performance of boys and girls in Continuous and Comprehensive evaluation of social science. Therefore, the study specified that boys and girls were equally benefited by the Continuous and Comprehensive Evaluation system.

Anitha (2014) made a comparative study on the opinion of government and private schoolteachers of Chittoor district towards CCE. The target population was the government and private state board schools located in Chittoor district. The samples comprised of 25 male teachers and 25 female teachers of government schools as well as 25 male teachers and 25 female teachers of private schools. The research was done using random sampling method and data were collected by survey. The study indicated moderate acceptability of CCE by the government schoolteachers. It noted that there was no significant difference between the opinion of government male and female schoolteachers towards CCE as well as between the opinion of government and private school male teachers towards CCE. However, there was a significant difference between the opinion of private male and female schoolteachers and between the opinion of government and private school female teachers towards CCE. Besides, there was a significant difference between the opinion of male and female teachers towards CCE. Similarly, there was difference between the opinion of government (rural) and private (urban) schoolteachers towards Continuous Comprehensive Evaluation as the urban schoolteachers had a more positive view of CCE practice.

Pradhan & Singh (2015) executed a descriptive study on the attitude of secondary school teachers towards Continuous and Comprehensive Evaluation. All the secondary school teachers of Aligarh District came under the population of the study and 80 secondary school teachers were selected as the sample by simple random sampling method. The researcher utilised the attitude scale developed and standardized by Vishal Sood and Arti Anand as the tool. The study results revealed that there was no significant difference between the attitude of male and female secondary school teachers as well as the attitude of teachers of rural and urban secondary school teachers towards CCE.

Nonetheless, there was a significant difference between the attitude of government and private secondary school teachers towards CCE.

Barwal & Sharma (2015) executed the study titled 'An analysis of attitude of secondary school teachers on the basis of knowledge about CCE, attitude towards CCE, practice of CCE, and effect of CCE'. The study also attempted to understand whether the attitude of secondary school teachers towards CCE varied on the ground of sex, type of school, syllabus, and location of school. The investigator used a self-developed tool (Attitude scale on CCE) to collect the data. The scale consisted of 30 items on the following dimensions: knowledge about CCE, attitude towards CCE, practice of CCE, and effect of CCE. As such, the researcher collected sample through purposive sampling technique that comprised of 150 secondary school teachers of District of Mandi, Himachal Pradesh. The study reported that the factors male and female, government and private, CBSE and HPBOSE, and rural and urban secondary school teachers did not have any influence on their attitude towards Continuous Comprehensive Evaluation.

Brown, Chaudhry, & Dhamija (2015) investigated about the impact of CCE assessment policy upon teachers' self-reported assessment beliefs and practices of Indian teachers in private schools. It was a quasi-experimental study, for which a large-scale survey of secondary school teachers predominantly in private schools were asked to indicate how much they agreed with multiple purposes concerning either internally-determined school-based assessments or externally-mandated public examinations and how they practiced assessment. In the internal condition, the questionnaire began with the prompt that the term "assessment" used in the statements referred to any act of collecting and interpreting evidence of student learning in terms of knowledge, skills, values, and attitudes used by the teacher within the classroom. In contrast, the external condition prompt stated that the term "assessment" used in the following statements referred to any act of collecting and interpreting evidence of student learning in terms of knowledge, skills, values and attitudes by external examination authorities or boards (e.g., CBSE). As per the results, teachers in both conditions endorsed most strongly the improvement purpose. Teachers were in the hypothesised direction in which internal school-based assessment generated more endorsement of the improvement purpose

and diagnostic practice. The study denoted that the greater use of diagnostic practices - an ambition of the Indian Curriculum Framework depends, in part, on teachers believing in the positive role of internal, school-based assessment and emphasis on educational improvement as the legitimate purpose of assessment is to be encouraged. The study found that regardless of internal or external conditions still assessment predominantly focused on improving student learning by teaching for exams probably because the condition prompts were not powerful to ensure distinction between internal and external in teacher responding. The study added that it was clear that CCE was not actually being implemented in a purely formative fashion; each assessment, despite its formative timing, was used predominantly as a cumulative, summative evaluation. Nonetheless, the study viewed that given the ambitions of the NCF and the small trend towards using internal assessments diagnostically among teachers, the policy makers could take advantage of this willingness to be formative with assessments as majority of teachers still indicated endorsement of improvement purposes and diagnostic practices.

Gayal (2015) made a qualitative study in the backdrop of CCE that discussed the role of CCE in English language teaching, especially with respect to formative and summative assessment. It intended to understand about an effective evaluation method for English language in an Indian context. After the study, he reported that CCE was the most effective method for language teaching. He appreciated that CCE focused more on learning than teaching, and it promoted child centred approach. According to him, it was one of the eclectic methods.

Rana (2015) conducted a study on secondary school teachers of the district of Sonapat. Teachers' attitude scale towards Continuous Comprehensive Evaluation was used for the purpose of the data collection. The study mainly focused on the attitude of the teachers towards CCE based on gender and locality of school. Analysis of the data showed that there was no significant difference in the attitude of the teachers on the basis of gender and locality.

The main objective of the study made by **Lal (2015)** was to document the effective CCE practices in government schools of Uttarakhand. The primary and secondary data were collected with the help of observation, conversation, and semi-structured interview. The study concluded that most teachers had a flexible and implementable scheme of CCE, particularly for diagnosis, remediation, and enhancing of learning. CCE also enhanced the reflective skills of students and promoted constructive feedback. More teachers used peer learning and peer assessment as an effective form of teaching and learning mechanism. Similarly, the use of multiple evaluation tools, techniques, and corrective measures boosted student learning and all-round development. Students' role shifted from active listeners to active learners under the CCE practice and they had more opportunities to display their talents in this scheme of evaluation. Additionally, teaching techniques were sharpened under the influence of CCE, as teachers had to consider different levels of students while they were selecting activities for them. Therefore, the study perceived CCE as an evaluation scheme that could really raise the quality of student evaluation.

A study about awareness of CCE among secondary school teachers by **Kumar M & Kumar (2015)** underlined that number of students in a class should be limited to the standard. Lack of infrastructure and teaching materials often influenced on the effective implementation of CCE, particularly considering the fact that it was time consuming. CCE practice also needed financial aids for miscellaneous work. Besides, the study noted that there was a tendency among students becoming less serious about studies, which had to be treated properly. Finally, the study specified the importance of creating a sound awareness of the need and importance of CCE to parents.

Parmar (2015) mentioned about some factors that influenced on teachers' evaluation practice after making a qualitative study about the challenges and plausible solutions to CCE. The study pointed out that the teachers had lack of knowledge and skills related to the evaluation of students under CCE along with lack of facilities and time. Alike, tension created by the expectations of the head teachers and the colleagues to complete the syllabus in time, the social requirement of information, and external accountability were some other major blocks that affected the efficacy of the CCE implementation.

The result of a study by **Sartaz (2015)** revealed that government schoolteachers had only a moderate acceptability of Continuous and Comprehensive Evaluation. The investigation highlighted that educators were not sufficiently trained for the operational implementation of CCE in government schools. Moreover, the study discovered that there were several obstacles for the appropriate implementation of Continuous and Comprehensive Evaluation such as large number of students in the classes, lack of appropriate training, inadequate infrastructure & teaching materials, increased volume of work etc.

Another research study (**Kaur, 2016**) that focused on CCE practice stressed that evaluation practices remained to be conventional in their nature and purpose in many schools. Teachers neither implemented CCE systematically nor assessed the competences of students through planned procedures of evaluation. Therefore, assessment failed to get a fair and realistic picture of students' mastering and thereby, no remedial measures were provided with students. In the same manner, development of personal and social qualities were not part of the co-curricular activities as per the results. Sometimes, teachers remained to be biased and could not identify students' acquired competency. The study observed that due to the overcrowded classes, virtually CCE turned out to be only a show off without helping much for learning. Examinations were predominantly of written type and the marks awarded in examination did not correspond the level of proficiency of pupils in the subject. Whereof, good marks were not often a factor that motivated students well. In general, the evaluation practice lacked reliability, validity, and objectivity. Furthermore, record keeping was a big challenge for those teachers who did not have any basic knowledge of teaching aids and computer operations, especially for keeping records adequately and meticulously for a long period. Some teachers were in need of knowing the basic arithmetical operations of addition, multiplication etc. for combining scores from different sources using various weightages in order to avoid misplacing of scores, mark books, and registers.

The main contention of the study by **Bansal & Jyoti (2016)** was to understand the attitude of teachers towards Continuous and Comprehensive Evaluation in relation to training in computers and co-scholastic aspects. A sample of 150 secondary school

teachers from different government and private schools (affiliated to CBSE) in Chandigarh was taken for the collection of data. The technique employed was random sampling. A questionnaire was administered to the entire sample to collect information whether they were trained or not in computers and co-scholastic aspects to understand the main effects and interaction effect of independent variables of training in computers and training in co-scholastic aspects on the dependent variable of attitude of teachers towards Continuous and Comprehensive Evaluation. The results disclosed that there was no significant difference between the attitude of trained and untrained teachers in computers towards Continuous and Comprehensive Evaluation. Similarly, the study found that there was no significant interaction between training in computers and co-scholastic aspects with the attitude of teachers towards CCE. Additionally, the study demonstrated that there was a significant difference between the attitude of trained and untrained teachers to co-scholastics aspects of Continuous and Comprehensive Evaluation. Alike, the study demonstrated that there was a significant difference between the attitude of trained and untrained teachers to co-scholastics aspects of Continuous and Comprehensive Evaluation.

Herkal (2016) conducted a study about CCE from a philosophical perspective. It was a qualitative study. The results summed up some major challenges faced by CCE implementation. Lack of necessary knowledge and skill of teachers to implement Continuous Comprehensive Evaluation was an important discrepancy. Along with it, inadequacy of infrastructure and time made it difficult for teachers to prepare and maintain records of students' performance. Besides, lack of provisions in curriculum for CCE, student attendance, lack of availability of resources, lack of autonomy for schools were some other principal concerns that affected the practice. Additionally, due to these problems, teachers found it difficult to pay individual attention to students. The study pointed out that minute observations were necessary for assessing students as evaluation was done by gradation method, thereby, the marking scheme turned out to be a challenge.

A study by **Quari & Sultan (2016)** about Continuous and Comprehensive Evaluation in Kashmir revealed certain major problems faced by the implementation of CCE in schools

of Kashmir (India). The principal findings were that teachers had lack of information about CCE and therefore, just followed CCE mechanically without proper understanding of it. Most of the schools carried out evaluation practices still in the traditional way. Although some schools conducted remedial classes, students claimed that the remedial classes were not much different from a regular class, except the name remedial. These students also expressed strong dissatisfaction with the timing and frequency of the remedial classes. Besides, they experienced that a few teachers were biased towards some students in the assessment of co-scholastic aspects. Surprisingly, these students supported marking system over the grading system and opined that marks should be provided along with grades in the report card. Additionally, these students felt that the load of assignments and projects in a semester was quite heavy. Because of it, they had to devote extra time in nights to prepare the assignments and projects. Similarly, most of the teachers found it difficult to execute CCE in large classes, as they were not able to give individual attention to students in such classes. The study also highlighted that CCE was time consuming and the increased volume of work overburdened the teachers that affected their teaching effectiveness in the classrooms. According to the investigation, there were also many financial constrains associated with CCE practice that did not suit the pocket of every student.

Emimah (2016) conducted a study on the attitude of secondary school mathematics teachers towards CCE. Hundred secondary school mathematics teachers selected from various schools in Thoothukudi district were the sample of the study. CCE attitude developed by the investigator was employed to measure the attitude of the teachers in three categories viz. low, moderate, and high. Findings of the study demonstrated that majority of the teachers had moderate level of attitude towards CCE. The study indicated that both male and female mathematics teachers had high favourable attitude towards CCE. Besides, the results pointed out that the female teachers had more favourable attitude towards CCE than their counter parts. The researchers assumed that the general tendency of male teachers to abhor record maintenance work could be the reason behind it. Additionally, the study found that teachers with more than 20 years of teaching experience had more favourable attitude towards CCE. Similarly, government schoolteachers had high-level attitude towards CCE than the aided schoolteachers as

per the results of the study. Further, the study observed that urban school mathematics teachers had high level of attitude towards CCE than the rural teachers.

Hassan (2016) took efforts to investigate about Continuous and Comprehensive Evaluation in secondary schools, especially with respect to students' awareness and problems. The study followed a Descriptive Survey method. The population of the study comprised of students of CBSE affiliated secondary schools of Bilaspur and Raipur districts of Chhattisgarh. Purposive sampling technique was used to draw the sample from the population. The sample size consisted of 120 students from three government and one private CBSE affiliated secondary schools. Continuous and Comprehensive Evaluation Inventory (CCEI) was constructed by the researcher to assess the awareness of the students towards CCE. The tool had 47 items related to general aspect, scholastic aspect, co-scholastic aspect, student's related indicators, teacher's role, and suggestions of students. Each statement has two response categories - Agree and Disagree. Semi-structured interviews were conducted to explore the problems of students related to CCE. The findings of the study highlighted certain advantages of the scheme. Accordingly, the majority of students (70%) perceived CCE as a better evaluation system than previous evaluation system. 72.5% students perceived that CCE as student-friendly. More than 70% students accepted that CCE was helpful in reducing examination stress as well as suicidal cases among students out of examination stress. Around 60% students perceived CCE as practicable. Nearly, 80% student favoured semester system since it reduced their curriculum load. Nearly three-fourth students perceived that CCE could integrate evaluation with teaching and learning and had effective feedback system for the stakeholders. More than 70% students found CCE was helpful in making decisions like choice of subjects, courses, and careers. More than 80% students had the opinion that CCE encouraged students for active participation, self-learning, and improving their performance by knowing their strength and weakness. They (73.33%) also asserted that CCE was helpful in identifying talents of students. Teachers could employ variety of tools and techniques for assessment under CCE too. However, according to the results, more than 60% of students experienced the subjectivity in co-scholastic assessment. The majority of students (65.83%) perceived that in CCE there was more probability for

teachers' bias. One or two teachers were incompetent to practice CCE as per the opinion of students. They felt that total number of assignments and projects per semester were quite high. More than 60% students agreed that teachers were busy doing assessments instead of teaching. Moreover, it naturally increased teachers' workload under CCE. Some students claimed that the remedial class was not much different from a regular class, except the name remedial. The study also revealed that the grading system did not get enough support of students, as 53.33% students disliked it in comparison to marking system. In addition to it, the students (60%) felt that CCE reduced their leisure hours.

Dasa, Swai, & Pattanaya (2016) made an investigation about students' attitude towards Continuous and Comprehensive Evaluation in relation to the Diploma in Elementary Education (D.El.Ed). The population of the study constituted all second year students in the D.El.Ed. of DIET (Programme of District Institute of Education and Training) in Odisha in India. The sample consisted of 50 students of heterogeneous type, with students coming with a different profile like gender and background. The collected data were analysed both quantitatively and qualitatively. The results concluded that both male and female groups of students had favourable attitude towards CCE. It also suggested that male and female students had the same attitude towards CCE. The study specified that both urban and rural D.El.Ed. student teachers demonstrated parallel attitude towards CCE.

Ali (2016) investigated about the effect of Continuous Comprehensive Evaluation pattern on the academic achievement of secondary level students. The size of the sample was 200 students (100 male and 100 female) of the schools of Aligarh city. A questionnaire was developed by the investigator himself to measure the attitude of students towards CCE and their reliability and validity were calculated. It consisted of three parts, Part-A was for extracting personal information, Part-B was an attitude scale, and Part-C was the open-ended part of the questionnaire. The questionnaire consisted of 44 items. The results reflected that the attitude of secondary school students of different schools of CBSE did not differ significantly. The students in general showed positive attitude toward CCE pattern in a healthy manner. However, the study indicated

that there was a significant difference between the percentages of students with favourable attitude to CCE pattern and vice versa. As per the investigator, some of the important reasons for the positive attitude of the students were that CCE caused a new gateway to new knowledge, facilities, overall development, and organized examination system. Similarly, there were a number of reasons for the negative attitude of students as study indicated that it created stress upon students all the time, gave no free time, skills were imposed, and grades were in the hands of teachers who could manipulate them. Attitude of girls and boys did not differ significantly towards CCE. According to the researcher, CCE gave more opportunities to students to develop themselves in all fields of academic and non-academic life. This pattern also kept students away from examination stress. The percentage of male students who possessed favourable attitude towards CCE was almost equal in both IX and X standard students. Similarly, the same percentage of girl students of IX and X standards had positive attitude towards CCE pattern.

Cyril & Jeyasekaran (2016) conducted a study to find out the attitude of high school students towards Continuous and Comprehensive Evaluation. The research type was a survey method, which consisted of purposive sampling of 99 high school students in Dindigul district. Personal data sheet and Attitude towards CCE scale was prepared and validated by the investigator. The results showed that, the attitude of high school students in Dindigul district to CCE found to be positive. Besides, the result signalled that there was no significant difference between the male and female students in their attitude towards Continuous and Comprehensive Evaluation. The male and female students were in the favour of CCE. However, the result revealed that there was a significant difference between the rural and urban students in their continuous and comprehensive evaluation because the urban students had a better view of CCE than the rural students did. The result also demonstrated that there was a significant difference between the joint and nuclear family students in their performance under CCE. The joint family students were better than the nuclear family students in their continuous and comprehensive evaluation. Additionally, the result indicated that there was a significant difference among government, aided, and private school students in

their continuous and comprehensive evaluation. As per results, the private school students were better than the government and aided school students.

Implementation of Continuous and Comprehensive Evaluation in primary classes of Kerala was the title of the study made by **Rajeswari (2017)**. Stratified random sampling technique was adopted for the study. Sample consisted of 1210 teachers from the five districts of Kerala such as Thiruvananthapuram, Alappuzha, Kottayam, Malappuram and Kozhikodu. They were respectively as 235 teachers each from Kozhikodu and Malappuram, 236 from Kottayam, 240 from Alappuzha, and 264 from the district Thiruvananthapuram. Various tools and techniques were used. The results highlighted some benefits of the practice of CCE. Most of the teachers had attended CCE training programs. The study found that teachers used teacher made tests, tests supplied by department, rating scale, quiz, assignments, oral questions, and project reports for making unit evaluation. Besides, majority of the teachers assessed records such as notebook, workbook, worksheet, creative products, literary works, learning evidences, assignments, collections, and learning records etc. Alike, these teachers used to assess the socio- emotional aspects like emotional skills and social skills. Nonetheless, the study denoted that only a smaller percentage of teachers claimed to have used all type of assessments prescribed by CCE. Some teachers conducted follow up programs like tests and re-tests out of class hours. More than fifty percent of teachers reported that they required further training in CCE.

Yagnamurthy (2017) executed a study about CCE with respect to its policy and practice at the national level, especially focusing on the gap between the policy and practice. The researcher stressed on the aspect that there was inconsistencies in the conceptualisation of curriculum and assessment practices by institutions and that created confusion among teachers, students, and other stakeholders resulting in the flawed implementation of the policy framework. Moreover, the study highlighted that some matters like the lack of facilities, large pupil-teacher ratio, insufficient training of teachers etc. undermined the practice of CCE substantially. An interesting observation was that CBSE's suggestion in its manual to represent assessment of students' performance across areas of students' development were in isolation from one another,

particularly by means of rigidly fixed indicators for all affiliated schools. The researcher stated that it was more in line with the behaviourist tradition - the Bloom's committee that advocated an approach to assessment which linked explicit classroom outcomes to clear and demonstrable behaviours and that could be tested (Booker, 2007, p. 350), than the constructivist philosophy enunciated by the NCF 2005. According to him, in the name of objectivity, the CBSE Board also compromised on the autonomy and flexibility of schools and creativity of students, in favour of highly routinized and mechanical procedures of assessment.

Singh, M. (2017) made an investigation about the perceptions of CBSE schoolteachers towards CCE system in relation to certain variables, especially concerning their gender, age group, professional qualifications, designation, teaching experience, marital status, and type of school to deal with CCE System and the practical problems likely to be encountered by teachers while executing the evaluation system. The researcher selected 36 schools of five districts of central zone of Gujarat State by Stratified random sampling method. From the selected schools with Cluster sampling technique, a total sample of 1153 CBSE schoolteachers were taken for survey. The researcher made Perception Scale about Continuous and Comprehensive Evaluation system (PSCCES) of 5-point scale having 70 statements. The findings did not show any difference between the perceptions of teachers of less than thirty-five years age and more than thirty-five years age towards CCE. Alike, qualification was not an influential factor on their perceptions of CCE as there was no significant difference between the perceptions of CBSE schoolteachers having professional qualification as PTC (Training to Primary Teachers/BTC (Basic Training Certificate Courses) and B.Ed. (Bachelor of Education) or TGT (Trained Graduate Teacher) and PGT (Post Graduate Teacher) designated CBSE School teachers towards CCE. The findings also pointed out that teaching experience too as an irrelevant factor on deciding their perception of CCE because there was no significant difference between the perceptions of CBSE schoolteachers having less than 10 years professional experience and more than 10 years professional experience towards CCE. Additionally, the study underlined that this system of evaluation strengthened the teacher-student relationship, as there was close interaction between

teachers and students. The study also noticed that there was shortage of teaching staff. A very relevant observation of the study was that hence all students were promoted till VIII standard under CCE, the quality of education was suffering day by day at the hands of quantity. Besides, the researcher emphasized that teacher recruitment should be made scientific and fair. Although some parents felt satisfied with the holistic development of their children, they were not very clear on the concept of CCE too.

Singh, A. (2017) made a study on the attitude of senior secondary school students towards Continuous and Comprehensive Evaluation in relation to their study habits. The sample was selected from the schools of Allahabad city. The size of the sample was 200 students (100 male and 100 female students) of class XI. The results revealed that the attitude of senior secondary school students of various schools of CBSE board did not differ significantly towards CCE pattern. Nonetheless, the attitude of most favourable and least favourable group of students towards CCE differed significantly on the measure of study habits as most favourable had better view of the practice. However, the attitude of male and female students did not differ significantly towards CCE. Thus, the study concluded that Continuous and Comprehensive Evaluation was better evaluation system than summative evaluation method to evaluate the scholastic and non-scholastic aspects of students as it gave chance to the students for betterment of learning skills.

The investigation made by **Raina & Verma (2017)** about teachers' attitude towards Continuous and Comprehensive Evaluation revealed some positive aspects of CCE practice. The sample for the study was 24 CBSE affiliated schools of five districts of Jammu province (8 each from govt., public and private). From these schools, 144 subject teachers of secondary classes (48 each from govt., public, and private schools) were selected randomly. As per the results, the teachers seemed to show mixed feelings towards CCE. Teachers agreed that the old examination system was faulty and stressful, while in this new evaluation system every child had a fair chance. A common observation was that the new system shifted the pressure of students to teachers and school managements due to the confusion emerged over the practice of various formative assessments and the validity of the evaluation programme. It added that most of the

teachers were still unaware of the concept of CCE. Moreover, according to the study, there were several obstacles in the appropriate implementation of CCE such as large number of students in the class, lack of appropriate training, inadequate teaching materials and increased volume of work etc. The findings highlighted statistically significant differences in the attitude of teachers towards CCE with respect to the joint influence of 'qualification and training' because the postgraduate teachers, who received CCE training, had the strongest attitude to CCE as a result of the joint influence of qualification and training.

Naidu (2017) made a research study about attitude of high school teachers towards Continuous and Comprehensive Evaluation using the descriptive survey method of research. The sample of the study comprised of 100 high school teachers of District of East Godavari, Andhra Pradesh. After the analysis of the data, the investigator made the conclusions that there was no significant difference between the attitude of graduate and post-graduate high school teachers towards CCE. Alike, professional qualification of the high school teachers towards CCE did not make any considerable impact on their attitude towards CCE. The investigator added that male high school teachers had more favourable attitude to CCE compared to female high school teachers. Similarly, urban and rural high school teachers' attitude differed relevantly as urban teachers had a better view of CCE. Alike, private high school teachers' attitude towards CCE was superior to the government teachers' attitude.

Misra (2017) studied about the attitude of primary school teachers towards Continuous and Comprehensive Evaluation. The population of the study comprised of the primary teachers of both government and private schools. Eleven government schools and thirteen private schools were selected randomly as sample from East Godavari District of Andhra Pradesh state. The results revealed that there was no significant difference between the attitude of male and female primary school teachers towards CCE. Alike, there was no significant difference between the attitude of government and private secondary school teachers as well. However, it revealed that there was a significant difference between the attitude of rural and urban primary school teachers to CCE. Urban schoolteachers possessed a better attitude towards CCE.

Rani (2017) investigated the attitude of teachers towards Continuous and Comprehensive Evaluation. The study was made up of a sample of 200 teachers, which was taken on the basis of random sampling from Sonepat district in Andhrapradesh. Out of the 200 teachers, 100 teachers were from Government Schools and the other 100 from private schools. It found that 21.5 percent of the teachers had extremely favourable attitude and 36 percent of the teacher had highly favourable while 42.5 had above average favourable attitude toward CCE. Thus, the study reflected that the attitude of teachers to CCE was moderately favourable. The study clearly indicated that there was no significant difference in the attitude of government and private school teachers to CCE. Similarly, it showed that there was no significant difference between the attitude of the male and female teachers of both private and government schools towards CCE.

Lalnunfeli, Malsawmtluanga, Ralte, & Lalduhawmi (2018) conducted a research study about the attitude (general attitude, without specifying dimensions) of secondary school teachers in Mizoram towards Continuous and Comprehensive Evaluation. The researcher adopted a descriptive survey method for the study. The population of the study was all the secondary school teachers of Mizoram and the sample of the study consisted of 177 secondary school teachers. The result of the study concluded that majority of the sampled teachers had favourable attitude towards CCE. The study added that there was no significant difference between the male and female teachers in their attitude towards CCE. However, the results also showed significant difference in the attitude of teachers towards CCE between two different age groups, viz. 37 years and below and 38 years and above. As per the results, young teachers below 37 years had more positive attitude towards CCE. Similarly, the result showed that academic qualification influenced on the secondary teachers' attitude towards CCE. Post-graduate teachers had more favourable attitude towards CCE than the graduate teachers did. Additionally, the study revealed that the location of the schools also had some impact upon the attitude of teachers because teachers from urban areas expressed more favourable attitude towards CCE in comparison with the teachers of rural areas.

Table 4. Summary of literature contributions about CCE implementation

Summary			
Author(s)	Research method	Overall assessment of CCE	Differences among groups
Bhattacharjee and Sarma (2009).	Interview schedule, observations recorded in the invigilator's diary, and focused group discussions.	Mostly unfavourable attitude.	<p>Co-scholastic activities did not find a proper place in the school routine.</p> <p>Teachers did not have any kind of formal training to handle co-scholastic activities.</p> <p>Lack of proper planning, paucity of various facilities, lack of proper qualified staff, and over emphasis on academic programmes were some of the main problems and challenges for the implementation.</p>
Nawani (2010).	Stakeholders' self-reports – attitudes and beliefs about CCE.	Mostly unfavourable attitude.	<p>Maintaining of registers, filling up assessment formats, tracking students' growth, collecting evidences, writing detailed descriptive portfolios etc. increased the volume of work.</p> <p>Students spent much of their time doing some projects work instead of some creative work.</p> <p>Focus of teachers was diverted from teaching to maintaining assessment related records.</p>
Jaiswal (2010).	Stakeholders' self-reports – attitudes and beliefs about CCE.	Mostly unfavourable attitude.	Teachers' negative attitude and unawareness of the procedures of the system affected the implementation.

			Male teachers had more positive attitude towards the system because of their mathematical skill compared to their counterparts.
Jadal (2011).	Experimental.	Positive attitude to the practice.	<p>Helpful for the attainment of concept and development of multiple abilities/mastery of skills.</p> <p>Enhanced the level of listening, reading, speaking, writing, and comprehension abilities among students, besides the attainment of concepts and multiple abilities.</p>
K-12 in India.	General	Favourable attitude to the practice.	Schools invested heavily in the infrastructure including digital aids for CCE and in the orientation of teachers to the CCE framework.
Pazhanimurugan, Sivakumar, & Benjamin (2011).	Stakeholders' self-reports – attitudes and beliefs about CCE.	Mixed attitude.	<p>Assignments were the most commonly used item for internal assessment.</p> <p>Different teachers conducted assessments distinctly and gave marks without uniformity among them.</p> <p>Female students' attitude (96%) was higher than the male students' (91%).</p> <p>Govt. school students had more favourable attitude to CCE than private school students' (94%).</p>

			Govt. employee parents' attitude (97%) was higher than the private employee parents' attitude (90%).
Saxena & Namedeo (2012).	Stakeholders' self-reports – attitudes and beliefs about CCE.	Unfavourable attitude to the practice.	<p>Big classrooms were serious challenges for the effective implementation of CCE.</p> <p>Increasing projects and presentations put students and teachers under extra pressure and teachers did not have sufficient time for teaching.</p> <p>Students concentrated more on projects just for scoring high “grades” without taking place real learning, and the projects might have been done by any siblings or parents or even bought from a shop.</p> <p>Scholastic and co-scholastic areas demanded talent and versatility in teachers that might not be so in reality.</p>
Singhal (2012).	Questionnaires and semi-structured interview seeking opinion regarding the introduction of CCE, effects of CCE, problems encountered while the execution of CCE, suggestions to overcome the problems related to CCE, and help from state or schools.	Moderate acceptability of CCE.	<p>No significant difference in teachers' attitude in relation to sex, level of classes, experience or the type of schools.</p> <p>Significant difference in teachers' perception of CCE between the moderate and highly experienced teachers.</p>

			<p>Big number of students in class, lack of training for teachers, lack of proper infrastructure, and lack of teaching materials etc. were some of the major problems that diminished the effectiveness of CCE.</p> <p>Students started becoming less serious about their studies as they could achieve good score through the internal assessments.</p>
Rao (2012).	Stakeholders' self-reports – attitude and beliefs about CCE.	Unfavourable attitude to the practice.	<p>Learners' characteristics, their prior experiences and abilities were not considered while selecting activities for assessment.</p> <p>Tended to assess mainly the lower cognitive outcomes rather than the higher cognitive abilities such as applying, analysing, inferring, evaluating etc.</p> <p>Students seemed to be under the pressure of completing the overcrowded assignments and projects that were given in all subjects at the same time.</p> <p>Some teachers used internal assessment as a power string and threat to control students.</p> <p>Conducted formative and summative assessments of specific numbers for the sake of accountability, rather than the benefits.</p>

<p>Sonawane & Isave (2012).</p>	<p>Stakeholders' self-reports – attitude and beliefs about CCE.</p>	<p>Unfavourable attitude to the practice.</p>	<p>Problems of lack of daily record maintenance and daily feedback.</p> <p>Evaluation practices were carried out, but not exactly as the viewpoints mentioned in the framework.</p> <p>Failed to provide formative feedback and remedial instruction, instead discussed it in the PTA meeting or just indicated in the diary.</p> <p>Teachers viewed CCE as a hectic process.</p>
<p>Kumari (2012).</p>	<p>A case study approach using stakeholders' self-reports – attitudes and beliefs about CCE.</p>	<p>More or less positive attitude.</p>	<p>Incorporating ICT with evaluation tools and techniques were helpful, especially for holistic development, to go beyond monotony as well as for better time management and other presentations.</p> <p>Highlighted some defects such as big number of students in a classroom, variation in the total number of formative assessments per teachers, the difference in the percentage given for these activities etc.</p>
<p>Kothari & Thomas (2012).</p>	<p>Stakeholders' self-reports – attitudes and beliefs about CCE.</p>	<p>Mixed attitude</p>	<p>Teachers (93%) could execute various types of assessments, especially diagnostics test.</p> <p>Teachers had attended trainings and found the syllabus as suitable for CCE practice.</p>

			<p>Big number of students in a classroom and its related problems.</p> <p>No uniformity in the number of assessments conducted or marks allotted for the same per teachers.</p> <p>Syllabus was too lengthy to implement CCE.</p> <p>Some teachers lacked a clear idea about providing apt assessments for students.</p> <p>Lack of facilities and materials etc.</p>
Mondal & Mete (2013).	Qualitative in nature.	Favourable attitude to the practice.	CCE facilitated to plan appropriate remedial measures for weak students and to reduce the exam stress and anxiety of students by the proper execution of CCE.
Singh, Patel, & Desai (2013).	Study attempted to measure the attitude of the B.Ed. students towards CCE with respect to four components such as impact of continuous internal assessment, students feeling about continuous internal assessment, shortcomings of the continuous internal assessment, and teaching-learning process.	Moderately favourable attitude.	There was no significant difference in the attitude of male and female B.Ed. students towards CCE and similarly between students belonged to urban and rural areas.

<p>Rajshree and Kumar (2013).</p>	<p>It was a comparative study made using Bist Battery of Stress Scales that measured four components of stress viz. frustration, conflict, pressure, and anxiety through 13 sub-tests. The Scale for Academic Stress (SAS) was selected for the study.</p>	<p>-</p>	<p>Gender is not a significant factor in the examination stress of the students studying under grading as well as numerical system of evaluation.</p>
<p>Kaur (2013).</p>	<p>Stakeholders' self-reports – attitudes and beliefs about CCE.</p>	<p>Unfavourable attitude.</p>	<p>Parents were also under too much pressure because of the new system of evaluation.</p> <p>Need to change the classroom culture, as it is neither a place for delivering textbooks nor where students compete with each other.</p>
<p>Raveendran Ashita (2013).</p>	<p>Qualitative.</p>	<p>Unfavourable attitude to the practice.</p>	<p>CCE could not succeed in enhancing educational quality rather it affected adversely because students' potentials were not utilized to the maximum as it was expected.</p> <p>Besides, students were not adequately prepared for the rigors of higher education and today's workplace under CCE.</p> <p>Parents and students had been quite uncomfortable with the methods used in CCE.</p>
<p>Joshi (2013).</p>	<p>Qualitative.</p>	<p>Unfavourable attitude to the practice.</p>	<p>Failed to practice CCE exactly.</p>

			<p>Formative feedback was not provided and remedial instructions were discussed in PTA meeting.</p> <p>Labelled CCE as a hectic scheme for teachers.</p>
Jayalekshmi & Pereira (2013).	Stakeholders' self-reports – attitudes and beliefs about CCE.	Unfavourable attitude to the practice.	<p>Absentees on account of doing other jobs in case of students coming from poor social background, negative attitude and the inability of teachers to act as co-learner and facilitator, absence of healthy rapport among the authorities, teachers, and the students of the school, lack of facilities etc. caused difficulties in the implementation of CCE.</p>
Chaudhari (2014).	Stakeholders' self-reports – attitudes and beliefs about CCE.	Unfavourable attitude to the practice.	<p>Highlighted the unavailability of adequate educational tools and facilities in schools that made the teaching work to be dominated by lecture method.</p> <p>Managements and principals put too much pressure on teachers.</p> <p>Students from rural schools found less interested in their studies as a result of parents' lack of awareness or students were found engaged in household works.</p>

			Newly recruited teachers were given fixed salary with no leaves or other rights that resulted in teachers' frustration and sometimes, leaves of teachers also created problems in small schools.
Mishra & Malik (2014).	Stakeholders' self-reports – attitudes and beliefs about CCE.	Unfavourable attitude to the practice.	Lack of adequate teachers and parents' poor awareness of CCE reduced the efficacy of the practice.
Deka (2014).	The study was experimental in nature. The similar students were selected based on marks obtained in their last annual examination and divided them into two groups i.e. control group and experimental group. Pre-test and post-test design was used for achieving the objectives.	-	No difference between the performance of boys and girls under CCE. Students performed better in social science under CCE than in the traditional examination system.
Anitha (2014).	Stakeholders' self-reports – attitudes and beliefs about CCE.	Moderate acceptability of CCE.	No significant difference between male and female teachers perception of CCE. Significant difference between the opinion of government (rural) and private (urban) schoolteachers towards CCE. The urban teachers and the private school teachers had a better view of CCE.
Pradhan & Singh (2015).	Stakeholders' self-reports – attitudes and beliefs about CCE.	-	No significant difference between the attitude of male and female secondary school teachers as well as the teachers of rural and urban secondary school teachers towards CCE.

			Significant difference between the attitude of government and private secondary school teachers to CCE.
Barwal & Sharma (2015)	Used a self-developed tool (Attitude scale on CCE) to collect the data on the dimensions: knowledge about CCE, attitude towards CCE, practice of CCE, and effect of CCE.	-	Male and female, government and private, CBSE and HPBOSE, and rural and urban secondary school teachers did not differ on their attitude to CCE.
Brown et al., (2015).	A quasi-experimental study, for which a large-scale survey of secondary school teachers predominantly in private schools were asked to indicate how much they agreed with multiple purposes concerning either internally-determined school-based assessments or externally-mandated public examinations and how they practiced assessment.	Moderately favourable attitude.	Assessment was basically around improving student learning by teaching for exams. Despite its formative timing of assessments, each assessment was used mainly as a cumulative, summative evaluation. Having time to finish curriculum and using assessment diagnostically was complicated.
Gayal (2015).	Stakeholders' self-reports – attitudes and beliefs about CCE.	Favourable attitude to the practice.	CCE could promote child centred approach.
Rana (2015).	Stakeholders' self-reports – attitudes and beliefs about CCE.	-	No significant difference in the attitude of teachers based on gender and locality of schools.
Lal (2015).	Stakeholders' self-reports – attitudes and beliefs about CCE.	Moderately favourable attitude.	Could enhance the reflective skills of students and promoted constructive feedback. More students became active learners instead of active listeners.

			<p>Corrective measures boosted student learning and all-round development.</p> <p>Teaching technique improved and many teachers employed peer learning and assessment.</p>
Kumar M & Kumar (2015).	Stakeholders' self-reports – attitudes and beliefs about CCE.	Unfavourable attitude to the practice.	<p>Lack of infrastructure and teaching materials influenced on the effective implementation of CCE.</p> <p>Students became less serious about their studies and parents lack of awareness contributed to it.</p> <p>Practice needed financial aids.</p>
Parmar (2015).	Stakeholders' self-reports – attitudes and beliefs about CCE.	Unfavourable attitude to the practice.	<p>Lack of teachers' knowledge and skills affected negatively CCE practice.</p> <p>Lack of facilities, time, tension created by the pressure of completing the syllabus, social pressure and external accountability etc. affected efficacy of the practice of CCE.</p>
Sartaz (2015).	Stakeholders' self-reports – attitudes and beliefs about CCE.	Moderate acceptability.	<p>Government teachers were not sufficiently trained for the operational implementation of CCE.</p> <p>Large number of students, inadequate infrastructure, and lack of teaching materials etc. hindered the practice of CCE.</p>

<p>Kaur (2016).</p>	<p>Stakeholders' self-reports – attitudes and beliefs about CCE.</p>	<p>Unfavourable attitude to the practice.</p>	<p>Assessment failed to get a fair and realistic picture of students' mastering as a consequence of neither implementing CCE systematically nor assessing competences. Some teachers were biased too.</p> <p>Personal and social qualities were not assessed.</p> <p>Due to the overcrowded classrooms, CCE was termed to be just a show off.</p> <p>Since evaluation practice lacked reliability, validity, and objectivity, good marks could not generate much motivation in students.</p> <p>Record keeping was a big challenge for teachers, especially for those who did not have basic knowledge of computer or being poor in basic arithmetical operations of addition, multiplication etc. in combining scores from different resources using various weightages.</p>
<p>Bansal & Jyoti (2016).</p>	<p>Stakeholders' self-reports – attitudes and beliefs about CCE.</p>	<p>Moderately acceptable attitude.</p>	<p>There was no significant difference between the attitude of trained and untrained teachers in computers towards CCE.</p> <p>There was no significant interaction between training in computers and co-scholastic aspects on teachers' attitude towards CCE.</p>

			<p>Significant difference between the teachers trained in computers and co-scholastic activities. Trained ones had better attitude to CCE.</p>
Herkal (2016).	Qualitative study.	-	<p>Inefficiency of teachers, lack facilities, poor student attendance etc. were discrepancies. Thereby, mostly teachers failed to pay individual attention to students.</p>
Quari & Sultan (2016).	Stakeholders' self-reports – attitudes and beliefs about CCE.	Unfavourable attitude to the practice.	<p>Most of the schools carried out evaluation practices still in the traditional way.</p> <p>Teachers followed CCE mechanically for the lack of proper understanding of CCE.</p> <p>Load of assignments and projects in a semester was quite heavy.</p> <p>Some claimed that remedial teaching was not different from regular class, except the name remedial, and students were dissatisfied with the timing and frequency of these classes.</p> <p>Teachers were biased and the loads of project works and assignments were quite heavy.</p> <p>Students preferred marking system and opined to provide marks along with grades.</p>

			<p>Large classes did not facilitate to provide individual attention to students.</p> <p>Teachers felt CCE was time consuming and increased their volume of work affecting the efficacy of teaching.</p> <p>Financial constraints associated with CCE did not suit the pocket of every student.</p>
Emimah (2016).	Stakeholders' self-reports – attitudes and beliefs about CCE.	Highly favourable attitude towards CCE.	<p>Employed variety of tools and techniques for the assessment under CCE.</p> <p>Female teachers had more favourable attitude to CCE than male teachers did.</p> <p>Alike, teachers with more than 20 years of teaching experience had more favourable attitude to CCE.</p> <p>Government teachers had high-level attitude to CCE than the aided teachers.</p> <p>Moreover, urban school mathematics teachers had high-level attitude to CCE than the rural teachers.</p>

<p>Hassan (2016).</p>	<p>Continuous and Comprehensive Evaluation Inventory (CCEI) was employed to assess the awareness of the students towards CCE. The tool had 47 items related to general aspect, scholastic aspect, co-scholastic aspect, student's related indicators, teacher's role and suggestions of students.</p>	<p>Mostly favourable attitude.</p>	<p>CCE was helpful in reducing examination stress, and thereby, reduced suicidal cases among students due to examination stress.</p> <p>60% of students experienced subjectivity in co-scholastic activity and 65.83% perceived there was teachers' bias.</p> <p>Student opined that some teachers were incompetent.</p> <p>60% student viewed teachers were busy with assessment than teaching and CCE increased their workload and reduced their leisure time.</p> <p>Some studnets claimed that remedial teaching was not different from regular class, except the name remedial.</p> <p>53.33% of students disliked grading system and preferred marking system for it reduced their curriculum load.</p>
<p>Dasa et al., (2016).</p>	<p>Used student teachers' attitude towards Continuous Assessment Practices. Questionnaire was adopted from Okpala and Onocha (1985), Nneji et. al, (2012) and modified by Awofala and Babajide, (2013), which consisted of 41 statements made in various assessment practices.</p>	<p>Favourable attitude to the practice.</p>	<p>Urban and rural D.El.Ed. student teachers demonstrated parallel attitude towards CCE.</p>

Ali (2016).	Stakeholders' self-report questionnaire to measure the attitude of students towards CCE based on two aspects of the evaluation: scholastic and co-scholastic.	Favourable attitude.	<p>No significant difference in the attitude of secondary school level students of different schools of CBSE.</p> <p>Significant difference between the percentages of students with favourable attitude to CCE pattern and vice versa. Students felt CCE created stress throughout the course and gave no free time. Alike, skills were imposed and grades were in the hands of teachers who could probably manipulate them.</p> <p>Attitude of girls and boys did not differ significantly towards CCE.</p>
Cyril and Jeyasekaran (2016).	Stakeholders' self-reports – attitudes and beliefs about CCE.	Positive attitude to CCE.	<p>No significant difference between the male and female students in the CCE evaluation.</p> <p>Urban students performed better than the rural students in their CCE evaluation as per the study.</p> <p>Similarly, joint family students performed better than nuclear family students did.</p> <p>Besides, private school students performed better than the government or aided school students under CCE.</p>

<p>Rajeswari (2017).</p>	<p>Stakeholders' self-reported questionnaire about the evaluation methods used in practice and the assessment of socio-emotional aspects.</p>	<p>Favourable attitude.</p>	<p>Conducted variety of tests and assessments including social and emotional skills, but not used all types of assessments.</p> <p>Some teachers conducted follow up programs like tests and re-tests out of class hours.</p> <p>Most teachers attended training, still required training for various subjects.</p>
<p>Yagnamurthy (2017).</p>	<p>Qualitative study.</p>	<p>Unfavourable attitude to the practice.</p>	<p>Confusion among stakeholders that resulted in the flawed implementation of CCE.</p> <p>It underpinned the lack of facilities and large teacher-pupil ratio as big problems.</p> <p>Still, assessment was in line with behaviourist tradition than the constructivist.</p> <p>In the name of objectivity, CBSE compromised on the autonomy and flexibility of schools, teachers and also the creativity of students.</p>
<p>Singh, M. (2017).</p>	<p>Stakeholders' self-reports – attitudes and beliefs about CCE.</p>	<p>Favourable attitude.</p>	<p>No significant difference between the male and female teachers' attitude to CCE on the ground of gender or the locality such as rural and urban.</p> <p>Strengthened teacher-student relationship.</p>

			<p>Majority of female teachers from urban and rural areas had a highly favourable attitude to CCE than the male teachers.</p> <p>No difference between the perceptions of teachers of below 35 and above 35 years of age or based on the teaching experience above or below 10 years of experience.</p> <p>Besides, there was no significant difference in their perceptions based on professional qualification too.</p> <p>All-promotion approach lowered the quality of education.</p> <p>There was shortage of teaching of teaching staff.</p> <p>Although parents were satisfied with the holistic approach, many of them were unclear on the concept of CCE.</p>
Singh, A. (2017).	Stakeholders' self-report questionnaire about evaluation methods used in practice and the assessment of socio-emotional aspects.	Mostly favourable attitude.	<p>The attitude of senior secondary school students of various schools of CBSE board did not differ significantly towards CCE pattern.</p> <p>The attitude of most favourable and least favourable group of students towards CCE differed significantly on the measure of study habits as most favourable had better view of the practice.</p>

			The attitude of male and female students did not differ significantly towards CCE.
Raina & Verma (2017).	Stakeholders' self-reports – attitudes and beliefs about CCE.	Mixed attitude to the practice of CCE.	<p>Study agreed that the old examination system was stressful and CCE lifted pressure from children, gave them a fair chance, however, shifted the pressure from students to teachers and school management.</p> <p>Large number of students in classes, lack of appropriate training, inadequate teaching materials and increased volume of work were some major drawbacks.</p> <p>Postgraduate teachers who received CCE training had the strongest attitude to CCE.</p>
Naidu (2017).	Used a self-developed tool (Attitude scale on CCE) to collect data. The scale consisted of 48 items on the Child-related, Teacher-Related, and Process-Related dimensions.	Mostly favourable attitude towards CCE.	<p>No significant difference between the attitude of graduate and post-graduate high school teachers to CCE.</p> <p>No significant difference in the attitude of teachers on the ground of professional qualification.</p> <p>Male high school teachers had more favourable attitude to CCE as well as private teachers with respect to government teachers.</p>
Misra (2017).	Stakeholders' self-reports – attitudes and beliefs about CCE.	-	No significant difference between the attitude of male and female primary school teachers towards CCE.

			<p>No significant difference between the attitude of teachers with below or above 10 years of teaching experience of government and private secondary schools.</p> <p>Urban teachers possessed a better attitude towards CCE.</p>
Rani (2017).	Stakeholders' self-reports – attitudes and beliefs about CCE.	Moderately favourable attitude.	No significant difference between male and female teachers in their attitude with respect to the type of school as well as gender.
Lalnunfeli et al. (2018)	Stakeholders' self-reports – attitudes and beliefs about CCE.	Favourable attitude towards CCE.	<p>No significant difference between male and female teachers in their attitude.</p> <p>Teachers below 37 years had more positive attitude than above 37 years.</p> <p>Post-graduate teachers had more favourable attitude towards CCE than the graduate teachers did and similarly, urban teachers had better attitude to CCE than the teachers from rural did.</p>

3.2.2 Suggestions

The previous two sections have elaborated both the strengths and the limitations of the implementation of CCE. In addition to it, these studies have specified certain solutions to either overcome the drawbacks of the scheme or practice it better. The main remedies pointed out by these studies have been listed below without repeating the details of them.

Gangadharrao (2010) in a conference on An Innovative Evaluation Technique for the Betterment of School Education made certain recommendations for successfully implementing CCE. As such, head teachers should do planning for CCE at the commencement of the academic year itself and they should discuss it with teachers and guide them in the choice of items for formative assessment. Head teachers and teachers should oversee it as well. Similarly, they should ensure that there were sufficient number of quality teachers apart from arranging necessary funds for evaluation tools, equipment, and instructional materials.

Pazhanimurugan et al. (2011) made a research study on upper primary schools students' attitude towards Continuous and Comprehensive Evaluation. The study suggested reducing and designing the syllabus in such a way befitting for the effective implementation of CCE. Proper training for students and teachers was also necessary. It recommended that appropriate tools and tests required for assessment of students in CCE could be designed by a panel of experts and be given to teachers for increasing the effectiveness of CCE and easing the work burden of teachers.

Saxena & Namedeo (2012) made a study on the challenges faced by teachers while implementing CCE. The study emphasised on certain factors to make the practice more effective. Accordingly, it was essential to have a small class with a teacher-student ratio being limited to 1:30. Alike, the paradigm shift of classrooms from behaviourist to constructivist and giving way to a collaborative classroom was a big challenge for teachers. Therefore, teachers required training accordingly to obtain the aims and objectives of CCE, particularly for developing effective assessment tools. Besides, the training should address certain areas like methods of collecting, recording, compiling, and interpreting evidences of learner's growth.

Singhal (2012) took efforts to learn teachers' attitude towards CCE. The study mentioned that for the smooth execution of CCE, teachers had made some suggestions such as reducing the number of students in classes, providing appropriate teacher training, ensuring proper infrastructure, and having sufficient teaching materials etc.

Kumari (2012) undertook an analytical study about ICT integrated Continuous Comprehensive Evaluation System at Secondary Level in Sai International School, Bhubaneswar. The study suggested that computer based diagnosis test could be used for detecting students' learning difficulties as well as teachers' own teaching deficiencies and subsequently, could adopt appropriate remedial measures effectively.

Kothari & Thomas (2012) made a study on the implementation of CCE in upper primary schools of Kerala. The study recommended reducing the syllabus, giving proper training to teachers, minimizing class strength, providing with needful materials and tools for assessment, creating proper awareness of CCE among students etc.

Ashita's (2013) study regarding how to use assessment to improve teaching and learning exposed some major problems that affected the effectual results of CCE. Hence, the study urged that teachers had to be assisted with different teaching and learning materials for the successful implementation of CCE. Similarly, students and parents had lack of awareness of CCE and the various process involved with it. Therefore, they had to be sensitized to the process of CCE. Alike, teachers should facilitate students from the beginning of a given activity to the end and ensure that the outcome mainly reflected both students' effort and their attainment of the skills and competencies.

Kaur (2013) took the effort to do a qualitative research about the perceptions of teachers and students on the effectiveness of Continuous and Comprehensive Evaluation System. Accordingly, CCE was termed to be more applicable to small classrooms or schools considering the fact that CCE demanded conducting daily/weekly tests and assignments.

Chopra & Bhatia (2014) attempted to study the English language teachers' practices in conducting formative assessment as per CBSE guidelines. Twenty Trained Graduate Teachers (TGT) (10 each from *Kendriya Vidyalaya* and Private schools) were selected for the study. The Schools were chosen from five districts of New Delhi and one teacher from each school was also selected. The researchers employed classroom observation as a technique and recorded through self-constructed checklist consisting of eighteen items in total pertaining to various components like tools and techniques for assessing.

The study made certain recommendation based on the analysis of the data such as providing with enhanced infrastructure amenities, conducting weekly tests, remedial classes, and topic wise examinations in the schools for continuous assessment of the child in diverse areas, organizing parent teacher associations regularly to provide feedback on students' performance etc. The study also stressed that schools should give freedom and personal space to teachers for promoting, exploring, and experimenting experiential learning. Besides, more orientation programmes and workshops needed to be organized for teachers in order to make them aware of the use of various tools and techniques in formative assessment.

Parmar (2015) mentioned about some factors that influenced on teachers' evaluation practice after making a qualitative study about the challenges and plausible solutions of CCE. The study recommended some measures for the fruitful practice of CCE such as careful examination of the course, specification of competencies to be attained by the learners in terms of knowledge, understanding, application, and skill. It added that teachers should have sound knowledge and ability to construct appropriate assessment tools for assessing the competencies and have careful planning of the competency based teaching procedures. It also stressed on some matters like conducting comprehensive evaluation of competencies, personality traits and attitudes of students, maintaining of records, and providing remedial teaching. Therefore, teachers had to be more commitment to their professions.

A study about awareness of CCE among secondary school teachers by **Kumar M & Kumar (2015)** underlined that number of students in a class should be limited to the standard and teachers should receive adequate training from resource persons along with guidance and counselling about the concept of CCE. Besides, it specified that teachers should be exempted from other duties, which have nothing to do with teaching and related responsibilities. Creating a sound awareness of need and importance of CCE to parents was also necessary according to the study.

Sartaz (2015) conducted a study on Cognizance of Continuous and Comprehensive Evaluation (CCE) among schoolteachers. Afterward, it proposed to conduct orientation

training for teachers to the Continuous Comprehensive Evaluation, allot proper time for the implementation, and work planning to facilitate the execution of CCE.

They (**Brown et al., 2015**) investigated about the impact of CCE assessment policy upon teachers' self-reported assessment beliefs and practices through a quasi-experimental study of Indian teachers in private schools. The study recommended that teachers should be provided with new resources for facilitating the practice of CCE. It added that changes should be made in the operation of internal assessment if teachers were to differentiate between internal assessments that were diagnostic and formative, and external assessments that were evaluative and summative.

The main contention of the study by **Bansal & Jyoti (2016)** was to find out the attitude of teachers towards Continuous and Comprehensive Evaluation in relation to training in computers and co-scholastic aspects. The study stated that it was very important that teachers have a positive attitude towards CCE, which was possible only through their proper training of different techniques of evaluation involved in Continuous and Comprehensive Evaluation. Alike, it indicated that giving training in the use of computers for evaluation process as well as the techniques of evaluating co scholastic aspects could develop favourable attitudes among teachers towards CCE.

Quari & Sultan (2016) conducted a study about Continuous and Comprehensive Evaluation and its challenges in Kashmir. After the analysis of the data, the study suggested that awareness and counselling programmes should be organised for students. Alike, remedial teaching should be improved and co-scholastic assessment needed to be overviewed or done by a team of teachers instead of individual teachers, thus it can shield evaluation from teachers' bias. Finally, class size should be reduced for the effective implementation of CCE.

Hassan took efforts to investigate about Continuous and Comprehensive Evaluation in secondary schools, especially with respect to students' awareness and problems (**Hassan, 2016**). The study made some major recommendations such as to organise awareness and counselling programme for students, improve remedial teaching, and

give the responsibility of co-scholastic assessment to a team of teachers as students accepted the subjectivity in the assessment of co-scholastic aspects by teachers.

Cyril & Jeyasekaran (2016) conducted a study to find out the attitude towards Continuous and Comprehensive Evaluation of high school students. The study recommended that efforts should be made to improve the attitude of rural school students towards Continuous and Comprehensive Evaluation system because they were behind in their attitude towards CCE in comparison with the students of urban schools. Similarly, it emphasized on improving the attitude towards CCE system in government and aided schools for the same reasons.

Yagnamurthy (2017) executed a study about CCE with respect to its policy and practice at the national level, especially focusing on the gap between the policy and practice. The study specified on the importance of strengthening the monitoring mechanisms at the local level, so that decentralisation of educational decision-making could facilitate appropriate curricular and assessment practices. Additionally, it recommended that longitudinal studies should be undertaken using the data collected through FA over a period of time, annual performance of the students considering their personal development and contribution to society, the information acquired about the school etc. The study stated that this kind of longitudinal study would definitely work on 'hard spots' and strengthen the effectiveness of CCE. It concluded that CCE required an overhauling of awareness, involvement, and persistent effort at various levels in order to make theoretical understanding a practical reality.

Implementation of Continuous and Comprehensive Evaluation in primary classes of Kerala was the subject of the study made by **Rajeswari (2017)**. Accordingly, it pointed out that teachers were to assess co-scholastic areas such as Art Education, Health Education and Work experience and it was required that training be given for all subjects handled by them.

Singh, M. (2017) made an investigation about the perceptions of CBSE schoolteachers towards CCE system in relation to certain variables to deal with CCE System and the practical problems likely to be encountered by the teachers while executing this

evaluation system. The study urged that there were shortage of teachers and thereby, the required staff should be appointed in these schools. Alike, it noted that some parents had little awareness of CCE practice. Therefore, it was necessary to arrange orientation programs for parents at both school and block levels.

Table 5. Summary of the suggestions.

Summary	
Authors	Suggestions
Gangadharrao (2010).	Head teachers should do planning for CCE at the commencement of the academic year.
	Head teachers should discuss the plan with teachers and guide them regarding the choice of items for formative assessment.
	Ensure there are sufficient number of quality teachers apart from arranging necessary funds for evaluation tools, equipment, and instructional materials.
Pazhanimurugan et al. (2011).	Reduce and design the syllabus in such a way for facilitating an effective implementation of CCE.
	Give proper training for stakeholders.
	Design appropriate tools and tests by a panel of experts and give to teachers.
Saxena & Namedeo (2012).	It is essential to have a small class limiting the teacher-student ratio practically to 1:30.
	Train teachers according to the aim and objectives of CCE, especially for developing effective assessment tools.
Singhal (2012).	Reduce the number of students in classes, provide appropriate teacher training, ensure proper infrastructure, and teaching materials in schools for the smooth execution of CCE.
Kumari (2012).	Computer based diagnosis test could be used for detecting students' learning difficulties as well as teachers' own teaching deficiencies for adopting appropriate remedial measures effectively.
Kothari & Thomas (2012).	Reduce the syllabus, give proper training to teachers, minimize class strength, provide with needful materials and tools for assessment, and create proper awareness of CCE among students etc.
Ashita (2013).	Teachers should be aided with different teaching and learning materials.
	Increase the awareness of CCE among students and parents since they have lack of awareness of it.
	Teachers should facilitate students from the beginning of a given activity to the end.

Kaur (2013).	CCE is termed to be more applicable to small classrooms or schools.
Chopra & Bhatia (2014).	Provide with enhanced infrastructure amenities, and conduct weekly tests, remedial classes, and topic wise examinations in schools
	Organizing parent teacher associations regularly to provide feedback on students' performance to the parents.
	Teachers should have freedom and personal space for promoting, exploring, and experimenting experiential learning.
	More orientation programmes and workshops were needed to equip teachers to practice CCE effectively.
Parmar (2015).	Teachers should take efforts for the careful examination of course, specification of competencies to be attained by learners in terms of knowledge, understanding, application, and skill from each activity.
	Teachers should have sound knowledge and ability to construct assessment tools.
	Teachers should have careful planning of the competency based teaching procedures.
	Conducting comprehensive evaluation of competencies, personality traits, and attitudes of students in the internal assessment of students should be ensured.
	Teachers should show more commitment to provide remedial teaching to students.
Kumar M & Kumar (2015).	Teachers should receive adequate training from resource persons along with guidance and counselling about the concept of CCE.
	Teachers should be exempted from other duties other than teaching and the related responsibilities.
	Create sound awareness of need and importance of CCE among parents.
Sartaz (2015).	Need to conduct orientation training about CCE, have proper time and work planning for the execution of CCE.
Brown et al. (2015).	Schools should provide new resources to facilitate the CCE practice.
	Changes should be made to the operation of internal assessment to differentiate it between internal assessments that were diagnostic and formative, and external assessments that were evaluative and summative.
Bansal & Jyoti (2016).	Training is required in the use of computers for evaluation process and techniques of evaluating co-scholastic aspects for creating a favourable attitude to CCE among teachers.

Quari & Sultan (2016).	Awareness and counselling programmes should be organised for students.
	Remedial teaching should be improved and co-scholastic assessment needed to be overviewed or done by a team of teachers instead of individual teachers.
	Class size should be reduced.
Hassan (2016).	It is important to organise awareness and counselling programme for students.
	Remedial teaching should be improved.
Cyril & Jeyasekaran (2016).	Efforts should be made to improve the attitude of rural, government, and aided schools students towards Continuous and Comprehensive Evaluation system.
	Give the responsibility of co-scholastic assessment to a team of teachers to remove biases.
Yagnamurthy (2017).	It is necessary to strengthen the monitoring mechanisms at the local level.
	Longitudinal studies should be undertaken using the data collected through FA over a period of time, annual performance of the students considering their personal development and contribution to society, and the information acquired about the school etc.
	It is required an overhauling of awareness, involvement, and persistent efforts at various levels to practice CCE effectively.
Rajeswari (2017).	Give training in all subjects handled by teachers.
Singh, M. (2017).	The study urged to appoint required staff in some schools.
	It is important to arrange more intensified orientation programs for parents at both school and block levels.

The previous sections have given us a comprehensive view of the implementation of CCE from the perspectives of its strengths, gaps, and suggestions. Further, this elaboration upon the implementation of CCE paves the way for the development of research objectives and questions of the present study. It will be explained in the next methodological chapter.

3.3 Student evaluation standards

Evaluation is very vital in any field of activity to make the right judgment on its effectiveness. Likewise, student evaluation and assessment are central to every school and classroom. A sound evaluation practice can substantially serve in providing quality

education in schools. Therefore, an effective student evaluation practice is needed to tap students' multi talents to meet the needs of this fast growing modern world. As the Joint Committee on Standards observes, "evaluation and assessment are how we find out what students are learning, how they are progressing, and how we can make improvements for their future development" (Gullickson, 2005, p. 244).

3.3.1 The Standards

The Student Evaluation Standards (SES) contains four essential attributes (propriety, utility, feasibility, and accuracy) with 28 standards for assessing evaluation practices in elementary and secondary classrooms. These standards, the results of studies made by experts, pinpoint key ideas and topics and set forth expected practices for the conduct of student evaluations. The standards not only provide a working philosophy for student evaluation with practical suggestion, but also they are comprehensive and beneficial for teachers, administrators, parents, and students (Gullickson, 2005, p. XX).

The standards are helpful for users to confront the political and practical realities of the evaluation process and address complicated issues such as educator biases, conflict of interest, and student cheating. Alike, they persuade the stakeholders to reflect on such issues as the periodicity and the purpose of student evaluation, evaluators' qualification, information availability, and students' right to privacy of evaluation findings etc. (Gullickson, 2005, p. 3).

The standards aid the various stakeholders in judging and commenting on plans for evaluations, which in turn help them in a constructive manner to understand the assessment and evaluation processes and decide whether to accept or reject evaluation results, findings, and recommendations for follow-up actions. School could avail the standards to assess the merits and demerits of the evaluation practices for further improvement (Gullickson, 2005, pp. 3-4).

Appropriate student evaluation practices help all those who are engaged in educational process make better decisions such as teachers get sound bases to think about their

teaching practices and help students meet content standards. Teachers could help students with remedial follow-up on topics using evaluation results. Students and parents could set goals and expectations and make decisions for the future based on the evaluations (Gullickson, 2005, p. 4).

Sound student evaluation practices are feasible, practical, fair, ethical, useful, and accurate. Evaluation results and findings that are incorrect or unsound, or evaluation conclusions that are meaningless or unjustified, are likely to be detrimental to a student's progress and future development. A sound evaluation practice influence students' progress and educational development.

Student evaluation contents are organized into 11 sections such as planning evaluations, grading, communicating, and reporting in relation to evaluation and with respect to issues such as developing policy, ensuring fairness, evaluating students from diverse background, preparing and developing professionals.

3.3.1.1 Propriety Standards

Propriety standards, as one of the essential attributes for student evaluation, provides guidelines to ensure that that student evaluations will be conducted legally, ethically, and with due regard for the well-being of the students being evaluated and the other people (stakeholders) affected by it (Gullickson, 2005). Propriety standards protect individual right giving utmost importance to student welfare in any student evaluation situation. They focus on four essential issues such as serving student learning, student-parent rights, privacy, and access to information in relation to student evaluation. The propriety standards suggest seven standards to safeguard student evaluation from these probable issues (Gullickson, 2005). "The standards promotes sensitivity to and warn against unlawful, unscrupulous, unethical, and inept actions by those who conduct evaluations" (Gullickson, 2005, p. 7).

The aim of student evaluation is to guide students, their parents/guardian, and educators in the students' acquisition of the knowledge, skills, attitudes, and behaviours that will enable them as adults to live in a democratic society (Gullickson, 2005, p. 7).

Students and other stakeholders understand the purposes of instruction and each student's status and progress in relation to these desired outcomes. Propriety standards are the following:

- Service to students
- Appropriate policies and procedures
- Access to evaluation information
- Treatment of students
- Rights of students
- Balanced evaluation
- Conflict of interest

1) Service to students

“Evaluation of students should promote sound education principles, fulfilment of institutional missions, and effective student work, so that educational needs of students are served” (Gullickson, 2005, p. 29). Student evaluation aids in the acquisition of knowledge, skills, attitudes, and behaviours that students need to lead a worthy life in the society. Student evaluation guides the stakeholders to understand the purpose and objectives of teaching and learning activity and the improvement of the same. Student evaluation not only helps in understanding the level of students' achievement but also facilitates remedial action with appropriate follow up. Most importantly, it indicates the route to the future aspirations.

Student should be given sufficient opportunity to demonstrate their knowledge, skills, attitudes, and behaviours in classes. Overusing instructional time for accountability-based evaluations can damage the real learning of students. Follow-up actions are necessary for poorly performing students as per the evaluation results. Therefore, student evaluation cannot be a mechanism to serve school accountability rather than a way to serve student learning.

2) Appropriate policies and procedure

Standards state, “Written policies and procedures should be developed, implemented, and made available, so that student evaluations are consistent, equitable, and fair” (Gullickson, 2005, p. 33). Standards highlight examples of issues that should be addressed in written policies to ensure that all students are evaluated in a consistent, equitable, and fair manner.

- Equity and fairness in matters of race and sex
- Allowing alternatives for students with special needs
- Student cheating and plagiarism
- Grading and reporting procedures
- How excused and unexcused absences are treated
- Student grievance and appeal procedures
- Confidentiality of student evaluation information
- Skills and qualification of evaluators.

Standards warn of that policies and procedures should be reviewed and revised periodically when conditions, applications, objectives, and values change according to the need of the time.

3) Access to evaluation information

“Access to student’s evaluation information should be provided, but limited to the student and others with established legitimate permission to view the information, so that the confidentiality is maintained and privacy protected” (Gullickson, 2005, p. 39). Access to student evaluation must be protected with utmost care. Students as well as their parents/guardians are entitled to reports of assessment information and evaluation findings in a clearly understandable form for understanding the progress. In the same manner, other legitimate persons can avail the information to inspect and use information to assess and make decisions for further educational development. It is important according to standards that the confidentiality of the evaluation findings are

maintained and respected. Teachers should not share evaluation information about one student with another student or other parents/guardians.

4) Treatment of students

“Students should be treated with respect in all aspects of evaluation process, so that their dignity and opportunities for educational development are enhanced” (Gullickson, 2005, p. 45). This standard emphasizes that students should be treated with respect regardless of their individual characteristics or special group statistics like age, gender, ability, language, opportunity to learn, ethnicity, special needs etc. When students receive fair and equitable treatment, they are being groomed as good citizens as well. Even in the selection of topics for assessment, this discernment is very important so that nobody’s esteem is damaged. This way, the morale of students and the credibility of the evaluation process will likely be enhanced. Overall, maintaining good personal relations can boost the student’s sense of worth and strengthen the use of evaluation to serve student’s educational development. A positive approach to students’ performance could motivate students to perform better like encouraging students take responsibility for their own learning and for making the evaluation process meaningful for them personally. Using a language appropriate to the student’s level of understanding and language skills brings significant difference in the evaluation process. In spite of to maintain discipline or occasionally disrespect on the part of the students could prompt a teacher to use evaluation findings to “hit back.” Such actions devalue evaluation and could always be avoided (Gullickson, 2005, p. 46).

5) Rights of students

“Evaluation of students should be consistent with applicable laws and basic principles of fairness and human rights, so that students’ rights and welfare are protected” (Gullickson, 2005, p. 51). Some rights are based in law and school policies whereas other are based on accepted ethical practice, common sense, and courtesy. These aspects protect students from harmful and uncomfortable experiences and especially taking account of the ages, abilities, and special needs of the students being assessed. Take

into account the backgrounds and learning experiences of the students when developing assessment methods and tools and also while interpreting the results.

It should be done communication of evaluation policies and information in an understandable language to both students and parents/guardians. The following elements should be included in the communication:

- Purpose of student evaluation
 - Uses to which evaluation information will be put
 - Types of assessment to be used
 - Conditions under which alternative assessments will be provided
 - Benefits and consequence of evaluations
 - Timing of reports and parent-teacher conferences
 - Procedures to appeal the results of a report
 - Evaluation situations for which written consent or permission may be requested
- (Gullickson, 2005, p. 52).

Evaluators should be knowledgeable about and adhere to both legal and human rights requirements in their evaluations. Besides, evaluators should realize that when they fail to respect the rights of students and show courtesy, it might deny some students the opportunity to participate and succeed in the education to which they are entitled (Gullickson, 2005).

6) Balanced evaluation

“Evaluation of students provide information that identifies both strength and weakness, so that strengths cab be built upon and problems areas addressed” (Gullickson, 2005, p. 55). For an effective instructional planning, knowledge of both strengths and weakness is must. A balanced evaluation minimize errors, and at the same time, stimulate students to perform better. Thus, knowledge paves way for the building blocks for planning and reinforcing student learning. In the same manner, knowledge of student weakness enables problems areas to be addressed and obstacles to be overcome or removed. Following frames are typical for the identification of strength and weakness of students:

- Performance in relation to specified standards
- Performance in relation to peers
- Performance in relation to aptitude or expected growth
- Performance in terms of the amount of improvement
- Performance in terms of the amount learned (Gullickson, 2005, p. 55).

Evaluation of students should help develop the talents to their optimum level. Failure to address either strength or weakness could lead to biases, which can reduce the validity and utility of evaluation information. However, balancing an evaluation does not indicate generation of equal numbers of strength and weaknesses instead, being thorough and fair evaluating both.

7) Conflict of interest

“Conflicts of interest should be avoided, but if present should be dealt with openly and honestly, so that they do not compromise evaluation processes and results” (Gullickson, 2005, p. 59).

For various reasons conflict of interest could arise because of evaluators’ biases of a judgment or decision. It can affect negatively throughout the evaluation process including planning the evaluation design, collecting data, analysing and interpreting data, and reporting evaluation findings to students and parents/guardians (Gullickson, 2005). Again, sources of conflict can vary depending on the status of the teachers as well as the school management. For example, by evaluating a student more positively than being very critical or warranted by evidence, a teacher could improve his or her standing with school and vice-versa. To dispel students from schools, teachers could act biased in their evaluation of certain group of students, particularly with poorly performing students. The philosophies of education, political preference, cultural background etc. could also be reasons for conflict of interests (Gullickson, 2005)

Certainly, conflict of interest can undermine the student evaluation questioning and its integrity of judgment. If decisions are influenced by teachers’ personal self-interest, the

decisions and judgments made by teachers will be questioned. Therefore, it is essential the elimination of the conflicts of interest or openly addressing the problem. Using an assessment method with clearly defined scoring rubrics with less or zero subjectivity effect and making a comparison of the assessments made by disinterested third party with the sample of subjectively scored assessment can help in avoiding conflict of interests.

Summary of the perspective of propriety standards (Conducted legally, ethically and with due regard for the well-being of students)

Propriety standards take care of the legal and ethical aspects of student evaluation with due regard for one of the basic purposes of student evaluation i.e. well-being of students being evaluated and other stakeholders affected by the evaluation results. As we have already seen in the previous section (3. 5. 2), Propriety standards exhort to observe certain standards in order to conduct student evaluation legally and ethically such as service to students, appropriate policies and procedures, access to evaluation information, treatment of students, balanced evaluation, and conflict of interests.

Legal aspect refers to the legitimacy of something. Student evaluation should be defensible legally. Therefore, standards emphasize that student evaluation should be conducted based on the appropriate policies and procedures. In the same manner, access to evaluation information should be limited to students and other legitimate persons only. Moreover, the rights and welfare of students should be protected consistently with applicable laws based on the principles of fairness and human rights.

Student evaluation should be conducted ethically. Students must be treated with respect throughout the evaluation process. This would enhance their dignity as well as opportunities for educational development. A balanced evaluation enables them to understand both their potential and weakness, which in turn, helps them build upon the strength and address the problem areas. An honest and open approach to evaluation results is advised to avoid conflicts of interest. If conflict of interest arises, it should be dealt without compromising on the evaluation process and results.

3.3.1.2 Utility Standards

“Utility Standards help ensure that student evaluations are useful. Useful student evaluations are informative, timely, and influential” (Gullickson, 2005, p. 65). As per the view of the standards, following are the usefulness of student evaluation:

- Constructive orientation
- Defined users and uses
- Information scope
- Evaluator qualification
- Explicit values
- Effective reporting
- Follow-up.

1) Constructive orientation

Constructive orientation means, “Student evaluation should be constructive, so that they result in educational decisions that are in the best interest of the student” (Gullickson, 2005, p. 67). A planned and implemented student evaluations results increase the benefits of results for students and other stakeholders. It gives a clear picture of students’ strength and weaknesses, upon which students could build their aspirations along with the constructive assistance from the parents/guardians. Educator can avail these results to plan and implement appropriate opportunities to learn.

Evaluations that are used to control or intimidate students or that focus on negative results can discourage students from learning. It could harm their esteem and inhibit their learning. Evaluations that concentrate on identifying weakness but do not assist in correcting deficiencies are useless. It does not contribute to the students, parents/guardians, or other legitimate users (Gullickson, 2005).

1) Defined users and uses

“The users and uses of a student evaluation should be specified, so that evaluation appropriately contributes to student learning and development” (Gullickson, 2005, p.

71). The specified uses of evaluation help students orient themselves knowing their strength and weaknesses. They avail assistance from others if required to fulfil their efforts. They can utilise the information to make decisions about course selection and career options. Teachers also require information to determine student needs, guide their learning, to assess their own performance and the impact of the classes, assign grades, and maintain student confidence. Parents/guardians could use the evaluative information to motivate their children, besides they could collaborate productively with their children's teachers. Curriculum and policy makers could also utilize the information for developing appropriate programs for education (Gullickson, 2005).

In all cases, students should be given a central role in the evaluation process and not be treated merely as an object of evaluation. Students' ability to use the information for his well-being is important. His understanding of how the information is to be used will have a positive impact on the reliability of the evaluation. Likely, inappropriate use of the information could damage the trustworthiness of the evaluation information. Assumption that all users have identical or similar needs of student evaluation information will lead to ineffectiveness of the information (Gullickson, 2005).

2) Information scope

"The information collected for student evaluations should be carefully focused and sufficiently comprehensive, so that evaluation questions can be fully answered and the needs of students addressed" (Gullickson, 2005, p. 77). The data and information collected should be relevant with respect to the identified purposes and sufficiently comprehensive to support the following decisions. Consideration should be given to consequences of decisions and actions undertaken based on the information from the evaluation. Thus, high-stakes decisions require a large amount of information that is broad in scope and gathered over a substantial time span and low-stakes decisions typically require a smaller and narrower amount of information gathered in a brief span of time (Gullickson, 2005, p. 77). If the scope is too narrow, it is insufficient to make a meaningful decision. Alike, if the scope is too broad, instructional time and student effort will be wasted gathering information that is not needed for the decisions. It can

also cause for incorporating inappropriate into the decision-making process, producing invalid decisions.

Evaluator should be careful in their choice of assessment methods solely because they are available or easy to use, or because of preconceived beliefs about different assessment methods. They are to avoid collecting information that is extraneous to the purpose of the evaluation.

3) Evaluator qualifications

“Teachers and others who evaluate students should have the necessary knowledge and skills, so that evaluations are carried out competently and the results can be used with confidence” (Gullickson, 2005, p. 83). For making proper evaluations of students, the evaluators must be well qualified. These qualifications include the ability to

- Collect or select appropriate assessments
- Collect data and information accurately
- Interpret data and information correctly
- Make and communicate sound decisions that further the educational progress of the students who are being evaluated (Gullickson, 2005, p. 83).

Evaluator’s expertise, professionalism, sensitivity, trustworthiness, and efficient and effective performance are vital to gain students’ acceptance and confidence in the evaluation results. Credible evaluators strengthen the process and contribute to the constructive use of evaluation findings. On the other hand, if the evaluators are viewed as not credible and knowledgeable about student instruction, learning, and evaluation, students may become uncooperative and passively ignore evaluation results. Evaluators should understand effective teaching techniques and principles of learning psychology. Through pre-service and in-service education, teachers should be trained to acquire the skills necessary for conducting meaningful evaluations.

Lack of preparation from the part of teachers for assessing and evaluating students is likely to conduct evaluations that are flawed. Such teachers may be comfortable with

and confident about their evaluation capacities and remain with their flaws. To address this issue, teachers should regularly review their evaluation practices and they should seek assistance and mentoring from well-qualified evaluators.

4) Explicit values

“In planning and conducting student evaluations, teachers and others who evaluate students should identify and justify the values used to judge student performance, so that the bases for the evaluations are clear and defensible” (Gullickson, 2005, p. 89). Valuing is the core part of student evaluation whereas value is the root term. Inevitably, the evaluators apply values during the assessment of every student’s development and growth. They should make explicit these values and discuss them with stakeholders to ensure the acceptance of the evaluation and enhance its usefulness. It is essential that clear reference need to be used denoting the expected learning outcome in the instructional program and the evaluation of students. Take into account that evaluation criteria or procedures are consistent with the prescribed values of the nation, state, and school districts. Typical frames of references used for interpretation are

- Performance in relation to pre-specified standards and rubrics (criterion-referenced interpretations)
- Performance in relation to peers (norm-referenced interpretation)
- Performance in relation to aptitude or expected growth
- Performance in terms of the amount of improvement or amount learned (Gullickson, 2005, p. 90).

It is a complex process judging student performance and progress, which could be controversial too. Even though the school’s mission and goals are explicit and teachers make evaluations based on these explicit values, still there could disagreements. To avoid it, stakeholders together should clarify the values used in determining the knowledge, skills, attitudes, and behaviours that students need and in judging their performance.

5) Effective reporting

“Student evaluation reports should be clear, timely, accurate, and relevant, so that they are useful to students, their parents/guardian, and other legitimate users” (Gullickson, 2005, p. 95).

“Clarity means that the report is free from ambiguity and is written in a way that can be understood by the student, parents, or others who will receive it” (Gullickson, 2005, p. 95). Reports should free of jargons and irrelevant information using a language familiar to the intended audiences. “Timeliness means that the student or other user receives the report at the time it is needed, so that the information can be used in intended ways” (Gullickson, 2005, p. 95). Student should get evaluation information to facilitate knowledge and skill development to clear the final exam before being held accountable on a final exam (Gullickson, 2005). “Accuracy means the report is free from errors” (Gullickson, 2005, p. 95). It indicates that the report is based on sound data without errors of bias and it is with sufficient supporting information not using vague wording that could lead to misinterpretation and cause possible harm to the student (Gullickson, 2005). “Relevance means that the evaluative information meets the needs of the uses” (Gullickson, 2005, p. 95). Evaluation information should not be limited to the accountability needs alone rather it must provide information to serve student learning. It is of great significance that the report must identify both strengths and weaknesses, so that strength can be built upon and weaknesses addressed (Gullickson, 2005). It is also important that teacher does not make the mistake of using words of discouragement while they make informal assessment in informal conditions, instead make statements to encourage appropriate decisions and actions on the part of students.

Accurate reports facilitate students’ progress and improvement. A good evaluation information receives too late, cannot serve student learning. Similarly, a timely report that is deficient on other ways like not accurate, not understandable, or not relevant will have only reduced value. It must be avoided distorting the report by seeking to provide equal amounts of positive and negative feedback.

6) Follow up

“Student evaluations should include procedures for follow up, so that students, parents/guardians, and other legitimate users can understand the information and take appropriate follow-up actions” (Gullickson, 2005, p. 101). In the follow-up, the evaluator needs to verify that stakeholders have received the evaluation information and understand it for their potential improvement with follow up actions. The most important aspect of evaluation lies in the use of its findings. Therefore, mere presentation of results in the form of report will not serve the intentions of evaluation information. Well-planned, relevant follow-up is needed in order to avoid misinterpretation of evaluation findings and motivate their use to improve student learning and performance (Gullickson, 2005).

In the follow up two things are important that teachers should not assume that improvements will happen automatically and they should prescribe follow up activities that are realistic only for the students and parents/guardians.

Summary of the perspective of utility standards (Informative, timely, and influential aspects of CCE)

Utility standards give directions to make student evaluation useful, and particularly emphasize that they should be informative, timely, and influential. The seven utility standards (constructive, orientation, defined users and uses, information scope, evaluator qualifications, explicit values, effective reporting, and follow up) underpin how to make student evaluation useful.

Make the information collected for student evaluations sufficiently comprehensive and focus carefully on the points to be evaluated. This not only enable the students to answer the questions fully but also help the evaluators to address the needs of the students. Moreover, teachers and other evaluators should identify and justify the values used to judge student performance while planning and conducting student evaluations. Thus, student evaluation results will be made clear and defensible.

Student evaluation reports are very influential on students' life either positively or negatively. A clear, timely, accurate, and relevant result will surely serve the purpose of the evaluation and it is necessary to make available the reports to students, their parents/guardians, and other legitimate users in order to use them effectively. It is equally important to include follow-up procedures that help students and other stakeholders understand the information and take appropriate follow-up actions.

Student evaluation results are so significant in the life of students, especially in relation to their future aspirations. Therefore, the results should be constructive to take decisions in the better of interest of them. Additionally, specification of users and use of student evaluation must be made in order to appropriately contribute student evaluation to student learning and development. Evaluators' competency is fundamental to ensure the credibility of the evaluation and to use the evaluation information confidently. They should have the necessary skill and knowledge in order to carry out the evaluation competently.

3.3.1.3 Feasibility Standards

"The feasibility standards help ensure that student evaluations can be implemented as planned. Feasible evaluations are practical, diplomatic, and adequately supported" (Gullickson, 2005, p. 105). The feasibility Standards recognize that student evaluations are conducted in a real-world setting in a dynamic manner. They remind that the quality of student evaluation can be affected by environmental factors such as the choice of assessment method or procedures, political factors, and resource constraints. Therefore, the student evaluations should be conducted in practical ways taking into account the resource constraints using only the needed resources to produce the needed results (Gullickson, 2005). These are the three feasibility standards:

- Practical orientation
- Political viability
- Evaluation support.

1) Practical orientation

“Student evaluation procedures should be practical, so that they produce the needed information in efficient, non-disruptive ways” (Gullickson, 2005, p. 107). Practical orientation should be efficient and ethical. Student evaluation consists of continuous actions aimed at promoting student achievement, behaviour, and other significant factors in relation to student learning and growth. These procedures include the following:

- Identifying the purpose of the evaluation
- Identifying the likely use of the data and information to be collected
- Developing or selecting an assessment strategy relevant to the purpose and use of the evaluation
- Collecting the assessment information
- Scoring the students’ responses
- Interpreting the scores obtained
- Aggregating the individual assessment results to form summary comments and grades
- Reporting information to students and other stakeholders
- Designing and implementing follow-up actions (Gullickson, 2005, p. 107).

Teachers have to ensure that students get full opportunities to demonstrate their acquired knowledge and skills for the sound judgments of their performance. It is to be ensured that adequate resources and time are available for the evaluation. At the same, impractical procedures must be eliminated that can be disruptive and inefficient distracting students’ performance and stealing the valuable instructional time. Besides, teachers should make their evaluation procedure interesting and encouraging by taking steps against cumbersome, overly burdensome, overly complex, needlessly obtrusive or superficial evaluation process (Gullickson, 2005). Additionally, evaluators have to consider the situational factors that may influence student performance (e.g. student fatigue, physical conditions, and timing). They need to avoid doing “ritualistic” testing disrupting the ongoing instruction in the class.

2) Political viability

“Student evaluations should be planned and conducted with the anticipation of questions from students, their parents/guardians, and other legitimate users, so that their questions can be saved effectively and their cooperation obtained” (Gullickson, 2005, p. 113). An evaluation has political implications when it leads to decisions about student’s achievement that is decisive for student’s future progress. For example, placement into programs, promotion to next grade, high school graduation etc. Consequently, student evaluation policies and guidelines should allow all stakeholders to have a basic idea about the aims and procedures of evaluation. Evaluation information should carry complete information regarding the strength and weakness of students, so that parents/guardians can take follow-up actions with the aids of teachers and other appropriate persons (Gullickson, 2005).

Teachers and administrators need to create an encouraging climate for stakeholders to ask questions and seek clarification. Otherwise, it will lead to conditions of misunderstandings, non-cooperation, and/ or noncompliance that are not politically viable. They must acknowledge the limitations presented by the assessment methods, problems encountered in collecting the information, judging or scoring procedures, and data interpretation. As the standards indicate, at best, poor political viability will result in evaluations that do not fully serve the students. At worst, the evaluations will be detrimental to students.

3) Evaluation support

“Adequate time and resources should be provided for student evaluations, so that evaluations can be effectively planned and implemented, their results fully communicated, and appropriate follow-up activities identified” (Gullickson, 2005, p. 119). Teachers need adequate time to develop evaluation plans, conduct assessments, analyse and interpret data, report findings to students and parents. Students need time and help to prepare for and respond to the assessment and importantly need assistance in using evaluation report with proper follow-up actions. Professional development of

teachers is also a significant factor in conducting credible evaluations. Some possible resources helpful for assessment include the following:

- Item and performance task banks that teachers can use to develop assessment
- Computer-based record keeping
- Materials and assistants for performance assessments
- Secretarial support for preparation and duplication of assessments
- Assistance in analysing the qualities of assessment instruments
- Assistance in interpreting external standardized test results (Gullickson, 2005, pp. 119-1207).

Adequate resources and support improve the possibility of success and lack of resources can hamper sound, efficient evaluation practices causing negative consequences for students, parents/guardians, teachers, and the school itself. Nevertheless, it must be admitted that resource support alone will not guarantee a successful student evaluation program.

Summary of the perspective of feasibility standards (Practical orientation, political viability and evaluation support)

Feasibility refers to the practicable dimension of student evaluation program. It assumes that the student evaluation plans are possible and likely to be achieved. Feasibility standards help to ensure that student evaluation plans can be implemented as planned. Therefore, these standards view that student evaluation process should be practical, diplomatic, and adequately supported.

Student evaluation procedures should be practical in order to avoid any kind of disruptive influence on evaluation. Thus, student evaluation process can produce the needed information efficiently as per the plan.

Student evaluation process gets involved with many planned activities in formal as well as informal situation. Therefore, it is necessary to plan and execute student evaluation with the anticipation of questions from students and other legitimate stakeholders. This will help in responding to their concerns effectively, besides obtaining the cooperation.

It is a very significant factor to have adequate time and resources for student evaluation. Effective planning, implementation, full communication of results, and appropriate follow-up activities are only possible with good support of time and resources.

3.3.1.4 Accuracy Standards

“The accuracy standards help ensure that a student evaluation will produce sound information about a student’s learning and performance. Sound information leads to valid interpretations, justifiable conclusions, and appropriated follow-up” (Gullickson, 2005, p. 125). Accuracy Standards assist in determining whether an evaluation had produced sound information. It is essential to see that student evaluations produce not only accurate information but also they are interpreted correctly. Therefore, appropriate evaluation methodology should be applied according to the purpose of the evaluation and the students being evaluated (Gullickson, 2005).

There are eleven accuracy standards in this category as given below:

- Validity orientation
- Defined expectations for students
- Context analysis
- Documented procedures
- Defensible information
- Reliable information
- Bias identification and management
- Handling information and quality control
- Analysis of information
- Justified conclusions
- Metaevaluation

1) Validity orientation

“Student evaluations should be developed and implemented, so that the interpretations made about the performance of a student are valid and not open to misinterpretation”.

It adds that, “Validity refers to the degree to which inferences drawn from the results of the assessment method about the knowledge, skills, attitudes, and behaviours demonstrated by each student are trustworthy” (Gullickson, 2005, p. 127).

Following are some of the most commonly used methods in student evaluation:

- Observations
- Text-and curriculum-embedded questions and tests
- Paper-and-pencil tests
- Oral questioning
- Benchmarks or reference sets
- Interviews
- Peer assessments
- Self-assessments
- Standardized criterion-referenced tests
- Norm-referenced tests
- Performance assessments
- Writing samples
- Exhibitions
- Portfolio assessment
- Project and product assessments (Gullickson, 2005, p. 127).

It is advisable that evaluators execute one or more methods for collecting information and interpret it correctly. All methods are valid if the inference is drawn correctly from the information obtained from a particular method. Reports of the results must be clear, accurate, and of practical value to students, their parents/guardians and other stakeholders for whom they intended (Gullickson, 2005).

Validity is considered as the single most important issue in the student evaluation because the purpose of evaluation is served only when the inferences and judgments made be true and defensible. Failing to link the interpretation and inferences drawn to the purpose of student evaluation is harmful to a student’s learning and development. To ensure the validity of interpretation, every effort should be made to support the inferences drawn and the decisions made with evidence. Any invalid student evaluation,

even though innocuous and slight, can affect adversely student learning and development.

Steps must be taken against the use of methods because of their reputation or because they have been used previously, or using information simply because it is available. It must be avoided using assessment methods without adequate training. A great mistake teacher could make is the use of student's work samples as valid information for judging their skills without verifying whether the students themselves produced the work without inappropriate assistance (Gullickson, 2005).

2) Defined expectations for students

"The performance expectations held for students should be clearly defined, so that evaluation results are defensible and meaningful" (Gullickson, 2005, p. 137). When stakeholders understand these expectations well, they can engage in learning and evaluation processes that enable students to achieve their educational needs. Therefore, assessment methods should be apt for realising the goals and objectives of instruction and be compatible with the instructional approaches used (Gullickson, 2005).

Student expectations have three parts:

- Pre-specified knowledge and experience expectations – knowledge and skills necessary to begin an instructional unit or to enter a particular program or course.
- Students responsibilities within the specific educational context – the duties of students in preparing for and participating in an evaluation (e.g. what learning tasks are to be completed, when and how work is to be done, behaviour during the assessment).
- Expected learning outcome – results expected of the student. The list of expected learning outcomes could be developed from textbooks or other curricular materials, instructional notes, and additional materials used in the instructional process (Gullickson, 2005, p. 137-138).

Students must be evaluated on each of these three components to ensure that the knowledge, skills, behaviours corresponding to each component are present.

3) Context analysis

“Student and contextual variables that influence performance should be identified and considered, so that a student’s performance can be validly interpreted.” Evaluators should be able to understand that contextual variables like backgrounds, learning experiences, and temporary or extraordinary occurrences beyond their control may affect students’ performance.

Even though the results could not be altered, the stakeholders should understand that contextual variables might have influenced the performance of the students. At the student level, poor reading ability, learning disabilities, poor test-taking skills, anxiety, and low expectations can be reasons for their lower performance (Gullickson, 2005). At the class level and school level, poor performance might be the results of lack of learning opportunities, learning materials, appropriate learning activities, poor instructions, temporary distractions due to various school activities etc. Ignoring the influence of such variables might cause the invalid interpretations, incorrect decisions, and follow-up actions detrimental to students.

4) Documented procedures

“The procedures for evaluating students, both planned and actual, should be described, so that the procedures can be explained and justified” (Gullickson, 2005, p. 149). It is very important that students, parents/guardians, and other stakeholders have a clear vision of the various processes involved with the evaluation. Evaluation and judgments that are being made during the instructional process are based on limited student information. Practically, it is impossible too to document every aspects of evaluation information of the brief and timely judgments. Still, it is required for assessment like unit tests and final examinations more complete documentation, which contribute heavily to final course grades (Gullickson, 2005).

Systematic documentation of the complete evaluation process will aid in ensuring that the evaluation will be equitable and fair. Teacher should not loose instruction time by dedicating unnecessary time documenting evaluations. It is important to have an evaluation plan so flexible that unanticipated events can be accommodated. Failing to

note and explain deviations from intended evaluation procedures is unacceptable, additionally; changing the evaluation plan without proper information to both students and maybe other stakeholders is to be avoided (Gullickson, 2005).

5) Defensible information

“The information collected for student evaluations should be defensible, so that the information can be reliably and validly interpreted” (Gullickson, 2005, p.155). Information gathered is the evidence for interpreting decisions, recommendations, and follow-up activities. Appropriate assessment methods increase the likelihood of collecting good information; still, the use of these methods does not necessarily guarantee it. Unexpected circumstance can affect to have information that is not of the quality necessary to make valid interpretations even when procedures are well described and followed precisely (Gullickson, 2005). Indefensible evaluation information happens when students seek inappropriate ways like cheating, plagiarizing, or engaging in other academic misconduct. Teachers should safeguard themselves from being biased or confronting with conflict of interest in the evaluation of students. Using different assessment methods support in ensuring comprehensive and consistent indications of performance, moreover, helps to identify any defects in the information (Gullickson, 2005).

Measures to be taken to avoid occurring evaluation planning too late to allow the information to be collected and used. Alike, choosing evaluation methods and procedures based on their ease of use rather than their appropriateness and effectiveness. It should not be assumed that defensible information appropriate for one evaluation situation would also be apt for another evaluation (Gullickson, 2005).

6) Reliable information

“Evaluation procedures should be chosen or developed and implemented, so that they provide reliable information for decisions about the performance of a student” (Gullickson, 2005, p.161). Reliability indicates the degree of consistency of the scores or information obtained from an information-gathering process (Gullickson, 2005, p.161).

The students' work or performance gathered as sample for evaluation should be consistent enough to satisfy the purposes of the intended evaluation. For example, different teachers conduct the same test on different days, or use various evaluation methods; still the performance is consistent with the purpose of the intended evaluation. At the same time, there exists the chance of some inconsistency factors such as ambiguous test items, mistakes in scoring, evaluators' differing interpretations of student performance, difference in student's attention spans, clarity of directions, and students' luck in guessing. They should avoid poor reliable methods for evaluation, especially in relation to important decisions (Gullickson, 2005). They should not only use procedures to enhance reliability but also develop high-quality instruments like tests, performance tasks, observation checklists etc. respecting the accepted assessment development procedures. Making conditions of assessment as similar as possible for students and considering the individual needs and differences will positively influence the reliability of the information (Gullickson, 2005).

It will be a grave mistake to consider that standard tests are reliable for all students, independent of the conditions of testing. In the same manner, disregarding the account of the lack of reliability when grading or classifying students whose scores are close to the cut scores. Moreover, evaluators should not confuse reliability with validity and assume that adequate reliability guarantees adequate validity (Gullickson, 2005).

7) Bias identification and management

"Student evaluations should be free from bias, so that conclusions can be fair" (Gullickson, 2005, p.167). "Bias occurs when irrelevant factors systematically influence interpretations and judgments made in an evaluation in a way that differently affects the performance of an individual student or subgroup of students" (Gullickson, 2005, p.167).

Bias is an everlasting problem that takes place in evaluation of students performance. It may arise from teachers inflating grades for favourite students or lowering grades for problem students. Teachers may act on a preconception of what students can or cannot

do. Due to unaccountable variable factors, also bias can occur such as cultural difference, language difference, physical, mental, and developmental disabilities, political connections, gender or racial stereotyping, and socioeconomic status. Bias can also happen more subtly due to unfair assessment like not covering the important aspects of what students are expected to demonstrate or including unrelated components for evaluation (Gullickson, 2005).

Bias not only undermines the fairness of a student evaluation but also distorts the assessment processes and judgments, which can damage the purpose of evaluation and lead to faulty conclusion to the detriment of students.

Therefore, evaluators should

- Recognize that bias is an ever-present threat to student evaluation
- Be vigilant and resistant to the sources of bias
- Develop a plan for identifying and addressing bias (Gullickson, 2005, p.168).

8) Handling information and quality controls

“The information collected, processed, and reported about students should be systematically reviewed, corrected as appropriate, and kept secure, so that accurate judgments can be made” (Gullickson, 2005, p.175). A methodical, thorough, and regular review of the student evaluation information is required for corrections and for ensuring that evaluation results will serve students’ need appropriately. Assessment information and evaluative judgments must be recorded properly and maintained securely for further references in future.

- Information and quality control involves determining
- What data and information will be retained?
- How and where the data and information will be stored?
- What procedures will be used to determine that the stored data and information are complete and correct?

- How long the data and information will be stored?
- What security arrangements will be needed to limit access to only those people who have a legitimate right? (Gullickson, 2005).

It is very important that the evaluators should periodically verify the stored documents focusing upon when, where, how, and who assembled the information. Additionally, the information for making decisions should be current, valid, and reliable. For checking errors in entering, processing, and reporting systematically, double entry processing and monitoring is advised. Safeguard from assuming that the results from test-scoring machines, computers, and other sources are accurate. Besides, evaluators should not accept too rapidly that if information is written and published, it must be accurate. Another important aspect is that unauthorized people should not be allowed to access to privileged student information (Gullickson, 2005).

9) Analysis of information

“Information collected for student evaluations should be systematically and accurately analysed, so that the purposes of the evaluation are effectively achieved” (Gullickson, 2005, p.181). Sound analyses of the information collected can make information more understandable, which in turn, help for decisions that are more accurate. Accurate analyses of the document help both teachers and students improve the teaching-learning process. Teachers will have the benefits of preparing the lessons more effectively while students will have the advantages of recognising their strength and weaknesses.

To give a valid insight into an individual student’s level of performance over a period, qualitative and quantitative analysis of information should be performed. This would help to provide meaningful interpretation of the interpretation gathered with follow-up activities. However, they should not assume the superiority of either qualitative or quantitative analysis. The choice must be made on the entire evaluation context including issues such as practicality, and stakeholder requirements. In addition to it, sound analyses provide insights into effects of assessment methods and how they could be improved.

It is very significant that analysis results must be made within an accepted frame of references. Typical frames of references consist of the following:

- Performance in relation to pre-specified content standards
- Performance in relation to peers
- Performance in relation to aptitude
- Performance in relation to expected growth
- Performance in terms of the amount of improvement or amount learned

(Gullickson, 2005, p.182).

Ensure that assessment is comprehensive and well balanced. Explain to the students the criteria and performance standards to be used to score before gathering the assessment information.

10) Justified conclusions

“The evaluative conclusions about student performance should be explicitly justified, so that students, their parents/guardians, and others can have confidence in them” (Gullickson, 2005, p.197).

The evaluation information report should have justifiable and understandable conclusions. Their methods should be logically and technically sound. They should not fail to share the evaluation plans, procedures, findings, and supporting rationale to the stakeholders. If there is a need to deviate from publicly stated plans to reach judgments, evaluators should inform the stakeholders about the same with sound explanation and justification. The acceptability of the educational decisions primarily depend on explicitly justifying all evaluative judgments when it is required and appropriate, nevertheless, there is limitation to do it every time (Gullickson, 2005).

It is helpful explaining to stakeholders why an assessment is being conducted and how the information collected will be used. Moreover, provide students with sample questions and answers, including scoring guides and rubrics, so that they understand

better the assessment. Take care to maintain evaluation materials for review by stakeholders (Gullickson, 2005).

11) Metaevaluation

“Student evaluation procedures should be examined periodically using these and other pertinent standards, so that mistakes are prevented or detected and promptly corrected, and sound student evaluation practices are developed over time” (Gullickson, 2005, p.203).

Metaevaluation is an evaluation of evaluation. It raises the question: are the inferences made from the information and data collected valid and not open to misinterpretation. More questions that are specific could be made addressing the following concerns:

- Have the students been appropriately informed about the purposes and nature of the evaluation?
- Is the assessment method clearly related to the instructional objectives in proportion to their importance, and compatible with the instructional approaches used?
- As administered, is the assessment method appropriate for all students?
- Has the evaluation been designed and conducted according to sound measurement principles so that inferences based on the results are reliable?
- Are evaluation reports understandable and useful?
- Is evaluation feedback timely and helpful?
- Are students’ privacy and other rights maintained? (Gullickson, 2005, pp.203-204).

Valid answers to these questions in relation to the data information and assessment can address the problem areas in Metaevaluation. They can increase the effectiveness and fairness of student evaluation. Regular scrutinizing of student evaluation ensures that they are producing accurate and fair information that is useful for the specified purposes. Poor student evaluation will guide the students with incorrect follow-up actions that may be harmful for them. Complaints need to be taken seriously and be

investigated to guarantee fairness. It will lead to identifying the components of the student evaluation that need to be revised (Gullickson, 2005).

The malpractice of waiting to review and examine an evaluation until complaints are received must be avoided to maintain the quality of student evaluation. It is not rational to say that metaevaluation cannot be done because of limited time and resources. Entrust only qualified person to conduct metaevaluation and most importantly, metaevaluation judgments should not be made without ample evidence.

Summary of the perspective of accuracy standards (Sound information, justifiable conclusions, and appropriate follow-up and a critical discussion of CCE)

Accuracy standards confirm that student evaluation results provide sound information about a student's learning and performance. Sound evaluation helps interpret the information validly with justifiable conclusion along with appropriate follow-up actions.

Valid interpretation is must in order to avoid any possibilities of misinterpretation of the student information. Therefore, student evaluation should be developed and implemented in a way that helps the valid interpretation of the student information. Moreover, evaluators should identify and consider the contextual variables that could affect the performance of students for a valid interpretation of documents. Alike, evaluation should be free of biases to make a fair conclusion about students performance. Information collected, processed, and reported about students should be systematically reviewed, corrected as appropriate, and kept secure to ensure the accuracy of the judgments. This also ensures the proper handling and the quality control of the documents as well.

Student should be clear about the performance expectation of each evaluation. It will make the evaluation results defensible and meaningful. Additionally, if there is any variation in the procedures for evaluating from the previous plan and the actual, it should be described for the proper explanation and justification of the procedures. Besides, it is vital to ensure the adequacy of the information gathered for taking right decisions as well as for its defence and justification. The evaluation conclusions about

students performance should be explicitly justified to gain the confidence of students, parents/guardian, and stakeholders in the evaluation results.

Evaluation procedures should be developed and implemented to provide reliable information about students performance for making good decisions with appropriate follow-up actions. Student evaluation procedures should be examined periodically using various student evaluation standards in order to safeguard it from mistakes. Moreover, it will allow to detect and promptly correct the drawbacks if present. Finally, it is true that sound evaluation practices are developed over time.

3.3.2 Results of studies made on CCE from the perspective of SES

The previous sections (3.2.1 and 3.2.2) have highlighted some of the relevant research studies conducted on CCE and their findings. Those results have underpinned both the advantages as well as the limitations of the CCE practice. Moreover, these studies have made certain recommendations out of their research results for making the CCE scheme more effective. Similarly, the previous section has elaborated the attributes detailed in *The Student Evaluation Standards*. The four attributes along with the standards have demonstrated how importantly these standards are to be observed for considering a student evaluation as to be very sound and effective. In the present study, a similar order as in *The Student Evaluation Standards* has been employed while establishing a link between the four attributes and their standards with the research findings of the CCE practice for practical reasons. Besides, employing a similar structure helps us better for a comprehensive analysis of the CCE Scheme from the perspectives of these standards and to understand whether the attributes discussed in the Standards have been observed in the implementation of CCE. Accordingly, the research looks into whether propriety standards promote the *legal and ethical* aspects of student evaluation with due regards for the *well-being* of students and utility standards help us ensure that student evaluation is *informative, timely, and influential*. In the same manner, the study attempts to recognise whether feasibility standards confirm that student evaluation is *practical, diplomatic, adequately supported*. Finally, accuracy standards help ensure whether CCE practice could provide *valid information and justifiable conclusions* of students' performance with *appropriate follow-ups*. It is

presumed that by maintaining a similar order in the presentation of the four attributes and their standards used in the *Standards*, it can also facilitate the researcher in doing an effective discussion of the research findings.

Propriety

Student evaluation should be conducted legally and ethically giving due regard for the well-being of the students being evaluated as well as the other stakeholders affected by the results (Gullickson, 2005). This is an area usually less cared by the evaluators and maybe, students are less aware of this factor of evaluation.

Evaluation of students should promote education principles and fulfilment of institutional missions and effective student work. Some studies suggested that scores gained by students scarcely encouraged them to work hard; instead, it made them less motivated for serious learning (Kumar M & Kumar, 2015). Apparently, in the new system, students could easily achieve minimum pass mark with their classroom activities and in some other cases, teachers granted marks freely to them almost disregarding the quality criteria for making an internal assessment. This was a challenge from the propriety dimension for both the promoters of the scheme and those who practiced the new scheme seriously. This style of approach also threatens the consistent, equitable, and fair side of the evaluation process and results. When evaluation results fail to make a balanced report of students' performance (Kaur, 2016) and identify their strength and weakness, it becomes a big challenge to the propriety dimension of the CCE practice. It is very important to have appropriate policies and procedures for the proper evaluation of students, so that not only the distortion of assessment is avoided, but also the congruence is maintained between teaching and assessment (Parmar, 2015).

Utility

Evaluation of students should be useful for all stakeholders. They are informative, timely, and influential (Gullickson, 2005).

One of the influential aspects of CCE was that it promoted good relationship among teachers, parents, and managements, especially CCE could promote an improved relationship between parents and teachers, as there were frequent interaction among them. It could be due to the trust parents had upon the evaluators as well as the balanced assessment report they made on their children (Kaur, 2014; SIEMAT, 2008). Moreover, the view of the students also supported it. The majority of students (65%) expressed their preference for the CCE over the traditional evaluation practice (Kaur, 2014; Sivakumar et al, 2013; Ashita, 2013; Khan, 2012; Rajput, Tewari & Kumar, 2003; Chopra and Bhatia, 2014; Deka, 2014). According to them, the new evaluation scheme regularised their studies. The increase in the attendance of students indicated the significant impact of CCE upon students as well (Singh et al., 2013). CCE practice reduced students' stress considerably, which was one of the primordial aims of CCE (Rajshree and Kumar, 2013; Khan, 2012).

A teacher-dominated classroom had been a perennial concern of Indian classrooms for decades. CCE could overcome this big challenge reasonably well as it promoted child-centred approach emphasising on learning than teaching (Rajshree and Kumar, 2013; Khan, 2012). CCE enhanced the reflective skills of students and promoted constructive feedback. Thus, CCE could help students understand the different concepts better and develop their multiple abilities/mastery of skill, which additionally aided students in developing a healthy attitude towards learning. In the same manner, teachers' improved questioning skill under the CCE practice made teaching process more interesting and effective including the evaluation practices, especially pertaining to scholastic areas (Rao, 2006). Thus, the classrooms became more dynamic and creative with positive influence on students (Mondal & Mete, 2013; Reddan, 2013). In overall, teaching-learning process occurred in an improved democratic classroom atmosphere (Jadal, 2011; Kaur, 2014; Singh et al., 2013; Ashita, 2013; Lal, 2015).

All-round development of students was one of the main aims of education according to Mahatma Gandhi. CCE considered it as one of the basic goals of it too and recommended formative assessment, so that student could nurture their multiple talents. Some studies strengthened this perception because the application of multiple evaluation tools and

techniques, and corrective measures could boost all-round development of students. Besides, it generated opportunities for all students to display their talents (Lal, 2015; Sonawane & Isave, 2012). For example, Rao (2006) indicated that students' personal and social qualities were developed under CCE. Alike, a study by Kaur showed that CCE was a potent tool to improve educational delivery mechanism and provide an alternative solution to address the problem of providing quality education to all (Kaur, 2014). In addition to it, remedial measures were expected to help students to overcome their learning problems. The percentage of teachers (93%) conducted the diagnostics tests (Kothari & Thomas, 2012) reflected how students were assisted in improving on their learning difficulties with remedial measures (Mondal & Mete, 2013). Another study found that students were encouraged to learn through collaborative work, especially by doing project work. Nevertheless, according to this study, teachers were unsuccessful in identifying weak students (Sur, 2012) and employing remedial measures for them.

Even then, CCE was viewed as an implementable scheme that could aid to diagnose, give remediation for students weak in studies and could enhance learning (Lal, 2015). Teachers exercised remedial teaching effectively (Rajput, et al., 2003). Some teachers recognised that peer tutoring as an appropriate technique for assessing slow learners. In addition to it, gifted students were benefited by the special assignments given to them that included library work (Chopra and Bhatia, 2014; Lal, 2015).

Some studies underpinned that teachers lacked the necessary knowledge and skill to carry out competently the evaluation of students, which resulted in decreasing the credibility of the results as mentioned in the literature review of a study by Shodhganga, (2013). For example, some teachers lacked the necessary capacity needed to conduct evaluation of students as per the norms of CCE, especially in the assessment of students for providing remedial teaching (Parmar, 2013). Another serious concern was in relation to the defiant attitude of teachers who did not want to change their view of teaching. This group of teachers still viewed teaching as a process of transmission of knowledge and learning as a process of acquisition of knowledge. Ramdas & Divya (2007) depicted another group of teachers who not only had a positive attitude towards CCE but also substantial knowledge about the grading scheme used in the CCE. Therefore, they

appreciated the scheme to an extent (Kerala). Even then, they hesitated to accept the new practice whole-heartedly. It might be that some evaluators faced difficulties in assessing students' performance as per the guidelines of grading or for taking it as an extra-work (Ramdas & Divya, 2007). Kaur (2016) signalled that it could be due to teachers' lack of awareness of the practice regarding what to be evaluated and how to be evaluated.

A few studies also highlighted some positive sides of the CCE scheme as well with respect to the Propriety dimension. However, they were few in numbers. In the view of Deka (2014), CCE could facilitate the learners, teachers, textbook writers, especially by boosting teachers and students' involvement in teaching and learning process. Jadal's study underlined that CCE Scheme was helpful for language learning (Jadal, 2011) and SIEMAT (2012) noted that CCE paved the way for the improvement of school infrastructure and eased the classroom process and student performance.

Feasibility

Feasibility standards ensure that student evaluations can be implemented as planned. Therefore, it should be practical, diplomatic and adequately supported (Gullickson, 2005). The various studies about CCE and their results indicate that there are both favourable and unfavourable factors in relation to the feasibility dimension of CCE. Some key elements are mentioned down here in the following passages.

The above-referred studies pointed out some significant matters against the feasibility of CCE. Similarly, there are studies that supported the view that the authorities had taken sufficient steps to facilitate the implementation of CCE. Kothari & Thomas (2012) found that 73% of teachers had attended workshops on CCE while the other 27% of teachers had failed to attend any workshops. According to their study, teachers had proper time to implement CCE for the entire academic year following the specific year plan. Datamation Research Analyst found teachers (70%) had knowledge about grading system showing similarities to the research results made by Hazarika (2009). CCE was appreciated as an implementable scheme (Lal, 2015). New technologies were utilised for evaluating students' activities and diagnosis tests. Students availed informative

technology for preparing various activities as well. CCE was termed as helpful for language learning too (Joshi, 2014). Similarly, Kumari's study underlined that ICT was helpful for the better implementation of CCE and its use made positive impact on study. Besides, the proper use of modern technologies could create more opportunities for conducting scholastic and co-scholastic activities with the help of distinct tools and techniques in a more practical and economic manner. Additionally, it could reduce the overstress on teachers as well as students by systematising the frequent assessments and other paper works (Kumari, 2012). Certain schools invested heavily in the infrastructure to facilitate CCE practice including the digital aids for teachers (K-12 education in India, 2012). Datamation Research Analyst reported that CCE also paved the way for the improvement of school and classroom management. To support the practice of CCE, textbooks (English) were graded from simple to complex in support of effective teaching-learning process as described in the literature review of a study by and the textbooks reflected the CCE procedure like projects, activities, experimentation etc. Shodhganga, (2013). Besides, the distribution of textbooks was done in time (Singhal, 2012). On the contrary, a study by Jayalekshmi and Celin (2013) mentioned that there were lack of textbooks that integrated the content with pedagogy for all subjects, which limped the meaningful implementation of CCE (Jayalekshmi and Celin, 2013; Rajput et al., 2003; Sartaz, 2015).

Ali's (2013) study found that some schools had faced problems on various dimensions of CCE execution such as the implementation (31.5%), training of teachers (28.3%), grading (31.5%), and students participation (19.5%). The feasibility of CCE was again questioned when Rao Manjula found CCE was not followed systematically (Rao, 2012). Another study signalled that teachers lacked formal training to handle co-scholastic activities, which affected the effective planning and implementation of CCE for remedial measures and follow-up activities (Bhattacharjee & Sharma, 2009; Kumar M & Kumar, 2015). However, at initially, teachers felt workload was too much, but later, when they had sufficient experience of the practice, they found the new practice as feasible (Rajput et al., 2003). CCE was even viewed as an extra work in the form of maintaining registers, filling up assessment formats, tracking students' growth, collecting evidences, and

writing detailed descriptive portfolios, repeating test to attain pass percentage etc. (Nawani, 2013; Ali, 2013). Some teachers viewed CCE as a hectic process (Joshi, 2013; Sonawane & Isave, 2012). It was highlighted that there was insufficiency of activities for the development of skills such as health, physical education, art education, and work experience etc. (Rajput et al., 2003). The study conducted by Sartaz (2015) indicated some other aspects threatening the feasibility of CCE. It revealed that there were problems related to the permissible number of students in a classroom because many classrooms were occupied with large group of students. Besides, lack of appropriate training, inadequate infrastructure, teaching materials, and increased volume of work, particularly in government schools were other major challenges for the implementation of CCE. Kumar M & Kumar's (2015) study also agreed to these results and additionally added two more factors: CCE was time consuming and cost factor was a matter of concern. A few other matters also severed that situation against the feasibility dimension of CCE. For example, the negative attitude of teachers, inability of the teachers to act as co-learner, researcher, social integrator and facilitator, absence of healthy rapport among the stakeholders etc. (Jayalekshmi and Celin, 2013). Another group criticised that CCE was just a show off (Kaur, 2012). In support of this view, Joshi specified that teachers scarcely practised remedial teaching in real classrooms other than discussing them in the PTA meeting or merely mentioning them in the diary (Joshi, 2013). Parents' lack of interest towards CCE was an indication of lack of political viability of CCE.

Studies also made recommendations to improve the feasibility aspects of CCE. One of the main recommendations was that educational institutional management and government should arrange capacity-building programs for teachers, so that they could familiarize them with the purpose of evaluation, its importance and its process (Bansal, 2013; Rajput et a., 2003, Saxena and Namdeo, 2012; Pazhanimurugan & Sivakumar, 2015; Sonawane & Isave, 2012; Kumar M & Kumar, 2015). However, Hazarika in Shodhganga (2013) indicated that teachers received sufficient training to familiarise them with the nuances of CCE. They stressed that more attention should be paid to provide proper infrastructure, teaching materials, financial assistance for miscellaneous works etc. to effectively practice the new evaluation scheme. It was specified that

teachers should not be burdened with extra work other than the teaching responsibilities for the meaningful practice of CCE. Moreover, it was necessary to create awareness among parents about the relevance of CCE (Kumar M & Kumar, 2015). In the same way, Head teachers should plan the evaluation program and discuss them with teachers, especially regarding the choice of assessment and materials as per the need and level of the students. Besides, they needed to supervise the evaluation process to ensure that the evaluation was being conducted as per the yearly program (Gangadharrao, 2013).

Accuracy

Accuracy standards ensure that a student evaluation will produce not only sound information about a student's learning and performance, but also lead to valid interpretations, justifiable conclusions, and appropriate follow-up (Gullickson, 2005).

Accuracy standards emphasize that students' performance should be interpreted validly without leaving any room for misinterpretations which is necessary for winning the confidence of parents as well as students. Some studies signalled that CCE failed to boost the confidence of students with respect to their performance and the evaluation results because they considered the results lacked reliability, validity and objectivity (Kaur, 2016). However, another study revealed that students lacked seriousness for studies due to the easy way of getting marks through the classroom activities (Gangadharrao, 2013).

The syllabus and evaluation practices should be complementing each other in order to attain the goals of education. A study indicated that 80% of the teachers considered the syllabus was suitable for the implementation of CCE (Kothari & Thomas, 2012). However, contrary to this view, head teachers rated the standards of the question paper as average or below average, which was insufficient to test the above average students even though teachers had training to set question papers (Hazarika, 2009). Moreover, teachers were reminded about shifting their focus on teaching to maintaining assessment related records that could damage both efficient teaching as well as meaningful evaluation of students (Nawani, 2013). According to Sur in Shodhganga

(2013), lack of daily record maintenance and daily feedback led to inadequacy of evaluation for defensible information. Alike, teachers either made wrong assessments or did not provide a fair and realistic picture of what students had really mastered (Kaur, 2016). Teachers used to assess life skills, emotional skills and social skills, but they failed to specify the sub skills or proficiency they were measuring under the above-mentioned skills affecting the accuracy dimension of CCE assessment (Kaur, 2016; Kothari & Thomas, 2012). Moreover, the number of formative assessment conducted per term and weightage given for the scholastic and co-scholastic aspects varied teacher wise. It was some clear indication of that at least some schools lacked clearly defined guidelines for conducting formative assessment (Kothari & Thomas, 2012). Projects, assignments, quizzes, oral questions, and research works were the most commonly used activities in some cases. Among the teachers, only 41% claimed to have used all the activities. Checklist and rating scales were the commonly used tools for assessing the above skills (Kaur, 2016). Teachers carried out evaluation process, but not exactly as denoted by the framework. They also failed to provide either formative feedback or remedial instructions or to prepare their own evaluation tool (Sonawane & Isave, 2012; Rao, 2012; Kaur, 2016). There were occasions that schools neither executed half-yearly or yearly evaluation of the activities nor earned a proper place in the school routine. Besides, co-scholastic part of the curriculum was totally ignored (Bhattacharjee et al., 2009). Lack of daily record maintenance and daily feedback in some schools was against the accuracy of evaluation (Joshi, 2013). There were instance of students not presenting assignments due to their poor awareness of CCE (Kothari & Thomas, 2012). Another study revealed that still there were schools that assess students predominantly through written that was totally against the spirit of CCE (Kaur, 2016). When teachers fail to implement CCE scheme, instead, they follow the conventional style of evaluation, evaluation fails to serve the purpose of it to the stakeholders (Rao, 2012; Kaur, 2016). Teachers could not implement CCE with positive results as they ignored the assessment of social and personal qualities of students in the evaluation of students (Kaur, 2016).

However, reverse to it there are schools that used multiple tools and techniques and corrective measures for strengthening the teaching-learning process along with producing meaningful results (Shodhganga, 2013; Rajput et al., 2003). Schools used to

conduct co-curricular activities (Kothari & Thomas, 2012). CCE strengthened evaluation procedures (Mondal & Mete, 2013).

There were many recommendations to make CCE more effective, especially to attain the goals of CCE. For example, Parmar suggested that there should be careful examination of the course, and specification of competencies to be attained by the learners in terms of knowledge, understanding, application (analysis, synthesis, evaluation for higher grades) and skill performance (Parmar, 2015). To assure the quality of evaluation it is must document and record each student's progress in detail, so that the evaluators could reach on justified conclusions about the performance of the students (Lal, 2015). Proper utilisation of library and ICT facilities could facilitate the evaluation of students well (Jayalekshmi and Celin, 2013). Absenteeism due to the poor social background of the students demanded a contextual analysis of the performance of the students (Jayalekshmi and Celin, 2013).

To counter the influences of bias, teachers should be helped with required formation, particularly, if contextual factors such as experience of teachers, locality and type of schools could influence on the attitude and evaluation of students (Sharma, 2013; Kaur, 2016; Anitha, 2014; Singhal, 2012). There was difference in the attitude of teachers in relation to the nature of the schools, but not in relation to the subjects and teaching experience (Rathee, 2014). Nevertheless, according to theirs study (Pazhanimurugan et al., 2011), there was no difference in the attitude of teachers in relation to sex, experience, and type of schools.

3.4 Summary

CCE scheme was an innovative system in student evaluation. CCE definitely opened up a vast possibility of growth and development for students in a friendly a classroom. At the same time, teachers had a huge task in front of them i.e. to implement CCE effectively. CCE posed distinct challenges for teachers, students, parents, and schools alike. CCE implementation also gave opportunities to teachers to develop themselves in their profession. Teachers realised that they had to improve on various aspects of

assessment since subject competency alone was not sufficient to conduct the new system of evaluation effectively.

As The Joint Committee on Standards for Educational Evaluation stressed, “Strong student learning requires consistent, persistent – indeed, daily – attention to effectively gathering, analysing, and using evaluation information to guide student learning. Sound student evaluation presumes the need for substantial assessment skills on the part of the evaluator to deal effectively with a wide range of issues that arise when conducting a student evaluation” (Gullickson, 2005, p.2).

Therefore, it was so essential to familiarise the stakeholders with the new system. With this purpose, CBSE conducted many orientation programmes for various stakeholders enabling them to comprehend the nuances of CCE implementation. It was so important that teachers and head teachers had sufficient formation for implementing CCE in their respective schools and classes and assured of the support of parents along with the cooperation of students for a successful implementation of CCE.

4 Methodology

4.1 Introduction

In the previous chapter, CCE and its practices have been analysed from a critical point of view from the perspective of 'The Student Evaluation Standards' using the available literature review. The various studies on CCE implementation revealed some positive as well as negative sides of the CCE practice that opened a gateway to the development of objectives of the present research study that attempts to understand the CCE implementation with reference to *the standards*. As such, to make a comprehensive study of the CCE practice in schools, it was important to analyse it from different angles. Therefore, the study analyses the implementation of CCE from the perspective of various stakeholders and attempts to understand the influence of school internal and school external characteristics on their perspective. To be exact, the research focuses on understanding the perspectives of three principal stakeholders of a school viz. head teachers, teachers, and students on the CCE practice in their schools. Besides, the study investigates some other aspects of school effectiveness factors to see how they affected the execution of Continuous and Comprehensive Evaluation in their respective schools.

According to school effectiveness and school improvement research, stakeholder factors and school factors are significant on the successful implementation of any new policies and programmes like CCE in schools. Purkey & Smith (1982), Levine & Lezotte (1990), Cotton (1996), Fullan (2000), Creemers & Kyriakides (2010) and Sheerens (2013) did some of the most widely recognised studies related to effectiveness enhancing conditions of schooling. Their studies highlight that student evaluation quality, different stakeholder factors, strong leadership, school climate, school culture, staff development, parent support, physical and material school characteristics, curriculum planning and development, school management, shared vision etc. are some of the major factors detrimental for effective schooling.

Thus, the elaboration on the literature review and the school effectiveness literature leave a scope for a research study that can significantly contribute to improve the quality of student evaluation practice in CBSE schools in India, particularly in Kerala. Therefore, the study takes the effort to understand *The Student Evaluation Standards* implied in the practice of CCE. Additionally, the study investigates certain relevant school effectiveness factors with respect to the implementation of CCE. It can be stated looking at the research objectives and the research questions that the results of the present study can definitely contribute to the overall improvement of student evaluation practice in schools across India.

The choice of a suitable research methodology becomes very significant in such type of studies, which is to be made depending on the nature of the investigation to take forward the study. As such, for this study, a survey questionnaire tool was used to collect data from the various stakeholders and SPSS was employed for the analysis of the same. The following sections delineate the various phases of the methodology employed in this study.

4.2 Purpose and objectives of the study

The main purpose of the study is to make a metaevaluation of the CCE Scheme with reference to standards of *The Student Evaluation Standards* through the perspectives of the head teachers, teachers, and students of the CBSE Secondary schools in Kerala. Additionally, the study endeavours to find out the significance of distinct school related factors in the implementation of the practice. It would be helpful having a look at the conceptual model of the study given in Figure 03 for a comprehensive understanding of the research objectives.

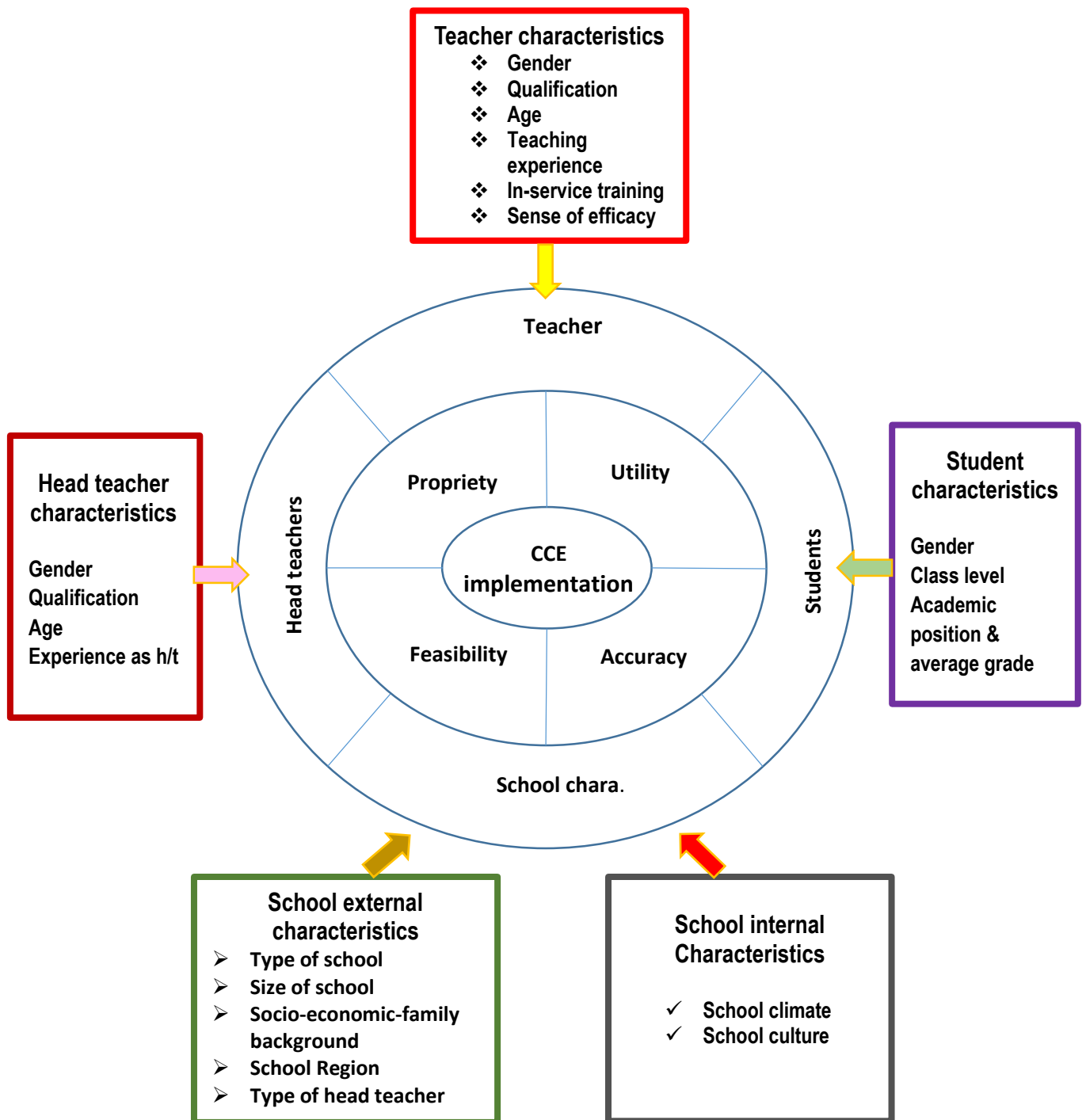


Figure 3. CCE study variables diagram

As the arrows in the model indicate the focus of the study, the objectives are summarised below:

- To make a review literature about CCE and its implementation. With this purpose, the researcher describes the relevant research studies already conducted on various aspects of CCE practice in different schools in India (It has been given in the previous chapter). Afterward, the study makes an analysis of these studies with reference to *The Student Evaluation Standards*, which is theoretical in its approach.
- To describe how the different research objectives of the study were developed on the ground of the analysis made on CCE studies from the perspectives of the four attributes (propriety, utility, feasibility, and accuracy) and the standards, and also how this analysis paves the way for the development of one section of the questionnaire of the empirical study.
- To explore the perspectives of head teachers, teachers, and students on CCE practice through the lens of *The Student Evaluation Standards*. The three stakeholders' perspectives will be investigated in the study based on the contextual relevance of the Student Evaluation Standards in the Indian situation because while most of them are relevant for Indian context too, some of them are not.
- To analyse empirically whether teachers' sense of efficacy have any relation with their perspective of CCE practice (evaluation of students) with respect to their instructional strategies, classroom management, and student engagement.
- To explore whether school culture (group openness, group trust, and group cooperation) and school climate (sense of mission, parental involvement, teaching practice, and expectation) factors show any relation with their perspective of CCE practice.
- To understand the significance of school external characteristics such as type of school, size of school, school regions, socio-family background, school region, and type of head teacher (secular or religious) in relation to the stakeholders' perspective of CCE practice.

- To highlight whether certain characteristics of teachers (gender, qualification, age, teaching experience, in-service training, and sense of efficacy), head teachers (gender, qualification, age, and experience as head teacher), and students (gender, class level, academic position and average grade) have any significant relation with their perspective of CCE practice in CBSE schools.

In concrete, the study focuses on understanding the pluses and minuses of CCE with reference to the Student Evaluation Standards and the influence of stakeholders' characteristics and school characteristics on their perspectives of CCE practice in CBSE schools in Kerala. The descriptive and empirical sections together can generate a better picture of the practice that will be helpful for improving the student evaluation practice in CBSE schools across India, particularly in Kerala.

Following are the auxiliary questions formulated to address the main research questions:

1. What are the stakeholders' perspectives on the practice of CCE in CBSE secondary schools in Kerala with respect to the propriety, utility, feasibility, and accuracy attributes?
2. What are the underlying dimensions in their perspectives on the practice of CCE with respect to the standards?
3. What is the relation between the stakeholders' perspectives on the practice of CCE and the school external and internal characteristics (type of school, size of school, socio-economic-family background of school, school region, type of head teacher, and school culture and climate)?
4. What is the relation between the stakeholders' perspectives on the practice of CCE and their characteristics (*Teacher*: gender, qualification, age, and teaching experience, in-service training and sense of efficacy; *Head teacher*: gender, qualification, age, and experience as head teacher; *Student*: gender, class level, academic position & average grade)?

Since the study looks at the practice from the aforementioned angles, the researcher hopes that the results of the study would immensely contribute to the improvement of student evaluation practice in CBSE schools in India, particularly in Kerala. The findings

of the investigation would definitely be helpful for different stakeholders in different ways:

- It will aid them for their professional growth.
- Teachers can utilise the results in a way for improving on their evaluation practices and imparting classes.
- They will get some ideas about their strength and weakness as a teacher and can build upon their strength and get over their limitations.
- The overall results of the study will give appropriate information to the head teachers in matters related to day-to-day interaction with both teachers and students and better their approach towards them, which in turn help in progressing the overall performance of schools. It will also boost their professional life.
- School management can utilise the results for improving school climate and school culture in general.
- Results would be useful for recruiting competent teachers as the study can reveal certain positive characteristics of effective teachers.

4.3 Methodology

The success of a quality research depends a lot on the methodology employed in the data collection and its analysis. As per the nature of the present study, a quantitative approach was opted for realising the research objectives.

4.3.1 Methodological approach

This research focused on exploring the CCE practice in CBSE schools in Kerala in order to make a metaevaluation of it. On the ground of the literature review and the nature of the data collected, it was understood that a Quantitative Research Method seemed to be the apt method for a reasonable interpretation of the data because Quantitative research method is widely used for this kind of research studies (Creswell, 2014; Frankfort-Nachmias & Nachmias, 2008; Balnaves & Caputi, 2001). Creswell (2008)

indicated the benefits of Quantitative procedures help ensure that researcher's own personal biases and values do not influence the results. However, it is important to remember that quantitative procedures alone may not guarantee that the results are free from personal biases and influences unless measures are taken to shield it from them like in any other similar type of studies.

The present study intends to find out the perspective of the whole population of the study about the CCE practice in CBSE schools with reference to *The student Evaluation Standards*. The nature of the present study demands a quantitative study as Sukamolson (2007) highlights the advantage of it as to quantify opinions, attitudes, and behaviours and find out what the whole population feels about a certain issue. Similarly, Williamson & Johanson point out that the purpose of quantitative research is to establish, confirm, or validate relationships and to formulate previous findings or theories (2018). In the present study, the literature review has already recognised certain standards of *The student Evaluation Standards* are being practiced in CCE, however, a pure study on this theme is required that aims at confirming to what extent the standards contain in the CCE practice in order to validate it. Additionally, the study attempts to ascertain whether there is any relationships between the CCE practice and stakeholder and school characteristics. Thus, the study would enable us to ascertain some empirical phenomena that interest us in line with what Frankfort-Nachmias and Nachmias (2008) state that the ultimate goal of social and all other sciences is to produce a cumulative body of verifiable knowledge that allows us to explain, predict, and understand the empirical phenomena that interest us. Cohen et al., (2007) add that once some questions and related facts are constructed scientifically based on theories, scientists and investigators test their hypothesis empirically so that their explanations have a firm basis in facts. Thus, statistical procedures assist in ensuring that the presented and interpreted information or observations are accurate and in an informative way (Gravetter and Wallnau, 2017).

Quantitative surveys are the best methods in exploring a particular need of group (Fowler, 2014). Moreover, Creswell (2014, p.356) posits that surveys are used to examine current attitudes, beliefs, opinions, or practice and underpins that the most

important method to minimise the measurement error is to use good research instrument. Williamson & Johnson (2018) also point out that quantitative research is helpful for an objective measure of reality. However, this type of research studies should adopt needful measures in order to maintain the objectivity of the study.

Mixed research method is one of the favourite methods among researchers. In the case of the present study too, it could be an ideal method for exploring the objectives of it. Nevertheless, due to the time constraints and lack of human resources, it was not feasible to conduct a qualitative study. Additionally, in comparison with qualitative method, quantitative methods permits collection of data within a short period time from a bigger size of population. Similarly, Richardson (2003) stresses that unlike quantitative research; qualitative research could not be generalized across the context though it provides in-depth information from a small sample. Williamson & Johnson (2018) emphasize that the qualitative method allows the researcher to explore and better understand the complexity of a phenomenon, with small sample while quantitative research provides an objective measure of reality. Therefore, it could be said that quantitative method was a right choice for the present study.

4.3.2 Population and sample

Population of the study was secondary head teachers, teachers, and students of CBSE secondary schools in Kerala. Kerala is educationally, economically, and socially one of the most developed among the 29 states of India located in the extreme south of it - more information has been given in the introductory chapter about the same. Maps of India and Kerala are given below this section to assist in having an overview of the geographical description of school localization and distribution (*image: 1 & 2*). The data for the study were collected from 25 schools, which were predominantly under the private Christian management. The choice of Christian management schools was made on three reasons: researchers' personal contact with the management, the academic reputation of the schools in the society, and the availability of the schools. It was purposeful that the researcher selected the sampled schools from North, South, and Centre of Kerala, so that the data could approximately represent all over Kerala. The

state has totally 14 districts and three districts, namely, Wayanad (North), Ernakulam (Centre), and Kollam (South) were selected among them for the data collections purpose (*see the image: 2*).

Among the 30 schools approached by the researcher, 25 schools cooperated by providing access to collect data. The other five schools were not willing to participate in the study due to two reasons: either they did not have permission from the management to allow the data collection in the respective schools or time to dedicate on the data collection because of the tight academic schedule; especially it was being the model exam season for the higher-class students. However, the number of teachers and students participated in the study were sound enough for conducting the study as per the envisaged plans. According to Richardson (2003), if the response rate is 50 percent or more, it is considered as an acceptable rate in social science. In the case of the present study, it is 83 percentage and it is more than acceptable. Nonetheless, if the number of the head teachers participated in the study were more, it would have still spared better the research results.



Figure 4. Map of India states

(<https://www.findtoknow.com/state-and-their-capital/detailed-large-size-map-of-india-for-travelers-2>)

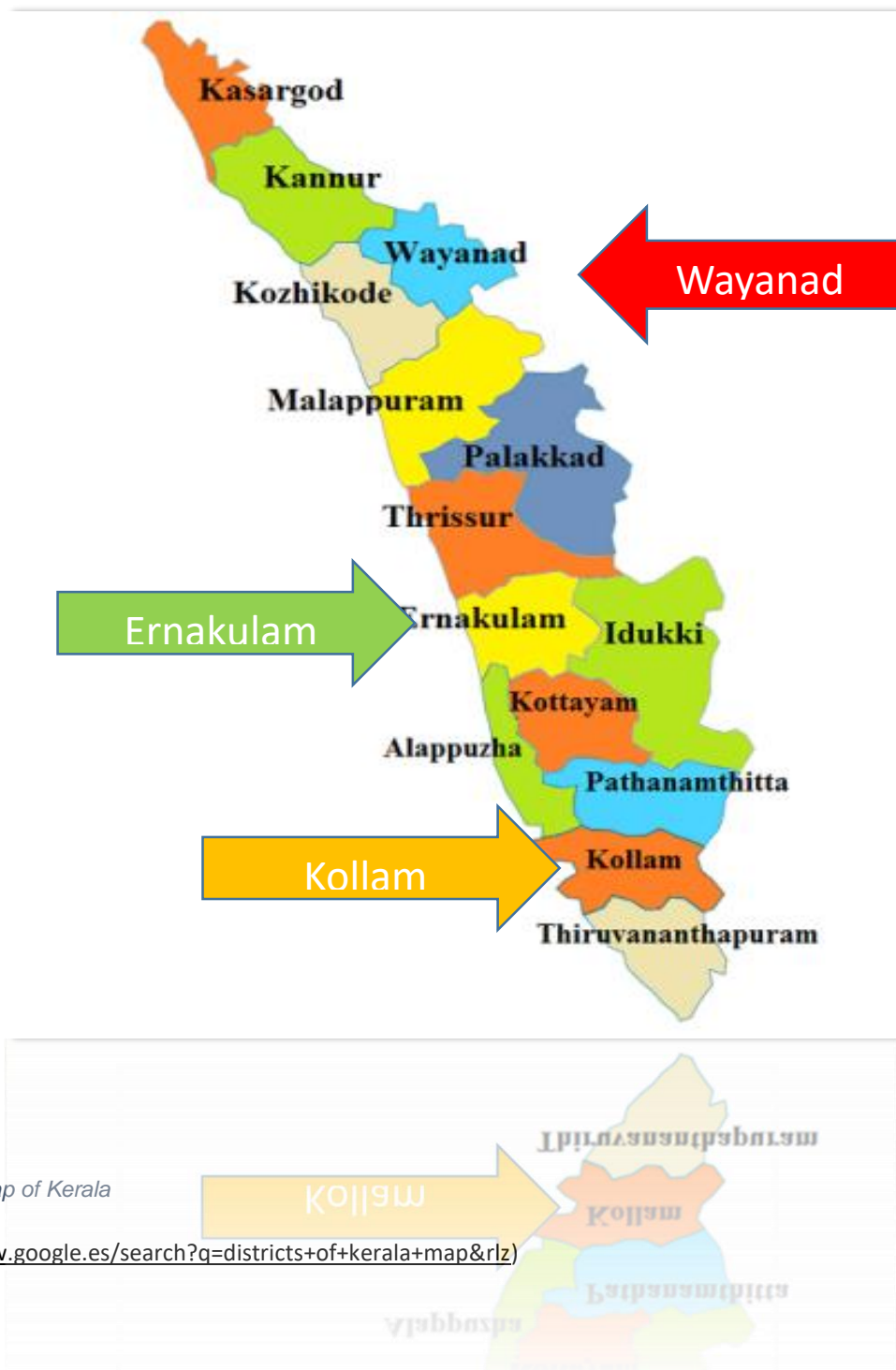


Figure 5. Map of Kerala

<https://www.google.es/search?q=districts+of+kerala+map&rlz>

Table 6. Description of the sample schools

Variables	Group	Number	Percentage
Locality	Rural	9	36
	Semi-urban	8	32
	Urban	8	32
	Total	25	100
School size	Below 700	7	28
	Between 700 - 900	9	36
	Above 1000	9	36
	Total	25	100
Region	South	7	28
	Centre	13	52
	North	5	20
	Total	25	100
Socio-economic level	Very low	7	28
	Low	5	20
	High	13	52
	Total	25	100
Type of principal	Religious	14	56
	Secular	11	44
	Total	25	100

One of the advantages of the sample schools was that the researcher could approximately maintain some proportionality in the selection of the schools on the ground of location such as rural, semi-urban, and urban. Generally, urban and semi-urban schools are supposed to have more facilities and fame. Therefore, the study could look into the matter with a view to understand whether there is any significant difference in stakeholders' perspectives in connection with the demographic factors of the school. In a similar manner, these schools are from three zones of Kerala that are considerably distinct from one another on the socio-economic front. In this line, the central zone is a bit better in the socio-economic aspects, and the north zone is poorer compared to other two zones. However, this zonal difference in financial and social front is not as big as in the case of socio-economic background of the schools because most of the private schools have students without financial burdens as they are often of the children of government employees. Another interesting aspect of the data was the difference in the size of school strength because it is usually seen as an influential factor on the overall performance of a school. Bigger schools (see figure 6) were predominant

in the sample schools and logically, bigger schools contributed with maximum number of teachers in answering the questionnaires (see *figure 7*). The average number of teachers in each school was close to 18 ($\bar{x} = 17.84$ and $s=3.02$). The variance in the size of the school would be analysed to know whether the stakeholders' perspective vary according to their strength of the school and also to find whether the stakeholders of the bigger schools have any advantage over the smaller schools or vice-versa. In the same manner, maybe, medium size schools spare better than the smaller or bigger ones. Further, the majority of schools participated belonged to Christian management and therefore, naturally many of the head teachers of these schools were a religious i.e. a nun or a priest. Nonetheless, there were more or less the same number of secular head teachers too, but it does not mean that they could not be believers of god. Being a priest or nun the head of the school could not be a significant factor of influence on varying the perspectives; still, the study attempts to see whether there is any notable difference in the perspective on this ground.

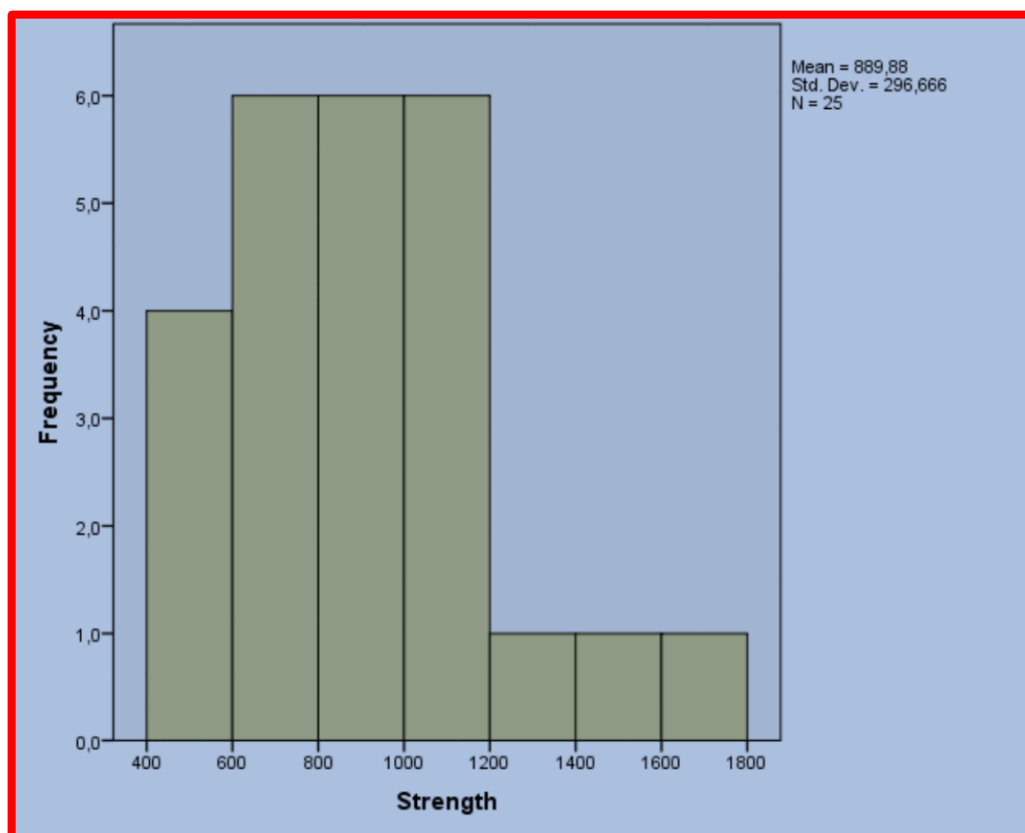


Figure 6. Size of school

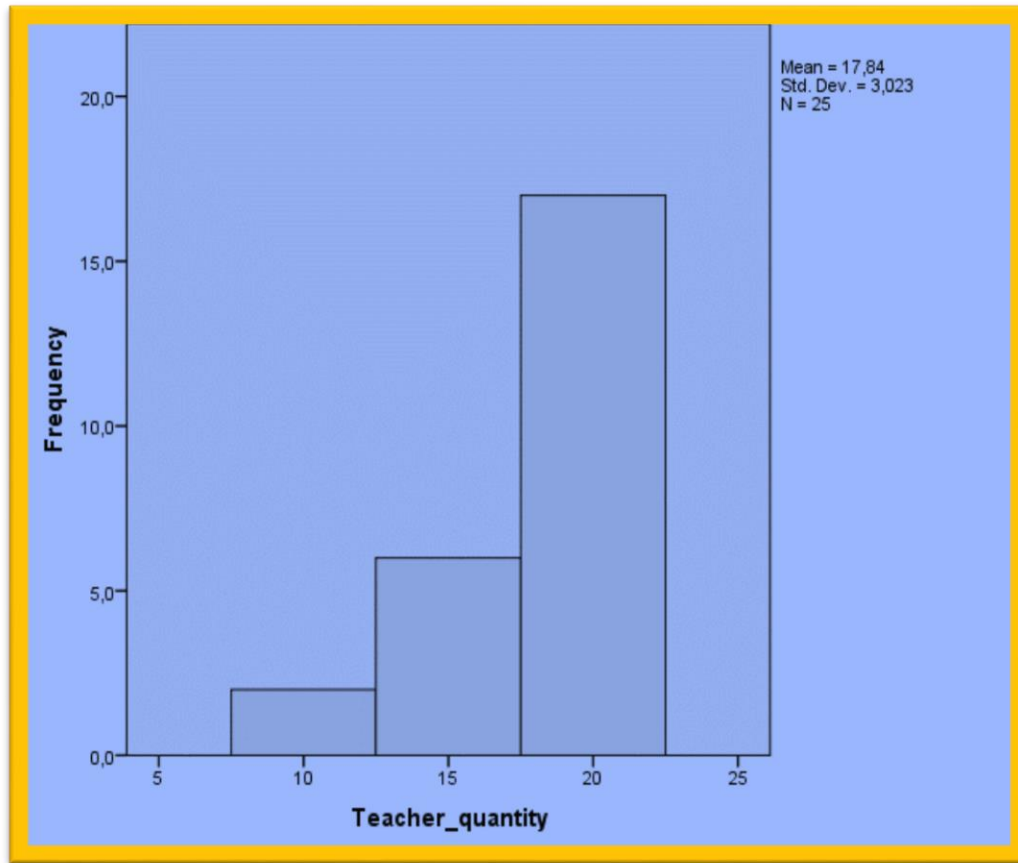


Figure 7. Teacher quantity

4.3.2.1 Teacher sample

Table 7. Teacher sample

Variables	Group	Number	Percentage
Gender	Male	69	16
	Female	373	84
	Total	442	100
Qualification	Graduate	180	41
	Postgraduate	258	58
	M.Phil. & Ph.D.	2 & 1	1
	Missing	1	0
	Total	442	100
Experience	Below 5 years	143	32
	Between 5-10	165	37
	Between 11-15	91	21
	16 and above	41	10
	Missing	2	0
	Total	25	100
Age	Below 30 years	131	30

	Between 31-40	189	43
	Between 41- 50	112	25
	51 and above	8	2
	Missing	2	0
	Total	442	100
In-service training	Never	30	7
	1 time	79	18
	2 times	98	22
	More than 2 times	205	46
	Missing	30	7
	Total	442	100

It is understandable from the table 02 that majority of the participants were female teachers and compared to it, the male percentage smaller. As it was indicated in the previous section, mostly ladies dedicate to teaching profession, especially in schools as it is not a first choice of profession for gents. There is a notable difference between the number of graduate and postgraduate teachers participated in the study. More teachers are postgraduates because they are preferred to teach in secondary level classes by management in general. Anyway, the number of M.Phil. and Ph.D. holders were not significant enough to be included in the data analysis. Therefore, they were merged with the postgraduate as higher qualification (see graph 'x'). In the category of experience, there were considerable number of teachers in all sections. Age was also an important variable considered for the study, which had four variants under it. It is interesting to pay attention that the big group comes under the variance 31-4 that indicates management schools recruit young teachers. The last variables was related to in-service training of teachers. The study sought the number of in-service training teachers attended with respect to CCE before and during the practice. The response was very positive as about half of them had attended the training for more than two times and except very few, the rest for one or two times. Therefore, the teachers generally received in-service training equipping them for the practice

4.3.2.2 Head teacher sample

Table 8. Head teacher sample

Variables	Group	Number	Percentage
Gender	Male	9	36
	Female	16	64
	Total	25	100
Qualification	Graduate	1	4
	Postgraduate	16	64
	M.Phil.	4	16
	Ph.D.	4	16
	Total	25	100
Experience	Below 5 years	4	16
	Between 5-10	7	28
	Between 11-15	6	24
	16 and above	8	32
	Total	25	100
Age	Below 30 years	0	0
	Between 31-40	12	48
	Between 41- 50	7	28
	51 and above	6	24
	Total	25	100

Table 01 shows the descriptive information of the head-teacher participants in the present study. In India, generally teaching in schools is seen as a profession of female group, which is conspicuous in the total representation of the participants in the study. That is why majority of them are female in this group. In the qualification category, it is very clear that most of them are qualified with post-graduation and only one of them is a graduate. Still, it is interesting to note that there are head teachers with Ph.D. and M.Phil. Alike, head teachers were categorised into four groups based on their teaching experience. There is a good representation of head teachers in each category even though the smallest group is with below 5 years of experience while the biggest is with 16 and above years of experience. Another grouping was done on the ground of their age and which was also somewhat similar to the previous one and had head teachers belonging to each section with good representation.

4.3.2.3 Student sample

Table 9. Student sample

Variables	Group	Number	Percentage
Gender	Male	325	49
	Female	345	51
	Total	671	100
Class level	VIII	271	40
	IX	243	36
	X	157	24
	Total	671	100

The number of students that participated was considerably bigger, especially in comparison with the other two groups of stakeholders. Among them, the VIII and IX class students are more than that of X level students. It is because in many schools, the authorities did not want their students dedicate to any other activities other than learning and thereby, the researcher had to be satisfied with the permitted section of students. Unfortunately, the data collection period also happened to be distantly close to the public exam time. However, it is worth mentioning that the population was proportional to the total number of students on the ground of gender as they were 325 boys and 346 girls out of the total number of 671 students.

Table 10. Student's academic position in the classroom

Students' academic position	Grade	Frequency	Percentage
Among the lowest 5	5	2	.3
Among the lowest 10	6	13	1.9
Average to lower	7	26	3.9
Average to higher	8	245	36.5
Among the highest 10	9	197	29.4
Among the highest 5	10	187	27.9
Missing		1	.1
Total		671	100

It was useful knowing the self-perception of academic performance of the students within their classrooms. The results shows that most of the students perceive themselves like academically high performing students. It is not very surprising

considering characteristics of the sample schools as they were generally very reputed and the students had a sound socio-economic background in favour of their side. Additionally, it was viewed that under the CCE Scheme, achieving higher grades became easier as internal assessment created more opportunities for all level of students. In the same manner, fails in examinations scarcely happened for the same reason.

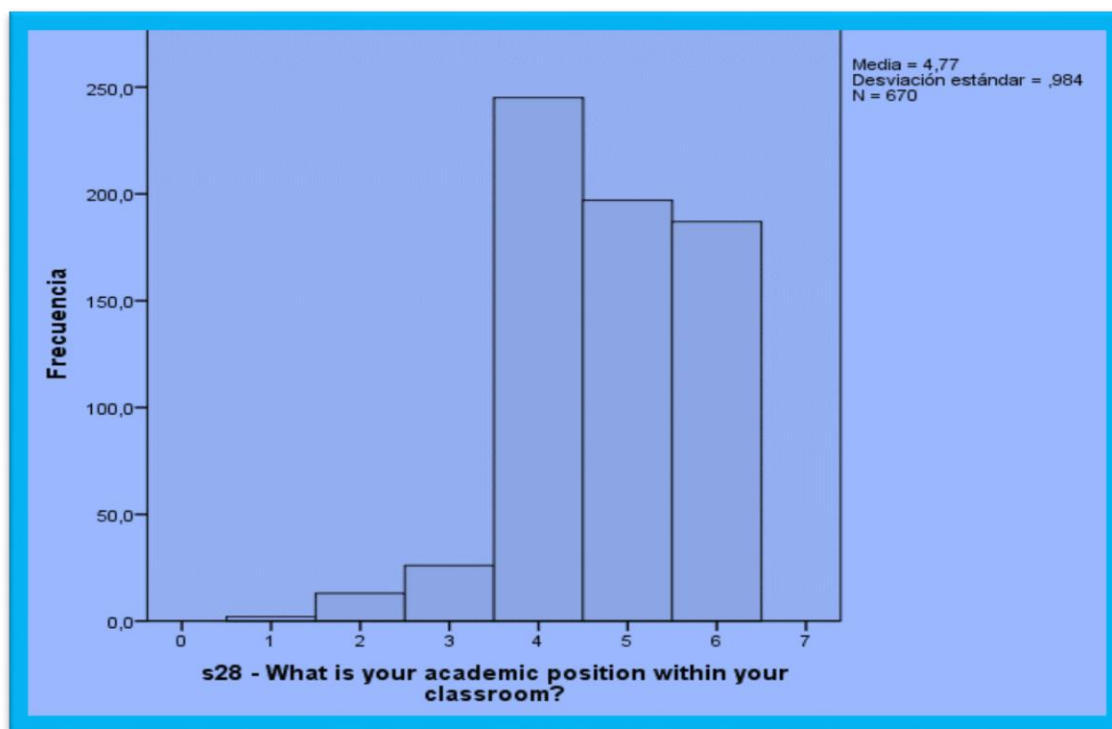


Figure 8. Students' academic position

Table 11. Students' average grade for the previous semester

Students' performance (previous semester)	Marks	Grade	Frequency	Percentage
A1	91-100	10	185	27.7
A2	81-90	9	230	34.4
B1	71-80	8	156	23.4
B2	61-70	7	68	10.2
C1	51-61	6	22	3.3
C2	41-50	5	4	.6
D	33-40	4	1	.1
E1	21-32	-	2	.3
E2	20 & below	-	-	-

Missing	-	-	3	0
Total	-	-	671	100

As a continuation of the previous question, the grade of the students was also analysed. It was matching with their performance in the classroom. However, there is a difference between the grade and the performance perception of the students in case of the grade 8. As per the average grade, there are only 156 students while there are 245 students according to the academic position. It was understood that the global nature of the question would have created some confusion over the question among the students themselves.

In line with the academic performance of the students, the grades have also been analysed. Both have showed almost corresponding results to their academic performance. Thereby, the leading grades are *A2 (81-90)*, *A1 (91-100)*, *B1 (71-80)* in their respective orders. *B2 (61-70)* and *C1 (51-61)* are also there even if they are very few in numbers. The rest of the grades such as *C2 (41-50)*, *D (33-40)*, *E1 (21-32)*, and *E2 (20 & below)* are scarcely there among the participants.

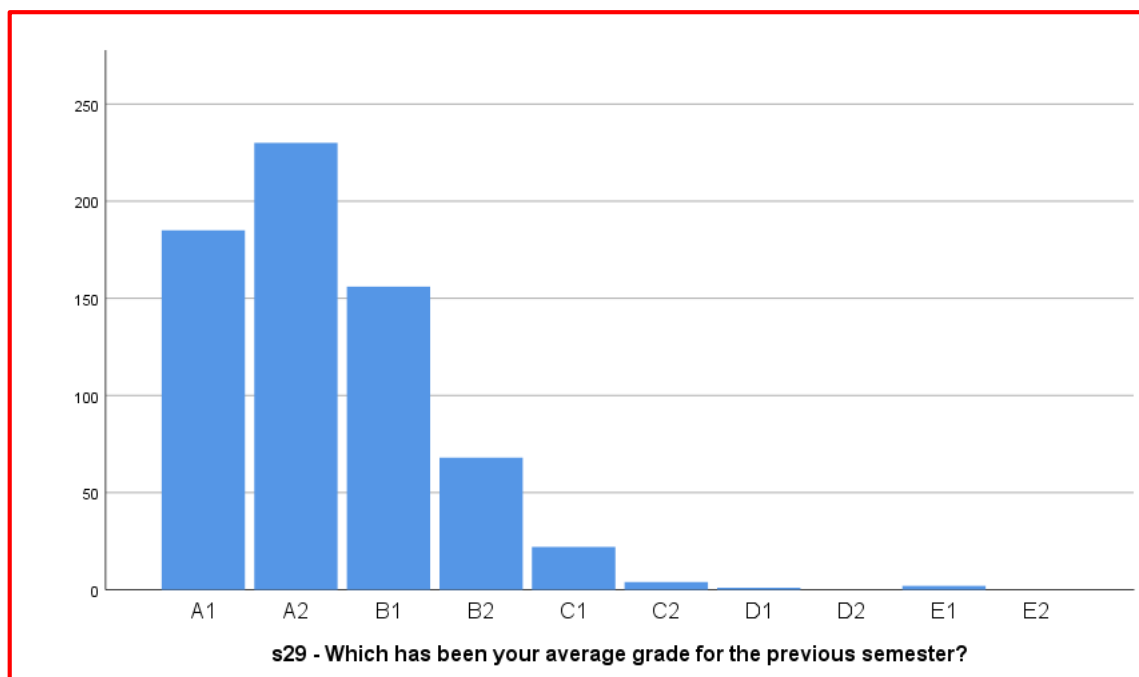


Figure 9. Students' average grade in the previous semester

4.3.3 Statistical analysis

In line with the methodological approach, it is very significant to focus on the statistical tool that will be used for the further interpretation of the data. According to Cohen et al. (2007), quantitative data analysis is a powerful research form and factor analysis is widely used as a quantitative technique in social sciences. Brown (2014) also mentioned that, “since its inception a century ago, factor analysis has become one of the most widely used multivariate statistical procedures in applied research endeavours across a multitude of domains (e.g. psychology, education, sociology, management, public health). In the view of Kline (2015) factor analysis is unique among multivariate statistical procedures that it was developed mainly by psychologists in order to test hypothesis about the correspondence between scores on observed (manifest) variables, or *indicators*, and hypothetical construct (latent variables), or *factors*, presumed to affect those scores.

Cohen *et al.* (2007) states that numerical analysis can be performed using software like Statistical Software for Social Sciences (SPSS). This is a widely used computer program designed to aid the statistical analysis of data and it has become the “industry standard” software for data analysis (Brace, et al., 2006). SPSS is especially useful for social science researchers, particularly with big database for analysis. The study has extensively used factor analysis for understandings the underlying dimensions contained in the response of the various stakeholders and comparing them accordingly.

According to DeCoster (1998), factor analysis is a collection of methods used to examine how underlying constructs influence on the response of a number of measures variable. There are two types of factor analysis, viz. Exploratory Factor Analysis (EFA) and Confirmatory Factor Analysis (CFA). EFA intends to discover the nature of constructs influencing on a set of responses while CFA tests whether a specified set of constructs is influencing on responses in a predicted way. Both EFA and CFA have its advantages and disadvantages. However, long debates have taken place regarding their merits on many occasions and they resulted in highlighting that there is place for the both types of factor analysis and the appropriateness of each depends on the study context (Hurley, et al., 1997). Though the goal of the most factor analyses is to identify and interpret a smaller

number of factors that explain most of the common variance, there are some limitations to it. Therefore, Kline (2015) underlines two critical issues in factor analysis, such as factor indeterminacy and naming fallacy. Factor indeterminacy means even if the results of factor analysis might indicate that a particular measurement model is consistent with observed covariance, there may be still other factor structures just as consistent with same data. Naming fallacy is the false belief that the hypothetical construct is understood or even labelled correctly by the name assigned to a factor by the researcher.

Mean scores

In addition to factory analysis, the mean average score is used to identify the variance in the perspectives of the stakeholders and rank them accordingly. Therefore, it is very significant to find out the mean averages for it would provide the measures of central tendency and mean scores helps to identify the point around which most of the scores in the distribution tend to be located (Gravetter and Wallnau, 2017; Heiman, 2013; Lewis-Beck, 2010). For analysing data with mean, averages would be calculated on the ground of factor groups resulting from factor analysis.

Additionally, once the factor groups are explored from factor analysis, it would be useful to understand the order of ranking for those factor groups. As such, when testing hypothesis p -value is calculated, and indicates the risk for something found in the sample (e.g. a difference between the mean scores of two groups), which is a result of sampling error and does not reflect such a thing in the population. We decided to use a critical value of p of 0.05 for considering a sample result as significant. (In statistical analysis, the significance level (p -value) is used as the probability of obtaining sample results). It is important to understand when conducting statistical analyses with big samples that p -value tends to be statistically meaningful ($p < 0, 05$) even when identifying small differences among groups or relations among variables. On such occasions, if the focus is given only on p -value, it would be difficult to discuss the differences as many of them would have similar p -value (about zero) despite not having equal differences. Thereby, instead of paying too much attention to p -value, the study focuses on analysing

the size of the difference and employs Cohen's d , which standardizes effect size and reports the difference's scores using standard deviation as units for comparison (Fritz & Morris, 2018). In order to explain the similarities and differences between these groups, Effect Size Estimates (Cohen's d) is used because 'effect sizes allow the study to identify generally interpretable and quantitatively descriptive size of an effect' (Fritz & Morris, 2018). It is an important tool in reporting and interpreting effectiveness. Generally, 'effect size' is a simple way of empirical evaluation for difference between two groups and it has many advantages over the use of tests of statistical significance alone. It could be taken as a useful supplement to statistical significance testing, especially by measuring the standardized differences between the means (Lewis-Beck, 2010).

Cohen (1962, 1964) introduced a measure similar to a standard score in which one of the means from the two distributions is subtracted from the other and the result is divided by the standard deviation (s) for the variables:

$$d = \frac{\bar{x}_1 - \bar{x}_2}{s}$$

where \bar{x}_1 and \bar{x}_2 are the two means and s refers to the standard deviation for the population. Cohen recommended that d values for .8, .5, and .2 stand for large, medium, and small effect size, respectively, or perhaps more meaningfully described as obvious, subtle, and merely statistical. Besides, he advises that these values in practice depend on the particular area of study and recommends these values for use only when no better basis for estimating the effect size index was available (Fritz & Morris, 2018).

Reliability and validity of the data

To determine the reliability and validity of data, different analyses viz. internal consistency, confirmatory factor analysis and exploratory factor analysis were conducted. The study first employed principal components factor analysis. In the rotation process, Varimax rotation was selected. However, while some of the results were very positive, some others were adequate only (...). It was similar with the Bartlett's Test of Sphericity that compares the correlation matrix (Pearson correlation) to check if there is a redundancy between variables that can be summarized with some

factors (...). In the present study, IBM SPSS 22 is used in order to conduct the analysis for checking the KMO and Bartlett's test of Sphericity. As the results of the internal structures were favourable for it, subsequently, the study was carried on using factor analysis. Addition to the Kaiser-Meyer-Olkin (KMO) and Bartlett's Test for Sphericity tests, Cronbach's Alpha was calculated for each factor in order to measure the reliability of the scale. Cronbach's alpha, α (coefficient alpha) is tested to see whether multiple-question Likert scale surveys are reliable. Generally, a score of more than 0.7 is usually okay and 0.9 is seen as excellent.

According to the nature of the data collected and the research questions, an appropriate choice of statistical procedures was very important. As such, to answer the research questions, a variety of analyses such as descriptive statistics (frequency distribution, means, and standard deviation), ANOVAS, t-test, correlation, and Chi square were executed with a significance level of 0.05 and paying attention to effect size measures (Cohen's d, percentages, eta squared). Mainly, research questions were investigating differences, relationships, and data comparison.

Bivariate analysis of the students

According to the number of variables in a particular study, data are classified in statistics. Therefore, depending on the number of variables being analysed, the data could be either univariate or bivariate or even multivariate. When a study is conducted looking at a single variable, the study involves univariate data. Nevertheless, when the study attempts to find out the relation of two sets of items, which are dependent on each other, the study involves bivariate analysis. It usually involves the variables X and Y and there is a Y values for each X in bivariate analysis. Besides these two types of analysis, there is another type of analysis, which is called multivariate analysis. It is the analysis of more than two variables.

T- test: A *t* test was conducted to know whether there was any difference in the mean score of the two groups with two levels i.e. male and female (independent variable - gender and dependent variable - perspective of stakeholders). For the same, mean, standard deviation, and number of subjects in each of these two groups were calculated.

ANOVA (ANalysis Of Variance): The one-way ANOVA was executed to compare the independent variable (e.g. qualification) with three or more groups/levels and to know if they differed on a dependent variable (e.g. perspectives of stakeholders). For examples, *in-service training* has three levels: 1 time, 2 times, and more than 2 times and *qualification* has four levels: graduate, postgraduate, M.Phil, and Ph.D. and to know if they differed on a dependent variable (e.g. perspectives of stakeholders).

Pearson's correlation: A simple correlation measures the strength of relationship between two variables that have equal status, which are not considered independent variable or dependent variable. Pearson's r is used in order to measure a linear relationship between two continuous variables. In this study, Pearson's r is used to find out the relationship between the school characteristics and CCE implementation.

Chi-square: Chi-square is used to compare nominal data, or in other words to compare what we observe (actual) with what we expect. It helps to make decisions about whether the observed outcome differs significantly from the expected outcome.

Each of the statistics is used to determine the level of statistical significance (value of p) and find out whether p is less than or greater than .05. If the value of p is less than .05 ($p < .05$), there are differences for t-tests, ANOVAs, and Chi-square or there are relationships for correlations.

Factor analysis

As we have already seen in the above section that there are two types of factor analysis, viz. Exploratory Factor Analysis (EFA) and Confirmatory Factor Analysis (CFA). Exploratory factor analysis (EFA) does not require any *a priori* model. EFA with the assistance of computer procedure could theoretically produce all probable unrestricted factor solutions, which tally to the number of indicators. EFA computer procedures rely on the default statistical criteria for determining the number of factors to retain. However, these defaults do not always correspond to the best practice, at the same time; EFA does not demand the researcher to specify the number of factors in advance (Kline, 2015). The two principle objectives of EFA are to determine (a) the number of

common factors influencing on a set of a measures and (b) the strength of the relationship between each factor and each observed measure (DeCoster, 1998).

Compared to the EFA, “Confirmatory factor analysis (CFA) is a type of structural equation modelling (SEM) that deals specifically with measurement models, that is, the relationship between observed measures or *indicators* (e.g. test items, test scores, behavioural observation ratings) latent variables or *factors* and a fundamental feature of CFA is its hypothesis-driven nature” (Brown, 2014). A special characteristic of CFA is that it should have *a priori* model, which is based on past evidences and theory. Thereby, CFA tests the existing model and demonstrates options for evaluation and statistical reliability. In our data it was clear that the previous structure did not match with the structure in the stakeholders’ answers, and we decided to use EFA.

In the present study, factor analysis is used because there was the lack of previous studies about the validity of the factor-indicators with respect to the present study. Thereby, the study was interested in identifying any unexpected underlying factor, and also in identifying differences in this structure among stakeholders.

In fact, the present study had an *a priori* model, which was based only on a manual. In the manual, there is a distribution of issues among standards and attributes. However, it is just a handbook, and not in a previous knowledge of the way in which stakeholders understand evaluation practice. In the minds of the people who wrote the standards there are certain categories (attributes and standards), but our stakeholders could have a different set of categories. Therefore, the present study is very much interested in identifying them.

4.3.4 Questionnaire foundations and development

Sukamolson (2007) defines survey questionnaire as, “a systematic gathering of information from respondents for the purpose of understanding and/or predicting some aspects of the population of the interest” (p.12). There are some advantages of using survey questionnaires. According to Crosswell (2014), survey questionnaire enables the researcher to compare conveniently the responses and by providing responses, it would

be easier to assign numerical values (coding) to them when analysing data. Moreover, survey questionnaires can be administered saving time and money and its reachability to geographically dispersed population is better. Additionally, in this method not only the participants' anonymity is preserved but also the responses, which are very important in this kind research studies (Sukamolosl, 2007). Therefore, survey questionnaires were used in the study for collecting data from the stakeholders. The questionnaires had two sections of which first consisted of questions pertained to the standards and the second to school culture and school climate. The questionnaires had close-ended questions to facilitate stakeholders, so that they could choose one response from the given six options for the first section of the questionnaire related to *The Standards* such as *strongly disagree, disagree, somewhat agree, agree, and strongly agree*. The second section had five options such as *not at all, a little, somewhat, very much, and always*.

Nevertheless, there are some limitations with this method as well. For example, survey data is self-reported information, reporting only what people think rather than what they do. Sometimes, the report rates could be low and researchers might not make claims about the representativeness of results to the population. Alike, questionnaires do not usually allow probing, which limits the options for exploring any questions in more detail (Creswell, 2014).

General characteristics of SES questions – section one

The nature of the research questions required a new questionnaire for each stakeholders with respect to their characteristics because there was a lack of a previously validated questionnaire apt for the data collection purpose of the present study. Therefore, the researcher developed new questions related to the standards, which was the major part of the questionnaires of each stakeholders. The questions had the foundations on the four attributes (Propriety, Utility, Feasibility, and Accuracy) and their 28 standards and these standards sketched out the fundamental characteristics of sound evaluation practices in schools.

A good understanding of the standards as well as the various aspects of CCE practice was inevitable for developing the questions without losing its significance and at the same time, making them relevant to the Kerala context. Therefore, the development of questions was possible only through some contextual modifications of the standards. Moreover, there were some standards, which were not relevant in the Indian context. Hence, on these conditions, a selection of the standards was made in line with the research objectives and the contextual factors of Kerala (India). However, every attribute and almost all the standards were included in the questionnaire. Thus, head teachers' questionnaire with respect to standards consisted of with the number of questions indicated in the brackets: propriety (12), utility (9), feasibility (6), and accuracy (11). Teachers' questionnaire was slightly different from the head teachers' questionnaire in the total number of certain questions. The questions were propriety (17), utility (7), feasibility (9), and accuracy (12). In comparison with other two stakeholders, the students' questionnaire had less number of questions because their role in the practice of CCE was limited for they were being evaluated than being practitioners. As such, the number of questions formulated for students were propriety (8), utility (3), feasibility (1), and accuracy (4). A general selection process is detailed in the following passages.

Head teacher and teacher questionnaires

Propriety standards: The maximum number of questions were aimed at finding the propriety dimension (17) of CCE practice for the reason that CCE emphasized on the aspect of student well-being while conducting evaluation. There was a great deal of pressure on them to perform well in public exams, which continued to mount due to the family and the societal pressure. It was not quite unusual that students committed suicide for the same causes when annual exam results were published. Thereby, it was imperative for the educationists to raise the confidence of students with interactive classrooms and student centred evaluation schemes. Besides, the new evaluation system was expected to promote students' comprehensive learning and subsidising students' mugging up habit, and gradually the pressure. Thus, considering these factors, CCE was introduced to promote a fair and equitable student evaluation practice.

Thereby, it could be said the main orientation of the questions in relation to propriety standards was towards these aspects in order to understand to what extent property standards were being actualised in CCE practice. Out of the seven property standards (P1-Service to students, P2-Appropriate policies and procedures, P3-Access to evaluation information, P4-Treatment of students, P4-Treatment of students, P5-Rights of students, P6-Balanced evaluation, and P7-Conflicts of interest), P3, P4, P5, and P6 for head teacher questionnaire and P3, P5, and P7 for teacher questionnaire were excluded. We were also aware that the quality of the collaboration of participants required a strong limitation in the number of questions. Therefore, we had to set priorities among questions and select those, which we considered more substantial in the context of CCE practice in Kerala.

Table 12. Propriety questions shared between head teachers and teachers

Propriety standards	Head teacher	Teacher
P1-Service to students	<ul style="list-style-type: none"> ○ CCE promotes a child-centred classroom, where teacher is a facilitator. ○ Students' educational output is higher due to the reduction of stress on them after the CCE implementation. ○ Due to CCE's all promotion approach till class VIII, students are less serious about their studies. ○ Cut-throat competition among the high achievers is still a reality in schools. ○ The transition from more student friendly exams in Primary Education to more serious evaluation in Secondary Education is problematic for students. ○ CCE promotes deep comprehension in students eliminating the mugging up habit. ○ CCE has reduced societal pressure in a big level. ○ Societal pressure still affects the students negatively. ○ CCE makes classes more interactive and innovative. 	<ul style="list-style-type: none"> ○ Students' educational output is higher due to the reduction of stress on them after the CCE implementation. ○ The transition from more student friendly exams in Primary Education to more serious evaluation in Secondary Education is problematic for students. ○ CCE has reduced societal pressure in a big level. ○ CCE makes classes more interactive and innovative. ○ Due to CCE's <i>all promotion</i> approach till class VIII, students are less serious about their studies. ○ CCE promotes a child-centred classroom, where teacher is a facilitator. ○ CCE promotes deep comprehension in students eliminating the mugging up habit. ○ Cut-throat competition among the high achievers is still a reality in schools.

		<ul style="list-style-type: none"> ○ Societal pressure still affects the students negatively.
P2-Appropriate policies and procedures	<ul style="list-style-type: none"> ○ CCE procedures are equitable and fair. 	<ul style="list-style-type: none"> ○ CCE procedures are equitable and fair. ○ CCE's all promotion approach is a fair and equitable step in student evaluation.
P3-Access to evaluation information	-	-
P4-Treatment of students	<ul style="list-style-type: none"> ○ Having prohibited negative comments promotes students' confidence in the classroom. ○ Student's dignity is upheld in the CCE classroom. 	<ul style="list-style-type: none"> ○ Thanks to CCE students are now fearless and bold in expressing themselves. ○ Having prohibited negative comments promotes students' confidence in the classroom. ○ Some teachers still make damaging comments to students. ○ Student's dignity is upheld in the CCE classroom.
P5-Rights of students	-	-
P6-Balanced evaluation	-	<ul style="list-style-type: none"> ○ I communicate to students both their strengths and weaknesses. ○ Thanks to CCE, non-academic performance is also well appreciated in the classroom.
P7-Conflicts of interest	-	-

Utility standards: Utility being an essential characteristic of all type of student evaluation programs, especially in connection with its informative, timely, and influential features, all the seven standards could find its place in the questionnaire of both head teachers and teachers. Certain questions particularly focused on knowing how much the new practice was useful for both students as well as parents for the future career planning of the students. An interesting question was about the effectiveness of remedial teaching, especially for the struggling students in academics. The evaluation was effective in guiding students through their professional growth.

Table 13. Utility questions shared between head teachers and teachers

Utility standards	Head teacher	Teacher
U1-Constructive orientation	<ul style="list-style-type: none"> ○ CCE results are really useful for making decisions about how to improve teaching. ○ CCE is more effective in taking remedial steps for students' progress. 	<ul style="list-style-type: none"> ○ CCE results are really useful for making decisions about how to improve teaching. ○ CCE is more effective in taking remedial steps for students' progress.
U2-Defined users and uses	-	-
U3-Informative scope	<ul style="list-style-type: none"> ○ We evaluate every relevant aspect of students learning. 	<ul style="list-style-type: none"> ○ We evaluate every relevant aspect of students learning.
U4-Evaluator qualifications	<ul style="list-style-type: none"> ○ Teachers have the necessary pedagogical skills and subject knowledge for implementing CCE. ○ The arithmetic and computer part of CCE is problematic for teachers. ○ Teachers have the necessary knowledge and skills for implementing CCE. ○ Lack of basic computer and arithmetic knowledge steals a lot of class preparation time from teachers. 	<ul style="list-style-type: none"> ○ I have the necessary pedagogical skills and subject knowledge for implementing CCE. ○ The arithmetic and computer part of CCE is problematic to me.
U5-Explicit values	-	-
U6-Effective reporting	<ul style="list-style-type: none"> ○ CCE's comprehensive and timely evaluation helps the parents stay completely updated on their children's performance. ○ CCE evaluation provides relevant ideas for better future planning of students 	<ul style="list-style-type: none"> ○ CCE's comprehensive and timely evaluation helps the parents stay completely updated on their children's performance. ○ CCE evaluation provides relevant ideas for better future planning of students.
U7-Follow-up	-	-

Feasibility standards: These standards ensure that student evaluations can be can be implemented as planned. Effective CCE implementation was a big challenge in many ways as indicated by some studies. The questions attempted to comprehend whether CCE had sufficient resources and time for its credible implementation. Feasibility underlines the importance of providing enough support to weak students according to each one's capacity and CCE was envisaged to be a scaffold to them. Therefore, there were questions along these lines to grasp its success on providing support to students. It was equally important to know if the new evaluation process sometimes complicated

the practice and thereby, causing teachers lose a lot of their class preparation time. Additionally, questions were there asking about parents' cooperation in favour of the CCE practice. The questionnaires of both the teachers and head teachers contained questions from all the three standards.

Table 14. Feasibility questions shared between head teachers and teachers

Feasibility standards	Head teacher	Teacher
<i>F1-Practical orientation</i>	<ul style="list-style-type: none"> ○ Evaluation is becoming very complicated because of CCE. ○ Thanks to CCE, evaluation is now easier to proceed. 	<ul style="list-style-type: none"> ○ CCE evaluation practices interfere with regular teaching and learning activities. ○ Evaluation is becoming very complicated because of CCE. ○ CCE confuses the preparation of various activities.
<i>F2-Political viability</i>	<ul style="list-style-type: none"> ○ Parents' lack of awareness of CCE procedures complicates the CCE implementation. ○ Regular PTA meetings help in winning parents' cooperation to implement CCE successfully. 	<ul style="list-style-type: none"> ○ Regular PTA meetings help in winning parents' cooperation to implement CCE successfully. ○ Parents' lack of awareness of CCE procedures complicates the CCE implementation.
<i>F3-Evaluation support</i>	<ul style="list-style-type: none"> ○ Regular CCE training workshops conducted at the school and district level equip the teachers to implement CCE effectively. ○ There is a lack of time, resources or support for implementing CCE. 	<ul style="list-style-type: none"> ○ Regular PTA meetings help in winning parents' cooperation to implement CCE successfully. ○ Parents' lack of awareness of CCE procedures complicates the CCE implementation.

Accuracy standards: Accuracy standards were eleven altogether, of which metaevaluation was one of them. Accuracy standards emphasize on valid interpretation, reaching to justifiable conclusions, and having appropriate follow-ups of evaluation. Among the eleven standards, except the A3, A8, A9, and A10 (head teachers) and a3 and a8 (teachers), all the standards were included in the questionnaires. The different questions addressed to the head teachers and teachers attempted to understand the reliability of the CCE practice. Evaluating only the required and collecting adequate information for the same were significant for a valid and reliable evaluation of students. It could bring-in more consistency in evaluation in the way different teachers evaluate students. Alike, there were questions regarding the bias of

teachers in their evaluation of students because they could be biased in favour of certain students and vice-versa. Besides, in a sound evaluation practice, teachers were supposed to explain to students how they reached to a particular conclusion regarding their performance. Moreover, evaluators should improve on their evaluation skill and for that purpose; they had to challenge themselves frequently, which could be a sign of sound evaluation practice. Periodic metaevaluation should be part of the practice in order to detect the shortcomings and rectify them promptly in reliable student evaluation practice. In general, these aspects of accuracy standards were stressed in the questions.

Table 15. Accuracy questions shared between head teachers and teachers

Accuracy standards	Head teacher	Teacher
A1-Validity Orientation	<ul style="list-style-type: none"> ○ CCE helps to evaluate really what we intend to evaluate. ○ CCE allows us to reach to truthful conclusions. 	<ul style="list-style-type: none"> ○ CCE helps to evaluate really what we intend to evaluate. ○ In CCE we evaluate irrelevant things.
A2-Defined expectations for students	<ul style="list-style-type: none"> ○ Thanks to CCE students know more clearly what is expected them to learn. 	<ul style="list-style-type: none"> ○ Thanks to CCE students know more clearly what is expected them to learn.
A3-Context analysis	-	-
A4-Documented procedures	<ul style="list-style-type: none"> ○ Evaluations procedures in this school are well documented. 	<ul style="list-style-type: none"> ○ Now the evaluation procedures we use are well documented.
A5-Defensible information	<ul style="list-style-type: none"> ○ Due to the confusing evaluation process, parents doubt about the accuracy of the results. ○ We gather adequate information for evaluating students. ○ Our CCE practice is transparent, so that different stakeholders rely on it. 	<ul style="list-style-type: none"> ○ Now the evaluation procedures we use are well documented.
A6-Reliable information	<ul style="list-style-type: none"> ○ There is consistency in the way in which different teachers evaluate students. 	<ul style="list-style-type: none"> ○ Now students' evaluation is more reliable thanks to CCE. ○ There is consistency in the way in which different teachers evaluate students.
A7-Bias identification and management	<ul style="list-style-type: none"> ○ Now we evaluate with more objectivity, less influenced by our personal opinion about each student 	<ul style="list-style-type: none"> ○ Now we evaluate with more objectivity, less influenced by our personal opinion about each student.
A8-Handling information and quality control	-	-

A9-Analysis of information	-	<ul style="list-style-type: none"> ○ I agree with the way in which we combine information for reaching to a judgement about each student's performance.
A10-Justified conclusions	-	<ul style="list-style-type: none"> ○ I explain clearly to my students how I reach to each evaluative conclusion.
A11-Metaevaluation	<ul style="list-style-type: none"> ○ We do improve our way of evaluating year after year. ○ From time to time, we question if we are doing well the evaluation, and discuss about it. 	<ul style="list-style-type: none"> ○ From time to time, we question if we are doing well the evaluation, and discuss about it. ○ We do improve our way of evaluating year after year.

Student questionnaire

In comparison with other two stakeholders, naturally, the student questionnaire had less number of questions for their role in the practice of CCE was equally limited. Student questionnaire consisted of *eight propriety, three utility, one feasibility, and four accuracy* questions.

Propriety standards: In the direction of the propriety attribute, students were enquired if the present evaluation reduced the societal pressure and improved their academic performance in general. There were questions asking them about the appraisal of both the scholastic and non-scholastic performance in the classroom and on the influence of the appraisal of both performances whether they felt more confident in the classrooms. It was also relevant to know if teachers used to communicate to them about their strength and weakness after each evaluation. In the new system, teachers had to restrain themselves from using any damaging comments in the classroom and students were enquired if teachers practiced it strictly. Besides, it was also meaningful to understand about teachers' attitude towards evaluation, as teachers should be without bias. PSA was introduced to help students develop their problem-solving skills and the questions searched to know its impact on them, and if it could contribute to their problem solving skills. Among the seven *propriety* standards, there were questions from P1-Service to students, P2-Appropriate policies and procedures, P4-Treatment of students, and P4-Treatment of students in the questionnaire for students.

Table 16. Propriety questions for students

Propriety standards	Student
<i>P1-Service to students</i>	<ul style="list-style-type: none"> ○ PSA is very helpful for developing our problem solving skills. ○ CCE has reduced societal pressure in a big level. ○ The transition from more student friendly exams in Primary Education to more serious evaluation in Secondary Education has been problematic for me. ○ Societal pressure still affects the students negatively.
<i>P2-Appropriate policies and procedures</i>	<ul style="list-style-type: none"> ○ I am evaluated in a fair way.
<i>P3-Access to evaluation information</i>	-
<i>P4-Treatment of students</i>	<ul style="list-style-type: none"> ○ Some teachers still make damaging comments to students.
<i>P5-Rights of students</i>	-
<i>P6-Balanced evaluation</i>	<ul style="list-style-type: none"> ○ Both scholastic and non-scholastic performers are well appreciated in the classroom. ○ Teachers communicate me both my strengths and weaknesses.
<i>P7-Conflicts of interest</i>	-

Utility standards: With respect to utility, U1, and U3 standards were part of the questionnaire that attempted to know how much the CCE’s all-inclusive and timely evaluation was helpful for their future planning. Likewise, teachers had to evaluate every relevant aspects of student learning and evaluation should not be limited to assessing some of aspects of the learning alone, rather in an all-inclusive manner, evaluators should accommodate the different capacities of students in their evaluation. Teachers might be interested only in scholastic things disregarding students’ aptitudes for non-scholastics things.

Table 17. Utility questions for students

Utility standards	Student
U1-Constructive orientation	<ul style="list-style-type: none"> ○ CCE’s all-inclusive and timely evaluation is very much helpful for our future planning.
U2-Defined users and uses	-
U3-Informative scope	<ul style="list-style-type: none"> ○ My teachers evaluate every relevant aspect of my learning. ○ My teachers are interested only in scholastic things, not in the way I feel or do other things.

U4-Evaluator qualifications	-
U5-Explicit values	-
U6-Effective reporting	-
U7-Follow-up	-

Feasibility standards: With respect to feasibility dimension, there was only one question that attempted to grasp if students were confident of the way they were evaluated.

Table 18. Feasibility questions for students

<i>Feasibility standards</i>	<i>Student</i>
<i>F1-Practical orientation</i>	-
<i>F3-Political viability</i>	○ I feel confident with the way I am evaluated.
<i>F3-Evaluation support</i>	-

Accuracy standards: Accuracy questions were directed to comprehend if the evaluation results corresponded to real learning of students, besides, whether students had sufficient knowledge about what they had to learn for the evaluation. In the same manner, there was question guided to know if teachers used to explain students clearly how they reached to the final grading after the evaluation.

Table 19. Accuracy questions for students

Accuracy standards	Student
A1-Validity Orientation	○ My evaluation results correspond to my real learning.
A2-Defined expectations for students	○ Before doing evaluation, I know what I must learn.
A3-Context analysis	-
A4-Documented procedures	-
A5-Defensible information	-
A6-Reliable information	-
A7-Bias identification and management	○ The way in which teachers evaluate me is influenced by their personal opinion about me.
A8-Handling information and quality control	-
A9-Analysis of information	-
A10-Justified conclusions	○ Teachers explain me clearly how they reach to the mark they give me.

A11-Metaevaluation	-
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Some other features of the questionnaire foundation

- Cultural adaptation and contextualization of the standards were inevitable in the preparation of the questions considering the characteristics of educational system Kerala. The editors of *The Student Evaluation Standards* themselves have underpinned this aspect of the standards (Gullickson, 2005).
- For practical limitations, it was decided that the participants should be able to respond to the complete questionnaire within half an hour. Therefore, we had to limit the number of questions that could be included in the questionnaire from the *Standards*.
- The choice of standards were primarily based on the definition of standards, however, the guidelines and the common errors detailed in *The Student Evaluation Standards* were helpful in the formulation of the questions.
- It was significant that each question maintained a simple sentence structure, so that it was not only easy for understanding, but also avoided causing any confusion in conveying the real sense of the question.
- Avoided negative sentences that probably could create confusion when combining with “disagree” answer options.
- Alike, the subject persons used in the questions were either “I” or “We”, which was expected to aid in answering the questions with more intimacy and sincerity.
- Besides, even though some standards were complex and multidimensional, it was simplified by avoiding double questions.
- Using some reversed sentences: Some reversed sentences were used in the questionnaire in order to avoid the tendency marking the choice without reading the questions.

Section two – Other variables

In addition to standards from *The Student Evaluation Standards*, some other variables were included in the study considering the fact that School effectiveness and School improvement literature have been very influential forces in the field of education and educational research. Educational effectiveness research studies have significantly contributed to the development of school education in all over the world. These studies have highlighted that certain factors are very influential on improving education in general and the implementation of new programs in particular e.g. stakeholder factors, school external factors, school internal factors etc. Therefore, in the present study, the researcher has included some stakeholder and school factors to find out their influence on student evaluation practice (CCE).

There were sections investigating the influence of schools external and internal school characteristics on their perspectives. With this purpose, the researcher selected some relevant questions related to school culture, school climate and sense of efficacy of teachers from a pool of questions that were previously developed and validated. Accordingly, head teachers had five questions in connection with school culture and seven questions with respect to school climate. Teachers also had the same number of questions of school culture, but one question was less for them in the case of school climate i.e. six questions only. Students were asked to express their opinion about teaching practice and parental involvement under the school climate section with two questions for each variable. Moreover, there were questions searching the relation between the sense of efficacy of teachers (Herbert, Heneman, Kimball, & Milanowski, 2006) and their perspectives of the student evaluation practice. In this variable, nine questions were included directing to teachers. A general section of question was set aside for each group of stakeholders to find out the influence of the demographic factors on their perspective. As such, there were questions to indicate their sex, qualification, experience as head teacher, and age for head teacher; whereas in the case of teachers addition to sex, qualification, experience, and age, there was a question related to in-service training. Students had four questions such as sex, level of class, academic achievement, and grade.

The variables related to stakeholder factors are *head teacher characteristics* (gender, qualification, experience as head teacher, and age), *teacher characteristics* (gender, qualification, teaching experience, age, in-service training, and sense of efficacy). *Student characteristics* (gender, class level, academic achievement, grade, parental pressure, and parental support).

Similarly, the variables used in the study with respect to school internal characteristics are *school culture*: group openness, group trust, group cooperation) and *school climate*: sense of mission, parental involvement, teaching practice, and expectations (Bulach & Williams, 2002). The school external characteristics variables consisted of *school type*, *school region*, *socio-family background*, *type of principle*, and *school strength*. In the case of students, *parental pressure* and *parental support* were two variables used to measure their impact on the evaluation of students. The researcher himself developed these questions.

The research questionnaires contained the different sections for each category of stakeholders on a Likert-scale. Each set of questionnaires contained the following of number of questions:

Teacher questionnaire: 70 questions (standards: 45, demographic: 5, school culture: 5, school climate: 6, and sense of efficacy: 9).

Table 20. Teacher questionnaire

- Sex Male Female
- Qualification Graduate Postgraduate M.Phil. Ph.D.
- Experience Below 5 years Below 5-10 Below 11-15 Below 16 and above
- Age Below 30 years 31-40 41-50 51 and above
- In-service training 1 time 2 times More than 2 times

Question No	Please answer the following questions to the best of your ability and as accurately as possible. Please choose only one response choice per question	Likert Scale						
		Strongly disagree	Disagree	Somewhat disagree	Somewhat agree	Agree	Strongly agree	
01	Now the evaluation procedures we use are well documented.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

02	Now students' evaluation is more reliable thanks to CCE.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
03	There is consistency in the way in which different teachers evaluate students.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
04	I agree with the way in which we combine information for reaching to a judgement about each student's performance.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
05	From time to time, we question if we are doing well the evaluation, and discuss about it.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
06	Thanks to CCE, evaluation is now easier to proceed.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
07	CCE evaluation practices interfere with regular teaching and learning activities.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
08	CCE brings in flexibility in selecting different activities and tools.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
09	Students' educational output is higher due to the reduction of stress on them after the CCE implementation.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
10	The transition from more student friendly exams in Primary Education to more serious evaluation in Secondary Education is problematic for students.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
11	CCE has reduced societal pressure in a big level.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
12	CCE makes classes more interactive and innovative.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
13	CCE procedures are equitable and fair.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
14	Thanks to CCE students are now fearless and bold in expressing themselves.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
15	I communicate to students both their strengths and weaknesses.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
16	CCE results are really useful for making decisions about how to improve teaching.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
17	CCE's comprehensive and timely evaluation helps the parents stay completely updated on their children's performance.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
18	CCE helps to evaluate really what we intend to evaluate.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
19	Thanks to CCE students know more clearly what is expected them to learn.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
20	In CCE we evaluate irrelevant things.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
21	We gather adequate information for evaluating students.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
22	Now we evaluate with more objectivity, less influenced by our personal opinion about each student.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
23	Regular PTA meetings help in winning parents' cooperation to implement CCE successfully.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
24	Regular CCE training workshops conducted at the school and district level equip the teachers to implement CCE effectively.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
25	Due to CCE's <i>all promotion</i> approach till class VIII, students are less serious about their studies.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

26	Parents' lack of awareness of CCE procedures complicates the CCE implementation.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
27	There is a lack of time, resources or support for implementing CCE.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
28	I explain clearly to my students how I reach to each evaluative conclusion.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
29	Evaluation is becoming very complicated because of CCE.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
30	CCE promotes a child-centred classroom, where teacher is a facilitator.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
31	CCE promotes deep comprehension in students eliminating the mugging up habit.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
32	CCE's <i>all promotion approach</i> is a fair and equitable step in student evaluation.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
33	Having prohibited negative comments promotes students' confidence in the classroom.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
34	Thanks to CCE, non-academic performance is also well appreciated in the classroom.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
35	I have the necessary pedagogical skills and subject knowledge for implementing CCE.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
36	CCE evaluation provides relevant ideas for better future planning of students.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
37	Some teachers still make damaging comments to students.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
38	Cut-throat competition among the high achievers is still a reality in schools.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
39	We do improve our way of evaluating year after year.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
40	CCE confuses the preparation of various activities.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
41	Societal pressure still affects the students negatively.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
42	Student's dignity is upheld in the CCE classroom.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
43	The arithmetic and computer part of CCE is problematic to me.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
44	We evaluate every relevant aspect of students learning.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
45	CCE is more effective in taking remedial steps for students' progress.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	For the following statements, please indicate the level of agreements. Please check [X] only one box for each statement. In our school:	Not at all	A little	Somewhat	Very much	Always	
46	I can tell others what I think of the way they do things.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
47	I ask others what they think about the way I do things.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
48	I count on others for assistance.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
49	I believe that others care about me.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

50	I believe that they are honest.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
51	The school's mission is posted for everyone to see.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
52	The faculty is in agreement about the mission of the school.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
53	Teachers review previous work before introducing new material.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
54	The relationship that exists between parents and the school is a good one.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
55	The relationship that exists between parents and school administration is a good one.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
56	Teachers believe that every student can learn and can be successful.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
57	I can use a variety of assessment strategies.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
58	I provide an alternative explanation or example when students are confused.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
59	I can implement alternative strategies in my classroom.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
60	I control disruptive behaviour in the classroom.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
61	I get children to follow classroom rules.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
62	I establish a classroom management system with each group of students.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
63	I get students to believe they can do well in schoolwork.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
64	I motivate students who show low interest in schoolwork.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
65	I assist families in helping their children do well in school.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

Head teacher questionnaires: 54 questions (standards: 38, demographic: 4, school culture: 5, and school climate: 7).

Table 21. Head teacher questionnaire

- Sex Male Female
- Qualification Graduate Post Graduate M.Phil. Ph.D.
- Experience Below 5 years Between 5-10 Between 11-15 Below 16 and above
- Age Below 30 years 31-40 41-50 51 and above

Question No	Please answer the following questions to the best of your ability and as accurately as possible. Please choose only one response choice per question	<i>Strongly disagree</i>	<i>Disagree</i>	<i>Somewhat disagree</i>	<i>Somewhat agree</i>	<i>Agree</i>	<i>Strongly agree</i>
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01	CCE helps to evaluate really what we intend to evaluate.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
02	Evaluations procedures in this school are well documented.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
03	Due to the confusing evaluation process, parents doubt about the accuracy of the results.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
04	CCE allows us to reach to truthful conclusions.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
05	Thanks to CCE students know more clearly what is expected them to learn.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
06	We gather adequate information for evaluating students.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
07	Our CCE practice is transparent, so that different stakeholders rely on it.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
08	Now we evaluate with more objectivity, less influenced by our personal opinion about each student	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
09	Evaluation is becoming very complicated because of CCE.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
10	Parents' lack of awareness of CCE procedures complicates the CCE implementation.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
11	There is consistency in the way in which different teachers evaluate students.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
12	CCE promotes a child-centred classroom, where teacher is a facilitator.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
13	Students' educational output is higher due to the reduction of stress on them after the CCE implementation.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
14	We do improve our way of evaluating year after year.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
15	From time to time, we question if we are doing well the evaluation, and discuss about it.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
16	Thanks to CCE, evaluation is now easier to proceed.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
17	Regular PTA meetings help in winning parents' cooperation to implement CCE successfully.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
18	Regular CCE training workshops conducted at the school and district level equip the teachers to implement CCE effectively.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
19	There is a lack of time, resources or support for implementing CCE.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
20	Due to CCE's <i>all promotion</i> approach till class VIII, students are less serious about their studies.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
21	Cut-throat competition among the high achievers is still a reality in schools.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
22	The transition from more student friendly exams in Primary Education to more serious evaluation in Secondary Education is problematic for students.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
23	CCE promotes deep comprehension in students eliminating the mugging up habit.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
24	CCE has reduced societal pressure in a big level.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
25	Societal pressure still affects the students negatively.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
26	CCE makes classes more interactive and innovative.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
27	CCE procedures are equitable and fair.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

28	Teachers have the necessary pedagogical skills and subject knowledge for implementing CCE.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
29	The arithmetic and computer part of CCE is problematic for teachers.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
30	Having prohibited negative comments promotes students' confidence in the classroom.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
31	CCE results are really useful for making decisions about how to improve teaching.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
32	CCE is more effective in taking remedial steps for students' progress.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
33	CCE's comprehensive and timely evaluation helps the parents stay completely updated on their children's performance.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
34	CCE evaluation provides relevant ideas for better future planning of students	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
35	We evaluate every relevant aspect of students learning.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
36	Teachers have the necessary knowledge and skills for implementing CCE.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
37	Student's dignity is upheld in the CCE classroom.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
38	Lack of basic computer and arithmetic knowledge steals a lot of class preparation time from teachers.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	For the following statements, please indicate the level of agreements. Please check [X] only one box for each statement. In our school:	Not at all	A little	Somewhat	Very much	Always	
39	We count on others for assistance (we trust each other for assistance).	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
40	We believe that others care about you.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
41	Teachers are involved in the decision-making process.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
42	A school leadership team or advisory council assists the administration with decisions.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
43	A parent leadership team or advisory council assists the administration with decisions.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
44	The administration has high expectations for teacher performance.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
45	The schools mission is posted for everyone to see.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
46	The faculty is in agreement about the mission of the school.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
47	Teachers vary instructional strategies according to the needs of the students.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
48	The relationship that exists between parents and the teachers is a good one.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
49	The relationship that exists between parents and the administration is a good one.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
50	Teachers believe that every student can learn and can improve.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

Student questionnaire: 31 questions (standards: 16, demographic: 4, school climate: 4, parental pressure: 4, and parental support: 3).

Table 22. Student questionnaire

Sex Male Female

Level VIII IX X

Question No	Please answer the following questions to the best of your ability and as accurately as possible. Please choose only one response choice per question	Strongly disagree	Disagree	Somewhat disagree	Somewhat agree	Agree	Strongly agree
01	PSA is very helpful for developing our problem solving skills.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
02	Teachers explain me clearly how they reach to the mark they give me.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
03	CCE has reduced societal pressure in a big level.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
04	My evaluation results correspond to my real learning.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
05	Before doing evaluation, I know what I must learn.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
06	The way in which teachers evaluate me is influenced by their personal opinion about me.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
07	I feel confident with the way I am evaluated.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
08	The transition from more student friendly exams in Primary Education to more serious evaluation in Secondary Education has been problematic for me.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
09	My teachers evaluate every relevant aspect of my learning.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
10	My teachers are interested only in scholastic things, not in the way I feel or do other things.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
11	CCE's all-inclusive and timely evaluation is very much helpful for our future planning.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
12	Both scholastic and non-scholastic performers are well appreciated in the classroom.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
13	Teachers communicate me both my strengths and weaknesses.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
14	Some teachers still make damaging comments to students.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
15	I am evaluated in a fair way.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
16	Societal pressure still affects the students negatively.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

17	My parents believe that a good education is the best way to become successful.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
18	My parents believe that I should be allowed to choose any field of study that I like.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
19	For my parents, it is more important to choose a profession that offers financial stability rather than choosing a profession that I like.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
20	When I perform poorly in college, it reflects badly on my parents.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
21	My parents help me while doing homework.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
22	I have other family members' support in studies.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
23	I have special classes like tuition other than regular school class.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
24	I believe that teachers vary instructional strategies according to our needs.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
25	My teachers review previous work before introducing new material.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
26	The relationship that exists between my parents and the teachers is a good one.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
27	The relationship that exists between my parents and the administration is a good one.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
28	What is your academic position within your classroom?	Among the lowest 5	Among the lowest 10	Average to lower	Average to higher	Among the highest 10	Among the highest 5
29. Which has been your average grade for the previous semester?		A1	B1	C1	D1	E1	
		A2	B2	C2	D2	E2	

The three questionnaires also shared among them some questions in common from both the sections (SES section and other school effectiveness variables), of which the table is given below.

Table 23. Common questions

Common questions			
Number	Students	Teachers	Head teachers
1	s03 - CCE has reduced societal pressure in a big level.	t11 - CCE has reduced societal pressure in a big level.	h24 - CCE has reduced societal pressure in a big level.

2	s05 - Before doing evaluation, I know what I must learn.	t19 - Thanks to CCE students know more clearly what is expected them to learn.	h05 - Thanks to CCE students know more clearly what is expected them to learn.
3	s06 - The way in which teachers evaluate me is influenced by their personal opinion about me.	t22 - Now we evaluate with more objectivity, less influenced by our personal opinion about each student.	h08 - Now we evaluate with more objectivity, less influenced by our personal opinion about each student
4	s08 - The transition from more student friendly exams in Primary Education to more serious evaluation in Secondary Education has been problematic for me.	t10 - The transition from more student friendly exams in Primary Education to more serious evaluation in Secondary Education is problematic for students.	h22 - The transition from more student friendly exams in Primary Education to more serious evaluation in Secondary Education is problematic for students.
5	s15 -I am evaluated in a fair way	t13 - CCE procedures are equitable and fair.	h27 - CCE procedures are equitable and fair.
6	s11 - CCE's all-inclusive and timely evaluation is very much helpful for our future planning.	t36 - CCE evaluation provides relevant ideas for better future planning of students.	h34 - CCE evaluation provides relevant ideas for better future planning of students

Administering the questionnaires

Creswell (2014) highlighted the need of revising the instrument before sending it to samples in the study. Pilot studies are useful in many ways such as to understand the feasibility and viability of the questions and to ensure that the questions were well constructed and understood by the participants. Therefore, a pilot study was carried out in a CBSE school in Kerala that consisted of a group of fifteen teachers, thirty students, and the principal of the school. Since the pilot test made a positive report, it was followed with the real data collection process bringing in some needful modifications in the final draft of the questionnaires.

First, the researcher made it sure that he had all the necessary documents for the data collection including the three questionnaires for each stakeholder. As such, the researcher received the letters from the university addressing to the head teacher, teachers and students.

Thereafter, the researcher went to Kerala (India) with the purpose of collecting data for three months from the middle of January to the middle of April in 2017. The researcher in person approached the schools with which he had been in contact for some months.

They were 30 schools altogether located in South, North, and Centre parts of Kerala. Since the researcher had achieved prior consent from the authority of these schools either by visiting personally or by talking on the phone, the visit was cordial and time saving.

In these schools, the researcher first explained to the principal about the data collection process and other formalities like confidentiality and anonymity aspects of the data collection. Thereafter, the principals used to arrange a meeting for the teachers and described them about the same. Finally, in each school a senior teacher or a vice-principal was entrusted to coordinate the process and to facilitate in the collection of data. On a very few occasions, the researcher had the opportunity to interact with the students in their respective classrooms and detail them about the purpose of the visit and the formalities of the data collection. Furthermore, whenever the researcher got opportunities to interact with students directly, he used to assure them that their privacy and anonymity would be maintained throughout the study and therefore, they could participate in the study without any fear regarding their privacy or anything likely. It was always stressed that personal information of the students was neither collected nor used any number for identifying them in the research instrument.

Coordinators were asked to get the signed informed consent form (Appendix on page 357) from the participants before handing over the research package. Participants had to return the completed questionnaire to the coordinator in an enclosed envelope. Teachers and students returned to the coordinator the envelope containing the filled in questionnaires and finally, they were taken to the head teacher. Afterward, once the data was ready for collection, the researcher again went to each school to get them from the head teacher. Generally, in two weeks' time the researcher could collect the data from almost all schools.

The research package consisted of:

- Notification letter from Department of Education, University of Deusto (Appendix on page 355).
 - Cover letter stating the purpose of the research and contact details (Appendix
-

on page 356).

- Research questionnaire (Appendix on page 361).
- Envelope.

4.4 Summary

This chapter was dedicated to elaborate the methodological part of the thesis that generally analysed the four main aspects of it: methodological approach, population and sample, statistical analysis, and questionnaire foundations and development. The methodology employed for the study was apt considering the nature and objectives of the study, which were verified with different statistical analysis. The objectives and the data of the present investigative study underpin the academic significance of the study.

The thesis in general employed a comparative approach to explain some fundamental components of CCE, which could be both positive and negative in nature, with the help of the statistical results from the lens of *The Student Evaluation Standards*. The analysis part has been discussed using the results obtained from the mean score as well as the factor analyses, while Factor Analysis has been used to interpret the underlying dimensions of the data executed. Detailed discussion of the results is being carried out in the next chapter.

5 Results

5.1 Introduction

This chapter has considered each research questions separately and the data have been analysed to find the results of the each one of them. With this purpose, different statistical procedures have been exercised considering the characteristics of the research question and the data.

The chapter is divided into five sections:

- First, basic descriptive analysis (mean, standard deviation and skewness) to describe the answers of the sample groups about CCE implementation. Additionally, average scores from different stakeholders are compared, only in the items shared in their questionnaires.
- Second, exploratory factor analysis techniques are used to understand the underlying dimensions in the answers in relation to CCE implementation. Once, the factors were identified, descriptive analysis provided basic information about factor scores.
- Third, the relations of school internal and external characteristics with the perception of CCE implementation.
- Fourth, we explore the relation between stakeholders' (teachers, head teachers and students) characteristics and their perception of CCE implementation are analysed using bivariate inferential techniques.
- Analyse the correlation for school internal characteristics as well as the correlation for teachers' sense of efficacy with CCE implementation, besides the correlation of students' perception of academic achievement and grade and perception of CCE.

5.2 Stakeholders’ perspectives with respect to propriety, utility, feasibility, and accuracy aspects of the practice of CCE

The first objective was to understand the main trends in the perspective of stakeholders regarding the propriety, utility, feasibility, and accuracy aspects of CCE practice in CBSE secondary schools in Kerala. With this purpose, the responses of the stakeholders were analysed with the help of the mean score. Accordingly, the perspectives of the three stakeholders are given below with the mean score, standard deviation, and skewness.

Answer options were from “Strongly disagree” to “Strongly agree” (1-6). Average scores are mostly favourable, with almost every means over 4, most skewness are large and negative (most respondents agree with the questions and those who disagree are a minority); but with certain diversity in answers, where most standard deviations are about one point. The implications of their responses will be discussed in the next chapter. The scores reflect the level of agreement with each sentence, so that in the case of reversed questions (e.g. **“t29 - Evaluation is becoming very complicated because of CCE.”**), a lower score shows less agreement with the sentence but a more positive perception of the CCE practice. The items are ranked according to the agreement mean score in the next table.

Table 24. Teacher questionnaire answers

Teacher questionnaire answers	Mean	Std. Deviation	Skewness
t15 - I communicate to students both their strengths and weaknesses.	5,10	,722	-1,643
t35 - I have the necessary pedagogical skills and subject knowledge for implementing CCE.	5,10	,712	-1,284
t12 - CCE makes classes more interactive and innovative.	5,03	,909	-1,256
t39 - We do improve our way of evaluating year after year.	5,02	,800	-1,665
t34 - Thanks to CCE, non-academic performance is also well appreciated in the classroom.	4,97	,973	-1,517
t08 - CCE brings in flexibility in selecting different activities and tools.	4,96	,891	-1,354
t30 - CCE promotes a child-centred classroom, where teacher is a facilitator.	4,96	1,018	-1,366
t14 - Thanks to CCE students are now fearless and bold in expressing themselves.	4,86	1,006	-1,216
t24 - Regular CCE training workshops conducted at the school and district level equip the teachers to implement CCE effectively.	4,85	1,037	-1,383

t05 - From time to time, we question if we are doing well the evaluation, and discuss it.	4,83	,895	-1,330
t44 - We evaluate every relevant aspect of students learning.	4,77	,914	-1,485
t45 - CCE is more effective in taking remedial steps for students' progress.	4,76	1,056	-1,194
t01 - Now the evaluation procedures we use are well documented.	4,74	,880	-1,302
t16 - CCE results are really useful for making decisions about how to improve teaching.	4,72	1,060	-1,304
t21 - We gather adequate information for evaluating students.	4,70	,794	-1,258
t04 - I agree with the way in which we combine information for reaching to a judgement about each student's performance.	4,69	,936	-1,428
t23 - Regular PTA meetings help in winning parents' cooperation to implement CCE successfully.	4,69	1,083	-1,013
t22 - Now we evaluate with more objectivity, less influenced by our personal opinion about each student.	4,67	,949	-1,128
t42 - Student's dignity is upheld in the CCE classroom.	4,67	1,006	-1,464
t36 - CCE evaluation provides relevant ideas for better future planning of students.	4,65	,973	-1,174
t64 - I motivate students who show low interest in schoolwork.	4,64	,667	-2,429
t28 - I explain clearly to my students how I reach to each evaluative conclusion.	4,62	,968	-1,130
t31 - CCE promotes deep comprehension in students eliminating the mugging up habit.	4,60	1,050	-1,245
t63 - I get students to believe they can do well in schoolwork.	4,51	,668	-1,311
t11 - CCE has reduced societal pressure in a big level.	4,46	1,082	-1,025
t17 - CCE's comprehensive and timely evaluation helps the parents stay completely updated on their children's performance.	4,46	1,216	-,953
t56 - Teachers believe that every student can learn and can improve.	4,45	,811	-1,853
t58 - I provide an alternative explanation or example when students are confused.	4,45	,690	-1,283
t61 - I get children to follow classroom rules.	4,45	,674	-1,061
t09 - Students' educational output is higher due to the reduction of stress on them after the CCE implementation.	4,44	1,249	-1,152
t06 - Thanks to CCE, evaluation is now easier to proceed.	4,43	1,160	-1,063
t02 - Now students' evaluation is more reliable thanks to CCE.	4,42	1,191	-1,015
t03 - There is consistency in the way in which different teachers evaluate students.	4,42	1,120	-1,097
t19 - Thanks to CCE students know more clearly what is expected them to learn.	4,41	1,125	-,968
t33 - Having prohibited negative comments promotes students' confidence in the classroom.	4,41	1,229	-,998
t18 - CCE helps to evaluate really what we intend to evaluate.	4,39	1,105	-,929
t60 - I control disruptive behaviour in the classroom.	4,34	,725	-,865
t53 - Teachers review previous work before introducing new material.	4,32	,801	-1,062
t62 - I establish a classroom management system with each group of students.	4,31	,713	-,712
t13 - CCE procedures are equitable and fair.	4,30	1,171	-1,109
t54 - The relationship that exists between parents and the teachers is a good one.	4,26	,784	-,987
t52 - The faculty is in agreement about the mission of the school.	4,25	,817	-1,094
t59 - I can implement alternative strategies in my classroom.	4,25	,786	-,960
t55 - The relationship that exists between parents and the administration is a good one.	4,21	,807	-1,136

t57 - I can use a variety of assessment strategies.	4,21	,815	-,978
t51 - The school's mission is posted for everyone to see.	4,20	,905	-1,163
t65 - I assist families in helping their children do well in school.	4,18	,900	-,976
t50 - I believe that they are honest.	3,86	,966	-,554
t20 - <i>In CCE we evaluate irrelevant things.</i>	3,71	1,479	,153
t43 - <i>The arithmetic and computer part of CCE is problematic to me.</i>	3,71	1,428	,267
t49 - I believe that others care about me.	3,54	1,030	-,329
t29 - <i>Evaluation is becoming very complicated because of CCE.</i>	3,52	1,362	,090
t37 - <i>Some teachers still make damaging comments to students.</i>	3,47	1,310	-,033
t32 - CCE's all promotion approach is a fair and equitable step in student evaluation.	3,45	1,549	-,058
t47 - I ask others what they think about the way I do things.	3,35	1,108	-,301
t46 - I can tell others what I think of the way they do things.	3,33	1,044	-,172
t40 - <i>CCE confuses the preparation of various activities.</i>	3,29	1,326	-,262
t48 - I count on others for assistance.	2,93	1,069	,273
t41 - <i>Societal pressure still affects the students negatively.</i>	2,88	1,309	-,526
t10 - <i>The transition from more student friendly exams in Primary Education to more serious evaluation in Secondary Education is problematic for students.</i>	2,76	1,201	-,679
t38 - <i>Cut-throat competition among the high achievers is still a reality in schools.</i>	2,68	1,199	-,778
t26 - <i>Parents' lack of awareness of CCE procedures complicates the CCE implementation.</i>	2,57	1,135	-,865
t27 - <i>There is a lack of time, resources or support for implementing CCE.</i>	2,51	1,137	-,827
t07 - <i>CCE evaluation practices interfere with regular teaching and learning activities.</i>	2,44	1,134	-1,006
t25 - <i>Due to CCE's all promotion approach till class VIII, students are less serious about their studies.</i>	2,43	1,408	-,895

Table 25. Head teacher questionnaire answers

Head teacher questionnaire answers	Mean	Std. Deviation	Skewness
h14 - We do improve our way of evaluating year after year.	5,28	,792	-1,112
h15 - From time to time, we question if we are doing well the evaluation, and discuss about it.	5,20	,500	,435
h26 - CCE makes classes more interactive and innovative.	5,16	,987	-1,477
h18 - Regular CCE training workshops conducted at the school and district level equip the teachers to implement CCE effectively.	5,12	,726	-,189
h02 - Evaluations procedures in this school are well documented.	5,00	1,190	-1,773
h12 - CCE promotes a child-centred classroom, where teacher is a facilitator.	5,00	1,000	-2,717
h06 - We gather adequate information for evaluating students.	4,96	,539	-,047
h17 - Regular PTA meetings help in winning parents' cooperation to implement CCE successfully.	4,96	,611	,015
h28 - Teachers have the necessary pedagogical skills and subject knowledge for implementing CCE.	4,84	,850	-1,440
h37 - Student's dignity is upheld in the CCE classroom.	4,84	,943	-2,246
h50 - Teachers believe that every student can learn and can improve.	4,83	,482	-,519

h36 - Teachers have the necessary knowledge and skills for implementing CCE.	4,80	,707	-2,767
h08 - Now we evaluate with more objectivity, less influenced by our personal opinion about each student	4,79	1,103	-1,887
h49 - The relationship that exists between parents and the administration is a good one.	4,72	,678	-1,332
h01 - CCE helps to evaluate really what we intend to evaluate.	4,68	,802	-1,436
h32 - CCE is more effective in taking remedial steps for students' progress.	4,68	,802	,144
h05 - Thanks to CCE students know more clearly what is expected them to learn.	4,64	,907	-1,000
h48 - The relationship that exists between parents and the teachers is a good one.	4,64	,569	,135
h07 - Our CCE practice is transparent, so that different stakeholders rely on it.	4,56	,961	-1,410
h16 - Thanks to CCE, evaluation is now easier to proceed.	4,56	1,158	-,771
h31 - CCE results are really useful for making decisions about how to improve teaching.	4,56	1,083	-,916
h11 - There is consistency in the way in which different teachers evaluate students.	4,52	,918	-1,994
h13 - Students' educational output is higher due to the reduction of stress on them after the CCE implementation.	4,52	1,229	-1,002
h35 - We evaluate every relevant aspect of students learning.	4,52	,963	-,975
h46 - The faculty is in agreement about the mission of the school.	4,52	,823	-1,290
h23 - CCE promotes deep comprehension in students eliminating the mugging up habit.	4,48	,963	-,548
h30 - Having prohibited negative comments promotes students' confidence in the classroom.	4,48	1,327	-1,117
h34 - CCE evaluation provides relevant ideas for better future planning of students	4,48	1,046	-,893
h45 - The schools mission is posted for everyone to see.	4,48	,963	-2,071
h44 - The administration has high expectations for teacher performance.	4,44	,961	-1,959
h33 - CCE's comprehensive and timely evaluation helps the parents stay completely updated on their children's performance.	4,40	1,041	-,434
h47 - Teachers vary instructional strategies according to the needs of the students.	4,28	,737	-,509
h24 - CCE has reduced societal pressure in a big level.	4,24	1,128	-,515
h41 - Teachers are involved in the decision-making process.	4,21	,588	-,045
h27 - CCE procedures are equitable and fair.	4,16	1,143	-,338
h42 - A school leadership team or advisory council assists the administration with decisions.	4,04	,790	-,073
h04 - CCE allows us to reach to truthful conclusions.	4,00	1,190	-,645
h40 - We believe that others care about you.	3,88	,440	-,685
h39 - We count on others for assistance (we trust each other for assistance).	3,84	,688	,216
h43 - A parent leadership team or advisory council assists the administration with decisions.	3,48	,963	,671
h38 - Lack of basic computer and arithmetic knowledge steals a lot of class preparation time from teachers.	3,28	1,400	-,247
h29 - The arithmetic and computer part of CCE is problematic for teachers.	3,20	1,258	-,273
h03 - Due to the confusing evaluation process, parents doubt about the accuracy of the results.	3,12	1,424	-,808

h09 - <i>Evaluation is becoming very complicated because of CCE.</i>	3,08	1,382	-,463
h19 - <i>There is a lack of time, resources or support for implementing CCE.</i>	3,00	1,258	-,273
h10 - <i>Parents' lack of awareness of CCE procedures complicates the CCE implementation.</i>	2,92	1,288	-,542
h21 - <i>Cut-throat competition among the high achievers is still a reality in schools.</i>	2,68	1,249	-1,226
h22 - <i>The transition from more student friendly exams in Primary Education to more serious evaluation in Secondary Education is problematic for students.</i>	2,60	1,000	-,380
h20 - <i>Due to CCE's all promotion approach till class VIII, students are less serious about their studies.</i>	2,36	1,381	-,833
h25 - <i>Societal pressure still affects the students negatively.</i>	2,24	1,052	-1,343

Table 26. Student questionnaire answers

Student questionnaire answers	Mean	Std. Deviation	Skewness
s17 - My parents believe that a good education is the best way to become successful.	5,58	,819	-2,763
s18 - My parents believe that I should be allowed to choose any field of study that I like.	5,49	,961	-2,626
s13 - Teachers communicate me both my strengths and weaknesses.	4,94	1,186	-1,466
s05 - Before doing evaluation, I know what I must learn.	4,84	1,102	-1,355
s28 - What is your academic position within your classroom?	4,77	,984	-,441
s04 - My evaluation results correspond to my real learning.	4,75	1,220	-1,305
s09 - My teachers evaluate every relevant aspect of my learning.	4,72	1,126	-1,261
s01 - PSA is very helpful for developing our problem solving skills.	4,71	1,132	-1,256
s02 - Teachers explain me clearly how they reach to the mark they give me.	4,67	1,110	-1,259
s07 - I feel confident with the way I am evaluated.	4,66	1,117	-1,087
s12 - Both scholastic and non-scholastic performers are well appreciated in the classroom.	4,61	1,449	-1,186
s15 - I'm evaluated in a fair way.	4,51	1,294	-1,076
s11 - CCE's all-inclusive and timely evaluation is very much helpful for our future planning.	4,47	1,286	-1,116
s22 - I have other family members' support in studies.	4,42	1,597	-,899
s03 - CCE has reduced societal pressure in a big level.	4,37	1,356	-,848
s10 - <i>My teachers are interested only in scholastic things, not in the way I feel or do other things.</i>	4,18	1,663	,592
s26 - The relationship that exists between my parents and the teachers is a good one.	4,10	1,083	-1,190
s25 - My teachers review previous work before introducing new material.	3,76	1,195	-,641
s27 - The relationship that exists between my parents and the administration is a good one.	3,76	1,246	-,756
s23 - I have special classes like tuition other than regular school class.	3,59	1,999	-,113
s06 - <i>The way in which teachers evaluate me is influenced by their personal opinion about me.</i>	3,52	1,699	-,104
s14 - <i>Some teachers still make damaging comments to students.</i>	3,47	1,722	-,021
s24 - I believe that teachers vary instructional strategies according to our needs.	3,46	1,159	-,387

s21 - My parents help me while doing homework.	3,35	1,658	,056
s08 - <i>The transition from more student friendly exams in Primary Education to more serious evaluation in Secondary Education has been problematic for me.</i>	3,08	1,513	-,247
s19 - <i>For my parents, it is more important to choose a profession that offers financial stability rather than choosing a profession that I like.</i>	2,84	1,767	-,634
s16 - <i>Societal pressure still affects the students negatively.</i>	2,69	1,437	-,625
s29 - Which has been your average grade for the previous semester?	2,31	1,183	1,167
s20 - <i>When I perform poorly in college, it reflects badly on my parents.</i>	2,09	1,136	-1,487

Results from the perspective of teachers

Propriety: Generally, teachers agreed with the view that the present practice could succeed in making teaching-learning process supportive to the well-being of students.

According to most of the teachers' view (21% somewhat agree, 47% agree, & 15% strongly agree), students educational output was higher under CCE. However, teachers had a split view regarding the question whether the transition from more student friendly exams in Primary Education to more serious evaluation in Secondary Education was problematic for students ($M=2.76$, $SD=1.25$). According to 53% of teachers, the new scheme assisted students to get over the mugging up habit (22% somewhat agree, 53% agree, & 12% strongly agree) and reduced the societal pressure upon students in a considerable level ($M=4.46$, $SD=1.05$). Teachers also opined that CCE made classes more interactive and innovative (49% agree, & 31% strongly agree). As a result of it, CCE could promote a child-centred classroom, where teachers were facilitators ($M=4.96$, $SD=1.02$). Additionally, according to them (25% somewhat agree & 50% agree), evaluation of students became more fair and equitable under CCE ($M=4.58$, $SD=1.17$). Similarly, evaluation was termed (54% agree & 24% strongly agree) as more balanced for non-scholastic performances were also part of evaluation ($M=4.97$, $SD=.97$). Additionally, they (49% agree & 25% strongly agree) viewed that students became bolder in expressing themselves in classrooms ($M=4.86$, $SD=1.01$). Nonetheless, the teachers also highlighted some negative sides of the practice. For example, all promotion approach till class VIII affected students and they become less serious about their studies in comparison with the previous practice even though the questions evoked only a mixed

response among teachers ($M=2.43$, $SD=1.41$). Alike, cutthroat competition among the high achievers was still a reality (22% somewhat agree, 45% agree, & 11% strongly agree), and also societal pressure remained to be a negative factor influencing students. However, teachers responded these questions either way (23% somewhat agree, 37% agree, & 11% strongly agree). In addition to it, some teachers still made damaging comments in the classrooms although it was prohibited ($M=3.47$, $SD=1.31$). Nevertheless, students generally exuded more confidence in the classroom as their dignity is upheld in the CCE classroom in general ($M=4.67$, $SD=1.01$). Teachers used to communicate to students both their strengths and weaknesses ($M=5.10$, $SD=0.72$), which was one most relevant factors that was effective in taking care of well-being of students under CCE.

Utility: The implementation of CCE could ensure that student evaluation was useful in many ways. According to teachers (49% agree & 22% strongly agree), teaching and learning became more effective because of remedial teaching ($M=4.72$, $SD=1.06$). Similarly, teachers (47% agree & 22% strongly agree) stated that CCE was more effective in taking remedial steps for the progress of students ($M=4.76$, $SD=1.06$). Besides, altogether 92% teachers opined that they attempted to evaluate every aspects of students' learning ($M=4.77$, $SD=.91$). Thereby, teachers (61 %) viewed that CCE's comprehensive and timely evaluation helped the parents stay completely updated on their children's performance ($M=4.46$, $SD=1.22$). Therefore, CCE evaluation provided parents relevant ideas for better future planning of their children ($M=4.65$, $SD=0.97$). Above all, teachers were confident of their competency (62% agree & 26% strongly agree) as they viewed of them as competent with necessary pedagogical skills and subject knowledge for implementing CCE ($M=5.10$, $SD=.71$).

Feasibility: Overall, the practice of CCE gave the impression that it was implemented as planned in most number of cases. Teachers (agreed 44% & strongly agreed 13%) opined that CCE processes were not complicated ($M=4.43$, $SD=1.16$) and CCE brought in (56% agree & 24% strongly agree) flexibility in selecting different activities and tools ($M=4.96$, $SD=.89$). Alike, while PTA meeting (42% agree & 22% strongly agree) helped to win parents' cooperation ($M=4.69$, $SD=1.08$), different workshops equipped teachers (49%

agree & 26% strongly agree) to practice CCE effectively ($M=4.85$, $SD=1.04$). However, parents' lack of awareness of CCE procedures (43% agree & 13% strongly agree) complicated the implementation of CCE, according to many teachers ($M=2.57$, $SD=1.14$). Alike, many teachers also pointed out that the practice of CCE interfered (agreed 47% & strongly agreed 16%) with regular teaching and learning activities ($M=2.44$, $SD=1.13$). In addition to it, there was (45% agree & 15% strongly agree) a lack of time and resources ($M=4.49$, $SD=1.14$) that reduced the efficacy of the scheme. Therefore, some teachers specified that (somewhat agree 28% & agree 19%) evaluation not only became complicated ($M=3.48$, $SD=1.36$), but also (somewhat agree 29% & agree 28%) caused confusion over the preparation of various activities under execution of CCE ($M=3.71$, $SD=1.33$). Moreover, some teachers (6% strongly agree, 19% agree, & 21% somewhat agree) faced some difficulties in the arithmetic and computer part while preparing the progress report of students, especially in the assignment of grades ($M=3.71$, $SD=1.43$, where a higher score indicates experiencing more difficulties, 6% somewhat agree, 19% agree, & 21% strongly agree).

Accuracy: CCE could succeed in producing sound information about students' learning and performance in general. Students knew more clearly what they were expected to learn for the evaluation (12% strongly agree, 41% agree, & 31% somewhat agree). Besides, teachers used to explain to students clearly about how they reached to each evaluation conclusions ($M=4.62$, $SD=0.97$) as well as they had a clear understanding about how they combined the different performance of student for reaching a judgement ($M=4.69$, $SD=0.94$). Mostly, teachers opined that they focused on the evaluating only what they intended to evaluate avoiding the irrelevant aspects in the evaluation (10% strongly agree, 40% agree, & 27% somewhat agree). However, 52% indicated that they might have evaluated irrelevant things sometimes ($M=3.71$, $SD=1.48$). Under CCE, the evaluation procedures were well documented (22% somewhat agree & 58% agree) and it helped in improving the consistency aspect of evaluation ($M=4.42$, $SD=1.12$). All these factors resulted in raising the reliability of the evaluation results in general (23% somewhat agree & agree 47%). Additionally, teachers (agree 53% & strongly agree 14%) viewed that they maintained objectivity in the evaluation less influenced by their personal opinion of students ($M=4.67$, $SD=.949$), particularly by

gathering adequate information for the evaluation (agree 59% & strongly agree 24%). From time to time, teachers (58% agree & strongly agree 18%) assessed their own evaluation performance and discussed it with the purpose of making steady progress in the practice, especially for eliminating the shortcomings ($M=4.83$, $SD=.895$). Accordingly, teachers could improve in their evaluation practice year after year (63% agree & strongly agree 23%).

Results from the perspective of head teachers

Propriety: The average performance of the students increased due to the reduction of students' stress in common as an impact of CCE introduction (somewhat agree 12%, agree 52%, strongly agree 16%) and ($M=4.52$, $SD=1,229$). Moreover, it reduced societal pressure in a big level because only 20% had a different opinion about it ($M=4.24$, $SD=1,128$). Still, it is interesting to note that societal pressure remained to be a negatively influencing factor in student life with an agreement level of 92% ($M=4.76$, $SD=1,052$). Additionally, the cut-throat competition among the high achievers continued yet as a reality in schools according to 80% of the head teachers (strongly agree 8%, agree 52% & somewhat agree 20%). Most importantly, the CCE practice assisted in promoting a student centred classroom where teachers were being facilitators of learning in the view of 80% of the head teachers (64% agree & 24% strongly agree), ($M=5.00$, $SD=1,00$). It effectively helped in boosting their confidence as well as developing their personality. Two questions were directed to enquire if all promotion approach of CCE until class VIII converted students to become less serious about the studies, and whether the transition from more student friendly evaluation in Primary Education to more serious evaluation in Secondary Education was problematic for students. The responses were strongly supporting the view that students became less serious about their studies due to the all promotion approach (strongly agree 32%, agree 36% & somewhat agree 8% and ($M=4.64$, $SD=1,381$). Similarly, head teachers felt that there was a change in students' attitude towards exams that caused problems for them. The level of agreement was around agree (36%) and somewhat agree (36%), ($M=4.40$, $SD=1,000$). Anyway, head teachers observed that CCE promoted deep comprehension in students by eliminating the mugging up habit in them, which was one of the goals of CCE (somewhat agree 36%,

agree 40% & strongly agree 12%) and ($M=4.48, S=0,963$). As a result of CCE introduction, class rooms were turned into more interactive and innovative according to the opinion of 92% of them ($M=5.16, S=0,987$). In the same manner, the prohibition of using negative comments in classes promoted students' confidence and aided them becoming more assertive in classrooms ($M=4.48, S=1,327$ and somewhat agree 24%, agree 40%, & strongly agree 20%) that also contributed to upholding student's dignity in classrooms pointed out by 92% of in distinct levels ($M=4.8, S=0,943$). Generally, head teachers considered CCE procedures as equitable and fair barring 8% of them ($M=4.16, S=1,143$).

Utility: Majority of the head teacher (somewhat agree 28%, agree 44%, strongly, & agree 16%) regarded that CCE results were useful for making decisions about how to improve teaching ($M=4.56, S=1,083$). It was also effective in taking remedial steps for students' progress ($M=4.68, S=802$). According to them, student evaluation was done principally based on the relevant aspects of their learning ($M=4.52, S=0,963$). Sixty percentage of the head teachers were in favour of this point of view. They added that CCE's comprehensive and timely evaluation assisted parents in staying completely updated on their children's performance on a regular period of time (somewhat agree 28%, agree 40% & strongly agree 12% and $M=4.40, S=1,041$). Therefore, they believed that CCE evaluation could provide relevant ideas for planning the future of students to parents as well as students (disagree 8% & somewhat disagree 4% and $M=4.48, S=1,046$). Additionally, it was observed that teachers had the necessary knowledge and skills for implementing CCE excluding 4% head teachers' stand against it ($M=4.80, S=0,707$). Nonetheless, they noticed that there was significant variation in their perspective regarding evaluators' competency, especially in the case of utilising modern tools and technologies for assessing non-scholastic performance of the students as well as reporting them effectively ($M=3.80, S=1,258$). Additionally, CCE was said to be very time consuming causing lose plenty of class preparation time for teachers and this perception was unsupported by 34% head teachers ($M=3.72, S=1,400$).

Feasibility: It was something strange to find that two questions that sought two contradictory aspects of CCE practice i.e. the easiness as well as the complexity received positive responses. However, the percentages were varied viz. 64% responded in favour

of complexity ($M=3.92$, $S=1,382$) while the question that addressed the easiness of the evaluation process received 84% in support it. (The reason could be that the participants might have viewed the two questions differently as the first one was searching about the program itself and the second one was about its process). Head teachers agreed to it that parents' lack of awareness of CCE procedures complicated its implementation (strongly agree 12%, agree 28%, & somewhat agree 32% and $M=4.08$, $S=1,288$). However, according to them (100% agreement in different levels), the regular PTA meetings helped in winning parents' cooperation to implement CCE successfully as well ($M=4.96$, $S=0,611$). Additionally, they added that regular CCE training workshops conducted at the school and district level equipped the teachers to implement CCE effectively ($M=5.12$, $S=0,726$). The entire head teachers had similar view about it even though the level of agreement was different like somewhat agree 20%, agree 48%, and strongly agree 32%. At the same time, head teachers highlighted that there were a lack of time, resources or support for implementing CCE ($M=4.00$, $S=1,258$). Nonetheless, 36% of head teachers reacted to it negatively.

Accuracy: Head teachers opined that CCE helped to evaluate really what they intended to evaluate (somewhat agree 28%, agree 60%, & strongly agree 8% and $M=4.68$, $S=802$) and to reach to truthful conclusions (disagree 20% & somewhat disagree 4% and $M=4.00$, $S=1,190$). They viewed that the evaluation was being done with more objectivity, less influenced by the personal opinion of teachers about students (somewhat agree 16%, agree 52% & strongly agree 20% with a mean score of 4.79 and $S=1,103$). According to them, schools improved the way of evaluating students year after year, which was disagreed by a meagre percentage (somewhat disagree 4%) of them only ($M=5.28$, $S=0,792$). The reason of the steady progress was that they used to question and discuss the evaluation process whether it was being done properly (agree 72% & strongly agree 24% and $M=5.20$, $S=0,500$). Additionally, head teachers reported the evaluation procedures had been well documented in the schools (somewhat agree 16%, agree 36% & strongly agree 40%) and used to gather adequate information for evaluating students ($M=4.96$, $S=0, 539$). Therefore, CCE practice remained to be transparent and increased the reliability aspects of the results in their view (disagree 8%

and $M=4.56$, $S=0,961$). These matters in general contributed to maintain consistency in the way in which different teachers evaluated students as stated by 88% of head teachers in common ($M=4.52$, $S=0,918$). Thus, the above-mentioned factors in general helped students to know clearly what they had to learn in advance for their evaluation as per 92% ($M=4.64$, $S=0,907$) of head teachers. Nevertheless, they were not in support of all CCE practices because some confusing elements of the evaluation process caused parents to doubt about the accuracy of the results (strongly agree 4%, agree 40% & somewhat agree 28% ($M=3.88$, $S=1,424$)).

Results from the perspective of students

Propriety: According to students, PSA was very helpful for developing their problem solving skills ($M=4.71$, $SD=1,132$) with an agreement level of 68% (Agree 46% and strongly agree 22%). The new practice has definitely assisted in reducing the societal pressure in a considerable level because the general agreement percentage was 79% while disagreement level was 19% and 1% did not comment on it ($M=4.67$, $SD=1,356$). However, they opined that that societal pressure still affected students negatively ($M=5,58$, $SD=1,437$ and strongly agree 24% & agree 27%). Students disagreed to the question whether they found difficulty with the transition from more student friendly exams in Primary Education to more serious evaluation in Secondary Education (64%). Nonetheless, 36% agreed that they had problems in adapting with the transition ($M=3.92$, $SD=1,513$). In general, the students thought that they were being evaluated fairly as 82% of them opined so totally ($M=4.51$, $SD=1,294$) because both scholastic and non-scholastic performances were well appreciated in the classroom ($M=4.61$, $SD=1,449$). Additionally, teachers used to communicate to them both their strengths and weaknesses after the evaluation and 78 % of students supported this view (agreed 41% & strongly agree 37%). It was specified by the students (54%) that some teachers were still making damaging comments to students in class that could possibly hurt students' esteem and confidence ($M=3.53$, $SD=1,722$).

Utility: Most of the students (somewhat agree 26%, agree 43% & strongly agree 18%) claimed that the all-inclusive and timely evaluation was helpful for students for their

future planning ($M=4.47$, $SD=1,286$). In favour of this view, 88% of students in general postulated that teachers paid attention to evaluate every relevant aspects of learning ($M=4.72$, $SD=1,126$). Therefore, teachers were interested in evaluating not only the scholastic performance but also non-scholastic performance of the students, which contributed to students' overall learning. Teachers did not use to focus only on evaluating scholastic things was the common perception of the students. Even then, 34% of them contradicted it by saying that teachers were interested in evaluating the scholastic aspects of learning alone ($M=2.82$, $SD=1,663$).

Feasibility standards: Since feasibility was not a matter much associated with students, there was only one question directed to students that enquired whether students felt confident in the way they had been evaluated. Their response showed that they viewed the practice positively because majority of them agreed with it (somewhat agree 21%, agree 45% & strongly agree 30%) with ($M=4.66$, $SD=1,117$).

Accuracy: Students perceived (somewhat agree 17%, agree 41% & strongly agree 30%) that their evaluation results were corresponding to their learning ($M=4.75$, $SD=1,220$) and they usually knew in advance what they had to learn before the evaluation. Therefore, apart from the 11% of students, all students agreed with this view ($M=4.84$, $SD=1,102$). They not only negated the perception that teachers' personal opinion about them used to influence on their evaluation ($M=3.48$, $SD=1,699$), but also added that teachers often used to explain to them how they had awarded grades to questions and reached the conclusion of each evaluation ($M=4.67$, $SD=1,110$). Nevertheless, there were 42% of students (somewhat disagree 7%, disagree 20%, strongly disagree 17%) who contradicted this general perception of the students about teachers being biased.

5.2.1 Comparison among the three stakeholders

Head teachers, teachers and students had six questions in common as indicated in the following table.

Table 27. Comparison among the three stakeholders

Total number of questions	Common questions		
	Students	Teachers	Head teachers
1	S02 - Teachers explain me clearly how they reach to the mark they give me.	T28 - I explain clearly to my students how I reach to each evaluative conclusion.	-
2	s06 - The way in which teachers evaluate me is influenced by their personal opinion about me.	t22 - Now we evaluate with more objectivity, less influenced by our personal opinion about each student.	h08 - Now we evaluate with more objectivity, less influenced by our personal opinion about each student
3	s11 - CCE's all-inclusive and timely evaluation is very much helpful for our future planning.	t36 - CCE evaluation provides relevant ideas for better future planning of students.	h34 - CCE evaluation provides relevant ideas for better future planning of students
4	S15 -I am evaluated in a fair way	t13 - CCE procedures are equitable and fair.	h27 - CCE procedures are equitable and fair.
5	s05 - Before doing evaluation, I know what I must learn.	t19 - Thanks to CCE students know more clearly what is expected them to learn.	h05 - Thanks to CCE students know more clearly what is expected them to learn.
6	s03 - CCE has reduced societal pressure in a big level.	t11 - CCE has reduced societal pressure in a big level.	h24 - CCE has reduced societal pressure in a big level.
7	s08 - The transition from more student friendly exams in Primary Education to more serious evaluation in Secondary Education has been problematic for me.	t10 - The transition from more student friendly exams in Primary Education to more serious evaluation in Secondary Education is problematic for students.	h22 - The transition from more student friendly exams in Primary Education to more serious evaluation in Secondary Education is problematic for students.

Their average answers are compared in the below given graph [scale from 1 to 6].

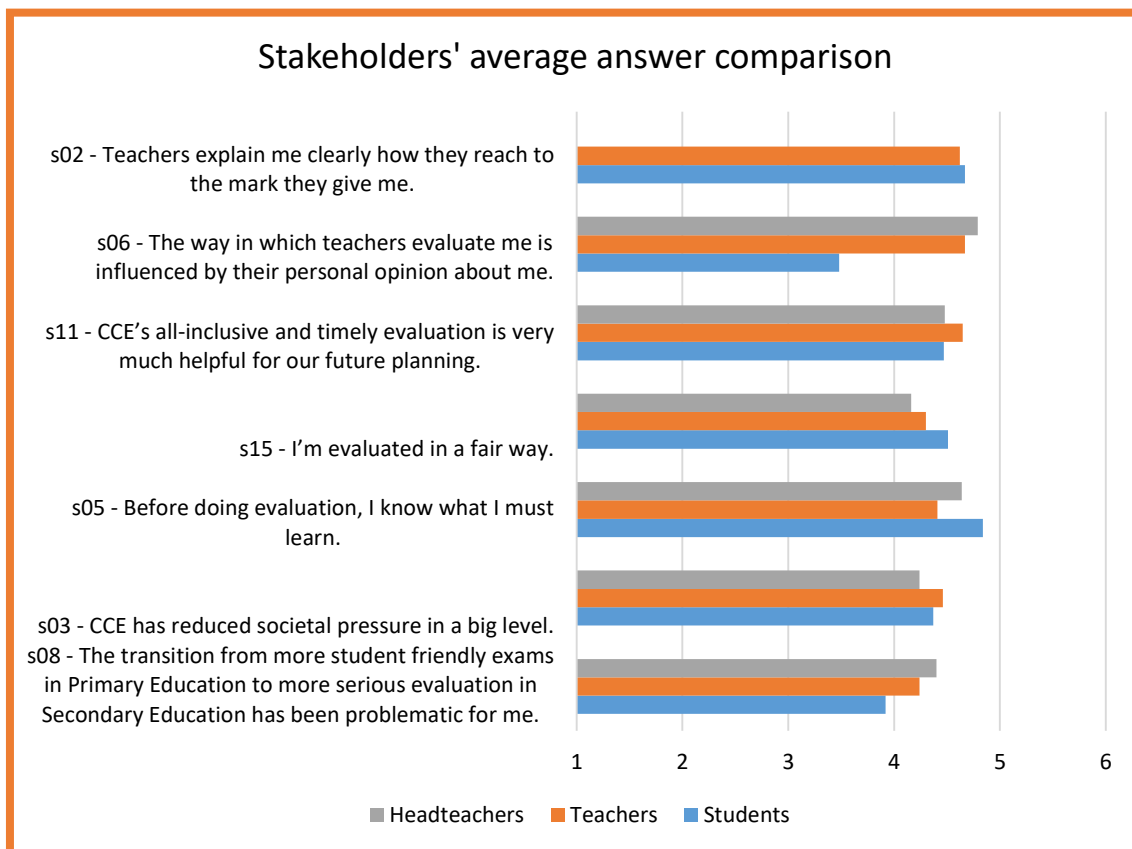


Figure 10. Stakeholders' average answer comparison

The first question shared between students and teachers attempted to understand about whether teachers used to explain students how they allotted marks or grades to their performance in examinations. The response by both the teachers and students is very positive, however, students appreciate it more than teachers themselves do, which is supposed to be other way. Teachers might have viewed that they had to explain even better or their perception that they could still improve on the theme.

Questions s03, t11, and h24 enquired whether CCE could reduce the societal pressure, as it was one of the prime goals of CCE. The response made by each stakeholders indicate that all agree to it even though the level of agreement is diverse. Teachers have more agreement to the statement than the students do, which may seem little stranger.

Head teachers has the lower agreement compared to teachers and students. The general attitude of the stakeholders towards the question is positive.

To the question, *thanks to CCE students know more clearly what is expected them to learn* (s05, t11, and h05), students as well as head teachers' views are fair-minded while teachers' perception is lesser favoured compared to the other two groups. The truth is that teachers' support is supposed to get more weightage in this feature of the evaluation practice. Overall, the stakeholders' perspective is in favour of the question.

The question directed to know the objectivity in the evaluation (*The way in which teachers evaluate me is influenced by their personal opinion about me*), all the stakeholders support lucidly that the practice of CCE promotes objectivity very much. Head teachers and teachers are much ahead in their perception that teachers' personal opinion does not affect the evaluation of students in general, especially the head teachers. In total, the objectivity of the evaluation is well appreciated by the stakeholders.

It is quite unlikely that teachers and head teachers observed more difficulty in the transition from more student friendly exams in Primary Education to more serious evaluation in Secondary Education than the students themselves do. All the three stakeholders' answers demonstrate a variation coming from top to down starting from the head teachers to students. Head teachers and teachers opine that the transition is difficult while the students do not seem to think so as strongly as the other two stakeholders do.

Another question sought the fairness and equitable side of the practice. Students approved the fairness feature of the evaluation with conviction. Nonetheless, it is somewhat unusual that the teachers and head teachers were behind students in assuring the fairness side of the evaluation. Still, the stakeholders in general accepted the fairness and equitable characteristics of the evaluation even if the level of the agreement was placed between somewhat agree and agree largely.

The final question (*CCE's all-inclusive and timely evaluation is very much helpful for our future planning*) addressed to seeking the benefits of the practice. All the stakeholders almost had a united view of it, but teachers were more assertive in their view regarding the benefits of CCE compared to the other two stakeholders. In total, the three stakeholders certainly agreed to the view that CCE was helpful for students' future planning.

5.3 Underlying dimensions in the stakeholders' perspectives on the practice of CCE with respect to the standards

The set of variables (standards) and indicators (items in the questionnaire) for the analysis of CCE implementation was based on the Student Evaluation Standards and its structure. Specifically:

Table 28. Standards used in the study

Attributes	Standards
<i>Propriety</i>	P1-Service to students
	P2-Appropriate policies and procedures
	P3-Access to evaluation information
	P4-Treatment of students
	P5-Rights of students
	P6-Balanced evaluation
	P7-Conflicts of interest
<i>Utility</i>	U1-Constructive orientation
	U2-Defined users and uses
	U3-Informative scope
	U4-Evaluator qualifications
	U5-Explicit values
	U6-Effective reporting
	U7-Follow up
<i>Feasibility</i>	F1-Practical orientation

	F2-Political viability
	F3-Evaluation support
<i>Accuracy</i>	A1-Validity Orientation
	A2-Defined expectations for students
	A3-Context analysis
	A4-Documented procedures
	A5-Defensible information
	A6-Reliable information
	A7-Bias identification and management
	A8-Handling information and quality control
	A9-Analysis of information
	A10-Justified conclusions
	A11-Metaevaluation

Once we got the data, we ran a Confirmatory Factor Analysis for testing if data structure fitted with the original structure taken from the Student Evaluation Standards. Nevertheless, after running the CFA, it was understood from the results obtained that the goodness of fit indexes delivered poor values, which indicated a lack of matching between the theoretical model and the structure of the data. Even after making several attempts for introducing adjustments in the analysis, the results were consistently negative. As the results were negative, the study used Exploratory Factor Analysis for further analysis and discussions.

Therefore, Exploratory Factor Analysis (EFA) of the entire sample was carried out to explore the underlying dimensions of them and to group the responses to interpret them meaningfully. The initial results provided ample evidences indicating differences on the structure of the perspectives of the stakeholders about the student evaluation practice. The resulting factor structure was expected to be representative of the underlying dimensions of the mindset of the people in the sample. Therefore, factor analysis was conducted for teachers and students. Factor analysis for head teachers was not conducted separately because the quantity of the participants was not sufficient for

a factor analysis considering the amount of items. Nevertheless, head teacher perspective was explored using the teacher factors for both the teacher and the head teacher questionnaires were consisted of almost the same questions. Thus, the common questions enabled to formulate the head teacher factors adapting the common questions under the corresponding teacher factor labels.

The study first employed principal components factor analysis. In the rotation process, Varimax rotation was selected. Afterward, to examine the data, KMO (Kaiser-Meyer-Olkin) and Bartlett's Test are used to check the feasibility of the analysis. Thus employing these tests, KMO measure of sampling of Sampling Adequacy test resulted positively. However, while some of the results were very positive, some others were adequate only. In the present study, IBM SPSS 22 was used. Addition to the factor analysis, Cronbach's Alpha was calculated for each resulting factor in order to measure the internal consistency of the resulting factors, indicating the reliability of the scale. Cronbach's alpha, α (coefficient alpha) is tested to see whether multiple-question *Likert scale* surveys' items are consistent and reliable. Generally, a score of more than 0.7 is usually okay and 0.9 is seen as excellent.

Teachers factor analysis

The first factor analysis trial reported 12 factors, but with some worrisome points, like items with low item-total correlations, too low factor loading scores and having them distributed in more than one factor. In item-total correlations of the first factor analysis (the results of the analysis is given in the Appendix on page 384), seven items were observed to have very low item-total correlations. Besides, they showed confusing loading scores in factors. For example, teachers might have considered *t07 (CCE evaluation practices interfere with regular teaching and learning activities)* as a major interference with the day-to-day teaching learning activities while the intention was to know whether CCE could affect negatively in any way with respect to the daily teaching and learning. Alike, *t10 (The transition from more student friendly exams in Primary Education to more serious evaluation in Secondary Education is problematic for students)* could be depending a lot on the capability of the students and schools in general.

Therefore, the question could have produced some confusion in the mind of the teachers while answering it. With regard to *t20 (In CCE we evaluate irrelevant things)*, the question itself could be viewed as very impolite while the question was trying to address the evaluation of internal assessments, as it was possible that activities could have been given below the level of students. In the case of *t33 (Having prohibited negative comments promotes students' confidence in the classroom)*, either the question might not have been clear to them or the respondents might have answered it passively. With respect to *t38 (Cut-throat competition among the high achievers is still a reality in schools)*, teachers could have thought it was not solely depending on them, rather much on the attitude of the parents, students, and school managements. Finally, *t43 might not have a serious concern of many (The arithmetic and computer part of CCE is problematic to me)*. It could be very few who might have taken it as a problem, especially in this period time, particularly considering the fact that the sampled schools were reputed ones and naturally, the teachers should also be equally qualified.

Thus, the second factor analysis was conducted excluding the above-mentioned seven items. In the case of KMO (0,909) and p-value for Barlett's test of sphericity (0,000), the results were plausible. Nonetheless (the results are given in the Appendix on page 384), it was necessary to conduct another one after removing the item *t11 (CCE has reduced societal pressure in a big level)* with six factors because with seven factors, the last factor had only one item, which was *t11*.

Finally, in the third factor analysis, we got a KMO score of 0.909 and a p-value of 0.000 in the Barlett's test of Sphericity.

Table 29. Total Variance Explained

Component	Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %
1	5,985	15,346	15,346
2	3,789	9,716	25,062
3	3,364	8,625	33,687
4	2,600	6,668	40,355
5	2,158	5,534	45,889
6	1,753	4,494	50,382

The analysis generated six factors that explained a 50.38% of variance.

Table 30. Rotated Component Matrix^a

	Rotated Component Matrix ^a					
	Component					
	1	2	3	4	5	6
t18 - CCE helps to evaluate really what we intend to evaluate.	,693	,201	,369	,224		
t13 - CCE procedures are equitable and fair.	,685	,195		,194		
t45 - CCE is more effective in taking remedial steps for students' progress.	,662		,232			,219
t44 - We evaluate every relevant aspect of students learning.	,618	,113	,138	- ,164	,146	,196
t19 - Thanks to CCE students know more clearly what is expected them to learn.	,614	,387	,391	,142		
t16 - CCE results are really useful for making decisions about how to improve teaching.	,604	,349	,255	,183	,138	
t21 - We gather adequate information for evaluating students.	,577	,107	,309		,120	,119
t23 - Regular PTA meetings help in winning parents' cooperation to implement CCE successfully.	,564	,164		,284	,316	- ,203
t17 - CCE's comprehensive and timely evaluation helps the parents stay completely updated on their children's performance.	,545	,301	,378	,212	,142	

t09 - Students' educational output is higher due to the reduction of stress on them after the CCE implementation.	,531	,453	,184	,251	,114	
t32 - CCE's all promotion approach is a fair and equitable step in student evaluation.	,517	,178	- ,148	,217	- ,269	
t36 - CCE evaluation provides relevant ideas for better future planning of students.	,512	,300	,362		,143	,168
t14 - Thanks to CCE students are now fearless and bold in expressing themselves.	,507	,117	,389			
t24 - Regular CCE training workshops conducted at the school and district level equip the teachers to implement CCE effectively.	,500		,199		,418	
Validity and utility						
t03 - There is consistency in the way in which different teachers evaluate students.	,170	,701				,150
t02 - Now students' evaluation is more reliable thanks to CCE.	,448	,611	,153	,109		
t06 - Thanks to CCE, evaluation is now easier to proceed.	,334	,580	,160	,237	,199	
t01 - Now the evaluation procedures we use are well documented.	,248	,567			,100	,252
t04 - I agree with the way in which we combine information for reaching to a judgement about each student's performance.	,418	,512	,197			,160
t12 - CCE makes classes more interactive and innovative.	,292	,452	,404		,291	
t08 - CCE brings in flexibility in selecting different activities and tools.		,440	,252		,411	
Evaluation quality, transparency, and consistency						
t30 - CCE promotes a child-centred classroom, where teacher is a facilitator.	,205		,676			
t31 - CCE promotes deep comprehension in students eliminating the mugging up habit.	,344		,552		- ,166	,162
t28 - I explain clearly to my students how I reach to each evaluative conclusion.	,154		,525		,315	
t22 - Now we evaluate with more objectivity, less influenced by our personal opinion about each student.	,198	,326	,514	,191	,126	- ,155
t34 - Thanks to CCE, non-academic performance is also well appreciated in the classroom.	,262	,228	,511		,111	
t05 - From time to time, we question if we are doing well the evaluation, and discuss about it.		,480	,480	,136	,135	

t42 - Student's dignity is upheld in the CCE classroom.		,213	,329	-		-
Pedagogical benefits				,121		,101
t27 - There is a lack of time, resources or support for implementing CCE.				,757		
t26 - Parents' lack of awareness of CCE procedures complicates the CCE implementation.				,640	-	,174
					,211	
t29 - Evaluation is becoming very complicated because of CCE.	,220			,568	,391	,256
t25 - Due to CCE's all promotion approach till class VIII, students are less serious about their studies.	,134	,288		,416	-	,169
Shortage, lacking issues						
t15 - I communicate to students both their strengths and weaknesses.	,118	,131			,678	-
						,103
t35 - I have the necessary pedagogical skills and subject knowledge for implementing CCE.		,395	,181	-	,484	
				,258		
t39 - We do improve our way of evaluating year after year.	,375			-	,468	,135
				,158		
Pedagogical competence						
t43 - The arithmetic and computer part of CCE is problematic to me.		,135				,670
t37 - Some teachers still make damaging comments to students.				-	,238	,554
				,130		
t41 - Societal pressure still affects the students negatively.		-		,417		,476
		,126				
t40 - CCE confuses the preparation of various activities.	,124	,121	,186	,459	,198	,472
Damaging and problematic issues						

The third factor analysis with six factors was accepted as apt for carrying on with the study to find the results of the rest of the objectives.

5.3.1 Results of factor analysis: Teachers

Table 31. Factors and labels

	Factors	Labels
CCE impl eme	1	Validity and utility
	2	Evaluation quality, transparency, and consistency

3	Pedagogical benefits
4	Shortage, lacking issues
5	Pedagogical competence
6	Damaging and problematic issues

Factor 1: Validity and utility: It is always a concern of educators that student evaluation is done based on what is logical or true as the word valid signify. Alike, identification of students' real capacities and help them to develop upon them are important goals of any student evaluation like CCE. The first factor definitely corresponds to the validity and utility aspects of CCE. To make an evaluation competent, evaluation procedures should be equitable and fair (*CCE procedures are equitable and fair*), and evaluation should focus on prominent aspects of the content rather than on peripheral things, so that evaluation can serve in nurturing the different skills of students (*CCE helps to evaluate really what we intend to evaluate*). Moreover, a valid evaluation provides sufficient information to students for planning their future (*CCE evaluation provides relevant ideas for better future planning of students*). Different stakeholders, especially parents would appreciate such type of student evaluations (*CCE's comprehensive and timely evaluation helps the parents stay completely updated on their children's performance*). Additionally, each evaluation should contribute to the self-development of teachers in evaluating students (*CCE results are useful for making decisions about how to improve teaching*). This kind of evaluation definitely has the potential to convert students to become better equipped for a bright future (*Thanks to CCE students are now fearless and bold in expressing themselves*). Having these items in common, the first factor exposes the dimension of validity and utility of CCE practice in general. Reliability measured through Cronbach's Alpha for the subscale determined by this factor is 0.904.

Factor 2: Evaluation quality, transparency, and consistency: The second factor, where seven items have their highest loadings, indicates how CCE practices promoted the quality, transparency and consistency with respect to the evaluation of students. These characteristics of evaluation are very significant in a big country like India with diverse culture and languages, particularly considering the fact that CBSE syllabus is followed in thousands of schools in India and abroad. Evaluation quality, transparency, and

consistency elements are fundamental for student evaluation schemes in common. In the case of CCE, the well documentation of the various aspects of evaluation procedure confirms the transparency side of the evaluation. These documents can be availed for further reference in future too (*Now the evaluation procedures we use are well documented*) and highlights the transparency faculty of the evaluation. A quality evaluation integrates interactive and innovative activities in classrooms as part of evaluation, which naturally promotes flexibility and reliability of evaluation (*CCE makes classes more interactive and innovative and CCE brings in flexibility in selecting different activities and tools*), although this item has also a relevant weight (0.404) in the next factor about “pedagogical benefits”. Therefore, the second factor highlights the characteristics of quality, transparency, and consistency of CCE. It shapes a subscale that has a Cronbach's Alpha score of 0.825.

Factor 3: Pedagogical benefits: Seven items group together in this factor that underpins the pedagogical benefits of the CCE practice. The benefits aspects of CCE is positive here. There are some basic pedagogical benefits because of the implementation of CCE. It promotes child-centred classrooms (*CCE promotes a child-centred classroom, where teacher is a facilitator*), objectivity of evaluation (*Now we evaluate with more objectivity, less influenced by our personal opinion about each student*), eliminates mugging up habits helping students in deep comprehension of contents (*CCE promotes deep comprehension in students eliminating the mugging up habit*) etc. It is so fine that students know now how teachers award grades. Thereby, non-academic performance are also promoted in the classrooms elevating the confidence of students as well (*Thanks to CCE, non-academic performance is also well appreciated in the classroom*). There seven items in this factor have a Cronbach's Alpha of 0.700.

Factor 4: Shortage, lacking issues: The fourth factor underlines the fact that there does not exist a perfect student evaluation programme. Some programs could be better than some others could be depending on the some other factors like contextual factors or the syllabus etc. It is the same with CCE practice too because the fourth factor denotes to certain drawback of the scheme that hamper the efficacy of CCE. For example, a lack of time for class preparation, lack of resources or support for conducting different

activities etc. (*There is a lack of time, resources or support for implementing CCE*). Sometimes, new schemes (e.g. CCE) can face with initial struggles out of lack of awareness of parents or other stakeholders, which complicate and reduce the efficacy of the scheme. A few instant changes from previous ones can create confusion among stakeholders and new unforeseeable problems may emerge affecting the overall efficacy of the new schemes (*Due to CCE's all promotion approach till class VIII, students are less serious about their studies*). Cronbach's Alpha's score of the factor is slightly low (0.602) with a loading of four items.

Factor 5: Pedagogical competence: The factor labelled as pedagogical competence signals to the importance of improving teachers' competence in the evaluation of students on regular basis. Otherwise, the expected benefits of student evaluating will be lesser curtailing students' development in many ways. Therefore, it is necessary that teachers take efforts to upgrade their competence for smoothly implementing new curriculum programs like CCE. The fifth factor show that teachers in general have necessary skills and subject knowledge for putting into practice CCE meaningfully (*I have the necessary pedagogical skills and subject knowledge for implementing CCE*) as a result of their professional updating (*We do improve our way of evaluating year after year*). Because of these factors, both teachers and student have advantages growing in areas related to their field of dedication (*I communicate to students both their strengths and weaknesses*). This factor is constituted of three elements. Cronbach's Alpha score is low (0.545), but not so low considering that there are only 3 items in it, when alpha also depends on their number.

Factor 6: Damaging and problematic issues: It is said that there is no so-called perfect student evaluation schemes. The sixth factor underpins this truth again that torches upon certain drawbacks of CCE that needed to be improved. For example, teachers faced the problems of selecting activities according to the taste and talents of different students for a big classroom respecting the recommendation made by CCE (*CCE confuses the preparation of various activities*). Societal pressure is a global concern influencing students' performs in exams. CCE was expected to eliminate or better to reduce it in a big level. It is ideal to find whether CCE could achieve this goal at least in some extent

(*Societal pressure still affects the students negatively*). It is altogether a different challenge nowadays teachers confront while executing new practices how to operate new teaching aids and software programs, especially for those who are used to this kind of modern things. It may happen with CCE exercising too with certain teachers (*Some teachers still make damaging comments to students*). This factor also has a poor Cronbach's Alpha score (0.555).

Analysis of teachers' sense of efficacy and school climate

The second factor analysis (after removing t53 because it was a mixture of self-efficacy and school culture) in relation to school effectiveness factors produced positive results for carrying on with the studies because KMO (0,856) and p-value for Barlett's test of sphericity (0,000) showed significant correlation.

Table 32. Total Variance Explained

Componente	Rotations Sums of Squared of Loadings		
	Total	% de variance	% cumulative
1	3,595	18,921	18,921
2	2,148	11,306	30,227
3	2,099	11,048	41,275
4	1,936	10,188	51,463

Table 33. Rotated Component Matrixa – Teachers

Rotated Component Matrix ^a				
	Componente			
	1	2	3	4
t59 - I can implement alternative strategies in my classroom.	,704	,134	,110	,105
t62 - I establish a classroom management system with each group of students.	,672	,130	,224	
t65 - I assist families in helping their children do well in school.	,636	,196		
t60 - I control disruptive behaviour in the classroom.	,634		,321	,101
t58 - I provide an alternative explanation or example when students are confused.	,621		,170	,226

t61 - I get children to follow classroom rules.	,583		,319	,157
t64 - I motivate students who show low interest in schoolwork.	,562			,323
t63 - I get students to believe they can do well in schoolwork.	,546		,198	,340
t57 - I can use a variety of assessment strategies.	,474	,395	,337	,100
Sense of efficacy of teachers				
t48 - I count on others for assistance.		,670	,213	-,257
t47 - I ask others what they think about the way I do things.	,116	,670		,153
t49 - I believe that others care about me.	,191	,593	,198	,142
t46 - I can tell others what I think of the way they do things.	,132	,580	-,152	,322
t50 - I believe that they are honest.	,112	,495	,148	,421
School climate - trust and openness				
t54 - The relationship that exists between parents and the teachers is a good one.	,197		,792	
t55 - The relationship that exists between parents and the administration is a good one.	,194	,129	,779	
t56 - Teachers believe that every student can learn and can improve.	,271		,492	,369
School climate - relations with parents and confidence in learning				
t51 - The school's mission is posted for everyone to see.		,170	,154	,766
t52 - The faculty is in agreement about the mission of the school.	,189	,133	,104	,688
School climate - school mission				

Table 34. Factors and labels 2

	Factors	Labels
SE & school climate factors	7	Sense of efficacy of teachers
	8	School climate - trust and openness
	9	School climate - relations with parents and confidence in learning
	10	School climate - school mission

Factor 7: Sense of efficacy of teachers: Teacher efficacy is an important variable in the school effectiveness literature. Plenty of studies have demonstrated that efficacy of teachers can make significant influence on imparting quality education to students. Naturally, teacher efficacy can certainly leverage in the implementation of CCE proportional to each one's capacity. For example, teachers' subject efficacy (*I can implement alternative strategies in my classroom or providing alternative explanation*

when students are confused) and management skill (*I establish a classroom management system with each group of students or controlling students behaviour in the classroom*) can work out well in favour of student evaluation. Teachers with good sense of efficacy will find ways to motivate students in different ways as per the situation demands, particularly the academically poor students (*I get students to believe they can do well in schoolwork*). Additionally, a good level of teacher efficacy is must to employ a variety of strategies for assessing students of distinct capacities (*I can use a variety of assessment strategies*). Cronbach's Alpha score of the factor is 0.823.

Factor 8: School climate - trust and openness: Alike sense of efficacy, school climate – trust and openness can facilitate student evaluation. As in the case of the above said factor (teacher efficacy), school climate is also a main feature of school effectiveness. A good school climate promotes trust and openness among teachers, which is unavoidable for creating a healthy atmosphere for working both inside and outside of the classroom. It can boost the overall performance of students and teachers for the benefits of all stakeholders. A healthy staff room and classroom climate can instil confidence in teachers (*I count on others for assistance*). It can boost the bond among teachers as well as students. If one can confide in each other, it will obviously reflect in their overall performance as well (*I believe that others care about me or I can tell others what I think of the way they do things*). Therefore, developing and maintaining a good school climate is very much in need of all type of schools, more importantly for a meaningful implementation of CCE. Cronbach's Alpha score is 0.642.

Factor 9: School climate - relations with parents and confidence in learning: Good relations among students, teachers, and management will assist in practising educational schemes like CCE (*The relationship that exists between parents and the teachers is a good one or the relationship that exists between parents and the administration is a good one*). In the same manner, warm relations between parents and teachers will also increase the educational efficacy of schools. Teachers' confidence in students' capacity to learn will be more in this kind school climate (*Teachers believe that every student can learn and can improve*). Whereupon, improving good relations among various stakeholders are significant for practising CCE too. It can gear up different

stakeholder to take effort for the maximum benefits of CCE practice. The factor has a loading of three items with a Cronbach's Alpha score of 0.697.

Factor 10: School climate - school mission: It is a human psychology that people are more motivated to work for a common goal, and sharing it allows to bring together wills and reach goals. In the same manner, when a school has a common mission to achieve (*The school's mission is posted for everyone to see*) i.e. to practice CCE to its best, the output will also be equally high. Whereof, it is important that all are aware of the school mission in a school and have the agreement of the faculty of the same (*The faculty agrees about the mission of the school*). Thus, school mission becomes a factor affecting teachers' performance including the evaluation of students i.e. practice of CCE. Both the Cronbach's Alpha score (0.652) as well as the loading of the items are lower.

Once we identified the underlying dimensions, we use this information for calculating each person's score in each factor. The result of the descriptive analysis of these scores is in the next table:

Table 35. Teacher factors

Factors	Mean	Standard deviation	Skewness
TF1 - Validity and utility	4,5315	,74015	-,961
TF2 - Evaluation quality, transparency, consistency	4,6695	,71289	-1,324
TF3 - Pedagogical benefits	4,7585	,58241	-,807
TF4 - Shortage, lacking issues	2,7534	,85452	,518
TF5 - Pedagogical competence	5,0698	,54152	-1,494
TF6 - Damaging and problematic issues	3,3396	,87421	,133
SET - sense of efficacy of teachers	4,3695	,47765	-,905
SC1T - School climate - trust and openness	3,4058	,67362	-,037
SC2T - School climate - relations with parents and confidence in learning	4,3103	,63077	-1,266
SC3T - School climate - school mission	4,2138	,74695	-,946

Perceptions about CCE implementation show quite high scores. Validity and utility, evaluation quality, pedagogical benefits and pedagogical competence are quite positively perceived by the teachers, with high means, standard deviations about 0.75 and relevant negative skewness (most participants show higher scores). However “Shortage, lacking issues” and “Damaging and problematic issues” have lower average scores (close to 3), although every “negative” questions were recoded (e.g. when asked if “t25 - Due to CCE’s all promotion approach till class VIII, students are less serious about their studies” every answer of 1 was recoded as 6). So, teachers do not deny the existence of these problems, with lower means, standard deviations about 0.85 and small positive skewness (a certain tendency to have most respondents in less optimistic positions).

The average sense of efficacy of teachers is about 4.4 (just between “4. - very much” and “5. - always” answer options), with a typical deviation of half point, and a pronounced negative skewness.

School climate factors get better results in “relations with parents and confidence in learning” and “school mission” (about 4.2 and 4.3), with some diversity ($s=0.6$), and a substantial negative skewness. But, scores are lower about “trust and openness” ($m=3.4$, $s=0.67$), with a balanced distribution ($skewness=-0.037$).

5.3.2 Head teachers

The number of the head teacher participants were not sufficient for an exploratory factor analysis. Whereupon, the study carried on availing the same factor structure and labels of teacher factors, and grouping the items accordingly because many of the questions were common in both the questionnaires. Thus, we established nine factors as indicated below in the table.

Table 36. Head teacher factors and labels

Factors	Labels
1	Validity and utility
2	Evaluation quality, transparency, and consistency
3	Pedagogical benefits
4	Shortage, lacking issues
5	Pedagogical competence
6	Damaging and problematic issues
7	School culture
8	School climate

Table 37. Factor labels and items of head teacher questionnaire

Items total statistics
h01 - CCE helps to evaluate really what we intend to evaluate.
h27 - CCE procedures are equitable and fair.
h32 - CCE is more effective in taking remedial steps for students' progress.
h35 - We evaluate every relevant aspect of students learning.
h05 - Thanks to CCE students know more clearly what is expected them to learn.
h31 - CCE results are really useful for making decisions about how to improve teaching.
h06 - We gather adequate information for evaluating students.
h17 - Regular PTA meetings help in winning parents' cooperation to implement CCE successfully.
h33 - CCE's comprehensive and timely evaluation helps the parents stay completely updated on their children's performance.
h13 - Students' educational output is higher due to the reduction of stress on them after the CCE implementation.
h34 - CCE evaluation provides relevant ideas for better future planning of students
h18 - Regular CCE training workshops conducted at the school and district level equip the teachers to implement CCE effectively
1. Validity and utility
h11 - There is consistency in the way in which different teachers evaluate students.
h02 - Evaluations procedures in this school are well documented.

h16 - Thanks to CCE, evaluation is now easier to proceed.
h26 - CCE makes classes more interactive and innovative.
2. Evaluation quality, transparency, and consistency
h12 - CCE promotes a child-centred classroom, where teacher is a facilitator.
h23 - CCE promotes deep comprehension in students eliminating the mugging up habit.
h08 - Now we evaluate with more objectivity, less influenced by our personal opinion about each student
h15 - From time to time, we question if we are doing well the evaluation, and discuss about it.
h37 - Student's dignity is upheld in the CCE classroom.
3. Pedagogical benefits
h20 - Due to CCE's all promotion approach till class VIII, students are less serious about their studies.
h10 - Parents' lack of awareness of CCE procedures complicates the CCE implementation.
h19 - There is a lack of time, resources or support for implementing CCE.
h09 - Evaluation is becoming very complicated because of CCE.
4. Shortage, lacking issues
h28 - Teachers have the necessary pedagogical skills and subject knowledge for implementing CCE.
h14 - We do improve our way of evaluating year after year.
5. Pedagogical competence
h29 - The arithmetic and computer part of CCE is problematic for teachers.
h25 - Societal pressure still affects the students negatively.
6. Damaging and problematic issues
h39 - We count on others for assistance (we trust each other for assistance).
h40 - We believe that others care about you.
h41 - Teachers are involved in the decision-making process.
h42 - A school leadership team or advisory council assists the administration with decisions.
h43 - A parent leadership team or advisory council assists the administration with decisions.
7. School culture
h44 - The administration has high expectations for teacher performance.
h45 - The schools mission is posted for everyone to see.
h46 - The faculty is in agreement about the mission of the school.
h47 - Teachers vary instructional strategies according to the needs of the students.
h48 - The relationship that exists between parents and the teachers is a good one.

h49 - The relationship that exists between parents and the administration is a good one.

h50 - Teachers believe that every student can learn and can improve.

8. School climate

Factor 1: Validity and utility: Head teachers' perception of CCE underpins the validity and utility dimension of CCE practice. They stated that CCE is valid and utile for its equitable and fair approach to the evaluation of students (*CCE procedures are equitable and fair*). Similarly, a sound evaluation not only collects sufficient information before reaching a conclusion but also focuses on the important aspects the learning (*We gather adequate information for evaluating students*). Besides, students know about what they are going to be evaluated in advance. Head teachers recognise that CCE is doing a good job in this area. A sound evaluation is very useful for taking remedial steps for students' progress, reducing the exam stress reasonably well, (*Students' educational output is higher due to the reduction of stress on them after the CCE implementation*), planning for their future counting on their potentiality etc. Alike, regular workshops and meetings are required for maintaining an evaluation valid and utile (*Regular PTA meetings help in winning parents' cooperation to implement CCE successfully*) that can equip teachers to implement new educational programs like CCE effectively (*CCE results are really useful for making decisions about how to improve teaching*).

Factor 2: Evaluation quality, transparency, and consistency: Quality, transparency, and consistency are some essential features of any student evaluation scheme and head teachers perceive that CCE has these qualities. For example, consistency in the way different teachers evaluate students (*There is consistency in the way in which different teachers evaluate students*) or well documentation of the activities (Evaluations procedures in this school are well documented). Additionally, quality evaluation ensures that the evaluation process are not complicated to put into practice (*Thanks to CCE, evaluation is now easier to proceed*). Addition to it, a standards evaluation converts classrooms more interactive and innovative as in the case of CCE (*CCE makes classes more interactive and innovative*).

Factor 3: Pedagogical benefits: Five items in the factor group underpin the benefits of CCE practice. Standard student evaluations should be pedagogically beneficial not only to students but also to teachers. It promotes child-centred classrooms (*CCE promotes a child-centred classroom, where teacher is a facilitator*), brings in objectivity in evaluation (*Now we evaluate with more objectivity, less influenced by our personal opinion about each student*), eliminates students' mugging up habits, facilitates learning with deep comprehension (*CCE promotes deep comprehension in students eliminating the mugging up habit*) etc. Moreover, it can boost students' confidence (*Student's dignity is upheld in the CCE classroom*) and make teachers comfortable with evaluating students without being influenced by their personal opinion (*Now we evaluate with more objectivity, less influenced by our personal opinion about each student*).

Factor 4: Shortage, lacking issues: Evaluation of students is not an easy task. The scheme could be well developed after a undergoing plenty of studies and renovations. Still, it can have unforeseen shortcomings. It is the same with CCE too as the fourth factor suggests. These defects can hamper the efficacy of evaluation. E.g. if the practice is time consuming, teachers may not get time for class preparation or the evaluation processes are complicated, it may fail to inspire teachers to work hard (*Evaluation is becoming very complicated because of CCE*), especially in relation to class activities and internal assessment. Lack of resources or parents' cooperation could be disadvantageous for proper evaluation (*There is a lack of time, resources or support for implementing CCE and Parents' lack of awareness of CCE procedures complicates the CCE implementation*).

Factor 5: Pedagogical competence: Pedagogical competence is an essential quality all teachers should possess and it becomes detrimental in the efficacy of teachers to conduct evaluation of students. It is needed to assess students as per the norms of the curriculum. If teachers are incompetent, they will not be able to implement schemes like CCE successfully. Further, teachers must take serious efforts to update them frequently for implementing programs like CCE (*We do improve our way of evaluating year after year*). Therefore, head teachers were asked whether the teachers had necessary skills and subject knowledge in order to practise CCE successfully (*Teachers have the necessary pedagogical skills and subject knowledge for implementing CCE*).

Factor 6: Damaging and problematic issues: The sixth factor throws light to certain grey sides of any kind of student evaluation that may occur while implementing as in the case of CCE. For example, selecting activities according to the distinct level of students is a big challenge for teachers, especially if the number of students is big. It is very significant in Indian context where usually a classroom has about 40 number of students. In the same manner, societal pressure is an ever-prevalent problematic issue affecting students' performance, particularly for students in India. Therefore, there were questions that sought to know if societal pressure still continued to be very damaging factor in evaluation even after the implementation of CCE (*Societal pressure still affects the students negatively*). Apart from it, in the technology-dominated modern world or classrooms, if teachers are not efficient in incorporating newly available resources, it can reduce their efficacy in evaluating students (*The arithmetic and computer part of CCE is problematic for teachers*).

Factor 7: School culture: A better school culture clearly converts a school into a better place to work, besides trust and openness among teachers can consolidate the school effectiveness. These factors can contribute to practice programs like CCE effectively elevating the overall performance of schools. For example, a school advisory council or a parent leadership team can assist head teachers in making proper decisions in CCE related matters diminishing their burden in many ways (*A school leadership team or advisory council assists the administration with decisions and a parent leadership team or advisory council assists the administration with decisions*). Consequently, different stakeholders will share responsibility to put into practice the decision taken by the head teachers with respect to CCE practice. This will also aid in developing a caring attitude among teachers, which can serve for practising CCE meaningfully (*We count on others for assistance and Teachers are involved in the decision-making process*).

Factor 8: School climate: It is a human psychology that people are more motivated when they work for a common goal. In the same manner, when a school has a common mission to achieve (*The faculty is in agreement about the mission of the school*), all in the school will try to do their best - to practice CCE. It is equally significant that there is a cordial relationship among teachers, head teachers, school management, and parents,

so that they work together for a common goal, (*The relationship that exists between parents and the teachers is a good one and the relationship that exists between parents and the administration is a good one*). Whereupon, implementation of new policies and programs can be achieved with greater results and lesser efforts like in the case of CCE. Positive school climate can also influence on the psyche of teachers in various ways (*The administration has high expectations for teacher performance*) e.g. making them determined to take special effort to practice CCE (Teachers believe that every student can learn and can improve).

Table 38. Descriptive analysis of head teachers' factor scores

Factors	Mean	Standard deviation	Skewness
HF1 - Validity and utility	4,6400	,51467	-,139
HF2 - Evaluation quality, transparency, consistency	4,8100	,63443	-,376
HF3 - Pedagogical benefits	4,8660	,47669	-,276
HF4 - Shortage, lacking issues	2,8400	,82247	,828
HF5 - Pedagogical competence	5,0600	,54620	-,255
HF6 - Damaging and problematic issues	2,7200	1,00083	,756
SC1H - School culture	3,8800	,43589	,672
SC2H - School climate	4,5590	,50100	-,106

Head teachers' perceptions about CCE implementation show quite high scores. 'Validity and utility', 'evaluation quality, transparency, consistency', 'pedagogical benefits', 'pedagogical competence', and 'pedagogical competence' are somewhat positively perceived by the head teachers, with high means, standard deviations about 0.54 and with a balanced distribution (skewness=-0.261). However, 'shortage, lacking issues' and 'damaging and problematic issues' have lower average scores (close to 3), although every "negative" questions were recoded (e.g. when asked if "h09- Evaluation is becoming very complicated because of CCE", every answer of 1 was recoded as 6. Therefore, head teachers do not deny the existence of these problems of CCE with lower means, standard deviations about 0.90 and strong positive skewness. There is a good

tendency to have most respondents in less optimistic positions. There are some similarities between the head teachers and teachers' perceptions.

School culture factors get almost positive results ($m=3.88$), with some diversity ($s=0.43$), and a substantial positive skewness. Similarly, school climate also get a better results with an average 4.55 (just between "4.- very much" and "5.- always" answer options) with a typical deviation of half point ($s=0.50$), with a balanced distribution (skewness= -0.106).

5.3.3 Results of factor analysis: Students

After the first analysis to understand the student factors, items s19 and s20 were removed because they showed confusing correlations with other items. It was probably that s19 sentence had a too complex structure and it would have generated confusion among respondents (the higher agreement = the higher pressure) and "my parents believe that I should be allowed to choose" or (the higher agreement = the lower pressure), but there is a positive correlation between both items' agreement level. That is probably because they were not considering parental pressure when answering, but "importance" of education. In the same manner, s20 intended to measure the perception of parental pressure in the form of "education is the best way to become successful." However, S20 had factor loadings quite distributed among several factors. It could be that not every student "performs poorly".

Therefore, after removing s19 and s20, a new analysis was employed which resulted in the loading of items with six factors. They were labelled as shown in the table below. The analysis showed that KMO y Bartlett test score (0.835) and a p-value (0.000), which signalled positively to carry on the study.

Table 39. Total Variance Explained - students

Component	Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %
1	2,458	15,360	15,360
2	2,205	13,780	29,140
3	1,704	10,650	39,790

The analysis generated three factors that explained a 39, 79% of variance.

Table 40. Factor labels and items of student questionnaire

Rotated component matrix			
	Componente		
	1	2	3
s12 - Both scholastic and non-scholastic performers are well appreciated in the classroom.	,656	,256	
s06 - The way in which teachers evaluate me is influenced by their personal opinion about me.	,606	-,367	
s13 - Teachers communicate me both my strengths and weaknesses.	,512	,364	
s15 - I'm evaluated in a fair way.	,484	,384	,109
s10 - My teachers are interested only in scholastic things, not in the way I feel or do other things.	,459	,130	,408
s03 - CCE has reduced societal pressure in a big level.	,439		- ,370
s07 - I feel confident with the way I am evaluated.	,417	,138	,109
s09 - My teachers evaluate every relevant aspect of my learning.	,409	,346	,128
Comprehensive and reliable evaluation			
s05 - Before doing evaluation, I know what I must learn.		,644	,137
s04 - My evaluation results correspond to my real learning.	,219	,570	,227
s01 - PSA is very helpful for developing our problem solving skills.		,563	
s11 - CCE's all-inclusive and timely evaluation is very much helpful for our future planning.	,339	,531	
s02 - Teachers explain me clearly how they reach to the mark they give me.	,293	,436	
Valid evaluation			
s16 - Societal pressure still affects the students negatively.			,691
s08 - The transition from more student friendly exams in Primary Education to more serious evaluation in Secondary Education has been problematic for me.		,151	,650

s14 - Some teachers still make damaging comments to students.	,411	,130	,601
Damaging evaluation			

It is clear that teachers' answers' factor analysis has provided more dimensions in comparison with students' answers' factor analysis. It is probably that we used more items with more nuances for teacher questionnaire compared to the student questionnaire and naturally, students' answers' factor analysis has less number of factors. Additionally, the differences between the two groups in the realm of understanding, where teachers can have more complex and elaborated understandings about what is going about CCE implementation, might have also affected them while answering the questions.

Table 41. Student factors and labels

	Factors	Labels
CCE imple ntation factors	1	Comprehensive and reliable evaluation
	2	Valid evaluation
	3	Damaging evaluation
2 nd analysis	4	Importance of education for parents
	5	Parental support
	6	School climate - Students

Factor 1: Comprehensive and reliable evaluation: The factor loading in this group indicates the comprehensive (designed for students of all abilities in the same school) and reliable (that is likely to be correct or true) nature of the evaluation of students. Therefore, a comprehensive evaluation is associated with the evaluation both scholastic and non-scholastic performance of the students (*Both scholastic and non-scholastic performers are well appreciated in the classroom*). Besides, communicating to students about the areas where students need to be improved on and convincing them about the progress they have achieved during a certain period of time increase the comprehensive and reliable nature of an evaluation (*Teachers communicate me both my strengths and weaknesses*). Additionally, a comprehensive evaluation focuses on the important

aspects of the learning rather assessing generally (*My teachers evaluate every relevant aspect of my learning*).

In the same manner, evaluation results should provide correct information about a student's performance i.e. to provide dependable information about their real capacities, so that students can build upon the strength and minimise the weakness (*I feel confident with the way I am evaluated*). Similarly, teachers must be unbiased in their approach to evaluation (*The way in which teachers evaluate me is influenced by their personal opinion about me*) concentrating only on the academic interest of evaluation (*My teachers are interested only in scholastic things, not in the way I feel or do other things*). In case, evaluation emphasises on academic achievements alone, the reliability element of evaluation is suffering there. Cronbach's Alpha score (0.634) of the factor is satisfactory even though it is not so high, which has a loading of eight items.

Factor 2: Valid evaluation: Evaluation becomes valid when it is done based on what is logical or true. It is also important that students know in advance what they are expected to learn before the evaluation, besides teachers should explain to them clearly on what basis a score is given (*Before doing evaluation, I know what I must learn and my evaluation results correspond to my real learning*). Thus, evaluation becomes corresponding to the actual learning of students (*My evaluation results correspond to my real learning*). Moreover, evaluation has to be conducted timely and frequently; so that the evaluation results can provide needful information for properly planning the future career (*CCE's all-inclusive and timely evaluation is very much helpful for our future planning*). The Cronbach's Alpha score is 0.595.

Factor 3: Damaging evaluation: It is possible that an evaluation can produce unforeseeable harmful consequences on its implementation. However, being cautious about it can subsidise the impact of it. (One of the main goals of CCE was to eliminate the unwarranted societal pressure caused by the society upon students). As the factor loading shows, some elements can possibly damage the effectiveness of student evaluation. For example, societal pressure can cause great damage to students performance (*Societal pressure still affects the students negatively*) or teachers may

make comments without any intention of hurting students' esteem, which can actually damage their confidence. Unfortunately, some students opined that it was still a reality in some classes although CCE reprimands it (*Some teachers still make damaging comments to students*). Certain instant changes like the one transition from more student friendly evaluation to more serious evaluation practices in higher classes under CCE can lead to seriously affect the psyche of students (*The transition from more student friendly exams in Primary Education to more serious evaluation in Secondary Education has been problematic for me*). The Cronbach's Alpha score is 0.595, which is considerable low.

The second factor analysis in relation to school climate and parental pressure and support, the factors produced positive results as KMO (0,629) and p-value for Barlett's test of sphericity (0,000) showed significant correlation.

Table 42. Total variance explained

Component	Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %
1	1,796	19,952	19,952
2	1,476	16,398	36,350
3	1,312	14,577	50,927

Table 43. Factor labels and items of student questionnaire

Rotated Component Matrix ^a			
	Component		
	1	2	3
s26 - The relationship that exists between my parents and the teachers is a good one.	,751		,222
s25 - My teachers review previous work before introducing new material.	,694		
s27 - The relationship that exists between my parents and the administration is a good one.	,614	- ,130	
s24 - I believe that teachers vary instructional strategies according to our needs.	,572	,249	- ,167
School climate			
s21 - My parents help me while doing homework.	,152	,734	

s22 - I have other family members' support in studies.		,680	
s23 - I have special classes like tuition other than regular school class.	-	,618	
Parental support	,101		
s18 - My parents believe that I should be allowed to choose any field of study that I like.	,104		,785
s17 - My parents believe that a good education is the best way to become successful.			,780
Importance of education for parents			

Table 44. Factors and labels

	Factors	Labels
Importance of education, Parental support & School climate	4	Importance of education for parents
	5	Parental support
	6	School climate - Students

Factor 4: School climate: As we have already seen, school climate is a significant component of school effectiveness. It can facilitate the implementation of new school programs. A positive relationship between parents and teachers is equally a kind of leverage for practicing CCE effectively (*The relationship that exists between my parents and the teachers is a good one*). Alike, the relationship between parents and teachers can also influence on the meaningful practice of CCE (*The relationship that exists between my parents and the administration is a good one*). Students' positive belief about teachers' competence and teachers' willingness to help students according to their needs generally make an impact on the performance of the students including the evaluation of students (*I believe that teachers vary instructional strategies according to our needs and my teachers review previous work before introducing new material*). Cronbach's Alpha score is 0.572, which is acceptable.

Factor 5: Parental support: The loading factor underlines that parental support has considerable influence on the academic performance of the students. Parental support can make its impact on students either way, positively or negatively. Sometimes, parental support can turn into parental pressure, which can too much upon student in

the form of parental expectation to perform above their real capacities and tastes. Otherwise, parental support is necessary for the proper growth and development of students. In connection with CCE practice too, this is applicable. Therefore, there were three questions that attempted to find out the relation between the parental support and CCE practice such as *my parents help me while doing homework, I have other family members' support in studies, and I have special classes like tuition other than regular school class*. Cronbach's Alpha score was not very satisfactory (0.443) although this negative judgement must be moderated considering that the subscale is made of only 2 items.

Factor 5: Importance of education for parents: Parents' attitude towards education of their children is relevant for students. If parents have a very positive attitude towards education and its influence on their children, it will definitely reflect upon their children as well and vice-versa. In general, parents give prominent importance to the education of their children like the parents of the population of the present study. Naturally, it reflects in the attitude of the students towards education. In the same manner, if parents view education just as platform to make their show off, it can affect negatively their children (*My parents believe that a good education is the best way to become successful*). Nonetheless, there are parents who leave everything to the choice of their children without giving sufficient guidance. The ideal should be freedom with responsibility (*My parents believe that I should be allowed to choose any field of study that I like*). Whereupon, these factors become important in relation to the CCE practice too. It has a poor Cronbach's Alpha score (0.434).

Once we identified the underlying dimensions, we use this information for calculating each person's score in each factor. The result of the descriptive analysis of these scores is in the next table:

Table 45. Result of the descriptive analysis of the scores of student factors

Factors	Mean	Standard deviation	Skewness
SF1 - Comprehensive and reliable evaluation	4,4395	,72623	-,633
SF2 - Valid evaluation	4,6836	,73195	-1,106
SF3 - Damaging evaluation	3,0820	1,10965	,004
Importance of education for parents	5,5373	,71453	-2,178
Parental support	3,7856	1,21180	-,240
School climate - Students	3,7686	,78369	-,578

Perceptions of students of CCE implementation indicate nearly high scores in general. ‘Comprehensive and reliable evaluation’ and ‘Valid evaluation’ are quite positively perceived by the students, with high means about 4.6, standard deviations about 0.73 and relevant negative skewness (most participants show higher scores). However, “Damaging evaluation” has lower average scores (just above 3) although every “negative” questions were recoded (e.g. when asked if “s16 - Societal pressure still affects students negatively”, every answer of 1 was recoded as 6. Whereof, students do not deny the existence of certain damaging aspects of the evaluation with lower means, standard deviations above 1, and a clearly balanced distribution (skewness=-0.004) signalling to some tendency to have most respondents in less optimistic positions).

‘Importance of education for parents’ gets high scores with means (5.54), $s=1.211$, and a strongly articulated negative skewness (1.211). It underpins how important education is for parents. When it comes to parental support, anyway the score does not appear to be higher that is just near to 4. However, the standard deviation shows the difference in the view with substantial score of 1.21 and about a balanced skewness (-0.240). Similarly, school climate gets means about 4 with relatively some accountable diversity ($S=0.78$). A somewhat negatively balanced skewness confirms that schools climate is relevant for some points from the perception of students.

5.4 Relation between school characteristics and the stakeholders' perspectives on the practice of CCE

Before analysing the relation of school characteristics, we explored the interactions among the school characteristics themselves.

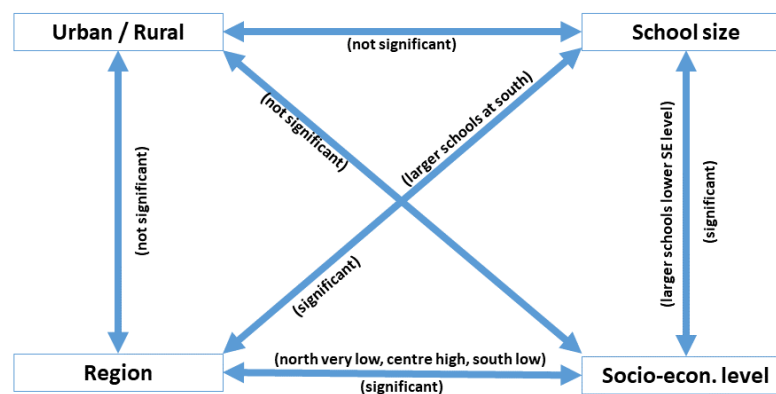


Figure 11. Interaction among school characteristics

There was no relation between Urban/Rural and Region (the distribution of Urban/Rural is very similar in the three regions, and p-value of chi-squared was not significant). The same happened between Urban/Rural and School size, and between Urban/Rural and Socio-Economic level. But, there was a statistically significant relation between region and school size as p-value of chi-squared was significant (p-value = 0,000). Besides, the relation between region and socio-econ-level of schools and school size and socio-econ-level of schools were significant.

Relation between region and school size

It is clear from the table that more schools are from central zone i.e. seven small size schools and six medium size schools altogether constitute 13 schools. No school was there from central zone among them that belonged to large size. In the case of northern zone, there is no representation of small schools as the three schools each come under the category of medium and large size. On the contrary, all the six schools in the southern zone remain in the large size category.

Table 46. Interactions between school size and region

			Region2			Total
			Centre	North	South	
Id_strength	Small	Count	7	0	0	7
		% within Id_strength	100,0%	0,0%	0,0%	100,0%
	Mediu m	Count	6	3	0	9
		% within Id_strength	66,7%	33,3%	0,0%	100,0%
	Large	Count	0	3	6	9
		% within Id_strength	0,0%	33,3%	66,7%	100,0%
Total		Count	13	6	6	25
		% within Id_strength	52,0%	24,0%	24,0%	100,0%

Relation between school region and socio-economic level schools

The table shows that six schools each belong to very low and low socio-economic level correspondingly to the northern and southern zones, whereas thirteen schools with high socio-economic level come from central zone.

Table 47. Relation between school region and socio-economic level of schools

			Socio_economic_level			Total
			Very low	Low	Hirgh	
Region2	Centr e	Count	0	0	13	13
		% within Region2	0,0%	0,0%	100,0%	100,0%
	North	Count	6	0	0	6
		% within Region2	100,0%	0,0%	0,0%	100,0%
	South	Count	0	6	0	6
		% within Region2	0,0%	100,0%	0,0%	100,0%
Total		Count	6	6	13	25
		% within Region2	24,0%	24,0%	52,0%	100,0%

Relation between school size and socio-economic-level of schools

There are seven schools under the category of small size and all of them belong to the group of high socio-economic-level schools. However, in the medium category, three schools form the group of very low socio-economic-level while six schools constitute high socio-economic-level schools. Finally, among the nine large size schools, three schools are with very low socio-economic-level and the other six are with low socio-economic-level.

Table 48. Relation between school size and socio-economic-level of schools

			Socio_economic_level			Total
			Very low	Low	Hirgh	
Id_strength	Small	Count	0	0	7	7
		% within Id_strength	0,0%	0,0%	100,0%	100,0%
	Mediu m	Count	3	0	6	9
		% within Id_strength	33,3%	0,0%	66,7%	100,0%
	Large	Count	3	6	0	9
		% within Id_strength	33,3%	66,7%	0,0%	100,0%
Total		Count	6	6	13	25
		% within Id_strength	24,0%	24,0%	52,0%	100,0%

5.4.1 Perspective of teachers

a. Type of school

Type of school factor does not appear a relevant factor in the practice of CCE. However, some factors demonstrate differences in a small scale. The results show that teachers from rural schools have better opinion regarding the factors *validity and utility, evaluation quality, transparency and consistency, and pedagogical benefits of CCE practice* compared to the other two groups. Similarly, they have a better view of the *pedagogical competence* of teachers. Though the differences are in small scale, yet they are relevant for improving the evaluation of students. At the same time, teachers were not hesitant to state that CCE had certain *shortages and lacking issues* although the differences were in a very smaller scale. In relation to *damaging and problematic issues* of CCE practice, semi-urban schoolteachers shared a stronger view compared to the rural and urban schoolteachers. Nevertheless, when it comes to *school climate - relations with parents and confidence in learning*, urban teachers come ahead of others.

In general, there were not any big differences in the perspective of teachers of CCE practice with respect to the type of school.

Table 49. Type of school - teachers' perspective

Factors	Rural	Semi-urban	Urban	F	p-value	eta squared	Effect size
<i>Validity and utility</i>	4,72	4,48	4,34	10,23	0,000	0,04	small
<i>Evaluation quality, transparency, consistency</i>	4,82	4,64	4,52	6,58	0,002	0,03	small
<i>Pedagogical benefits</i>	4,82	4,74	4,70	1,52	0,219	0,01	small
<i>Shortage, lacking issues</i>	2,82	2,76	2,66	1,35	0,261	0,01	small
<i>Pedagogical competence</i>	5,13	5,11	4,95	4,71	0,009	0,02	small
<i>Damaging and problematic issues</i>	3,39	3,46	3,12	5,83	0,003	0,03	small
Sense of efficacy of teachers	3,46	3,35	3,40	1,05	0,352	0,00	-
School climate - trust and openness	4,32	4,32	4,29	0,07	0,937	0,00	-
<i>School climate - relations with parents and confidence in learning</i>	4,14	4,23	4,29	1,44	0,239	0,01	small
School climate - school mission	4,37	4,39	4,34	0,37	0,69	0,00	-

b. Size of school

The size of the school factor neither has apparently any considerable level of influence on the practice of CCE. However, certain factors show some small-scale differences with respect to the size of the school. As the results indicate, *evaluation quality, transparency, consistency* aspects of CCE are more appreciated by teachers from medium size schools, while some negative sides such as *shortage, lacking issues and damaging and problematic issues* are more highlighted by teachers from large size schools. However, according to teachers from large schools, there exists a better *school climate - relations with parents and confidence in learning*. Anyway, teachers from medium size schools think the *sense of efficacy of teachers* and *school climate - trust and openness* are better in their schools.

Table 50. Size of school - teachers' perspective

Factors	Small	Medium	Large	F	p-value	eta squared	Effects
Validity and utility	4,56	4,56	4,48	0,52	0,594	0,00	-
<i>Evaluation quality, transparency, consistency</i>	4,59	4,73	4,67	1,22	0,297	0,01	small
Pedagogical benefits	4,74	4,77	4,76	0,14	0,874	0,00	-
<i>Shortage, lacking issues</i>	2,70	2,69	2,86	1,97	0,141	0,01	small
Pedagogical competence	5,06	5,07	5,08	0,02	0,978	0,00	-
<i>Damaging and problematic issues</i>	3,36	3,25	3,42	1,54	0,215	0,01	small
<i>Sense of efficacy of teachers</i>	3,33	3,52	3,35	3,64	0,027	0,02	small
<i>School climate - trust and openness</i>	4,16	4,34	4,39	5,03	0,007	0,02	small
<i>School climate - relations with parents and confidence in learning</i>	4,16	4,17	4,30	1,61	0,201	0,01	small
School climate - school mission	4,36	4,37	4,38	0,03	0,974	0,00	-

c. Socio-economic-family background

Alike the above-mentioned two factors, socio-economic-family background of the school does not make any relevant level difference in relation to CCE practice. Still, some factors suggest some differences in a lighter margin, with teachers from low or very low-income level schools showing answers that are slightly more positive. For example, *Evaluation quality, transparency, consistency* is more realized by teachers from low socio-economic-family background of the school, whereas *pedagogical benefits* are more appreciated by teachers from very low socio-economic-family background of school better. Teachers from very low socio-economic-family background of the school are more critical in their perspective of CCE practice in the case of *shortage, lacking issues* too. Nevertheless, teachers from these two groups (very low and low), have almost the same view regarding the *pedagogical competence* and *school climate* -

relations with parents and confidence in learning. In the matter of sense of efficacy of teachers and school climate - trust and openness, the perception of teachers (in the category of very low) are superior to the other two groups with a small difference.

Table 51. Socio-economic-family background – teachers' perspective

Factors	Very low	Low	High	F	p-value	eta squared	Effects
Validity and utility	4,54	4,60	4,50	0,66	0,516	0,00	-
<i>Evaluation quality, transparency, consistency</i>	4,71	4,79	4,60	2,71	0,068	0,01	small
<i>Pedagogical benefits</i>	4,89	4,77	4,69	4,72	0,009	0,02	small
<i>Shortage, lacking issues</i>	2,95	2,83	2,62	6,46	0,002	0,03	small
<i>Pedagogical competence</i>	5,11	5,12	5,03	1,48	0,228	0,01	small
Damaging and problematic issues	3,37	3,36	3,32	0,17	0,845	0,00	-
<i>Sense of efficacy of teachers</i>	3,55	3,40	3,34	3,74	0,024	0,02	small
<i>School climate - trust and openness</i>	4,39	4,35	4,25	2,03	0,133	0,01	small
<i>School climate - relations with parents and confidence in learning</i>	4,32	4,30	4,12	3,73	0,025	0,02	small
School climate - school mission	4,41	4,39	4,34	1,09	0,337	0,00	-

d. School culture and climate

Table 52. School culture and climate - Teachers' perspective

Correlations				
		SC1T - School climate - trust and openness	SC2T - School climate - relations with parents and confidence in learning	SC3T - School climate - school mission
Validity and utility	Pearson Correlation	,214**	,390**	,214**
	Sig. (2-tailed)	,000	,000	,000

<i>Evaluation quality, transparency, consistency</i>	Pearson Correlation	,242**	,404**	,298**
	Sig. (2-tailed)	,000	,000	,000
<i>Pedagogical benefits</i>	Pearson Correlation	,239**	,328**	,309**
	Sig. (2-tailed)	,000	,000	,000
<i>Shortage, lacking issues</i>	Pearson Correlation	-,077	,010	,030
	Sig. (2-tailed)	,106	,827	,526
<i>Pedagogical competence</i>	Pearson Correlation	,285**	,375**	,298**
	Sig. (2-tailed)	,000	,000	,000
<i>Damaging and problematic issues</i>	Pearson Correlation	-,083	,012	-,003
	Sig. (2-tailed)	,083	,804	,949
**. Correlation is significant at the 0.01 level (2-tailed).				

There are significant correlations between 'school culture and climate' and the perception of teachers of 'validity and utility', 'evaluation quality, transparency, consistency', 'pedagogical benefits', and 'pedagogical competence' features of CCE with a $p < 0.05$. The effect size in relation to school climate- trust and openness' is close to medium, while it indicates above medium size correlation with respect to 'School climate - relations with parents and confidence in learning'. Again, when we consider the factor 'school climate - school mission', the effect is almost medium. However, 'shortage, lacking issues' and 'damaging and problematic issues' do not show any significant correlation with school culture and climate.

5.4.2 Perspective of head teachers

a. Type of school

Taking into account the results of the perspectives of head teachers, type of school appears to be a relevant factor. (It has the limitation of not having sufficient number of participants for factor analysis. Therefore, even though the effect sizes are larger, the weightage given to them should be corresponding because p -value ($p < 0.05$) is not significant). According to the views of head teachers of rural school, *validity and utility, evaluation quality, transparency, and consistency, shortage and lacking issues and school culture* are influential factors in relation to the implementation of CCE. All these factors have a medium size effect in comparison with the other two variable semi-urban

and urban schools. Nevertheless, in the case of *pedagogical benefits*, semi-urban school head teachers' perspective is superior to other two groups, that too with a difference of large size effect.

Table 53. Type of school - Head teachers' perspective

Factors	Rural	Semi-urban	Urban	F	p-value	eta squared	Effects
Validity and utility	4,85	4,44	4,60	1,45	0,255	0,12	Medium
Evaluation quality, transparency, and consistency	5,00	4,66	4,75	0,66	0,529	0,06	Medium
Pedagogical benefits	4,89	5,08	4,63	1,95	0,166	0,15	Large
Shortage and lacking issues	3,19	2,78	2,50	1,62	0,221	0,13	Medium
Pedagogical competence	5,17	5,17	5,00	0,25	0,78	0,02	Small
Damaging and problematic issues	2,56	2,88	2,75	0,21	0,815	0,02	Small
School culture	4,00	3,95	3,68	1,37	0,275	0,11	Medium
School climate	4,62	4,66	4,39	0,64	0,535	0,06	Small

b. Size of school

On an average, size of school is a significant factor in the practice of CCE, especially with the factors *pedagogical benefits and damaging and problematic issues* as indicated by the head teachers. However, while *the damaging and problematic issues* have been emphasized by the head teachers from large size schools, the rest of the of factors such as *validity and utility, evaluation quality, transparency, and consistency, shortage and lacking issues, school climate* etc. have been underpinned by the head teacher of medium size schools.

Table 54. Size of school - Head teachers' perspective

Factors	Small	Medium	Large	F	p-value	eta squared	Effects
Validity and utility	4,57	4,80	4,54	0,64	0,538	0,05	Small
Evaluation quality, transparency, and consistency	4,61	4,97	4,81	0,63	0,541	0,05	Small
Pedagogical benefits	4,86	4,72	5,02	0,92	0,413	0,08	Medium
Shortage and lacking issues	2,93	3,03	2,58	0,70	0,51	0,06	Small
Pedagogical competence	4,93	5,17	5,06	0,35	0,706	0,03	Small
Damaging and problematic issues	2,71	3,11	2,33	1,41	0,267	0,11	Medium
School culture	3,80	3,98	3,84	0,35	0,706	0,03	Small
School climate	4,43	4,54	4,68	0,48	0,623	0,04	Small

c. Socio-economic-family background of the school

Socio-economic-family background of the school seems to having some influence on the practice of CCE. For example, *shortage and lacking issues* and *school climate* have a medium effect size. Head teachers of high socio-economic-family background schools have stronger perception of CCE that focused on the *shortage and lacking issues of CCE*, when head teachers of low Socio-economic-family background of the school have the perspective that *school climate* is influential on the practice of CCE.

Table 55. Socio-economic-family background of school - Head teachers' perspective

Factors	Very low	Low	High	F	p-value	eta squared	Effects
Validity and utility	4,79	4,46	4,65	0,62	0,548	0,04	Small
Evaluation quality, transparency, and consistency	4,67	5,00	4,79	0,41	0,67	0,04	Small
Pedagogical benefits	5,04	4,87	4,78	0,58	0,571	0,05	Small
Shortage and lacking issues	2,46	2,83	3,02	0,95	0,402	0,08	Medium
Pedagogical competence	5,08	5,17	5,00	0,19	0,833	0,02	Small

<i>Damaging and problematic issues</i>	2,50	2,58	2,88	0,36	0,704	0,03	Small
<i>School culture</i>	3,90	3,80	3,91	0,12	0,884	0,01	Small
<i>School climate</i>	4,38	4,81	4,53	1,15	0,337	0,09	Medium

d. School culture and climate

Table 56. School culture and climate correlations

Correlations			
		SC1H - School culture	SC2H - School climate
Validity and utility	Pearson Correlation	,409*	,196
	Sig. (2-tailed)	,042	,348
Evaluation quality, transparency, consistency	Pearson Correlation	,306	,240
	Sig. (2-tailed)	,137	,249
Pedagogical benefits	Pearson Correlation	,218	,023
	Sig. (2-tailed)	,295	,913
Shortage, lacking issues	Pearson Correlation	,229	,024
	Sig. (2-tailed)	,271	,910
Pedagogical competence	Pearson Correlation	,259	,197
	Sig. (2-tailed)	,211	,346
Damaging and problematic issues	Pearson Correlation	-,109	-,251
	Sig. (2-tailed)	,604	,227
*. Correlation is significant at the 0.05 level (2-tailed).			

Since, head teacher sample is smaller, only bigger correlations are significant. Therefore, the analysis shows that although there are some medium or low correlations, only one is statistically significant i.e. ‘school culture’ makes a relevant correlation with ‘Validity and utility’ factor. With respect to other factors, neither school culture nor school climate show up any countable correlation.

5.4.3 Perspective of students

a. Type of school

Type of school is not a relevant factor neither in the case students as well. However, their perspective of CCE practice with respect to type of school is also not completely an

irrelevant factor because a few factors reveal certain level of distinction. Urban school students have a better opinion of ‘comprehensive and reliable evaluation’ of CCE. Semi-urban schools students rate higher the *validity* dimension of the practice while rural school students highlight the ‘damaging issues’ of CCE practice than the other two groups. Urban school students receive more ‘parental support’ and semi-urban schools maintain a better *school climate* according to the students participated in the study.

Table 57. Type of school - students' perspective

Factors	Rural	Semi-urban	Urban	F	p-value	eta squared	Effects
Comprehensive and reliable evaluation	4,40	4,38	4,55	3,37	0,035	0,01	Small
Valid evaluation	4,58	4,80	4,65	5,49	0,004	0,02	Small
Damaging evaluation	3,18	3,13	2,93	2,98	0,052	0,01	Small
Importance of education for parents	5,47	5,57	5,57	1,32	0,268	0,00	-
Parental support	3,89	3,50	4,02	12,00	0	0,03	Small
School climate - Students	3,57	3,80	3,94	12,65	0	0,04	Small

b. School size

Overall, school size factor does not appear to be a relevant factor, except in the case of a couple of factors in a low level. The students from medium and large size schools have almost a similar view of the factors ‘comprehensive and reliable evaluation and valid evaluation’. Nonetheless, related to ‘damaging issues’, large size schools have a stronger perception. Students from small and medium size schools receive ‘parental support’ more whereas, with respect to ‘school climate’, large size schools overtake the other two sections.

Table 58. Size of school - students' perspective

Factors	Small	Medium	Large	F	p-value	eta squared	Effects
Comprehensive and reliable evaluation	4,24	4,55	4,52	12,30	0	0,04	Small
Valid evaluation	4,54	4,78	4,73	6,41	0,002	0,02	Small
Damaging evaluation	2,96	3,10	3,18	2,09	0,124	0,01	Small
Importance of education for parents	5,52	5,51	5,58	0,61	0,544	0,00	-
Parental support	3,87	3,92	3,58	5,18	0,006	0,02	Small
School climate - Students	3,83	3,57	3,91	12,17	0	0,04	Small

c. Region of school

In general, the perspectives of the students in connection with region of school neither appears to be a significant factor in the practice of CCE. However, the factors *comprehensive and reliable evaluation* (north zone) and *parental support* (central zone) demonstrate a medium size difference as indicated by the results. Other factors also differentiate in smaller scales, which are worth mentioning. For example, *valid evaluation* as well as *damaging evaluation* have been much stressed by the students from north zone, and considering *the importance of education* apart from the northern zone, south zone reach near to the north zone too. Again, when it comes to *school climate* factor, north zone students are above other two groups in their perspective. Overall, students from northern have stronger view of CCE practice with respect to all factors.

Table 59. Region of school - students' perspective

Factors	Centre	North	South	F	p-value	eta squared	Effects
Comprehensive and reliable evaluation	4,25	4,84	4,48	41,39	0	0,11	Medium
Valid evaluation	4,55	4,93	4,73	15,91	0	0,05	Small
Damaging evaluation	2,88	3,48	3,14	17,18	0	0,05	Small
Importance of education for parents	5,49	5,66	5,51	3,25	0,039	0,01	Small
Parental support	4,05	3,14	3,86	34,91	0	0,09	Medium
School climate - Students	3,64	4,02	3,80	13,76	0	0,04	Small

d. Socio-economic-family background

By and large, socio-economic-family background factor does not make any larger scale differences. Even then, two factors viz. *comprehensive and reliable evaluation*, which has been appreciated more by students from very low socio-economic-family background and *parental support* by students from high socio-economic-family background. In fact, except the factor *parental support*, students from these schools (very low socio-economic-family background) have seen all other factors (*valid evaluation*, *damaging evaluation*, *importance of education for parents*, and *school climate – students*) either more positively or more negatively.

Table 60. Socio-economic-family background - students' perspective

Factors	Very low	Low	High	F	p-value	eta squared	Effects
Comprehensive and reliable evaluation	4,84	4,48	4,25	41,39	0	0,11	Medium
Valid evaluation	4,93	4,73	4,55	15,91	0	0,05	Small
Damaging evaluation	3,48	3,14	2,88	17,18	0	0,05	Small
Importance of education for parents	5,66	5,51	5,49	3,25	0,039	0,01	Small
Parental support	3,14	3,86	4,05	34,91	0	0,09	Medium
School climate - Students	4,02	3,80	3,64	13,76	0	0,04	Small

e. Type of principal

Type of principal factor cannot be taken as a relevant factor in the practice of CCE because none of the factors has shown any significant difference barring some small level differences. However, generally students’ view of CCE practice from religious principals managed schools is slightly more positive than their counter partner civil principals managed schools. When the factor *parental support* is better viewed by civil principals managed schools, with respect to the rest of the factors (*comprehensive and reliable evaluation, valid evaluation, and damaging evaluation*), the other group is ahead of them.

Table 61. Type of principal - students' perspective

Factors	Religios prnpl	Civil	std.dev .	Cohen's d	Effect size	t	t	p-value
Comprehensive and reliable evaluation	4,51	4,36	0,73	0,21	Small	2,69	2,7	0,007
Valid evaluation	4,74	4,62	0,73	0,16	Small	2,04	2,0	0,041
Damaging evaluation	3,25	2,87	1,11	0,34	Small	4,433	4,4	0,000
Importance of education for parents	5,52	5,55	0,71	-0,04	Very small	-0,574	-0,6	0,566
Parental support	3,61	4,00	1,21	-0,32	Small	-4,151	-4,2	0,000
School climate - Students	3,82	3,71	0,78	0,14	Very Small	1,836	1,8	0,067

Table 62. School climate and parental support

Correlations				
		Importance of education for parents	Parental support	School climate - Students
Comprehensive and reliable evaluation	Pearson Correlation	,162**	-,009	,437**
	Sig. (2-tailed)	,000	,822	,000
Valid evaluation	Pearson Correlation	,154**	,018	,389**
	Sig. (2-tailed)	,000	,634	,000

Damaging evaluation	Pearson	-,042	-,073	,169**
	Correlation			
	Sig. (2-tailed)	,278	,059	,000
**. Correlation is significant at the 0.01 level (2-tailed).				

Relevant correlation are shown between school climate and students' perception of CCE in relation to all the three factors viz. 'Comprehensive and reliable evaluation', 'Valid evaluation', and 'Damaging evaluation', especially with the first two factors. These two factors have a correlation of above medium size effect, particularly with 'Comprehensive and reliable evaluation', which is near to large size. The third factor is also relevant even though the size is small. Quite surprisingly, 'parental support' does not make any considerable level correlation. Nonetheless, 'Importance of education for parents' make relevant small size correlation with the first two factors and 'Damaging evaluation' does not appear to be a relevant factor in the correlation with students' perception of CCE.

5.5 Relation between the stakeholders' characteristics and their perspectives on the practice of CCE

5.5.1 Teacher characteristics

a. Gender

Gender does not appear as a relevant factor in the practice of CCE, except in the case of *sense of efficacy of teachers*, where denotes a medium size effect. Sense of efficacy of teachers is apparently higher among male teachers. As per the Cohen's d value, all factors demonstrate some small level effect, however, they are not sound enough to highlight as significant factors affecting the implementation of CCE in relation to the gender of the practitioners.

Table 63. Teacher characteristics - gender

Factors	Male means	Female means	Std. dev.	Cohen's d	Effect	t	p-value
Validity and utility	4,43	4,55	0,74	-0,16	small	-1,238	0,216
Evaluation quality, transparency, consistency	4,76	4,65	0,71	0,15	small	0,954	0,343
Pedagogical benefits	4,78	4,76	0,58	0,04	small	0,283	0,777
Shortage, lacking issues	2,89	2,73	0,85	0,19	small	1,435	0,152
Pedagogical competence	5,13	5,06	0,54	0,13	small	1,013	0,312
Damaging and problematic issues	3,30	3,35	0,87	-0,05	small	0,-414	0,679
Sense of efficacy of teachers	3,7	3,35	0,48	0,73	medium	4,078	0,000
School climate - trust and openness	4,35	4,30	0,67	0,07	small	0,641	0,523
School climate - relations with parents and confidence in learning	4,28	4,20	0,63	0,13	small	0,759	0,450
School climate - school mission	4,39	4,37	0,75	0,03	small	0,336	0,737

b. Qualification

Neither qualification of the teachers seems to be an impacting factor on the practice of CCE. Nevertheless, graduate teachers consider *validity and utility* aspects of CCE higher with an effect of *medium* size. However, all factors demonstrate a small level differences even though they are not big enough for considering them factors affecting the practice according to Cohen's d. There were not sufficient number of persons for a factor analysis in the category of M.Phil. and Ph. D. Therefore, those items were combined with the item postgraduate qualification.

Table 64. Teacher characteristics - qualification

Factors	Graduate	Postgraduate	Std. dev.	Cohen's d	Effects	t	p-value
Validity and utility	4,62	4,46	0,74	0,22	Medium	2,249	0,025
Evaluation quality, transparency, consistency	4,72	4,63	0,71	0,13	small	1,346	0,179
Pedagogical benefits	4,80	4,73	0,58	0,11	small	1,144	0,253
Shortage, lacking issues	2,79	2,73	0,85	0,07	small	0,692	0,489
Pedagogical competence	5,07	5,07	0,54	-0,01	small	-0,11	0,913
Damaging and problematic issues	3,38	3,31	0,87	0,08	small	0,783	0,434
Sense of efficacy of teachers	3,36	3,44	0,48	-0,17	small	-1,288	0,199
School climate - trust and openness	4,33	4,30	0,67	0,05	small	0,534	0,594
School climate - relations with parents and confidence in learning	4,16	4,25	0,63	-0,14	small	-1,269	0,205
School climate - school mission	4,33	4,40	0,75	-0,09	small	-1,509	0,132

c. Teaching experience

Similar to the previous factors, the results do not manifest teaching experience as a deciding component in the teachers' perspectives of CCE practice. Some factors such as *validity and utility, evaluation quality, transparency, consistency, pedagogical benefits, damaging and problematic issues, sense of efficacy of teachers, and school climate - trust and openness* exhibit distinction in a small scale, but they are not so effective to be counted for a factor. The two groups with a teaching experience of between 5-10 and 11-15 have majorly pointed out these differences.

Table 65. Teacher characteristics - teaching experience

Factors	Below 5 yrs	Betw. 5-10	Betw. 11-15	16 and above	F	P-value	Eta squared	Effects
Validity and utility	4,52	4,57	4,58	4,29	1,80	0,147	0,01	Small
Evaluation quality, transparency, consistency	4,65	4,70	4,75	4,42	2,26	0,081	0,01	Small
Pedagogical benefits	4,73	4,80	4,78	4,62	1,21	0,305	0,01	Small
Shortage, lacking issues	2,67	2,78	2,81	2,78	0,69	0,561	0,00	-
Pedagogical competence	5,07	5,07	5,13	4,91	1,54	0,204	0,00	-
Damaging and problematic issues	3,19	3,45	3,37	3,39	2,42	0,066	0,02	Small
Sense of efficacy of teachers	3,35	3,49	3,43	3,23	2,31	0,076	0,02	Small
School climate - trust and openness	4,29	4,35	4,36	4,14	1,37	0,250	0,01	Small
School climate - relations with parents and confidence in learning	4,18	4,25	4,25	4,13	0,40	0,753	0,00	-
School climate - school mission	4,35	4,40	4,36	4,34	0,36	0,783	0,00	-

d. Age

Like in the most case of the variables , age is not an influencing factor on the implementation of CCE practice as per the perception of teachers. Comparing with other factors mentioned above, age appears to be the less influential factor with respect to the practice of CCE barring school *climate - trust and openness*, which alone makes a very small-scale variation in their perspective.

Table 66. Teacher characteristics - age

Factors	Below 30	Betw. 31-40	Above 40	F	p-value	Eta squared	Effects
Validity and utility	4,56	4,54	4,48	0,38	0,685	0,00	-
Evaluation quality, transparency, consistency	4,71	4,65	4,66	0,27	0,763	0,00	-
Pedagogical benefits	4,76	4,75	4,78	0,09	0,918	0,00	-
Shortage, lacking issues	2,74	2,79	2,70	0,44	0,646	0,00	-
Pedagogical competence	5,11	5,03	5,09	1,03	0,358	0,00	-
Damaging and problematic issues	3,32	3,39	3,28	0,68	0,509	0,00	-
Sense of efficacy of teachers	3,33	3,44	3,43	1,10	0,335	0,00	-
School climate - trust and openness	4,26	4,37	4,27	1,30	0,273	0,01	very small
School climate - relations with parents and confidence in learning	4,21	4,24	4,18	0,18	0,837	0,00	-
School climate - school mission	4,34	4,39	4,37	0,54	0,584	0,00	-

e. In-service training

Some small value effects are observable with a few factors when it comes to in-service training in relation to the implementation of CCE. Therefore, in-service training hardly appears as a relevant factor capable of influencing teachers' perspective of CCE practice. *Pedagogical benefits, shortage, lacking issues, sense of efficacy of teachers, and school climate - trust and openness* factors have indicated some influence on the practice according to the teachers who scarcely attended any in-service training. Anyhow, *sense of efficacy of teachers* has been highlighted by the teachers who attended the training only one time.

Table 67. Teacher characteristics - in-service training

Factors	Zero time	1 time	2 times	3 times	F	p-value	Eta squared	Effects
Validity and utility	4,64	4,48	4,58	4,51	0,55	0,652	0,00	-
Evaluation quality, transparency, consistency	4,76	4,71	4,63	4,66	0,33	0,803	0,00	-
Pedagogical benefits	4,84	4,69	4,73	4,80	0,96	0,414	0,01	Small
Shortage, lacking issues	2,90	2,85	2,69	2,74	0,81	0,489	0,01	Small
Pedagogical competence	5,10	5,04	5,10	5,08	0,20	0,897	0,00	-
Damaging and problematic issues	3,17	3,33	3,30	3,39	0,61	0,607	0,00	-
Sense of efficacy of teachers	3,19	3,40	3,39	3,46	1,55	0,202	0,01	Small
School climate - trust and openness	4,43	4,26	4,41	4,31	1,20	0,311	0,01	Small
School climate - relations with parents and confidence in learning	4,35	4,18	4,22	4,22	0,39	0,762	0,00	-
School climate - school mission	4,30	4,34	4,42	4,39	0,68	0,567	0,00	-

f. Sense of efficacy

Table 68. Teachers' sense of efficacy correlation

Correlations		
		SET - sense of efficacy of teachers
Validity and utility	Pearson Correlation	,259**
	Sig. (2-tailed)	,000
Evaluation quality, transparency, consistency	Pearson Correlation	,232**
	Sig. (2-tailed)	,000
Pedagogical benefits	Pearson Correlation	,309**
	Sig. (2-tailed)	,000
Shortage, lacking issues	Pearson Correlation	-,056
	Sig. (2-tailed)	,240
Pedagogical competence	Pearson Correlation	,429**
	Sig. (2-tailed)	,000
Damaging and problematic issues	Pearson Correlation	-,008
	Sig. (2-tailed)	,866
**. Correlation is significant at the 0.01 level (2-tailed).		

Teachers' sense of efficacy makes statistically significant correlation with teacher factors such as 'Validity and utility', 'Evaluation quality, transparency, consistency', 'Pedagogical benefits', and 'Pedagogical competence'. Among them, the sense of efficacy of teachers turn up a little bit higher correlation with the fourth factor i.e. 'Pedagogical competence'. Those teachers with a higher sense of efficacy have a tendency to be more satisfied with CCE implementation's positive effect on Pedagogical competence, pedagogical benefits, validity and utility, and evaluation quality, in this order. It can also be considered that SE and 'Pedagogical competence' are measuring nearby constructs.

5.5.2 Head teacher characteristics

a. Gender

Contrary to the results of teachers and students, gender appears to be a significant factor in the perspectives of the head teachers regarding the implementation of CCE. 'Evaluation quality, transparency, and consistency' and 'pedagogical competence' of the

evaluation have been more appreciated by the male principals with a large effect. Similarly, they have highlighted the *shortage and lacking issues* apart from the *damaging and problematic issues* of CCE with a medium effect. However, in the case of *school climate*, female head teachers underline the essentiality of it for the proper execution of CCE. Mostly, all factors have demonstrated either negatively or positively as relevant. Nonetheless, the number of head teachers being very low, the impact will also be equivalently lower on the evaluation practice even though the size indicates otherwise.

Table 69. Head teacher characteristics - gender

Factors	Male	Female	Std.dev.	Cohen's d	Effects	t	p-value
Validity and utility	4,60	4,66	0,51	-0,12	small	-,273	,788
Evaluation quality, transparency, consistency	5,14	4,63	0,63	0,81	Large	2,127	,047
Pedagogical benefits	4,98	4,80	0,48	0,38	small	1,097	,284
Shortage, lacking issues	3,08	2,70	0,82	0,46	Medium	1,115	,276
Pedagogical competence	5,33	4,91	0,55	0,78	Large	2,134	,045
Damaging and problematic issues	3,17	2,47	1,00	0,70	Medium	1,743	,095
School culture	3,93	3,85	0,44	0,19	small	,451	,656
School climate	4,40	4,65	0,50	-0,51	Medium	-,978	,353

b. Qualification

It is very evident from the table that qualification is a significant factor in favour of practising CCE according to head teachers' perception because graduate head teachers value the some factors such as 'validity and utility', 'evaluation quality, transparency, consistency', 'pedagogical benefits', 'pedagogical competence', 'school culture', and 'school climate' better than the post graduate teachers. Importantly, all these factors apart from 'evaluation quality, transparency, consistency', 'pedagogical benefits', which

are medium in effect size, have large size impact on CCE implementation as per the view of the graduate teachers. However, 'damaging and problematic issue' is more stressed by the postgraduate teachers.

Table 70. Head teacher characteristics - qualification

Factors	Graduate	Post Graduate	Std.dev.	Cohen's d	Effect	t	p-value
Validity and utility	5,42	4,61	0,51	1,57	Large	2,817	0,064
Evaluation quality, transparency, consistency	5,25	4,79	0,63	0,72	Medium	1,355	0,284
Pedagogical benefits	5,20	4,85	0,48	0,73	Medium	0,225	0,878
Shortage, lacking issues	2,50	2,85	0,82	-0,43	Small	3,273	0,041
Pedagogical competence	5,50	5,04	0,55	0,84	Large	0,805	0,505
Damaging and problematic issues	1,50	2,77	1,00	-1,27	Large	1,886	0,163
School culture	4,60	3,85	0,44	1,72	Large	1,848	0,169
School climate	5,00	4,54	0,50	0,92	Large	0,456	0,716

c. Experience as head teacher

Generally, experience as head teacher does not show as a significant factor apart the factor shortage and lacking issues of the evaluation. Teacher with below 10 years of experience have highlighted the 'shortage and lacking issues' of the student evaluation that has a large size impact. Overall, both group of teachers have a positive outlook towards the practice. However, head teachers with more than 10 years of experience have a better perception of CCE implementation, especially regarding the factors 'evaluation quality, transparency, consistency', 'pedagogical benefits', 'pedagogical competence'. They recognise equally that school culture and school climate are important factors that can positively affect the implementation of CCE.

Table 71. Head teacher characteristics - experience

Factors	Below 10 years	Above 10 years	Std.dev.	Cohen's d	Effect	t	p-value
Validity and utility	4,75	4,55	0,51	0,38	Small	,993	,331
Evaluation quality, transparency, consistency	4,68	4,91	0,63	-0,36	Small	-,905	,375
Pedagogical benefits	4,88	4,86	0,48	0,04	small	,103	,919
Shortage, lacking issues	3,23	2,54	0,82	0,84	Large	2,258	,034
Pedagogical competence	4,95	5,14	0,55	-0,34	Small	-,860	,399
Damaging and problematic issues	2,73	2,71	1,00	0,01	Very small	,032	,974
School culture	3,84	3,91	0,44	-0,18	Small	-,436	,667
School climate	4,52	4,59	0,50	-0,15	Small	-,373	,713

d. Age of head teachers

Age becomes an influential factor for head teachers aged below in relation to the factors 'validity and utility', 'shortage, lacking issues', and school culture. Among them, 'validity and utility' has a medium size significant effect. Similarly, head teacher aged over 40 have solely specified on the 'damaging and problematic issues' of the practice, that too with a small-scale effect.

Table 72. Head teacher characteristics - age

Factors	Below 40	Over 40	Std.dev.	Cohen's d	Effects	t	p-value
Validity and utility	4,79	4,50	0,51	0,57	Medium	1,448	,161
Evaluation quality, transparency, consistency	4,79	4,83	0,63	-0,06	-	-,138	,892
Pedagogical benefits	4,90	4,83	0,48	0,15	-	,378	,709
Shortage, lacking issues	2,98	2,71	0,82	0,33	Small	,817	,423
Pedagogical competence	5,08	5,04	0,55	0,08	-	,202	,841
Damaging and problematic issues	2,54	2,88	1,00	-0,34	Small	-,854	,402
School culture	3,93	3,83	0,44	0,24	Small	,566	,579
School climate	4,56	4,56	0,50	0,00	-	,005	,996

5.5.3 Student characteristics

a. Gender

In the case of students, gender plays some light role in their perspectives of CCE practice. All factors have some small level effects with respect to gender of the students. The factors, namely, 'comprehensive and reliable evaluation', 'importance of education for parents, and 'school climate – students' have a small level effects while the factors 'valid evaluation', 'damaging evaluation' (recoded), and 'parental support' have marginal differences only. It is peculiar to notice that except in the case of parental support, female students have a favourable look towards to all the factors, except in the case of 'parental support'. Still, none of factors barely makes any significant impact up to a level to consider them important factors in the implementation of CCE.

Table 73. Student characteristics - gender

Factors	Boys	Girls	Std.dev.	Cohen's d	Effects	t	p-value
Comprehensive and reliable evaluation	4,33	4,54	0,73	-,29	Small	-3,787	0
Valid evaluation	4,64	4,72	0,73	-,11	very small	-1,477	0,14
Damaging evaluation	3,03	3,13	1,11	-,09	very small	-1,228	0,22
Importance of education for parents	5,48	5,60	0,71	-,17	Small	-2,168	0,031
Parental support	3,85	3,73	1,21	,10	very small	1,233	0,218
School climate - Students	3,66	3,87	0,78	-,26	Small	-3,361	0,001

b. Class level

Just like gender, class level also influence less only on the perspectives of students of the CCE practice. Even then, there are narrower effects with reference to their view of the evaluation practice among the students of classes VIII, IX, and X. Students of class VIII perceive better the *comprehensiveness, reliability, and school climate* aspects of the evaluation and students of class X highlight the factors *validity and damaging* features of the evaluation, especially the factor *parental support*. Class IX students have solely emphasized on the *Importance of education* parents give for it.

Table 74. Student characteristics - class level

Factors	VIII	IX	X	F	p-value	Eta squared	Effects
Comprehensive and reliable evaluation	4,52	4,43	4,32	3,77	,024	0,01	Small
Valid evaluation	4,71	4,59	4,79	4,08	,017	0,01	Small
Damaging evaluation	3,15	2,91	3,23	4,76	,009	0,01	Small
Importance of education for parents	5,55	5,59	5,43	2,72	,067	0,01	Small
Parental support	3,77	3,77	3,84	0,20	,816	0,00	Very small
School climate - Students	3,92	3,72	3,57	11,03	,000	0,03	Small

c. Students' academic position and average grade

Table 75. Students' academic position and average grade

Correlations			
		s28 - What is your academic position within your classroom?	s29 - Which has been your average grade for the previous semester?
Comprehensive and reliable evaluation	Pearson Correlation	,088*	-,190**
	Sig. (2-tailed)	,022	,000
Valid evaluation	Pearson Correlation	,131**	-,201**
	Sig. (2-tailed)	,001	,000
Damaging evaluation	Pearson Correlation	,062	-,134**
	Sig. (2-tailed)	,111	,001
*. Correlation is significant at the 0.05 level (2-tailed).			
**. Correlation is significant at the 0.01 level (2-tailed).			

There are small but statistically significant correlations between the academic perception of the academic achievement and CCE implementation as well as between grades and the perception. Correlations are apparently negative with grades because a lower code in grades corresponds to better academic outcomes. The correlation is higher with grades than with the perception of academic achievement. Students

performing better have a more positive perception of CCE implementation. Similarly, these students slightly highlight the damaging side of the evaluation as well.

5.6 Summary

In this chapter, the data has been analysed to find out the stakeholders' perspective with respect to propriety, utility, feasibility, and accuracy aspects of CCE practice using the mean score of each item. Thereafter, factor analysis has been employed in order to understand the underlying dimensions in their perspectives with respect to standards. However, in the case of head teachers, instead of conducting factor analysis of the data (for not having sufficient data for conducting a factor analysis), a grouping of items in align with teacher factor items has been done.

Similarly, the study attempted to understand the relation between the stakeholders' perspectives and school characteristics using each stakeholder factors. Majorly, there have not been high significant effects between the stakeholders' perspectives and school characteristics barring some cases. However, most of the variables have shown some small level relation, which is worth considering for discussion.

In the same manner, the relation between the stakeholder characteristics and their perspectives has also been analysed availing the factors. The results have indicated there is not much relation between these two variables with respect to the practice of CCE, except in some cases. Nevertheless, here also most of the factors have shown some small-scale relation between them, which demand a discussion for a better understanding of the phenomena.

Summary of statistically significant results in the analysis of relations among variables:

Table 76. Statistically significant results

Variable group	Stakeholder Group	Variable	CCE factor	Effect size	Statistical significance
School factors	Teachers	Type of school (rural, semi-urban, & urban)	Validity and utility. Evaluation quality, transparency, consistency. Pedagogical benefits. Shortage, lacking issues. Pedagogical competence. Damaging and problematic issues. School climate - relations with parents and confidence in learning	Small	Yes
			Sense of efficacy of teachers. School climate - trust and openness. School climate - school mission	-	No
		School size	Evaluation quality, transparency, consistency. Shortage, lacking issues. Damaging and problematic issues. Sense of efficacy of teachers. School climate - trust and openness. School climate - relations with parents and confidence in learning	Small	Yes
			Validity and utility. Pedagogical benefits. Pedagogical competence. School climate - school mission	-	No
		Socio-economic-family background	Evaluation quality, transparency, consistency. Pedagogical benefits. Shortage, lacking issues. Pedagogical competence. Sense of efficacy of teachers. School climate - trust and openness. School climate - relations with parents and confidence in learning	Small	Yes
			Validity and utility. Damaging and problematic issues. School climate - school mission	-	No
		School culture and climate (SC1T - School climate - trust and openness)	Validity and utility. Evaluation quality, transparency, consistency. Pedagogical benefits. Pedagogical competence.	Small	Yes
			Shortage, lacking issues. Damaging and problematic issues	-	No
		(SC2T - School climate -	Validity and utility. Evaluation quality, transparency,	Medium	Yes

		relations with parents and confidence in learning)	consistency. Pedagogical benefits. Pedagogical competence.		
			Shortage, lacking issues. Damaging and problematic issues	-	No
		(SC3T - School climate - school mission)	Validity and utility	Small	Yes
			Evaluation quality, transparency, consistency. Pedagogical benefits. Pedagogical competence.	Medium	Yes
			Shortage, lacking issues. Damaging and problematic issues	-	No
<i>Head teachers</i>	Type of school (rural, semi-urban, & urban)		Pedagogical benefits	Large	Yes
			Validity and utility. Evaluation quality, transparency, and consistency. Shortage and lacking issues. School culture.	Medium	Yes
			Pedagogical competence. Damaging and problematic issues. School climate.	-	No
	Size of school		Pedagogical benefits. Damaging and problematic issues	Medium	Yes
			Validity and utility. Evaluation quality, transparency, and consistency. Shortage and lacking issues. Pedagogical competence. School culture. School climate.	-	No
	Socio-economic-family background of the school		Shortage and lacking issues. School climate.	Medium	Yes
			Validity and utility. Evaluation quality, transparency, and consistency. Pedagogical benefits. Pedagogical competence. Damaging and problematic issues. School culture.	-	No
	School culture and climate (SC1H - School culture)		Validity and utility	Medium	Yes
			Evaluation quality, transparency, consistency. Pedagogical benefits. Shortage, lacking issues. Pedagogical competence. Damaging and problematic issues.	-	No
	SC2H - School climate		Validity and utility. Evaluation quality, transparency, consistency. Pedagogical benefits. Shortage, lacking issues. Pedagogical	-	No

			competence. Damaging and problematic issues.		
	Students	Type of school (Rural, semi-urban, & urban)	Comprehensive and reliable evaluation. Valid evaluation. Damaging evaluation. Parental support. School climate – Students.	Small	Yes
			Importance of education for parents.	-	No
		School size	Comprehensive and reliable evaluation. Valid evaluation. Damaging evaluation. Parental support. School climate – Students.	Small	Yes
			Importance of education for parents.	-	No
		Region of school	Comprehensive and reliable evaluation. Parental support.	Medium	Yes
			Valid evaluation. Damaging evaluation. Importance of education for parents. School climate – Students.	Small	Yes
		Socio-economic-family background	Comprehensive and reliable evaluation. Parental support	Medium	Yes
			Valid evaluation. Damaging evaluation. Importance of education for parents. School climate - Students	Small	Yes
		Type of principal	Comprehensive and reliable evaluation. Valid evaluation. Damaging evaluation. Parental support.	Small	Yes
			Importance of education for parents. School climate - Students	-	No
		School climate and parental support (Importance of education for parents)	Comprehensive and reliable evaluation. Valid evaluation.	Small	Yes
			Damaging evaluation	-	No
		Parental support	Comprehensive and reliable evaluation. Valid evaluation. Damaging evaluation	-	No
		School climate - Students	Comprehensive and reliable evaluation. Valid evaluation	Medium	Yes
			Damaging evaluation	Small	Yes
		Stakeholder characteristics	Teachers	Gender	Sense of efficacy of teachers.
Validity and utility. Evaluation quality, transparency, consistency. Pedagogical benefits. Shortage, lacking issues. Pedagogical competence. Damaging and problematic issues. School	Small				Yes

			climate - trust and openness. School climate - relations with parents and confidence in learning. School climate - school mission.		
		Qualification	Validity and utility	Medium	Yes
			Evaluation quality, transparency, consistency. Pedagogical benefits. Shortage, lacking issues. Pedagogical competence. Damaging and problematic issues. Sense of efficacy of teachers. School climate - trust and openness. School climate - relations with parents and confidence in learning. School climate - school mission.	Small	Yes
		Teaching experience	Validity and utility. Evaluation quality, transparency, consistency. Pedagogical benefits. Damaging and problematic issues. Sense of efficacy of teachers. School climate - trust and openness. School climate - relations with parents and confidence in learning. School climate - school mission.	Small	Yes
			Shortage, lacking issues. Pedagogical competence. School climate - relations with parents and confidence in learning. School climate - school mission.	-	No
		Age	School climate - trust and openness	Very small	Yes
			Validity and utility. Evaluation quality, transparency, consistency. Pedagogical benefits. Shortage, lacking issues. Pedagogical competence. Damaging and problematic issues. Sense of efficacy of teachers. School climate - relations with parents and confidence in learning. School climate - school mission.	-	No
		In-service training	Pedagogical benefits. Shortage, lacking issues. Sense of efficacy of teachers.	Small	Yes

			Validity and utility. Evaluation quality, transparency, consistency. Pedagogical competence. Damaging and problematic issues. School climate - trust and openness. School climate - relations with parents and confidence in learning. School climate - school mission.	-	No
	Teachers' sense of efficacy		Pedagogical benefits. Pedagogical competence.	Medium	Yes
			Validity and utility. Evaluation quality, transparency, consistency.	Small	Yes
			Shortage, lacking issues. Damaging and problematic issues	-	No
<i>Head teachers</i>	Gender		Evaluation quality, transparency, consistency. Pedagogical competence	Large	Yes
			Shortage, lacking issues. Damaging and problematic issues. School climate	Medium	Yes
			Validity and utility. Pedagogical benefits. School culture	Small	No
	Qualification		Validity and utility. Pedagogical competence. Damaging and problematic issues. School culture. School climate	Large	Yes
			Evaluation quality, transparency, consistency. Pedagogical benefits	Medium	Yes
			Shortage, lacking issues	Small	No
	Experience as head teacher		Shortage, lacking issues	Large	Yes
			Validity and utility. Evaluation quality, transparency, consistency. Pedagogical benefits. Damaging and problematic issues. School culture. School climate	Small	No
			Damaging and problematic issues	Very small	No
	Age of head teachers		Validity and utility	Medium	Yes
			Shortage, lacking issues. Damaging and problematic issues. School culture	Small	No
			Evaluation quality, transparency, consistency. Pedagogical benefits.	-	No

Students			Pedagogical competence. School climate		
	Gender		Comprehensive and reliable evaluation. Importance of education for parents. School climate - Students	Small	Yes
			Valid evaluation. Damaging evaluation. Parental support	Very small	Yes
	Class level		Comprehensive and reliable evaluation. Importance of education for parents. School climate – Students. Valid evaluation. Damaging evaluation.	Small	Yes
			Parental support	Very small	Yes
	Students' academic position		Valid evaluation	Small	Yes
			Comprehensive and reliable evaluation	Very small	Yes
			Damaging evaluation	-	No
	Students' average grade		Comprehensive and reliable evaluation. Valid evaluation. Damaging evaluation	Small	Yes

6 Discussion

6.1 Introduction

The main purpose of this research study was to reach a deeper understanding of the different stakeholders' perspective on the CCE implementation in CBSE secondary schools in Kerala through the lens of '*The Student Evaluation Standards*'. Besides, it also attempted to find the relationship between the stakeholders' factors and the internal and external characteristics with their perspectives on the practice of CCE. More specifically, the study investigated into the following research questions:

1. What are the stakeholders' perspectives on the practice of CCE in CBSE secondary schools in Kerala with respect to the propriety, utility, feasibility, and accuracy attributes?
2. What are the underlying dimensions in their perspectives on the practice of CCE with respect to the standards?
3. What is the relation between the stakeholders' perspectives and the school external and internal characteristics (type of school, size of school, socio-economic-family background of school, school region, type of head teacher, and school culture and climate)?
4. What is the relation between the stakeholders' perspectives and their characteristics (*Teacher*: gender, qualification, age, and teaching experience, in-service training and sense of efficacy; *Head teacher*: gender, qualification, age, and experience as head teacher; *Student*: gender, class level, academic position & average grade)?

This chapter presents the discussion of the findings and their implications for the student evaluation practice in CBSE schools in Kerala (India). The discussion of the results is being carried out separately in the respective order of the research questions as indicated above.

6.2 Stakeholders' perspectives on the practice of CCE with respect to the propriety, utility, feasibility, and accuracy attributes

The first question sought the perspective of each stakeholder on how they viewed the property, utility, feasibility, and accuracy attributes in CCE practice. The responses of the stakeholders are being analysed based on the mean score of their responses. Their perspectives are delineated below under the corresponding headings.

6.2.1.1 Teachers

In relation to propriety standards: CCE could ensure the well-being of students in a number of ways. The results are also in line with the results of some other that indicated CCE not only decreased the mugging up habit of students (Kaur, 2013; Singh et al., 2013), but also reduced the exam pressure upon them (Ali, 2016; Rajshree and Kumar, 2013). Alike, the inclusion of non-scholastics performance in the assessment made the evaluation more balanced, which also promoted the assertive nature of students (Sartaz, 2015; Kaur, 2014). In general, well-being of students was recognised in the scheme.

In relation to utility standards: The study highlighted that in the majority of teachers' opinion both teaching and learning became more effective and remedial teaching played a significant role in it (Singh & Pany, 2016; Sartaz, 2015; Kaur, 2014; Singhal, 2012; Sonawane & Isave, 2012). Teachers evaluated every important aspects of students learning with adequate information (Singh, A. 2016; Sartaz, 2015). Therefore, the evaluation report carried sufficient information regarding students' strength and weakness helpful for their future planning. Alike, teachers considered themselves as competent for implementing CCE effectively even though certain studies showed the other way like lacking efficiency in the execution of CCE (Kumar & Pasricha, 2014; Singhal, 2012; Parmar, 2015). Additionally, the study found that some teachers faced difficulties in arithmetic and computer part when assigning grades in general.

In relation to feasibility standards: The findings demonstrated that the CCE processes were not complicated, rather it enabled teachers to select various activities and tools

for teaching. Besides, the formative training of teachers (Kaur, 2014; Singhal, 2012) and PTA meetings worked in favour of CCE. However, there existed some confusion over the preparation of various activities. Lack of time and resources remained as major concerns for the practice apart from the inefficiency of teachers (Kumar M & Kumar, 2015; Chopra & Bhatia, 2014; Kumar & Pasricha, 2014; Kothari & Thomas, 2012). CCE also interfered with regular teaching and complicated the evaluation practice (Sonawane & Isave, 2012).

In relation to accuracy standards: Generally, teachers considered only relevant aspects for evaluation. The proper documentation of the evaluation procedures and the consistency in teachers' approach along with the unbiased attitude towards evaluation increased the reliability and the influence of the results (Kumar & Pasricha, 2014). Besides, regular metaevaluation of their performance assisted teachers in improving on their evaluation practice. Nevertheless, some studies showed that a number of schools did not follow continuous assessment systematically and lacked a uniform model for the recording of assessment while some others failed in maintaining daily records or give daily feedback (Parmar, 2015). Even there were schools that concentrated too much on projects works for securing good 'grades' without seriously happening any learning (Saxena & Namedeo, 2012) and thereby students were not prepared for the rigors of higher education (Sonawane & Isave, 2012).

6.2.1.2 Head teachers

From the perspective of head teachers about propriety standards: Propriety standards emphasize on the well-being of students being evaluated as well as other people affected by the evaluation. CCE could take care of the well-being of students in a considerable number of ways. The study found that head teachers believe that CCE could improve the average performance of the students as under CCE student had opportunities to score marks through internal activities too, which was in line with the findings of some other studies (Raina & Verma, 2017; Ali, 2016; Hassan, 2016; Lal, 2015; Deka, 2014). Moreover, CCE reduced over stress on them, a perennial threat students faced throughout their student life in Indian context that also contributed to the good

performance of students in written examinations. Some other studies also pointed out in the same direction that CCE was helpful for reducing the pressure upon them (Raina & Verma, 2017; Hassan, 2016; Ali, 2016). Nonetheless, Rain & Verma (2017) said that the pressure from students had been shifted to teachers and managements under the new evaluation system. Similarly, the teacher centred classroom were always perceived as a challenge for imparting true education to students as in this kind of classrooms, students used to be silent listeners mostly. As per some studies along with the present study, the practice of CCE could succeed in promoting student centred classrooms where teachers were good facilitators of learning and developing individual talents of students (Hassan, 2016; Ali, 2016; Lal, 2015). Thus, classrooms were turned into more interactive and innovative enabling students to comprehend subjects well as well as to eliminate the mugging up habit existed commonly among students. It was another important goal of CCE (Hassan, 2016; Lal, 2015; Deka, 2014). Nevertheless, another study found that some teachers failed to act as co-learners and facilitators in classrooms (Jayalekshmi & Pereira, 2013). Along with these factors, the prohibition of teachers making negative comments on students effectively helped in both boosting students' confidence and becoming more assertive in classrooms. According to one study more than 80% students opined that CCE encouraged active participation, self-learning and improved the performance by knowing their strength and weakness (Hassan, 2016). Overall, these aspects of CCE certainly succeeded in taking care of the well-being of the students in a certain level. However, there were some matters that worked against the propriety dimension of CCE too. For example, societal pressure continued to be a negatively influencing factor affecting the performance of students, at least in some cases. Similarly, cut-throat competition among the high achievers was still a worrisome for teachers in the opinion of some head teachers. On the contrary, the study understood in line with some other studies (Kumar M & Kumar, 2015; Singhal, 2012) that all-promotion approach made students to take exams too lightly and become less serious about their studies.

From the perspective of utility standards: Useful student evaluations are informative, timely, and influential. On this ground, CCE was definitely useful for both students and

other stakeholders because majority of the head teacher regarded that CCE was influential on decision making about how to improve teaching and it was underlined by another research results (Lal,2015). Added to it, they observed that teachers had the necessary knowledge and skills for implementing CCE (Kothari & Thomas, 2012) even though Herkal (2016) who stated that teachers lacked necessary knowledge and skill to implement CCE contradicted it. In the same manner, it was effective in taking remedial steps for students' progress that was also revealed by many studies (Mondal & Mete, 2013; Lal, 2015; Hassan, 2016). CCE evaluation was informative in such a manner that parents could plan the future of their children because the evaluation results contained sound information regarding the performance of students. Almost a similar observation was come out of a study done by Hassan (2016). Moreover, evaluation was more concentrated on evaluating the relevant aspects of learning and it could probably promote the concept of learning by doing under CCE according to the views of head teachers. The result was supported by the results of Hassan study (2016) and Gayal's researches (2015). Contrary to these favourable observations of CCE practice, head teachers also pinpointed the inefficiency of some teachers, especially in using modern tools and technologies for assessing students' performance and report them. Considering the fact that CCE was a hectic schedule for teachers as per the views of certain teachers (Quari & Sultan, 2016; Hassan, 2016; Sonawane & Isave, 2012; Joshi, 2013; Nawani, 2010). Nonetheless, a study showed that there was no significant difference between the attitude of trained and untrained teachers in computers towards CCE (Bansal & Jyoti, 2016).

From the perspective of feasibility standards: Feasibility underlines that evaluations should be practical, diplomatic, and adequately supported. There were two strong views regarding the easiness as well as the complexity side of the CCE practice among the head teachers. The results were in favour of the feasibility side of the practice in agreement with certain studies (Hassan, 2016; Lal, 2015; Kothari & Thomas, 2012). However, many studies perceived contrary to it that the practice was complicated too, especially due to some major problems like lack of training for teachers, lack of proper infrastructure, and lack of teaching materials, increased volume of work, large pupil-teacher ratio, insufficient training of teachers etc. These shortcomings undermined the proper

implementation of CCE (Yagnamurthy, 2017; Raina & Verma, 2017; Herkal, 2016; Kothari & Thomas, 2012; Singhal, 2012; Chaudhari, 2014; Rajeswari, 2017; Ali, 2013). Apart from it, parents' lack of awareness of CCE procedures sometimes gave rise to difficulties for implementation (Kumar M & Kumar, 2015; Chaudhari, 2014) even though it was against the finding of this study because the head teachers opined that the regular PTA meetings helped them in winning parents' cooperation to an extent for practicing CCE in a good manner. They added that CCE training workshops conducted at the school and district level enabled the teachers to evaluate students usefully as per the directions of CCE. Some studies highlighted that the training of teachers on CCE implementation was very effective for its practice (Bansal & Jyoti, 2016; Kothari & Thomas, 2012). Even then, there were a good number of investigations pointing out the fact that there was a lack of training for teachers on the nuances of the implementation of CCE (Yagnamurthy, 2017; Raina & Verma, 2017; Rajeswari, 2017; Herkal, 2016; Chaudhari, 2014; Singhal, 2012). In addition to it, lack of proper infrastructure, lack of teaching materials, increased volume of work, large pupil-teacher ratio etc. were some drawbacks that diminished the feasibility of the scheme according a few studies (Raina & Verma, 2017; Quari & Sultan, 2016; Saxena & Namedeo, 2012).

From the perspective of accuracy standards: Accuracy standards mainly insists on producing sound information about a student's learning and performance. Head teachers held the view that CCE assisted in evaluating what they intended to evaluate in order to reach to truthful conclusions about the performance of students. In a general perception, the studies were consistent with the finding of the present research (Rajeswari, 2017; Hassan, 2016; Ali, 2016; Lal, 2015; Mondal & Mete, 2013). This was the results of conducting evaluation with more objectivity, where teachers' personal opinion about students had scarcely influenced on the evaluation. Therefore, the results could make sound information about students' capacity. Along with it, schools made steady progress on the way the students being evaluated as they used to question and discuss their own quality of evaluation. Nonetheless, there were research studies that supported this view as well as contradicted it. For example, the results of these studies were in favour of the present study (Rajeswari, 2017; Mondal & Mete, 2013; Lal, 2015;

Singh, Patel, & Desai, 2013), whereas some other results were opposite to this perception (Hassan, 2016; Brown et al., 2015; Rao, 2012), especially by Hassan. Additionally, head teachers reported that the evaluation procedures had been well documented in schools and used to gather adequate information before evaluation through various internal and external assessments. Alike to the previous finding, there were research results (Rajeswari, 2017; Hassan, 2016; Mondal & Mete, 2013; Lal, 2015) in agreement with the result of the study as well as in disagreement (Kaur, 2016; Nawani, 2010; Joshi, 2013; Quari & Sultan; Rajeswari, 2017; Yagnamurthy, 2017), particularly by Kaur regarding the validity of the internal and external assessments in a general sense. Overall, these features of evaluation could ensure the valid interpretation of students' performance in a significant level together with appropriate follow-ups (Mondal & Mete, 2013; Rajeswari, 2017; Ali, 2016; Kumari, 2012; Lal, 2015; Ali, 2016). Although the results of the present study showed that consistency was maintained in of evaluating students different teachers' way, one study contradicted it that found that there was no uniformity in the number of assessments conducted by various teachers and the weightage given for the activities as well (Kothari & Thomas, 2012). In the new system, generally students were had some clear idea about the topic of the evaluation beforehand, which was helpful for students' preparation for the evaluation boosting the accuracy dimension of the evaluation. Nevertheless, head teachers were not in praise of all aspects of CCE as they sensed that certain elements of the scheme were probably causing confusion among stakeholders, above all for parents. Therefore, sometimes parents doubted about the accuracy of the results that was underpinned by a few studies too (Saxena & Namedeo, 2012; Chaudhari, 2014; Kumar M & Kumar, 2015).

6.2.1.3 Students

From the perspective of propriety standards: Overall, CCE could ensure the well-being of students in a number of ways. The results were in line with the results of some other researches that CCE was very helpful for developing their own problem solving skill (Rajeswari, 2017; Mondal & Mete, 2013 Lal, 2015; Gayal, 2015). Alike, the new practice definitely assisted in reducing the societal pressure in a considerable level as per the current investigation and some other researches (Raina & Verma, 2017; Hassan, 2016;

Ali, 2016). One study even mentioned that teachers and managements were under more pressure more than students in CCE (Rain & Verma, 2017). Moreover, students considered the evaluation as fair and balanced because teachers used to appreciate both scholastic and non-scholastic performance of students, especially employing a variety of tools and techniques. The results of some other studies were similar to these findings (Rajeswari, 2017; Hassan, 2016; Lal, 2015; Mondal & Mete, 2013). An important CCE recommendation was that teachers had to avoid using any damaging comments to students in the class. According to students, some teachers still used to make damaging comments to students even though it was less frequent compared to the previous times. These comments were totally against the spirit of CCE as they might damage the esteem of the students as indicated by one study (Jayalekshmi and Celin, 2013). Alike, the transition from the traditional method of evaluation to the new system evaluation created some sort of difficulties at the beginning. They were due to various factors such as lack of training for teachers, lack of proper infrastructure, lack of teaching materials, large pupil-teacher ratio, etc. according to the results of different studies (Yagnamurthy, 2017; Raina & Verma, 2017; Herkal, 2016; Chaudhari, 2014; Kothari & Thomas, 2012; Singhal, 2012). However, teachers as well as students gradually overcame them in general. Overall, CCE could succeed in giving due regard for the well-being of the students from the general perspective of propriety standards.

From the perspective of utility standards: Most of the students claimed that the all-inclusive and timely evaluation of CCE was helpful for them for their future planning because teachers could evaluate generally many important aspects of students' learning. Similar perceptions were shared by a few other investigations (Hassan, 2016; Ali, 2016; Lal, 2015; Kaur, 2014; Sonawane & Isave, 2012). As a result of employing multiple tools and techniques, teachers could focus on assessing various aspects of both scholastic and non-scholastic performance of students that significantly helped students to make all-round development. Some studies also pointed out these factors in their research (Rajeswari, 2017; Hassan, 2016; Mondal & Mete, 2013; Kumari, 2012). Anyway, 34% of the students opined in contrary to it that teachers were really in favour of evaluating the scholastic aspects of learning alone (Yagnamurthy, 2017; Quari & Sultan,

2016; Kaur, 2016; Saxena & Namedeo, 2012; Nawani, 2010). Barring these shortcomings, the student evaluation was overall informative, timely, and influential from the perspectives of utility standards.

From the perspective of feasibility standards: Since feasibility was not a matter much related to students' care, there was only one question that enquired about whether students felt confident with the way they had been evaluated in CCE. Overall, they had a positive outlook towards CCE as majority of them exuded confidence in the evaluation practice according to the present study as well as some other studies (Hassan, 2016; Ali, 2016; Kaur, 2014; Deka, 2014). The strong level agreement among the students about the practice was an indication of students' preference to CCE. Nevertheless, there were researches that pointed out that students were dissatisfied with the present system of evaluation and preferred to return to the previous evaluation system. The reason was that the scores failed to transcribe the real learning happened or the attainment of skills in most cases as per their views. Sometimes, these scores exaggerated than the real acquisition of learning (Rao, 2012; Kumar M & Kumar, 2015; Singhal, 2012; Hassan, 2016). As per many studies, feasibility side of the scheme was one of major challenges while executing CCE (Ali, 2015; Pazhanimurugan et. al., 2015; Sonawane & Isave, 2012; Ali, 2013; Kothari & Thomas, 2012; Singhal, 2012). In spite of it, in agreement with the present study, there were studies that found results in favour of the feasibility dimension of the programme (Hassan, 2016; Lal, 2015; Kothari & Thomas, 2012). However, CCE required to undergo some modifications depending on the contextual factors of schools. For examples, providing financial assistance to schools and conducting trainings for various stakeholders, reducing teacher-pupil ratio, improving infrastructure etc. (Yagnamurthy, 2017; Raina & Verma, 2017; Herkal, 2016; Kothari & Thomas, 2012; Singhal, 2012; Chaudhari, 2014).

From the perspective of accuracy standards: The results revealed that's students viewed that their evaluation results were corresponding to their learning confirming the accuracy aspects of the practice, even though there were research investigations that contradicted this result (Yagnamurthy, 2017; Hassan, 2016; Rao, 2012; Singhal, 2012). Another advantage was that on most occasions students knew in advance, what they

had to learn before the evaluation. It helped them to have a clear idea about how they had to prepare for the examination. Similarly, teachers' personal opinion about students scarcely had any influence on the evaluation of students as per the present study. However, there were research studies that highlighted teachers' bias as a relevant factor in the evaluation of students. Hassan disclosed that more than 60% of students experienced subjectivity in co-scholastic assessment (Hassan, 2016; Sonawane & Isave, 2012; Rao, 2012). Additionally, it was found in the present study that teachers often used to explain to students how they awarded grades to their different activities to have clear ideas regarding various elements considered for evaluation although Kothari's study revealed the other way (Kothari & Thomas' a study, 2012). Thereby, teachers' bias could be viewed as a serious challenge against the accuracy dimension of CCE. Even then, excluding some of these negative factors, CCE could still make valid interpretation and justifiable conclusions of students' performance as per the present as well as some other researches (Raina & Verma, 2017; Ali, 2016; Hassan, 2016; Brown, Chaudhry, & Dhamija, 2015; Sonawane & Isave, 2012).

6.2.1.4 Comparison among teachers, head teachers and students

The three questionnaires (Teachers, head teachers, and students) had some shared questions that made possible to compare directly the average scores in the same questions between different stakeholders to understand the underlying dimension in their perspectives. These questions focused on understanding certain aspects such as students' knowledge about the pattern of evaluation, grading, and teachers' explanation regarding the same. Similarly, some questions attempted to know students' level of understanding regarding the content of evaluation before the evaluation and objectivity in the evaluation without the influence of teachers' bias. Moreover, a few questions also enquired to grasp the success of the practice in reducing the societal pressures upon students and the influence of this student friendly examination upon students in general. In addition to it, the study investigated about the fairness and equitable characteristics side of the scheme apart from the benefits of the practice, especially compared to the previous practices. These shared questions and their corresponding responses bring to fore the following conclusions:

1. The response by both teachers and students regarding whether teachers used to explain to students how they allotted marks for their activities received a positive response (s02 & t28). It is an indication of how both the teachers and students appreciated the CCE practice (Kaur, 2014; Chopra and Bhatia, 2014; Sur, 2013; Lal, 2015). However, it is quite surprising to find that students are more content than the teachers themselves about the way teachers used to explain the content to them, which is supposed to be the other way. Teachers might be thinking that they should elucidate it even better and improve on it in distinct manners. Certain studies have pointed out that under CCE, teachers could improve or alter the instructional strategies to enhance the quality of teaching (Mondal & Mete, 2013) or go beyond the monotony and for better time management through alternative approaches of evaluation like power point presentation, online computer based test, e-portfolio, anecdotal records etc. (Kumari, 2012). It could also be read as teachers' true commitments to their profession because teachers in general had positive attitude towards CCE as indicated by some other investigations (Lalnunfeli et al., 2018; Rani, 2017; Raina & Verma, 2017; Emimah, 2016; Singh, Patel, & Desai, 2013).

2. The answers by the three stakeholders appreciate the objectivity of the evaluation under CCE in a lucid manner (s06, t22, & h08). Teachers and students' positive perception confirms that there exists a sound level of objectivity in the evaluation of student performance. Although it must be so without any compromise on it, there are chances of at least some teachers being prejudiced and allot scores in favour of certain students and vice-versa because a few studies have clearly mentioned about teachers' bias experienced by students (Hassan, 2016; Kothari & Thomas, 2012; Pazhanimurugan et al., 2011).

3. All the stakeholders had approximately a united view of the benefits of the practice although teachers were a bit more confident of it (s11, t36, & h34). This view of the stakeholders confirms that CCE was beneficial for students' future planning. Hassan's (2016) study agreed with this view as it disclosed that more than 70% students perceived CCE as useful in making decision like choice of subjects, courses, careers, etc. Ali (2016) also observed that student could make progress on all fields of academic as well as non-

academic. Moreover, some studies mentioned about teachers' positive attitude towards CCE and their effort to implement CCE effectively. On this ground, teachers were most likely more confident of the benefits of CCE in relation to students' future career planning. In the same manner, head teachers and students posited that CCE was effective in making career choice. Nevertheless, Kaur's research revealed that assessment made by teachers failed to get a fair and realistic picture of students' mastering (Kaur, 2016). Similarly, another study showed teachers' report did not carry proper reports of students' progress rather it reflected stereotyped use of words and adjectives picked up from the CBSE guidelines. According to Kothari & Thomas (2012), teachers failed to specify the sub skills they were measuring under the specific skills.

4. To the questions (s15, t13, & h27) related to the fairness and equitable side of the practice, students answered with conviction that they were being evaluated in a fair way i.e. with objectivity rather than subjectivity. Anyhow, while some studies supported this view (Raina & Verma, 2017; Mondal & Mete, 2013; Deka, 2014), some other investigations showed the opposite results (Hassan, 2016; Rao, 2012; Kothari & Thomas, 2012). Nevertheless, regarding the fairness of evaluation, head teachers and teachers are not as satisfied as students. Probably students' views were limited by focusing on certain aspects of evaluation that favoured them. Whereas, teachers and head teachers might have assessed the scheme from a general perspective. The difference in their views might be some signs of certain drawbacks of CCE as well. For example, if teachers decided so, they could remain biased to certain students and vice-versa. Apart from these factors, another relevant criticism was that CCE unjustly caused to narrow the gap between the hardworking students and the rest. This happened because of two reasons mainly: lack of uniformity in the weightage given for various activities by teachers (Kothari & Thomas, 2012; Pazhanimurugan et al., 2011) and for not corresponding the level of proficiency of pupils and the marks they achieved. Therefore, good marks were not often a factor that motivated students well. Despite these comments, the stakeholders in general appreciated CCE as fair and equitable.

5. Overall (s05, t19, h05), the stakeholders think that students had some clearer knowledge about what was going to be evaluated before the evaluation and thereby,

students could perform better in assessments. A few studies indicated that the new evaluation system could give every child a fair chance although it was not directly referring to students' awareness of the content (Raina & Verma, 2017; Lal, 2015). Among the three stakeholders, students and head teachers possess almost a similar perception while teachers' perception is a little below regarding it even though it is supposed to be the other way. Some investigations also highlighted the positive attitude of teachers and students to CCE generally in relation to the evaluation system (Lalnunfeli et al., 2018; Raina & Verma, 2017; Emimah, 2016; Ali, 2016). At the same time, there were also results that highlighted the dislike of students for CCE (Hassan, 2016). In this context, teachers' position below the position of students and head teachers and it might be an indication of teachers' thought that the preparation of both teachers and students for the CCE scheme of evaluation was not sufficient.

6. Questions s03, t11, and h24 enquired whether CCE could reduce the societal pressure, as it was one of the prime goals of CCE. The stakeholders agreed to that CCE could decrease the societal pressure upon students in a significant level. According to some research report, CCE reduced societal pressure upon student and resulted it in their improved academic performance (Raina & Verma, 2017; Hassan, 2016; Rajshree and Kumar, 2013). In the study, teachers seem to value the impact of CCE on reducing social pressure more than students and stakeholders. Many years of teaching experience would have definitely enabled teachers to assess the situation better and helped them react positively to the questions. In the case of head teachers, they usually have less chance to notice the influence of CCE on reducing societal pressure upon students. Nonetheless, a study stated that the new system shifted the pressure from students to teachers and school management (Raina & Verma, 2017).

7. Teachers and head teachers have a stronger perception of the difficulty caused by the transition of student friendly examination in Primary Education to more serious type of evaluation in secondary level classes (s08, t10, & h22). However, the students who really underwent the examination did not see it as a big challenge for them. In fact, internal activities gave them good opportunities to score well in secondary level too because according to Ali (2016), CCE gave more opportunities to students to progress on all fields

of life academically and non-academically. Similarly, more than 80% students opined that CCE encouraged active participation, self-learning and improved the performance by knowing their strength and weakness (Hassan, 2016). Thereby, even if there were some real difficulties because of the transition, students would not have felt it as a very complicated situation. Nonetheless, the difference in their opinions could be a warning of whether this kind of transition was unscientific having harmful effect on student evaluation. The reason is that some studies also pointed out that the load of assignments and projects in a semester was quite heavy (Quari & Sultan, 2016) and students were under the pressure of completing the overcrowded assignments and projects given in all subjects at the same period (Rao, 2012).

6.3 Underlying dimensions in stakeholders' perspectives on the practice of CCE with respect to the standards

In a first analysis, we used the variable structure taken directly from the *Student Evaluation Standards*. The former discussion is based on that structure, differentiating utility, propriety, feasibility and accuracy attributes. Nevertheless, when we performed a confirmatory factor analysis, we found insufficient goodness of fit indexes. The responses we gathered did not fit with the variable structure we expected about CCE implementation factors. Therefore, we decided to proceed with an exploratory factor analysis. This exploration showed very interesting things. Apparently, our teachers and students were not familiar with the attributes from the *Standards* as categories when reporting their perspective about the implementation of CCE. Instead of that, their answers revealed a new factor structure, with differences between teachers and students.

Unfortunately, we didn't find research literature reporting about factor structure in stakeholders' answers, neither through confirmatory factor analysis nor through exploratory factor analysis.

Teachers' answers have a more sophisticated and elaborated understanding about CCE implementation in line with more questions in the questionnaire. A sound description

regarding the significance of these factors in student evaluation has been given in the section 5.2.1.

Table 77. Factors and labels

CCE implementation factors	Factors	Labels
	1	Validity and utility
2	Evaluation quality, transparency, and consistency	
3	Pedagogical benefits	
4	Shortage, lacking issues	
5	Pedagogical competence	
6	Damaging and problematic issues	

There is not a clear matching between the SES and the resulting factors. Validity issues are mixed with some utility questions in the first main factor. Propriety is split in pedagogical benefits and damaging and problematic issues, differentiating the beneficial and damaging aspects in two different factors. Feasibility is also twofold, teachers' pedagogical competence on one hand, and shortage and lacking issues on the other, repeating a differentiation between "positive" and "negative" aspects, between teacher competence and shortage and lacking issues. Accuracy can correspond to the evaluation quality, transparency and consistency factor.

Students' answers delimited to three factors because students had less number of questions compared to teachers as certain standards were not related to students. However, these three factors are very relevant in the evaluation of students from the perspectives of *Standards*. The section 5. 2. 3 underpins how these factors contribute to make the evaluation of student sound.

Table 78. Factors and labels 2

CCE implemen tation	Factors	Labels
	1	Comprehensive and reliable evaluation
2	Valid evaluation	
3	Damaging evaluation	

The correspondence with SES is different of that from teachers. Validity appears in one dimension. Accuracy can be guessed in the factor about comprehensive and reliable evaluation. Propriety can correspond to the damaging evaluation factor. Feasibility is not present because we only included one question in the student questionnaire.

6.4 Relation between the stakeholders' perspectives and the school external and the internal characteristics

6.4.1 Perspective of teachers

a. Type of school

Teachers from rural schools value a little bit more CCE factors like 'validity and utility', 'evaluation quality, transparency, and consistency', and 'pedagogical benefits'. The findings are in tune with the observations of a study, which stated the rural people were proud of their schools and expressed a feeling of family, individual attention, and community commitment of resources and people (Kauts & Kaur, 2013). It may be that earlier rural schools would have been interested more in academic performance of students, which was mostly based on written examinations. Nevertheless, after the implementation of CCE rural teachers might have been more successful in incorporating CCE prescribed qualities in the evaluation. Alike, rural teachers' view of 'pedagogical competence', that is mildly above the perception of others, suggests that neither salary nor type of schools alone is the main criteria for deciding the quality of teachers although a study by Chaudhari (2014) reported fixed salary with no leaves or other rights resulted in the frustration of teachers affecting the efficacy of teaching. Apart from these positive aspects of CCE, rural teachers also pointed out the 'shortages and lacking issues' of CCE. Probably, rural schools struggled to practice internal assessments as prescribed by the scheme due to the lack of certain resources, as it was a common problem faced by these schools. Chaudhari (2014) and Emimah (2016) also shared this view in their studies. Besides, Chaudhari pointed out that parents from rural areas were unaware of their children's studies and therefore, students' cooperation was missing in the studies. Similarly, semi-urban teachers highlighted the damaging and problematic issues of CCE. Nevertheless, when it comes to 'school climate - relations with parents

and confidence in learning', teachers of urban schools came ahead of others. Possibly, urban life culture together with educated parents in general is working in favour of developing a healthy relationship among parents and teachers that positively affects the practice of CCE. Nonetheless, Singh (2017) and Barwal & Sharma (2015) did not find any significant difference in the attitude of secondary teachers of rural and urban towards CCE. At the same time, some other studies underlined that overall the attitude of teachers from urban areas had a better attitude towards CCE (Lalnunfeli, Malsawmtluanga, Ralte, & Lalduhawmi, 2018; Naidu, 2017; Misra, 2017; Anitha, 2014).

b. Size of school

The size of school did not make any considerable level relationship with respect to practice of CCE according to teachers of different sizes of school. However, some results indicated light differences with respect to this variable. 'Evaluation quality, transparency, consistency' of CCE practice is esteemed by teachers from medium size schools, on the contrary, 'shortage, lacking issues' and 'damaging and problematic issues' are highlighted by teachers of large size schools. Both perspectives make sense because teachers of medium size schools would not usually face the problems of large size schools even if the average number of students in a class were more or less similar in both schools. According to many studies, one of the major common problems faced by most number of schools was the large pupil-teacher ratio. Therefore, the issues arose out of this major problem would be reflecting in their perspectives of the practice of CCE (Yagnamurthy, 2017; Raina & Verma, 2017; Rajeswari, 2017; Herkal, 2016; Chaudhari, 2014; Kothari & Thomas, 2012; Singhal, 2012). However, large size schools have signalled that there is a better 'school climate - relations with parents and confidence in learning' in their schools. It is likely that these schools are capable of providing more facilities to its children along with the good reputation they enjoy among parents, which is psychologically advantageous for developing good school climate and relations. A study reported in a general context how the absence of healthy rapport among the authorities, teachers and the students of the school caused difficulties in the practice of CCE (Jayalekshmi & Pereira, 2013). Anyway, teachers from medium size schools think that the 'sense of efficacy of teachers' and 'school climate - trust and openness' are

better taken care of in their schools due to its manageable size. In such schools, teachers' devotion to teaching is easily recognisable and thereby, they receive immediate appreciation resulting to work hard more. Additionally, teachers can build up more trust and openness among them due to the accessibility and approachability resulted from the size of school. Nonetheless, in small schools, the school climate and sense of efficacy of teachers are not as high as in the medium size schools. Most probably, teachers might have experienced calling their attention too often to both the positive and negative aspects of their practice of CCE, especially the negative ones and it would have resulted in developing a more critical attitude to all in general. As per certain studies, some factors such as lack of necessary knowledge and skill to implement CCE (Herkal; 2016), increased volume of work, lack of resources etc. affected the practice and the attitude of teachers in general towards CCE (Hassan, 2016; Sonawane & Isave, 2012).

c. Socio-economic-family background

Generally, socio-economic-family background of the sampled schools were sound enough without much variation among them and it could be the reason for socio-economic-family background of the schools do not make any difference in a significant level in teachers' attitude to CCE. The results by a few studies are also consistent with this finding. To facilitate the comparison of the present study results with the results of other research findings, it is recommendable to consider the strong contrast that exists between private and government schools i.e. the economic status of private schools are stronger while government schools are really poor in most cases and it is reflective in the attitude of teachers towards CCE. Accordingly, there were studies that supported the views in both ways: there is either significant difference in the attitude of teachers (Rani, 2017; Misra, 2017; Barwal & Sharma, 2015) or there is no significant difference in the attitude of teachers to CCE due to the socio-economic-family background of schools. Studies by Naidu (2017), Anitha (2014), and Singhal (2012) revealed that private high school teachers in general had better attitude towards CCE. Still, some factors suggest a certain level of variation in teachers' approach to CCE. For example, teachers from schools of low socio-economic-family background appreciate 'evaluation quality,

transparency, and consistency' better. Maybe, CCE practices could help them to evaluate students in an improved manner because of introducing a variety of internal as well as external assessments as part of CCE, which were not being practiced in the previous system. Alike in the matter of 'sense of efficacy of teachers and school climate - trust and openness', the perception of teachers of very low socio-economic-family background is marginally higher than the other two groups. Perhaps, these teachers were able to achieve better results under CCE within the limited resources and facilities. However, Chaudhary's study contradicted it as it reported that teachers of low socio-economic-family background had to undergo fatigue and tension due to the overburden of teaching work, especially when somebody was on leave because these schools could afford only the minimum number teachers (Chaudhari, 2014). A study by Singhal (2012) also agreed with the results as his study identified some major problems encountered by teachers while executing CCE due to the poor socio-economic-family background of the school. Additionally, 'pedagogical benefits' are more valued by teachers of very low socio-economic-family background schools. Probably, CCE created some new opportunities for these teachers to test their own pedagogical competences and shine through them as well.

d. School culture and climate

Based on the results of the analysis, there are a few significant medium and small size correlations between 'school culture and climate' and the perception of teachers in relation to factors 'validity and utility', 'evaluation quality, transparency, and consistency', 'pedagogical benefits', and 'pedagogical competence' features of CCE. Our data indicate that a positive school culture was important in schools for the successful practice of CCE. Similarly, Singh (2017) stated that CCE strengthened teacher-student relationship, as there was close interaction between teachers and students, which was very helpful for the practice of CCE. Jayalekshmi & Pereira (2013) also shared a similar view that the absence of healthy rapport among the authorities, teachers, and students together with teachers' negative attitude and inability were major impediments to the effective implementation of CCE. In the same manner, school climate also played big roles in the implementation of CCE successfully, especially by winning the confidence of

parents in the capacity of schools to impart quality educations to their children. Some factors in connection with school climate such as lack of proper infrastructure, lack of teaching materials, lack of necessary financial support, lack of teaching staff, large pupil-teacher ratio etc. undermined the practice of CCE (Yagnamurthy, 2017; Raina & Verma, 2017; Herkal, 2016; Mishra & Mallik, 2014; Kothari & Thomas, 2012; Singhal, 2012). Similarly, Chaudhari (2014) pointed out certain problems related to salary, leaves or other rights, especially in smaller schools as relevant factors affected CCE negatively.

6.4.2 Perspective of head teachers

a. Type of school

Head teachers of rural schools have valued more certain features of CCE such as 'validity and utility', 'evaluation quality, transparency, and consistency', 'shortage and lacking issues', and 'school culture'. Usually rural schools struggle to compete with urban or semi-urban schools due to lack of facilities, resources etc. and some other contextual factors. However, as per the results, CCE practice seemed to benefit more rural schools not excluding the fact that head teachers of rural schools also specified the shortage and lacking issues they encountered while executing it in line with some other studies (Singh, 2017; Quari & Sultan, 2016; Chaudhari; 2014). Though there were scarcely any study searching the attitude of head teachers based on the location of school, a few studies investigated about the attitude of teachers with reference to location of the school. Anyhow, the results of these few studies stressed on the fact that either the location was not a relevant factor influential on the attitude of teachers (Dasa et al., 2016; Barwal, & Sharma, 2015; Singh, A. 2017; Rana, 2015) or teachers of urban schools had a better attitude towards CCE (Lalnunfeli et al., 2018; Misra, 2017; Naidu, 2017; Emimah, 2016). Nevertheless, in the case of 'pedagogical benefits', head teachers of semi-urban schools have a better perception of the positive influence of CCE. Probably, these schools had sufficient facilities and competent teachers, but lacked a quality evaluation system, which was resolved with the introduction of CCE.

b. Size of school

Overall, the size of school is a significant factor in the practice of CCE, according to head teachers because the head teachers of large schools have highlighted the 'pedagogical benefits' of CCE with medium size effect in comparison with other two groups. Perhaps, the practice of CCE helped large schools in conducting evaluation in a more systematic manner to the benefits of all type of students i.e. the studious as well as poorly performing students. The so-called studious students instantly receive attention from teachers in any kind of school, but low-performing students do not usually get enough attention, especially in large size schools. Hence, the emphasis of CCE on giving personal care to all students possibly turned out to be helpful for the low-performing students too. In the case of medium size schools, head teachers underpinned the 'damaging and problematic issues' of CCE that too with a medium size significance. Moreover, features of CCE such as 'validity and utility', 'evaluation quality, transparency, and consistency', 'shortage and lacking issues', 'school culture' and 'school climate' were also recognised by them for a mild margin. The results reflects in accordance with the general perception of advantages of medium size i.e. these schools have the advantages of detecting the benefits as well as shortcomings of the scheme compared to the big or small size schools. Therefore, size of schools becomes an influential factor on the implementation of CCE. As far as the knowledge of the present researcher, no particular study has taken place based on the size of school with respect to the perception of head teachers to CCE. However, some studies have brought out the problems of large and small size schools with respect to the implementation of CCE (Singh, 2017; Chaudhari, 2014; Jayalekshmi & Pereira, 2013).

c. Socio-economic-family background of school

Socio-economic-family background of the school appears to be significant in the practice of CCE as per the perception of head teachers. The results are in line with some studies that showed some difference in the attitude of teachers between private (economically sound) and government (economically not sound) schools. For example, private school teachers had a better view of CCE practice (Naidu, 2017; Anitha, 2014), whereas some

other studies revealed no significant difference in the attitude between the teachers of private and government schools (Rani, 2017; Anitha, 2014; Barwal, & Sharma, 2015). However, as per the present study, head teachers of schools of high socio-economic-family background have differed in their attitude. Accordingly, they have underlined the 'shortage and lacking issues' of CCE with a medium effect size. Probably, these schools used to execute evaluation of students well even before the implementation of CCE because generally these schools used to have required facilities and resources for it as demonstrated by a study (Naidu, 2017). Perhaps, they faced with some problems while executing CCE, for example interrupting in the day-to-day activities of the school. Additionally, these head teachers have indicated the 'damaging and problematic issues' of the practice for a slight margin above the other two groups, might be, they focused too much on the negative aspects of the practice i.e. 'shortage and lacking issues' rather than the positive sides. Nonetheless, 'school culture' is relevant for them, as it would assist them to get over the limitations they have for practising CCE properly. On the contrary, head teachers of low socio-economic-family background schools have underpinned school climate as very relevant for conducting CCE apart from the factors 'evaluation quality, transparency, and consistency' and 'pedagogical competence'. These schools generally lacked material and facilities necessary for exercising this kind of scheme. Hence, a positive school climate becomes an important factor for them. Besides, the practice of CCE probably helped them not only to systematize student evaluation practice, also promoted teachers' competence in assessment. In the case of head teachers of very low socio-economic-family background of schools, 'validity and utility' and 'pedagogical benefits' of CCE have more acceptance among them. Perhaps, CCE increased the validity and utility aspects of the evaluation in their schools. In general, the results was not in accordance with the findings of Brown et al., (2015) as the study disclosed that private-school teachers, predominantly CBSE affiliated schools, had positive attitudes to the goals of CCE.

d. School culture and climate

Since, head teacher sample was smaller, only bigger correlations were considered as significant correspondingly. As such, the analysis showed a significant correlation

between 'school culture' and 'validity and utility' factor. The correlation between these two denotes how school culture can help in practicing CCE scheme validly and usefully or any similar type of student evaluation practice. These head teachers have sufficient experience to realise that maintaining a healthy school culture is very important to uphold new school policies and programs considering the Kerala context (India), where new teachers are inducted into schools every new academic year, particularly in private management schools – predominantly CBSE schools. A positive school culture enables the different stakeholders to adapt to the new changes faster as in the case of CCE because of the cooperative attitude of various stakeholders. A few studies (Jayalekshmi and Celin, 2013; Chaudhari, 2014; Mishra & Mallik, 2014; Chaudhari; 2014) have stressed on the significance of maintaining a healthy school climate and culture for the effectual practice of CCE.

6.4.3 Perspective of students

a. Type of school

Students' perspective of CCE practice with respect to the type of school is significant in the case of a few factors and the results are consistent with the reports of some other studies. A study by Cyril & Jeyasekaran (2016) revealed that urban students were better in their continuous and comprehensive evaluation. Similarly, the present study understood that urban school students have a better perception of 'comprehensive and reliable evaluation' aspect of CCE while students of semi-urban schools rate higher the 'validity' of the practice. On the contrary, students of rural schools highlight more the 'damaging issues' of CCE practice which corresponds to an extent to the finding of Chaudhari (2014) who reported that students from rural schools found less interested in their studies. CCE had clearly laid down patterns for evaluation and hence, it could probably impress the students of urban schools. On the contrary, students of semi-urban schools emphasize on the factor 'valid evaluation'. That too could be out of their realisation that results under CCE evaluation are more valid compared to the previous evaluation system for it contains the results of students' performance in both academic as well as non-academic activities. Rural students' specification of 'damaging issues' might be an indication of the problems they underwent while implementing CCE due to

the some lacking issues as highlighted by many studies in relation to the general problems encountered by schools while executing CCE (Yagnamurthy, 2017; Raina & Verma, 2017; Rajeswari, 2017; Herkal, 2016 Kothari & Thomas, 2012; Singhal, 2012). Further, urban student have a higher view of the factor 'parental support' and as they enjoy more 'parental support'. It is possibly that their parents were generally more educated as well as financially sound or it could be that their parents were more concerned about the future of their children. On the other side, according Chaudhari's (2014) investigation agreeing with the present study found that parents of rural school students were unaware of their children's studies and they paid little attention to their education. However, semi-urban school students appreciate 'school climate' better. It is possible that there is a healthy relationship between their parents and teachers, which works out well in favour of exercising CCE.

b. School size

Although school size does not appear as a relevant factor, still some small-scale differences are there worth enough to pray our attention. Students of medium size schools recognise better the factors 'comprehensive and reliable evaluation', 'valid evaluation', and 'parental support'. Contrary to this view, Chaudhari's study (2014) highlighted the problems of small schools, especially in relation to teachers' fatigue and tension due to the overburden of teaching work. In general, medium size schools have the advantage of that it is not too big or too small and this factor works in favour of it like in the case of practising CCE. Therefore, students of medium size schools could probably differentiate better the comprehensiveness; validity dimension of the evaluation for it was based on assessing a variety of skills of students, especially after considering their individual capacity. Even if the same criterion is applicable to the small size schools, the deficient facilities of these schools might have affected the overall practice of CCE that affected the perception of the students of small size schools as well. Students of large schools highlight the factors 'damaging evaluation' and 'school climate - students'. Large schools could possibly provide the needful facilities for practising CCE. However, large pupil-teacher ratio might have reduced the efficacy of the practice

equally. Large pupil-teacher ratio was a common challenge against the implementation of CCE for most of the schools (Rajeswari, 2017; Herkal, 2016; Kothari & Thomas, 2012; Singhal, 2012; Chaudhari, 2014). It might be the reason that made them specify more the damaging impact of the evaluation. Even then, students of large schools have appreciated the 'school climate' factor. Perhaps, it is the result of having choices to select their friends according to their attitude and taste.

c. Socio-economic-family background

Mostly, socio-economic-family background factors do not make any larger scale differences. Even then, the factors 'comprehensive and reliable evaluation', 'valid evaluation', 'damaging evaluation', 'importance of education for parents', and 'school climate' have been emphasized by the students of very low socio-economic-family background status of schools. Some research findings support this view as well. As per the study, the private school students were better than the government and aided school students in their continuous and comprehensive evaluation. The researchers attributed it to the fact that the private school students have better infrastructure required for the physical and mental development of students that also contributed to the better practice of CCE (Cyril & Jeyasekaran, 2016). In general, students of school of poor socio-economic-family background are more open to new schemes and whereof, accept them without much botheration about it. Nonetheless, they are also unhesitating to express their criticism of these innovative schemes. Thereby, they not only genuinely appreciated the positive aspects of CCE, but also pinpointed the drawbacks of it, particularly the 'comprehensive and reliable evaluation' characteristics of CCE. In the case of students of high socio-economic-family background schools, they logically get more 'parental support' as their parents can afford some extra facilities for their children. In line with the present study, this perception was also highlighted by another study conducted by Pazhanimurugan et al. (2011). The medium level significance underlines this factor clearly.

d. Region of school

Schools from the northern part of Kerala have a better perspective of the factors regarding the CCE implementation such as 'comprehensive and reliable evaluation', 'valid evaluation', and 'importance of education for parents'. However, they have also highlighted the 'damaging' effects of evaluation. Students from this zone were less in number in comparison with the other two zones. This element might have aided them to identify the pros and cons of the implementation of CCE. Moreover, these schools receive strong support from the parents, as they would be probably thinking that education alone could offer their children a better future. It is because northern part of Kerala is a bit poor in comparison with the other two zones. However, the students of the central zone also get strong parental support although the reason behind it could be entirely distinct. For examples, apart from their parents being financially sound, their schools are also better located and thereby, enjoy the benefits of being in a city. Students of south zone schools remain squarely without making a strong view regarding any of these factors.

e. Type of principal

Overall, students of schools managed religious principals have a slightly more positive view of the practice of CCE in relation to the factors 'comprehensive and reliable evaluation', 'valid evaluation', and a more critical view regarding the 'damaging' element of the practice. Generally, the schools managed by religious principals have good reputation among parents in Kerala because these schools have better teachers and facilities generally. These factors would definitely influence on the implementation of CCE resulting in winning the appreciation of students. However, 'parental support' is more appreciated by students of schools managed by civil principals. In general, student have more extra-curricular activities in these schools. A few studies pointed out that in some schools students suffered due to the overcrowded activities and therefore, student lacked their leisure time (Hassan, 2016; Rao, 2012). Naturally, it requires good financial support from their parents that they usually receive because one research

study emphasized that many financial constraints associated with CCE practice were not affordable for all students (Quari & Sultan, 2016). Maybe, these factors have prompted the students to appreciate parental support slightly above the other group.

6.5 Relation between the stakeholders' perspectives and their characteristics on the practice of CCE

6.5.1 Teacher characteristics

a. Gender

Gender was not a relevant factor in the practice of CCE even though all factors demonstrated some small level effect in the sample. The results are more or less similar to the finding of a few studies. For example, the results of some studies demonstrated that there was no difference between the male and female teachers' perception of CCE (Lalnunfeli et al., 2018; Misra, 2017; Singh 2017; Barwal & Sharma, 2015; Singhal, 2012). However, another study (Anitha, 2014) indicated significant difference between the opinion of male and female teachers towards CCE as male teachers viewed better the new evaluation system. Similarly, Singh's study indicated that both male and female teachers had favourable attitude to CCE, but most of the female teachers had highly favourable attitude while the number of male teachers were only few (Singh, 2017). Alike, another study demonstrated that there was a significant difference between the perceptions of male and female CBSE schoolteachers towards CCE because female teachers had higher level of perception of CCE than male teachers (Singh, A. 2017). Nonetheless, as per the present study, 'sense of efficacy of teachers' showed a medium size significance, which is apparently higher among the male teachers. It could be that male teachers felt more confident with the new practice, as they had more opportunities to exhibit their different skills. Studies by Naidu (2017) and Jaiswal (2010) indicated that male teachers were superior in their mathematical skill and it came in handy for their practice of CCE. On the contrary, Emimah's (2016) study showed that both male and female mathematics teachers had highly favourable attitude towards CCE even though female teachers had better attitude than their counter parts. In addition to

it, male teachers usually stay longer in schools than their counterparts and it definitely increases the sense of efficacy of male teachers. It is a common practice in private management schools to recruit new teachers for the new academic year - as in the case of the sample. As these teachers would need time to familiarise them with the new practice that could probably influence on their efficacy, especially in the implementation of CCE.

b. Qualification

All factors demonstrated some small level differences with respect to the qualification of teachers and the implementation of CCE in the sample although they were not big enough for considering as significant factors affecting the practice of CCE. These results are in agreement with the findings of the studies made by Naidu (2017) and Singh (2017). Singh specified that qualification was not an influential factor on their perceptions of CCE as there was no significant difference between the perceptions of CBSE schoolteachers having professional qualification and without professional qualifications. On the contrary, another study indicated that there was positive attitude to CCE because of the joint influence of 'qualification and training' (Raina & Verma, 2017). With respect to the present study results, postgraduate teachers cast doubt upon 'validity and utility' aspects of CCE with a medium size effect. It may be that they are not so convinced of the various steps involved in the internal assessment and the grading system. They are dubious whether these various activities are as helpful as thought of for the all-round development of students. However, found statistically significant differences were in the attitude of postgraduate teachers towards CCE with respect to qualification. Accordingly, postgraduate teachers had a better view of CCE (Lalnunfeli et. al, 2018; Singhal, 2012). Similarly, there were studies that showed no significant difference between the perceptions of teachers based on the professional qualification as well as graduate and post-graduate qualification (Singh, A. 2017; Naidu, 2017).

c. Age

According to the results, age is not an influential factor in the execution of CCE in the sample. There were studies that highlighted either in favour or against the results of the present study. For example, a significant difference was found in the attitude of teachers to CCE on the ground of age, i.e. 37 years and below and 38 years and above as younger group had more favourable attitude to CCE (Lalnunfeli et al., 2018). On the contrary, no significant difference was recognised between the perceptions of less than thirty-five years age and more than thirty-five years age teachers towards CCE by another study (Singh, 2017). However, the results of this study become significant in the sense that it underlines the classical view that competence and dedication of teachers are the fundamental characteristics of efficient teachers and teachers of the sampled schools are competent regardless of their age. Nevertheless, teachers aged between 31 and 40 years in this study highlighted slightly that 'school climate - trust and openness' is necessary for exercising CCE effectively. Therefore, the results indicate that the school managements need not to be too much worried about the age of the teachers whether they are too aged or too young because there is a tendency to associate efficacy with age of teachers.

d. Teaching experience

The number of years spent in teaching is barely an influential factor in the practice of CCE as per results of the sample. The finding is consistent with another study, which pointed out that teaching experience as an irrelevant factor on deciding CBSE schoolteachers' perception of CCE because there was no significant difference between the perceptions of CBSE schoolteachers having less than 10 years professional experience and more than 10 years professional experience (Singh, 2017). On the other side, Emimah's (2016) study indicated that teachers with more than 20 years of experience had marginally more favourable attitude towards CCE. However, the results of the present study demonstrated that teachers with below 5 years of experience and 16 and above years of experience did not show any relevant difference in their perception of CCE compared to other groups. Teachers with below 5 years might be

thinking that their experience was not sufficient to assess the scheme and therefore, they would have readily accepted the scheme or they might have responded lukewarmly to the questions about the scheme. The more experienced teachers (16 and above years) might also have answered lukewarmly by thinking that were on the point of retirement and their views would not bear any impact on the program. Nonetheless, teachers with experience between 5-10 years have both appreciated and criticised the scheme more. Their experience of previous practice and the present practice is fresh in their mind; therefore, their views about the CCE practice could be more acceptable. They also emphasised on the 'sense of efficacy of teachers' for practising CCE and it underlines the necessity of taking consistent effort from the part of teachers to progress in this areas. Teachers between 11-15 of teaching experience have recognised more the 'validity and utility', 'evaluation quality, transparency, consistency' characteristics of CCE, besides stressing on the relevance of 'school climate - trust and openness' aspects of CCE. Hence, they have more years of teaching experience; their views may get more importance as they could easily assess the merits and demerits of various evaluation schemes. Some studies have shared almost a similar view while some others contradicted it. For example, teachers with less and moderate teaching experience were more flexible and ready to accept the changes unlike the teachers with very high teaching experience who resisted changes (Rao, 2009). In a similar thought, Emimah also commented that the experienced teachers felt difficult to accept the changes; even then, they believed that CCE could play a significant role in the all-round development of child's personality.

e. In-service training

Overall, most of the teachers participated in in-service training for at least one time. Those teachers who attended in-service training more than one time have more or less a similar view i.e. they have not emphasised any particular factor neither very significant nor insignificant. Perhaps, they have the perception that the CCE program itself is very effective. However, its efficacy depends much on teachers and other stakeholders' aptitude and attitude towards its implementation. A study indicated that teachers with

qualification and training had positive attitude to CCE because of the joint influence of 'qualification and training' (Raina & Verma, 2017). Virtually, there cannot be any teachers without a clear idea about CCE and its implementation because those teachers who had assisted formal training on CCE were supposed to instruct their colleagues who had not attended any training so far. Teachers without any formal in-service training have underpinned the 'pedagogical benefits', 'shortage, lacking issues' and 'school climate - trust and openness' of CCE in the sample. It could be a reflection of their enthusiasm for doing the evaluation to their level best while others might not have been that enthusiastic about the same. In addition to their enthusiasm, they realise that a healthy school climate is unavoidable for the implementation of CCE, especially considering the factor that they need help of their colleagues for practising CCE. Anyway, teachers who attended the training for one time at least viewed better the sense of efficacy of teachers. The training might have helped them in realising that sense of efficacy is required for executing this kind of evaluation scheme. Similar to this perception, a study disclosed that there was significant difference between the attitude of trained and untrained teachers to co-scholastics aspects of CCE (Bansal & Jyoti, 2016).

f. Teachers' sense of efficacy

Teachers' sense of efficacy made statistically significant correlation with teacher factors such as 'pedagogical competence' (medium size), and 'validity and utility', 'evaluation quality, transparency, consistency', 'pedagogical benefits' (small size). It makes sense having a quite strong correspondence between teachers' sense of efficacy and 'pedagogical competence' in CCE, as they both are connected with the beliefs of teachers about their own capacities, in general (sense of efficacy) or specifically in CCE practice (pedagogical competence). They are measuring nearby constructs. Besides, those teachers who had a higher sense of efficacy showed also more satisfaction with the CCE implementation's positive effect on pedagogical benefits, validity and utility, and evaluation quality, in this order. Finally, sense of efficacy was completely independent from the perception of shortage, lacking issues, and damaging and problematic issues. The results of certain studies also underlined this factor as positive attitude of teachers to CCE, which is a reflection of their sense of efficacy, helped them

implement CCE more effectively (Lalnunfeli et al., 2018; Rani, 2017; Raina & Verma, 2017; Emimah, 2016; Singh, Patel, & Desai, 2013).

6.5.2 Head teacher characteristics

a. Gender

As per our data, male head teachers have a better view of 'evaluation quality, transparency, and consistency', and 'pedagogical competence' of CCE with a large size effect besides pointing out the 'shortage and lacking issues' and 'damaging and problematic issues' with a medium size effect. The results could be a general reflection of men's attitude that they instantly criticise as well as appreciate things. Nevertheless, results of some studies that were made on teachers favoured male head teachers' view of the present study while some other oppose it. Accordingly, Jaiswal (2010) indicated that male teachers had more positive attitude towards the system because of their extra mathematical skill as it was advantageous for practising CCE more effectively. Similarly, the participant head teachers probably had more capacities that made them recognise the pros and cons of the practice than their counterparts. However, this assumption was not similar to the findings of Emimah (2016) whose study exposed that both male and female teachers had favourable attitude towards CCE, but female teachers had a more favourable view of CCE even though Singh, A. (2017) claimed both have positive attitude to CCE in a similar level. In the matters related to female head teachers' view, they have highlighted only 'school climate' as an influential factor in connection with the implementation of CCE. Having a positive school climate is very important for both men and women head teachers. However, female head teachers recognise it more. Perhaps, lack of a positive climate may reduce their efficacy more than it can affect the male head teachers. It signals that a positive school climate is necessary for schools, especially for schools managed by female head teachers. Nonetheless, majority of studies conducted on teacher's attitude concluded that there was no significant difference between the male and female teachers' attitude towards CCE (Lalnunfeli et al., 2018; Rani, 2017; Misra, 2017; Barwal, & Sharma, 2015).

b. Qualification

According to our data, graduate head teachers are far ahead in their positive view of the practice of CCE in comparison with postgraduate head teachers. Graduate teachers' view of CCE is supportive for CCE promoters, while certain perceptions of postgraduate head teachers are challenges. This is because they have highlighted the 'damaging and problematic issue' of CCE with a large size significance. Perhaps, the postgraduate head teachers have a comprehensive view of the repercussions of the practice of CCE than the graduate head teachers. In most cases, head of the higher secondary as well as secondary schools of the same campus will be the same person. Therefore, these head teachers probably identified some drawbacks of the practice like Ashita (2013) reported that students' potentials were neither utilized to the maximum nor adequately prepared for the rigors of higher education and today's workplace under CCE. On the other side, graduate head teachers possibly focused more on the prospective side of the practice without paying much attention to its drawbacks. Additionally, their lack of awareness of what happens in the higher classes possibly influenced their perspective of CCE. Nevertheless, Naidu's (2017) study about the attitude of high school teachers towards CCE did not find any relevant difference in their attitude on the ground of qualification.

c. Age

Age becomes an influential factor in the perspective of head teachers of aged below 40, particularly with respect to the 'validity and utility' aspect of CCE. The medium effect size denotes that this group of teachers have a better view of the practice of CCE, especially in connection with its validity and utility as the evaluation considers the performance of students in internal activities along with the external examinations. However, they also manifested certain drawbacks in the implementation of CCE that probably diminished its efficacy. Therefore, it is important that these drawbacks should be removed from the practice for a more effective execution of student evaluation. Besides, head teachers of above 40 years old also stressed on some damaging and problematic issues of the practice although the size of effect was mild. Therefore, the views in general concludes that there were some issues in the implementation of CCE,

which reduced its efficacy to some certain extent. In spite of it, one study found that there was no difference between the perceptions of teachers of below 35 and above 35 years of age towards CCE (Singh, A. 2017).

d. Experience as head teacher

Head teacher's experience does not show any applicable relation in their view of the CCE implementation apart from the factor 'shortage, lacking issues', which was emphasized by head teachers of below 10 years of experience with a large size significance. Their perception is perhaps an indication of some drawbacks faced by them while executing CCE. Probably, these head teachers' eagerness to make the practice of CCE without any fails affected their perception as well i.e. to focus more on the negative sides of it than its advantages. On the contrary, head teachers of above 10 years of experience have generally appreciated the practice and highlighted the advantages more than the shortcomings of it. Their experience likely prompted them to posit that CCE is better than the previous practices. Similarly, they would be thinking that teachers' extra effort is sufficient to overcome the so-called shortcomings in the practice. Nonetheless, two studies conducted on the attitude of teachers of below and above 10 years of teaching experience showed no difference between them (Misra, 2017; Singh, A. 2017).

6.5.3 Student characteristics

a. Gender

Overall, students have accepted the practice of CCE without much variation in their perception with reference to their gender. The results are similar to the findings of some studies have also underpinned that there was no difference between the attitude of male and female students towards CCE (Singh & Ahmad, 2017; Ali, 2016; Singh et al., 2013). Similarly, another research revealed that there was no significant difference between male and female students in the CCE evaluation (Cyril & Jeyasekaran, 2016) or in their performance under CCE (Deka, 2014). Additionally, a study by Rajshree and Kumar (2013) pointed out that there was no significant effect of the gender on the

examination stress of the students studying under grading system of evaluation as well as under numerical system of evaluation. However, as per the present study, female students have a mildly stronger view of the factors 'comprehensive and reliable evaluation', 'importance of education for parents', and 'school climate – students'. Higher literacy rate of Kerala and importance parents give to the education of their children are reflective in the response of the students i.e. whether they are boy or girl, they should receive quality education. The results conclude that both boys and girls have positive attitude to CCE in accordance with a number of studies.

b. Class level

Students from the three sections viz. VIII, IX, and X differ slightly in their views about the implementation of CCE. They have stressed on the merits and demerits of CCE. For example, X class students have pointed out both benefits as well as drawbacks of the program. They think the evaluation of students has become more valid under CCE because of its systematic approach to evaluation as it gives importance to both scholastic as well as non-scholastic performance of students. Maybe, some aberration could be there in the case of certain teachers who cared less about students' performance in the internal activities or failed to assess them properly as demonstrated by some studies (Brown et al., 2015; Rao, 2012; Kothari & Thomas, 2012). Students of class VIII perceived better the 'comprehensive and reliable' and 'school climate' aspects of the evaluation. The new activity oriented evaluation practice possibly excited them and convinced them of its comprehensiveness and reliability, particularly considering the fact that their evaluation was not as formal as now in class VIII. In the case of Class IX students, their emphasis falls on the factor 'importance of education for parents'. Generally, all parents are very concerned about the education of their children, especially of the students of IX and X. Maybe, these students experienced some kind of pressure or rather extra encouragement from their parents, which has been reflected in their response. Naturally, these students have attached more importance to 'school climate'. Nevertheless, Ali's study showed that there was no significant difference in the attitude of secondary school level students of different schools of CBSE (Ali, 2016).

c. Students' academic position and average grade

A general observation about CCE was that students' academic achievement increased under CCE as per out data, particularly in the case of students of private schools. Along with CCE features, influence of educated parents, good socio-economic background, and reputed schools with quality and competent teachers are all some factors that have correspondingly influenced on students' fine achievement. Therefore, the academic position of majority of the students are very high. The Chairman of the CBSE Board himself mentioned in an interview, "Scoring of higher grades by a majority of students may be attributed to various factors such as availability of a more scientific design of the question paper, sample question papers, schools conducting numerous mock tests and most of all the extreme obsession of students and parents for higher grades. There have been cases of re-evaluation in which candidates who scored marks in the nineties approached the board for getting their assessment rechecked! There are some schools, which reportedly awarded inflated grades in Class X initially. However, after the introduction of evidence of assessment scheme, the practice diminished" (Correspondent, 2011). Even though there is a slight variation in their academic perception of achievement and academic position, statistically the performance of students is better under CCE. Naturally, students with better performance have more positive perception of CCE in line with the finding of some investigations (Hassan, 2016; Ali, 2016; Singh et al., 2013; Gayal, 2015; Deka, 2014), as a result of their understanding of the benefits the programme compared to the previous practices. At the same time, they have not hesitated to pinpoint the damaging side of the evaluation too, which was corresponding to the results of a few studies (Hassan, 2016; Quari & Sultan, 2016; Ashita, 2013; Jayalekshmi and Celin, 2013; Rao, 2012).

6.6 Summary

This chapter has discussed at greater length the significance of the results of the data analysis we conducted in the previous chapter. The discussion has been done maintaining the same structure of the previous chapter centred on stakeholders' perspective of the implementation of CCE through the lens of *The Student Evaluation*

Standards, and the influence of school as well as stakeholders' characteristics upon their perspective. The discussion revealed that there are some strong and less strong relations between their perspectives and some variables considered for the study.

Accordingly, the first part discussed stakeholders' perspective regarding the practice of CCE with respect to the four attributes of student evaluation, namely, propriety, utility, feasibility, and accuracy. The discussion helped us to understand certain pros and cons of the implementation of CCE in the light of these four attributes and their standards. Moreover, the stakeholders generally were in view of that CCE could observe more or less most of the standards listed in *The Student Evaluation Standards*. The comparison among the three stakeholders using the underlying dimension in their perspective appeared to be generally similar excluding some small level difference.

The second part discussed the dimension of school characteristics and their influence on the stakeholders' perspective. The variables for teachers and head teachers consisted of type of school, size of school, socio-economic-family background, and school culture and climate. Mainly, the discussion underpinned that these variables were not so influential on the perspective of teachers except in the case of some factors. However, school characteristics indicated more influence on head teachers' perspective, but the number of sample head teachers being very low, its significance was also correspondingly less. Student variables consisted of type of school, school size, region of school, socio-economic-family background, type of principal, and school climate and parental support. Compared to other two stakeholder variables, student variables showed a little stronger relation with the perspective of students. Overall, the school variables did not have much impact on the perspective of the stakeholders.

The third part of discussion dealt with the stakeholders' characteristics and their relevance to their perspective on the implementation of CCE. The teacher characteristics employed in the study were gender, qualification, teaching experience, age, in-service training, and teachers' sense of efficacy. The variables used for head teacher characteristics were the same minus the sense of efficacy variable. Similar to the school characteristics, most of the stakeholder characteristics did not expose any stronger

relation with their perspective barring a few characteristics that showed some significance in their perspective. Student variables were gender, class level, and students' academic position and average grade. Alike the teacher and head teacher characteristics, student characteristics also did not have much influence on their perspective on the practice of CCE.

In general, the discussion on these three dimensions could illuminate on some aspects of the student evaluation that probably work favourably as well as unfavourably to the spirit of it. Similarly, how certain school and stakeholder characters can influence on the practice of student evaluation both positively and negatively.

7 Conclusions, limitations and future research

The concluding part substantiates whether the thesis could achieve satisfactory results in line with the research objectives mentioned in the introductory chapter of the thesis. As such, the following sections are dedicated to describe the important findings that satisfy those objectives set. Moreover, a small discussion is carried out to highlight the relevance of the study. Besides, some limitations of the study are also indicated and finally, some suggestions are made for further researches in future.

7.1 Conclusions

The study primarily looked into the implementation of CCE to understand the quality of its implementation because it was understood from the literature review that there were some gaps between the recommended practice and the actualised practice. Similarly, even though the practice of CCE was beneficial to different stakeholders, it was not without any drawbacks. The truth is that it had some strong shortcomings. Therefore, the study attempted to look deep into the practice of CCE and for this purpose, the study utilised the four attributes (propriety, utility, feasibility, and accuracy) and their standards prescribed by *The Student Evaluation Standards*. By making a cross-checking study of the practice of CCE against the standards assisted in comprehending the positive and negative sides of the execution of the practice.

From the perspective of propriety standards, the study understood that CCE could take care of the well-being of the students in a considerable level, especially on matters like reducing the exam pressure, decreasing the mugging up habits, increasing the self-esteem etc. Besides, the inclusion of internal assessment score in the final assessment of students' performance made the evaluation more balanced as the earlier system mainly promoted academically brilliant students alone in most cases. The utility standards confirmed that both teaching and learning became more effective under CCE and remedial teaching also contributed to it significantly. However, some studies challenged the effectiveness of the remedial teaching finding fault with the exercising

of it, particularly in relation to its timing (Hassan, 2016; Quari & Sultan, 2016; Sonawane & Isave, 2012; Joshi, 2013). Similarly, the year-end reports of students' performance was utile for planning their future career even though this aspect was also questioned by some research studies. The study found that teachers in general were competent enough to execute CCE, which was also refuted by certain studies. The feasibility side of the practice was seen as a major challenge for the practice of CCE. Nevertheless, the study learnt that the proper training of teachers on the practice enabled them to execute it well although many studies contradicted it. Perhaps, some of the major problems faced by the practice were lack of sufficient resources, lack of proper infrastructure, the negative attitude of teachers etc. In the accuracy dimension, the study understood that the proper documentation and report of students' performance in various activities along with the unbiased approach of teachers increased the credibility of the evaluation. Nonetheless, there were criticisms of teachers' selection of activities for students as many of them failed to consider students' ability to perform it. Some studies demonstrated that there was inconsistency in the awarding of marks for activities and sometimes, good grades were given without seriously happening any learning. Therefore, considering these different factors and barring some shortcomings, especially due to the contextual factors, the present study can state that many of the standards recommended by *The Student Evaluation Standards* are observed in the practice of CCE. However, the researcher accepts the results of many studies that there are number of questions against the propriety, utility, feasibility, and accuracy aspects of CCE. Similarly, the study sought for the underlying dimension in the perspectives of the stakeholders and it indicated more or less the same perspective with some mild variations. In common, the stakeholders shared a positive attitude to the implementation of CCE.

According to school efficacy and improvement literature and the literature review of the present study, some school internal and external characteristics were influential on the efficacy of the implementation of CCE. As such, the study found that teachers of rural schools had a better view of CCE and its impact. But, these schools also had shortage of materials and resources which reduced the efficacy of the of CCE to a certain extent.

However, urban schools had better school culture and it worked in favour of the practice. These results were in line with some other research results too (Chaudhari, 2014). Alike, there were investigations that pointed out the type of school was irrelevant in the practice of CCE (Singh, 2017; Barwal & Sharma, 2015). Head teachers shared almost similar perspective regarding the influence of type of school. Still, the results demonstrated that semi-urban teachers had a better view of the positive influence of the practice. In the case of students, there was a clear indication that students from urban schools favoured more the practice of CCE and their support was mainly owed to the better facilities provided by their schools as well as parents. A number studies also underlined it through their investigation results (Yagnamurthy, 2017; Raina & Verma, 2017; Rajeswari, 2017; Herkal, 2016 Kothari & Thomas, 2012).

Size of school did not make any significant difference in the perception of stakeholders in general even though medium size schools fared better with respect to some positive factors of CCE and large schools had more problems in connection with shortage and lacking issues. Many studies highlighted the problem of large pupil-teacher ratio in common as one of the basic problems faced by schools (Raina & Verma, 2017; Rajeswari, 2017; Herkal, 2016; Chaudhari, 2014; Kothari & Thomas, 2012). Anyway, the present study could not find it as a big challenge as many of the sampled schools had only appropriate number of students in classrooms. In the view of head teachers as well as students, medium size schools were slightly better with the implementation of CCE because large size schools in overall had more problems.

Socio-economic-family background of the schools did not influence much on the perception of none of the stakeholders as most of the sampled schools were financially sound and shared better socio-economic-family background. Therefore, teachers of the sampled schools expressed positive attitude towards to CCE in general. It was also supported by some other research results that stated the attitude of teachers of government schools to CCE was not as positive as the teachers of private schools like in the case of the sampled schools of the present study (Chaudhari, 2014; Singhal, 2012). Nonetheless, head teachers of high socio-economic-family background schools have underlined the 'shortage and lacking issues' of CCE with a medium effect size. Probably,

they had some problems like the execution of CCE interrupting in the day-to-day activities of the schools. Students from these different categories of schools did not show difference in a significant level although the performance of students of better socio-economic-family background schools was better under CCE for having better parental support. On the contrary, students of poor socio-economic-family-background schools had better attitude to CCE. Nevertheless, based on the region of the schools, students of northern zone have a better perspective of the CCE implementation even though among the three zones, this zone was poorer. Therefore, they also faced with damaging issues in the practice of CCE. Overall, the type of principal was not an important factor that affected the perspective of students on the implementation of CCE. Even then, students of religious management schools showed slightly better attitude to CCE and on the contrary, parental support was more highlighted by the students of civil management schools. The reasons was supposed to be that these schools generally have plenty of extra-curricular activities and for which financial support of the parents was also required more.

School culture and climate found to be important in the effective implementation of CCE as our data showed that schools with a better school culture and climate implemented CCE more effectively. Overall, the samples schools had better school culture and climate, which was evident in the responses of different stakeholders as well. Similar views were shared by a few studies (Singh (2017; Jayalekshmi & Pereira, 2013). Alike, some studies revealed that lack of positive culture and climate decreased the efficacy of the implementation of CCE (Yagnamurthy, 2017; Raina & Verma, 2017; Herkal, 2016; Mishra & Mallik, 2014; Kothari & Thomas, 2012).

In the literature review of the present study, stakeholders' characteristics are significant in the evaluation of students. Accordingly, the study took effort to understand their influence on the implementation of CCE in schools. As such, the study recognised that gender was not a relevant factor in the practice of CCE even though all factors demonstrated some small level effect in the sample. There were studies that agreed as well as disagreed with the results of the present study (Lalnunfeli et al., 2018; Misra, 2017; Singh 2017; Barwal & Sharma, 2015; Singhal, 2012; Emimah, 2016; Jaiswal, 2010).

But, most of them found that gender was not a factor for practising CCE effectively. Even then, the present study showed that sense of efficacy of male teachers was higher. However, our data substantiated that male head teachers had a more favourable attitude towards CCE, at the same time they also criticised the lacking and shortage issues of it. Besides, our data showed that students' gender was not a relevant factor in their perspective on the implementation of CCE, which was in parallel with the results of some other studies (Singh & Ahmad, 2017; Ali, 2016; Singh et al., 2013). Nonetheless, female students have a mildly stronger view of the certain factors of CCE, especially regarding the importance of education for parents. Higher literacy rate of Kerala and the importance parents give to the education of their children without discriminating whether they are boys and girls are reflective here.

Teachers' qualification did not appear as an important factor even if some small level differences were shown in relation to some factors of CCE. At the same, postgraduate teachers cast doubt upon the validity and utility dimension of the practice, as they were not so convinced of the effectiveness of the internal assessment to promote all-round development of students. Naidu's (2017) study also agreed that there was no difference in the attitude of teachers with respect to the qualification while a few other results showed postgraduate teachers had better view on CCE (Lalnunfeli et al., 2018; Singhal, 2012). On the contrary, graduate head teachers had a better perspective of CCE as postgraduate head teachers highlighted the 'damaging and problematic issue' of CCE with a large size significance. Graduate teachers' view of CCE is impressive for the promoters of CCE whereas postgraduate head teachers' view should be considered for improving student evaluation.

According to the results of the study, age was not an influential factor in the execution of CCE. Results of some studies were in line with this result (Lalnunfeli et al., 2018) whereas some other studies disagreed with them (Singh, 2017). Nevertheless, teachers aged between 31 and 40 years in the sample highlighted slightly that 'school climate - trust and openness' is necessary for exercising CCE effectively. Generally, the results underline that age cannot be a criterion for the selection of teachers in school and additionally the importance of maintaining a good school climate and culture in the

effective implementation of CCE. From the perspective of head teachers aged below 40, age becomes an influential factor as they have a better view of the 'validity and utility' aspect of CCE with a medium effect size. At the same time, they also stressed on some drawbacks of the practice along with the head teachers of above 40 years. Therefore, the practice probably had some shortcomings that undermined the efficacy of CCE.

Teaching experience was found to be as not an influential factor on the attitude of teachers towards the implementation of CCE, especially with less experienced and more experienced teachers in the sample. Possibly, the younger group readily accepted the practice without much criticism while the most experienced reacted lukewarmly. However, the more experienced teachers appreciated better some positive aspects of CCE, besides, they also stressed on the importance of 'school climate and culture in the practice of CCE'. Some studies indicated that teachers with less and moderate teaching experience were more flexible and ready to accept the changes unlike the teachers with very high teaching experience who resisted changes (Rao, 2009; Emimah, 2016). Hence, the study shows that experience can work out either positively or negatively. It depends on how the experience is utilised. Head teachers of below 10 years of experience highlighted the shortage and lacking issues of the practice with a large size significance while more experienced head teacher appreciated the practice more and highlighted the advantages of it. It is likely that their experience prompted them to posit that CCE is better than the previous practices. Besides, they probably think that CCE or any similar schemes may have shortcomings, but they should be overcome by teachers' extra effort.

In relation to in-service training of teachers, teachers without any formal in-service training underpinned both the positive as well as negative sides of the practice. On the contrary, teachers who attended training at least one time did not underpin any particular factor as significant even though they appreciated sense of efficacy of teachers a little more. Nonetheless, proper training is important for eliminating the drawbacks pointed out by the less experienced teachers. Further, it will aid to increase the sense of efficacy of teachers, particularly the teachers without formal training. According to one study, there was a significant difference between the attitude of

trained and untrained teachers towards co-scholastics aspects of CCE (Bansal & Jyoti, 2016).

Teachers' sense of efficacy made statistically significant correlation with some teacher factors, especially with 'pedagogical competence' in CCE. The beliefs of teachers about their own capacities, in general (sense of efficacy) or specifically in CCE practice (pedagogical competence) are both connected. Besides, those teachers who had a higher sense of efficacy showed more satisfaction with the implementation of CCE. Additionally, sense of efficacy was completely independent from the perception of certain negative sides of the practice. Therefore, the study understands that the sense efficacy of teachers is very significant in implementing the practice. The more teachers have the sense of efficacy, the better teachers perform. A few studies also underlined that teachers positive attitude towards CCE, which is a reflection of their sense of efficacy, helped them implement CCE more effectively (Lalnunfeli et al., 2018; Rani, 2017; Raina & Verma, 2017; Emimah, 2016; Singh, Patel, & Desai, 2013).

Considering the general perception of the students on the practice of CCE, they have a positive outlook to it. According to the students of class X, the evaluation of students has become more valid under CCE because of its systematic approach emphasizing on the importance of both scholastic and non-scholastic performance of students.

Students of class IX and VIII also perceived better the certain dimensions of the practice such as the comprehensiveness, reliability, and the importance of school climate. Nevertheless, Ali's study showed that there was no significant difference in students' attitude towards CCE of different secondary CBSE schools (Ali, 2016).

The academic position of the majority of students was very high, especially of the private school students. The main reasons are influence of the educated parents, their good socio-economic background, and reputed sample schools along with the advantages of CCE practice. The Chairman of the CBSE Board himself made it clear that scoring of higher grades by a majority of students might be attributed to various factors such as availability of a more scientific design of the question paper, sample question papers, schools conducting numerous mock tests, and most of all the extreme obsession of

students and parents for higher grades. However, there was a slight variation in their academic perception of achievement and academic position, and statistically the performance of students was better under CCE. Naturally, students with better performance exuded more confidence in the practice of CCE. The results of the study was consistent with the finding of some other studies regarding students' performance and positive attitude (Hassan, 2016; Ali, 2016; Singh et al., 2013; Deka, 2014). However, to improve the quality of student evaluation, students' mastering of skill and their academic position should be made corresponding as there was a strong criticism of the gap between students' academic achievement and their true learning. It is more probable at least in the case of some students.

In general, the study can take a strong stand in favour of the practice of CCE. Even though there were number of limitations in its implementation, overall it could strengthen the quality of student evaluation. The goal of student evaluation is to help students improve on their performance and in this point of view, CCE succeeded with sound margins.

7.2 Limitations of the study

The results of the present research study on the implementation of CCE can definitely assist in raising the quality of student evaluation practices in schools generally, particularly in Kerala. However, as in the case of this kind of studies, the study has a number of limitations as delineated below.

For the practical reasons, the population of the study was CBSE schools of Kerala, which is one out of the 29 states of India. Besides, the sampled schools were from only three districts of the Southern, Northern, and Central zone of Kerala although they could probably represent Kerala entirely. Nonetheless, if the researcher had included schools from other districts too, the results of the study would have been even better.

In addition to it, although the sampled schools constituted of 25 schools of Kerala, its capacity to represent the rest of India is limited. India being such a vast country and having most states its own languages the reasons are many like peculiar cultural characteristics, distinct level of socio-economic status, importance given to education

etc. Therefore, the significance of the study can be lesser depending on the characteristics of each state.

Moreover, out of the 25 sampled schools, except two, all schools are under catholic managements. Generally, these schools not only have a good academic reputation, but also have a sound socio-economic background. Therefore, the impact of the research findings may vary slightly on other schools depending on their academic level as well as the socio-economic status.

Similarly, the stakeholder groups consisted of teachers, head teachers, and students. If parents and policy makers were also part of this group, the results could be further influential.

In the same manner, 'The Student Evaluation Standards' is mainly developed in the American context for the schools of America. The Committee itself have denoted, "The Student Evaluation Standards may serve in many educational settings beyond this country. However, each country has unique circumstances and conditions surrounding student learning and student evaluations" (Gullickson, 2005). Thereby, this unique factor may reduce the relevance of the results to certain point.

For the same cause mentioned above, there was a dearth of reliable literature on the four attributes and their standards in the Indian context, especially in connection with the practice of CCE. Therefore, the study had to project the standards to the available literature on CCE.

Perhaps, the bigger limitation of the study could be associated with the size of the head teacher sample viz. 25, which is not good enough for this kind of analytical study. This sample size may be low or very low.

Alike, the study did not make use of any qualitative complement, interviews, observations etc., which would have definitely elevated the accuracy aspects of the results apart from widening the dimension of the study.

Additionally, the attitude of the participants while answering the questionnaires can be influential. Sometimes, it is probable that somebody answers the questions without reading or paying enough attention, which can affect the overall accuracy of the research results.

Further, one of the most important limitations could be in the reality i.e. the CCE Scheme is no more in practice as it was withdrawn from practice from the academic 2017 due to some reasons ranging from efficacy aspects to the implementation difficulties apart from the political factor.

Despite these limitations, the thesis has attempted to elaborate the basic theme of the study with an empirical analysis. The results of the study can definitely contribute to the realm of student evaluation in India generally, and for CBSE Schools in Kerala especially.

7.3 Suggestions for future research

Although there are some limitations to the approaches of the thesis, these limitations are not due to any approaches directly related to the thesis. Therefore, we can consider the above-mentioned limitations as some opportunities for further research. The future studies may be conducted taking cues from the following, mainly based on the methodological option, theme, population, elaboration of the present study etc. The recommendations are given below.

Employing the four attributes and their standards, more studies should be conducted in other parts of India, so that a better student evaluation scheme can be developed using the findings of these studies, particularly considering the fact that there are scarcely any studies done in the context of India employing *the standards*.

Mixed research method is one of the favourite methods among researchers. In the case of the present study too, it could be an ideal method for exploring the objectives of it. Nevertheless, due to the time constraints and lack of human resources, it was not easy to conduct a qualitative study. Therefore, further studies could be undertaken in future on these dimensions.

According to Richardson (2003), if the response rate is 50 percent or more, it is considered as an acceptable rate in social science. In the case of the present study, it is 83 percentage and it is more than acceptable. Nonetheless, if the number of the head teachers participated in the study were more, the research results would have been even better. Therefore, it is an area to make more research and investigation.

The results exhibit that gender is not an influential factor in the evaluation of students and therefore, it is not necessary to pay much attention to it, rather the focus should be given to the high calibre of the applicants for teaching post. Additionally, newly recruited teachers must be given enough working freedom, so that their creativity can be utilised for the benefit of raising the quality of education through appropriate methodology of student evaluation. A research study on this aspect can be helpful for improving the standard and exercise of student evaluation.

The research has found that a major problem encountered by various stakeholders while implementing CCE was the dearth of resources and other infrastructure facilities. Maybe, a research study in this line alone can contribute much to the elevation of student evaluation quality and teacher efficacy, which in turn can save plenty of time spent on these matters.

CBSE has brought back the terminal examinations practice from 2017 academic year and reduced the weightage given for formative assessment by half. Besides, now the Government is pondering about reducing size of the present curriculum for promoting co-scholastic activities without making it a burden for students. In this context, a deep research study directed to know the psyche of students, teachers, and other stakeholders in relation to evaluation of students can be useful for developing a better curriculum. Perhaps, they may make use of *The Students Evaluation Standards* for the same.

To conclude, the directions for further researches have demonstrated that the above-mentioned limitations can be narrowed by future studies because each contribution of this thesis, partial and situational, has raised more questions in the attempt to find precise answers and a deeper understanding about the implementation of CCE.

Thereby, this thesis could be seen as an initiative taken from our part to contribute to develop a better student evaluation scheme and its implementation. Therefore, we expect that our contribution would aid the policy makers to improve the system of student evaluation by integrating some of the findings of the present study.

Finally, in most critical analysis exercises of educational practice, there is a tendency to focus preferably on weaknesses. It also happens in metaevaluation studies. When reading evaluation standards and using them to judge the practice using the available information, there is a tendency to highlight issues that are more negative. There can be an underlying assumption about the need of identifying elements that could suggest directions for improvement. As a result, meta-evaluation reports can depict over-critical perspectives about the real quality of the evaluation practice that is analysed.

Therefore, the prevalence of critical elements in this study does not mean at all that we should give an overall unfavourable judgement about the reality of CCE implementation. It is more adequate to use it as a reflection tool for planning improvement.

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9 Appendix

9.1 Letters

9.1.1 Letter to school

To whom it may concern,

This is to inform that Binukumar Samson is a PhD student at University of Deusto (Spain), Faculty of Psychology and Education, and is writing his PhD thesis titled: “Factors that condition the effective implementation CCE Program in CBSE Secondary schools in Kerala”.

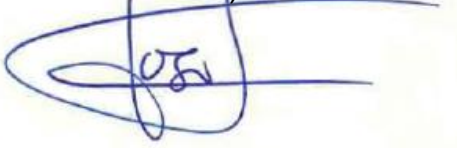
For the research purpose, it is needed to collect data from principals, teachers, and students of different CBSE secondary education institutions in Kerala (India). The data will be collected through the administration of questionnaires designed to understand the factors that condition the effective implementation of CCE program in CBSE Secondary schools in Kerala. It is expected that the analysis of the results could be used for the more effective implementation of CCE programs in any CBSE schools in India. The expected proposals would be helpful for all stakeholders like head teachers, teachers, students, parents etc. Therefore, the study could be making an important contribution to Indian education in general and CBSE Secondary School education in particular.

Data will be treated confidentially and used only for the purpose of the research.

Please, don't hesitate to contact me for any doubt of further information (email: josu.solabarrieta@deusto.es).

Respectfully yours,

Josu Solabarrieta, PhD



Professor

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9.1.2 Letter to principal

Requesting permission to collect data for a research study

Dear principal,

My name is Binukumar Samson. I am a doctoral student at the University of Deusto (Bilbao, Spain), Faculty of Psychology and Education. I am conducting a research study entitled “Factors that condition the effective implementation CCE Program in CBSE Secondary Schools in Kerala”. I would kindly ask for your permission and assistance to conduct this research in your esteemed school.

This study has been approved by the Universidad de Deusto. The survey questionnaire used for data collection has been finalized by the research advisors from the research supervision at the University of Deusto.

The study involves completing a self-administered paper survey by the secondary school principals, teachers, and students. It is expected to take about 30 minutes to complete the questionnaire. The participants will be requested to complete the survey questionnaire which will be later collected. The survey participants will be entirely anonymous because the research requires only the aggregate results. The participation of the study is optional and confidentiality will be ensured and respected during all the processes involved in the study. No individual identification information of the participants will be requested or recorded. In addition, the school name will not be disclosed in the report or to any outside party. I will be more than happy to provide you with a copy of the questionnaire for review.

I am sure that your contribution will assist in this study for the better use of CCE program in CBSE schools.

If you have any questions or concern about the study, please contact me at ([telephone number]) or by email ([email]).

Looking forward to meeting you and thanking you in advance for your support.

Sincerely,

Binukumar Samson

Doctoral candidate
University of Deusto, Faculty of Psychology and Education
www.psicologiayeducacion.deusto.es

9.1.3 Consent form for participants

Dear (principal, teachers, student),

Please read this consent form carefully before you decide to participate or not in this study. If you have any questions or concerns about the study, please contact me at [mobile number] or by email (binukumar.samson@opendeusto.es).

Title of the research study

Factors that condition the effective implementation CCE Program in CBSE Secondary schools in Kerala.

Researcher

Binnukumar Samson
Doctoral candidate
University of Deusto
Faculty of Psychology and Educación
Email: binukumar.samson@opendeusto.es
Mobile contact: [phone]

Objective of the research

The main objective of the research study is to know the different dimensions of CCE program, especially about its accuracy, feasibility, utility and propriety. We believe that the study will provide relevant information needed to the potential use of CCE for the different stakeholders. It will contribute to making better evaluation of student's day-to-day performance.

Purpose of the research

The main purpose of the present study is to explore the different dimensions of CCE implementation in CBSE Secondary Schools in Kerala. This study examines CCE's potential merits in its successful implementation and also the distinct problems faced by the different stakeholders especially like teachers and students on the process of its implementation.

In particular, the research study seeks to know the characteristics of the implementation of CCE components and the variables related to it.

Procedure of this research

The participants of this study will be CBSE secondary school principals, teachers, and students from the schools located in Kerala. The participant will be asked to volunteer in completing the questionnaire, which will take about 30 minutes. The data collection will take place from 10th of January to 10th of April 2017.

Participant's responsibilities

After returning the signed consent form to participate in the study, teachers will be provided research package. The package includes:

- Notification letter from Department of Education, University of Deusto.
- Cover letter stating the purpose of the research and contact details.
- Research questionnaire.
- Envelope.

When you have completed the survey questionnaire, please place it in the envelope, seal it and handover to the selected coordinator.

Research instrument

This is a quantitative study and data will be collected via questionnaire. The majority of the questions were developed by the researcher because the previously developed and validated questions apt for the study were not available. These questions were developed on the base of literature review. The rest of the questions included in the questionnaire

were previously developed and validated. The final questionnaire was approved by the research supervisors.

Potential risks or discomforts

It is unlikely that the participants will experience any major discomfort as a result of this research. Participants in this study will be reminded that completing the questionnaire is voluntary. Participants will not be identified personally.

Participants are free to leave the study in any moment, without any consequence on any kind.

Potential benefits to participants or others

The participation in this study may not have a direct benefit to the participants. However, findings of this study will be very important in the sense that the different stakeholders related to student evaluation can avail them for their own development. Furthermore, it will offer the possibility of acting as relevant information for educational policy makers when formulating policies that are viable and essential to equip the contemporary 21st century classrooms and schools.

In fact, this research paper will be particularly critical to the policy makers in their quest for proper and feasible policies for the development of Indian education system. In this point of view, the study will pave way for designing of programs for overall development of school curriculum besides strengthening the CCE program. Thus, the new educational policies and programs will be established for the fact that they are based on findings from the research study.

Protection of confidentiality

Participant's name, worksite or any other identifying information will be kept confidential at all time. No individual identification information is requested or recorded. The information provided in the questionnaire will not be provided to any other party and will be confidential at all times. The findings of the research will be summarized and reported in group form.

[Describe the procedure of taking questionnaires to you]

Participant's signature

Your signature indicates that you voluntarily agree to participate in this study. You were given consent form prior to your participation in the study and were given time to read it. If you have questions later, you may call researcher. Participation in this study is greatly appreciated. You have the right to withdraw from the study without consequence.

Statement of consent

I have read the above information and I understand the study, procedure, and my involvement in the study. By signing, I understand that I am agreeing to the terms described above.

Participant name: _____

Date of consent: _____

Participant's signature: _____

9.2 Questionnaires without codes

For the following statements, please indicate the level of agreements.

Please check [X] only one box for each statement.

In my school:

	Not at all	A little	Somewhat	Very much	Always
46 I can tell others what I think of the way they do things.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
47 I ask others what they think about the way I do things.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
48 I count on others for assistance.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
49 I believe that others care about me.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
50 I believe that they are honest.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
51 The school's mission is posted for everyone to see.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
52 The faculty is in agreement about the mission of the school.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
53 Teachers review previous work before introducing new material.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
54 The relationship that exists between parents and the teacher is a good one.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
55 The relationship that exists between parents and the administration is a good one.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
56 Teachers believe that every student can learn and can improve.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
57 I can use a variety of assessment strategies.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
58 I provide an alternative explanation or example when students are confused.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
59 I can implement alternative strategies in my classroom.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
60 I control disruptive behaviour in the classroom.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
61 I get children to follow classroom rules.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
62 I establish a classroom management system with each group of students.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
63 I get students to believe they can do well in schoolwork.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
64 I motivate students who show low interest in schoolwork.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
65 I assist families in helping their children do well in school.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

- Thank you for your collaboration -

For the following statements, please indicate the level of agreement. Please check [X] only one box for each statement.

		Strongly disagree	Disagree	Somewhat disagree	Somewhat agree	Agree	Strongly agree
36	Teachers have the necessary knowledge and skills for implementing CCE.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
37	Student's dignity is upheld in the CCE classroom.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
38	Lack of basic computer and arithmetic knowledge steals a lot of class preparation time from teachers.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

For the following statements, please indicate the level of agreements. Please check [X] only one box for each statement.

In our school:

		Not at all	A little	Somewhat	Very much	Always
39	We count on others for assistance (we trust each other for assistance).	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
40	We believe that others care about you.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
41	Teachers are involved in the decision-making process.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
42	A school leadership team or advisory council assists the administration with decisions.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
43	A parent leadership team or advisory council assists the administration with decisions.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
44	The administration has high expectations for teacher performance.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
45	The schools mission is posted for everyone to see.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
46	The faculty is in agreement about the mission of the school.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
47	Teachers vary instructional strategies according to the needs of the students.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
48	The relationship that exists between parents and the teachers is a good one.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
49	The relationship that exists between parents and the administration is a good one.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
50	Teachers believe that every student can learn and can improve.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

- Thank you for your collaboration -

Please answer the following questions to the best of your ability and as accurately as possible. Please choose only one response choice per question.

		Strongly disagree	Disagree	Somewhat disagree	Somewhat agree	Agree	Strongly agree
19	For my parents, it is more important to choose a profession that offers financial stability rather than choosing a profession that I like.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
20	When I perform poorly in college, it reflects badly on my parents.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
21	My parents help me while doing homework.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
22	I have other family members' support in studies.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
23	I have special classes like tuition other than regular school class.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

For the following statements, please indicate your level of agreement

		Not at all	A little	Somewhat	Very much	Always
24	I believe that teachers vary instructional strategies according to our needs.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
25	My teachers review previous work before introducing new material.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
26	The relationship that exists between my parents and the teachers is a good one.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
27	The relationship that exists between my parents and the administration is a good one.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

28 What is your academic position within your classroom?

- Among the lowest 5
 Among the lowest 10
 Average to lower
 Average to higher
 Among the highest 10
 Among the highest 5

29 Which has been your average grade for the previous semester?

- A1 A2 B1 B2 C1 C2 D1 D2 E1 E2

- Thank you for your collaboration -

9.3 Questionnaires with codes

STND	±	For the following statements, please indicate the level of agreement. Please Check [X] only one box for each statement.						
		Strongly disagree	Disagree	Somewhat disagree	Somewhat agree	Agree	Strongly agree	
		evaluation in Secondary Education is problematic for students.						
PY1	+	11	CCE has reduced societal pressure in a big level.					
PY1	+	12	CCE makes classes more interactive and innovative.					
PY2	+	13	CCE procedures are equitable and fair.					
PY4	+	14	Thanks to CCE students are now fearless and bold in expressing themselves.					
PY6	+	15	I communicate to students both their strengths and weaknesses.					
US1	+	16	CCE results are really useful for making decisions about how to improve teaching.					
US6	+	17	CCE's comprehensive and timely evaluation helps the parents stay completely updated on their children's performance.					
AS01	+	18	CCE helps to evaluate really what we intend to evaluate.					
AS02	+	19	Thanks to CCE students know more clearly what is expected them to learn.					
AS01	-	20	In CCE we evaluate irrelevant things.					
AS05	+	21	We gather adequate information for evaluating students.					
AS07	+	22	Now we evaluate with more objectivity, less influenced by our personal opinion about each student.					
FS2	+	23	Regular PTA meetings help in winning parents' cooperation to implement CCE successfully.					
FS3	+	24	Regular CCE training workshops conducted at the school and district level equip the teachers to implement CCE effectively.					
PY1	-	25	Due to CCE's <i>all promotion</i> approach till class VIII, students are less serious about their studies.					

STND	±	For the following statements, please indicate the level of agreement. Please Check [X] only one box for each statement.							
		Strongly disagree	Disagree	Somewhat disagree	Somewhat agree	Agree	Strongly agree		
US4	-	43	The arithmetic and computer part of CCE is problematic to me.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
US3	+	44	We evaluate every relevant aspect of students learning.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
US1	+	45	CCE is more effective in taking remedial steps for students' progress.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

			For the following statements, please indicate the level of agreements. Please check [X] only one box for each statement.					
			In my school:					
			Not at all	A little	Somewhat	Very much	Always	
SC1	+	46	I can tell others what I think of the way they do things.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
SC1	+	47	I ask others what they think about the way I do things.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
SC1	+	48	I count on others for assistance.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
SC1	+	49	I believe that others care about me.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
SC1	+	50	I believe that they are honest.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
SC2	+	51	The school's mission is posted for everyone to see.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
SC2	+	52	The faculty is in agreement about the mission of the school.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
SC2	+	53	Teachers review previous work before introducing new material.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
SC2	+	54	The relationship that exists between parents and the teachers is a good one.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
SC2	+	55	The relationship that exists between parents and the administration is a good one.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
SC2	+	56	Teachers believe that every student can learn and can improve.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
SE1		57	I can use a variety of assessment strategies.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
SE1		58	I provide an alternative explanation or example when students are confused.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

SE1	59	I can implement alternative strategies in my classroom.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
SE2	60	I control disruptive behaviour in the classroom.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
SE2	61	I get children to follow classroom rules.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
SE2	62	I establish a classroom management system with each group of students.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
SE3	63	I get students to believe they can do well in schoolwork.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
SE3	64	I motivate students who show low interest in schoolwork.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
SE3	65	I assist families in helping their children do well in school.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

- Thank you for your collaboration -

For the following statements, please indicate the level of agreement. Please check [X] only one box for each statement.

			Strongly disagree	Disagree	Somewhat disagree	Somewhat agree	Agree	Strongly agree			
US6	+	33	CCE's comprehensive and timely evaluation helps the parents stay completely updated on their children's performance.			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
US6	+	34	CCE evaluation provides relevant ideas for better future planning of students			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
US3	+	35	We evaluate every relevant aspect of students learning.			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
US4	+	36	Teachers have the necessary knowledge and skills for implementing CCE.			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
PY4	+	37	Student's dignity is upheld in the CCE classroom.			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
US4	-	38	Lack of basic computer and arithmetic knowledge steals a lot of class preparation time from teachers.			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

For the following statements, please indicate the level of agreements. Please check [X] only one box for each statement.

In our school:

			Not at all	A little	Somewhat	Very much	Always			
SC1	+	39	We count on others for assistance (we trust each other for assistance).			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
SC1	+	40	We believe that others care about you.			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
SC1	+	41	Teachers are involved in the decision-making process.			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
SC1	+	42	A school leadership team or advisory council assists the administration with decisions.			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
SC1	+	43	A parent leadership team or advisory council assists the administration with decisions.			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
SC2	+	44	The administration has high expectations for teacher performance.			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
SC2	+	45	The schools mission is posted for everyone to see.			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
SC2	+	46	The faculty is in agreement about the mission of the school.			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
SC2	+	47	Teachers vary instructional strategies according to the needs of the students.			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
SC2	+	48	The relationship that exists between parents and the teachers is a good one.			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
SC2	+	49	The relationship that exists between parents and the			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

		administration is a good one.						
SC2	+	50	Teachers believe that every student can learn and can improve.					

- Thank you for your collaboration -

STND	±		Please answer the following questions to the best of your ability and as accurately as possible. Please choose only one response choice per question.								
			Strongly disagree	Disagree	Somewhat disagree	Somewhat agree	Agree	Strongly agree			
PP	-	18	My parents believe that I should be allowed to choose any field of study that I like.			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
PP	+	19	For my parents, it is more important to choose a profession that offers financial stability rather than choosing a profession that I like.			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
PP	+	20	When I perform poorly in college, it reflects badly on my parents.			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
PS	+	21	My parents help me while doing homework.			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
PS	+	22	I have other family members' support in studies.			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
PS	+	23	I have special classes like tuition other than regular school class.			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

			For the following statements, please indicate your level of agreement							
			Not at all	A little	Somewhat	Very much	Always			
SC2	+	24	I believe that teachers vary instructional strategies according to our needs.			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
SC2	+	25	My teachers review previous work before introducing new material.			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
SC2	+	26	The relationship that exists between my parents and the teachers is a good one.			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
SC2	+	27	The relationship that exists between my parents and the administration is a good one.			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

DE3 28 What is your academic position within your classroom?

- Among the lowest 5 Among the lowest 10 Average to lower Average to higher Among the highest 10 Among the highest 5

DE3 29 Which has been your average grade for the previous semester?

- A1 A2 B1 B2 C1 C2 D1 D2 E1 E2

- Thank you for your collaboration -

9.4 Statistical results

Table 79. Item-total correlations – the first factor analysis (teachers)

Items	Total Correlation
t01 - Now the evaluation procedures we use are well documented.	,469
t02 - Now students' evaluation is more reliable thanks to CCE.	,626
t03 - There is consistency in the way in which different teachers evaluate students.	,395
t04 - I agree with the way in which we combine information for reaching to a judgement about each student's performance.	,587
t05 - From time to time, we question if we are doing well the evaluation, and discuss about it.	,440
t06 - Thanks to CCE, evaluation is now easier to proceed.	,597
t07 - CCE evaluation practices interfere with regular teaching and learning activities.	-,135
t08 - CCE brings in flexibility in selecting different activities and tools.	,370
t09 - Students' educational output is higher due to the reduction of stress on them after the CCE implementation.	,685
t10 - The transition from more student friendly exams in Primary Education to more serious evaluation in Secondary Education is problematic for students.	,108
t11 - CCE has reduced societal pressure in a big level.	,272
t12 - CCE makes classes more interactive and innovative.	,578
t13 - CCE procedures are equitable and fair.	,555
t14 - Thanks to CCE students are now fearless and bold in expressing themselves.	,499
t15 - I communicate to students both their strengths and weaknesses.	,255
t16 - CCE results are really useful for making decisions about how to improve teaching.	,677
t17 - CCE's comprehensive and timely evaluation helps the parents stay completely updated on their children's performance.	,707
t18- CCE helps to evaluate really what we intend to evaluate.	,728
t19 - Thanks to CCE students know more clearly what is expected them to learn.	,704
t20 - In CCE we evaluate irrelevant things.	,042
t21 - We gather adequate information for evaluating students.	,552
t22 - Now we evaluate with more objectivity, less influenced by our personal opinion about each student.	,509
t23 - Regular PTA meetings help in winning parents' cooperation to implement CCE successfully.	,531
t24 - Regular CCE training workshops conducted at the school and district level equip the teachers to implement CCE effectively.	,493
t25 - Due to CCE's all promotion approach till class VIII, students are less serious about their studies.	,292

t26 - Parents' lack of awareness of CCE procedures complicates the CCE implementation.	,244
t27 - There is a lack of time, resources or support for implementing CCE.	,236
t28 - I explain clearly to my students how I reach to each evaluative conclusion.	,346
t29 - Evaluation is becoming very complicated because of CCE.	,413
t30 - CCE promotes a child-centred classroom, where teacher is a facilitator.	,322
t31 - CCE promotes deep comprehension in students eliminating the mugging up habit.	,436
t32 - CCE's all promotion approach is a fair and equitable step in student evaluation.	,330
t33 - Having prohibited negative comments promotes students' confidence in the classroom.	,105
t34 - Thanks to CCE, non-academic performance is also well appreciated in the classroom.	,475
t35 - I have the necessary pedagogical skills and subject knowledge for implementing CCE.	,296
t36 - CCE evaluation provides relevant ideas for better future planning of students.	,619
t37 - Some teachers still make damaging comments to students.	,129
t38 - Cut-throat competition among the high achievers is still a reality in schools.	,042
t39 - We do improve our way of evaluating year after year.	,369
t40 - CCE confuses the preparation of various activities.	,452
t41 - Societal pressure still affects the students negatively.	,179
t42 - Student's dignity is upheld in the CCE classroom.	,184
t43 - The arithmetic and computer part of CCE is problematic to me.	,142
t44 - We evaluate every relevant aspect of students learning.	,472
t45 - CCE is more effective in taking remedial steps for students' progress.	,515

Table 80. The second factor analysis (teachers)

Rotated Component Matrix ^a							
Items	Component						
	1	2	3	4	5	6	7
t45 - CCE is more effective in taking remedial steps for students' progress.	,690		,221			,172	,146
t13 - CCE procedures are equitable and fair.	,638	,317		,199			- ,109
t44 - We evaluate every relevant aspect of students learning.	,638	,121	,118		,148	,144	,164
t18 - CCE helps to evaluate really what we intend to evaluate.	,630	,367	,367	,199			- ,117
t21 - We gather adequate information for evaluating students.	,572	,182	,291		,110		
t19 - Thanks to CCE students know more clearly what is expected them to learn.	,535	,523	,376	,115			

t16 - CCE results are really useful for making decisions about how to improve teaching.	,531	,486	,239	,151	,119		
t36 - CCE evaluation provides relevant ideas for better future planning of students.	,507	,297	,333		,174	,145	,185
t23 - Regular PTA meetings help in winning parents' cooperation to implement CCE successfully.	,504	,345		,202	,250	-	-
t14 - Thanks to CCE students are now fearless and bold in expressing themselves.	,498	,155	,375			-	,138
t24 - Regular CCE training workshops conducted at the school and district level equip the teachers to implement CCE effectively.	,490	,200	,187		,354		-
t32 - CCE's all promotion approach is a fair and equitable step in student evaluation.	,480	,152	-	,372	-	-	,313
t17 - CCE's comprehensive and timely evaluation helps the parents stay completely updated on their children's performance.	,477	,442	,368	,168	,128		-
t03 - There is consistency in the way in which different teachers evaluate students.		,699		-		,200	,133
t06 - Thanks to CCE, evaluation is now easier to proceed.	,242	,640	,130	,213	,225		
t02 - Now students' evaluation is more reliable thanks to CCE.	,366	,639	,117	,134	,102		,183
t04 - I agree with the way in which we combine information for reaching to a judgement about each student's performance.	,341	,608	,171			,196	
t09 - Students' educational output is higher due to the reduction of stress on them after the CCE implementation.	,447	,560	,165	,226	,116		
t01 - Now the evaluation procedures we use are well documented.	,206	,541			,133	,275	,126
t05 - From time to time, we question if we are doing well the evaluation, and discuss about it.		,503	,453		,183		
t12 - CCE makes classes more interactive and innovative.	,262	,443	,361		,339		,195
t30 CCE promotes a child-centred classroom, where teacher is a facilitator.	,217		,676	-			
t31 - CCE promotes deep comprehension in students eliminating the mugging up habit.	,324	,159	,549		-	,158	
t28 - I explain clearly to my students how I reach to each evaluative conclusion.	,192		,506		,372		,208
t22 - Now we evaluate with more objectivity, less influenced by our personal opinion about each student.	,126	,445	,498	,107	,124	-	-
t34 - Thanks to CCE, non-academic performance is also well appreciated in the classroom.	,245	,257	,493		,136		

t42 - Student's dignity is upheld in the CCE classroom.		,103	,309		,164	-	,298
t27 - There is a lack of time, resources or support for implementing CCE.				,772			
t26 - Parents' lack of awareness of CCE procedures complicates the CCE implementation.				,675	-	,196	
t29 - Evaluation is becoming very complicated because of CCE.	,224			,533	,386	,263	-
t25 - Due to CCE's all promotion approach till class VIII, students are less serious about their studies.	,102	,206		,511			,263
t15 I communicate to students both their strengths and weaknesses.	,136	,134			,669		
t35 - I have the necessary pedagogical skills and subject knowledge for implementing CCE.		,314	,128	-	,530		,216
t39 - We do improve our way of evaluating year after year.	,427				,482		,189
t08 - CCE brings in flexibility in selecting different activities and tools.		,367	,212	,121	,481		,204
t43 - The arithmetic and computer part of CCE is problematic to me.						,682	
t37 - Some teachers still make damaging comments to students.			-	,234		,558	
t41 - Societal pressure still affects the students negatively.				,303		,499	-
t40 - CCE confuses the preparation of various activities.	,121	,139	,195	,409	,212	,488	-
t11 - CCE has reduced societal pressure in a big level.	,162	,196	,136		,201		,598

The following table demonstrates the standards either included (yes) or excluded (no) in the questionnaires for each stakeholder.

Table 81. Standard fulfilment from stakeholders

Standards	Head teacher	Teacher	Student
P1-Service to students	Yes	Yes	Yes
P2-Appropriate policies and procedures	Yes	Yes	Yes
P3-Access to evaluation information	No	No	No

P4-Treatment of students	Yes	Yes	Yes
P5-Rights of students	No	No	No
P6-Balanced evaluation	No	Yes	Yes
P7-Conflicts of interest	No	No	No
U1-Constructive orientation	Yes	Yes	Yes
U2-Defined users and uses	No	No	No
U3-Informative scope	Yes	Yes	Yes
U4-Evaluator qualifications	Yes	Yes	No
U5-Explicit values	No	No	No
U6-Effective reporting	Yes	Yes	No
U7-Follow-up	No	No	No
F1-Practical orientation	Yes	Yes	No
F2-Political viability	Yes	Yes	No
F3-Evaluation support	Yes	Yes	No
A1-Validity Orientation	Yes	Yes	Yes
A2-Defined expectations for students	Yes	Yes	Yes
A3-Context analysis	No	No	No
A4-Documented procedures	Yes	Yes	No
A5-Defensible information	Yes	Yes	No
A6-Reliable information	Yes	Yes	No
A7-Bias identification and management	Yes	Yes	Yes
A8-Handling information and quality control	No	No	No
A9-Analysis of information	No	Yes	No

A10-Justified conclusions	No	Yes	Yes
A11-Metaevaluation	Yes	Yes	No

Table 82. Teacher factors along with the items

Factor 1: Validity and utility

Item-Total Statistics				
	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item- Total Correlation	Cronbach's Alpha if Item Deleted
t18 - CCE helps to evaluate really what we intend to evaluate.	59,04	89,873	,787	,890
t13 - CCE procedures are equitable and fair.	59,14	91,952	,638	,896
t45 - CCE is more effective in taking remedial steps for students' progress.	58,68	94,855	,568	,899
t44 - We evaluate every relevant aspect of students learning.	58,67	97,033	,545	,900
t19 - Thanks to CCE students know more clearly what is expected them to learn.	59,03	90,209	,752	,892
t16 - CCE results are really useful for making decisions about how to improve teaching.	58,72	92,246	,702	,894
t21 - We gather adequate information for evaluating students.	58,73	97,821	,593	,899
t23 - Regular PTA meetings help in winning parents' cooperation to implement CCE successfully.	58,76	94,222	,584	,898
t17 - CCE's comprehensive and timely evaluation helps the parents stay completely updated on their children's performance.	58,99	89,899	,707	,893
t09 - Students' educational output is higher due to the reduction of stress on them after the CCE implementation.	58,99	90,458	,659	,895
t32 - CCE's all promotion approach is a fair and equitable step in student evaluation.	59,98	94,787	,349	,913
t36 - CCE evaluation provides relevant ideas for better future planning of students.	58,79	94,927	,623	,897
t14 - Thanks to CCE students are now fearless and bold in expressing themselves.	58,57	95,451	,573	,899

t24 - Regular CCE training workshops conducted at the school and district level equip the teachers to implement CCE effectively.	58,58	95,950	,528	,901
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Factor 2: Evaluation quality, transparency, and consistency

Item-Total Statistics				
t03 - There is consistency in the way in which different teachers evaluate students.	28,27	18,644	,512	,812
t02 - Now students' evaluation is more reliable thanks to CCE.	28,28	16,705	,684	,781
t01 - Now the evaluation procedures we use are well documented.	27,95	19,783	,540	,807
t04 - I agree with the way in which we combine information for reaching to a judgement about each student's performance.	28,00	19,233	,584	,800
t06 - Thanks to CCE, evaluation is now easier to proceed.	28,27	17,340	,624	,792
t12 - CCE makes classes more interactive and innovative.	27,66	19,175	,597	,798
t08 - CCE brings in flexibility in selecting different activities and tools.	27,73	20,286	,462	,817

Factor 3: Pedagogical benefits

Item-Total Statistics				
t30 - CCE promotes a child-centred classroom, where teacher is a facilitator.	28,31	13,023	,426	,663
t31 - CCE promotes deep comprehension in students eliminating the mugging up habit.	28,68	12,814	,432	,661
t28 - I explain clearly to my students how I reach to each evaluative conclusion.	28,66	13,722	,339	,685
t22 - Now we evaluate with more objectivity, less influenced by our personal opinion about each student.	28,59	13,011	,473	,651
t34 - Thanks to CCE, non-academic performance is also well appreciated in the classroom.	28,32	12,848	,472	,650
t05 - From time to time, we question if we are doing well the evaluation, and discuss about it.	28,45	13,356	,448	,658

t42 - Student's dignity is upheld in the CCE classroom.	28,61	14,007	,287	,698
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Factor 4: Shortage, lacking issues

Item-Total Statistics				
t25 - Due to CCE's all promotion approach till class VIII, students are less serious about their studies.	8,64	7,359	,313	,593
t26 - Parents' lack of awareness of CCE procedures complicates the CCE implementation.	8,50	7,429	,494	,455
t27 - There is a lack of time, resources or support for implementing CCE.	8,58	7,686	,438	,494
t29 - Evaluation is becoming very complicated because of CCE.	7,53	7,550	,319	,583

Factor 5: Pedagogical competence

Item-Total Statistics				
t15 - I communicate to students both their strengths and weaknesses.	10,11	1,373	,432	,328
t35 - I have the necessary pedagogical skills and subject knowledge for implementing CCE.	10,13	1,512	,312	,509
t39 - We do improve our way of evaluating year after year.	10,21	1,314	,332	,489

Factor 6: Damaging and problematic issues

Item-Total Statistics				
t43 - The arithmetic and computer part of CCE is problematic to me.	9,59	8,049	,279	,538
t37 - Some teachers still make damaging comments to students.	9,83	8,108	,343	,481
t41 - Societal pressure still affects the students negatively.	10,45	8,060	,357	,470
t40 - CCE confuses the preparation of various activities.	10,01	7,772	,386	,445

Factor 7: Sense of efficacy of teachers

Item-Total Statistics				
t59 - I can implement alternative strategies in my classroom.	,704	,134	,110	,105
t62 - I establish a classroom management system with each group of students.	,672	,130	,224	
t65 - I assist families in helping their children do well in school.	,636	,196		
t60 - I control disruptive behaviour in the classroom.	,634		,321	,101
t58 - I provide an alternative explanation or example when students are confused.	,621		,170	,226
t61 - I get children to follow classroom rules.	,583		,319	,157
t64 - I motivate students who show low interest in schoolwork.	,562			,323
t63 - I get students to believe they can do well in schoolwork.	,546		,198	,340
t57 - I can use a variety of assessment strategies.	,474	,395	,337	,100

Factor 8: School climate - trust and openness

Item-Total Statistics				
t48 - I count on others for assistance.		,670	,213	-,257
t47 - I ask others what they think about the way I do things.	,116	,670		,153
t49 - I believe that others care about me.	,191	,593	,198	,142
t46 - I can tell others what I think of the way they do things.	,132	,580	-,152	,322
t50 - I believe that they are honest.	,112	,495	,148	,421

Factor 9: School climate - relations with parents and confidence in learning

Item-Total Statistics				
t54 - The relationship that exists between parents and the teachers is a good one.	,197		,792	
t55 - The relationship that exists between parents and the administration is a good one.	,194	,129	,779	
t56 - Teachers believe that every student can learn and can improve.	,271		,492	,369

Factor 10: School climate - school mission

Item-Total Statistics				
t51 - The school's mission is posted for everyone to see.		,170	,154	,766
t52 - The faculty is in agreement about the mission of the school.	,189	,133	,104	,688

*Table 83. Head teacher factors along with the items***Factor 1: Validity and utility**

h01 - CCE helps to evaluate really what we intend to evaluate.	4,68	,802	-1,436
h27 - CCE procedures are equitable and fair.	4,16	1,143	-,338
h32 - CCE is more effective in taking remedial steps for students' progress.	4,68	,802	,144
h35 - We evaluate every relevant aspect of students learning.	4,52	,963	-,975
h05 - Thanks to CCE students know more clearly what is expected them to learn.	4,64	,907	-1,000
h31 - CCE results are really useful for making decisions about how to improve teaching.	4,56	1,083	-,916
h06 - We gather adequate information for evaluating students.	4,96	,539	-,047
h17 - Regular PTA meetings help in winning parents' cooperation to implement CCE successfully.	4,96	,611	,015

h33 - CCE's comprehensive and timely evaluation helps the parents stay completely updated on their children's performance.	4,40	1,041	-,434
h13 - Students' educational output is higher due to the reduction of stress on them after the CCE implementation.	4,52	1,229	-1,002
h34 - CCE evaluation provides relevant ideas for better future planning of students	4,48	1,046	-,893
h18 - Regular CCE training workshops conducted at the school and district level equip the teachers to implement CCE effectively.	5,12	,726	-,189

Factor 2: Evaluation quality, transparency, and consistency

Item-Total Statistics			
h11 - There is consistency in the way in which different teachers evaluate students.	4,52	,918	-1,994
h02 - Evaluations procedures in this school are well documented.	5,00	1,190	-1,773
h16 - Thanks to CCE, evaluation is now easier to proceed.	4,56	1,158	-,771
h26 - CCE makes classes more interactive and innovative.	5,16	,987	-1,477

Factor 3: Pedagogical benefits

Item-Total Statistics			
h12 - CCE promotes a child-centred classroom, where teacher is a facilitator.	5,00	1,000	-2,717
h23 - CCE promotes deep comprehension in students eliminating the mugging up habit.	4,48	,963	-,548
h08 - Now we evaluate with more objectivity, less influenced by our personal opinion about each student	4,79	1,103	-1,887
h15 - From time to time, we question if we are doing well the evaluation, and discuss about it.	5,20	,500	,435
h37 - Student's dignity is upheld in the CCE classroom.	4,84	,943	-2,246

Factor 4: Shortage, lacking issues

Item-Total Statistics			
h20 - Due to CCE's all promotion approach till class VIII, students are less serious about their studies.	4,64	1,381	-,833
h10 - Parents' lack of awareness of CCE procedures complicates the CCE implementation.	4,08	1,288	-,542
h19 - There is a lack of time, resources or support for implementing CCE.	4,00	1,258	-,273
h09 - Evaluation is becoming very complicated because of CCE.	3,92	1,382	-,463

Factor 5: Pedagogical competence

Item-Total Statistics			
h28 - Teachers have the necessary pedagogical skills and subject knowledge for implementing CCE.	4,84	,850	-1,440
h14 - We do improve our way of evaluating year after year.	5,28	,792	-1,112

Factor 6: Damaging and problematic issues

Item-Total Statistics			
h29 - The arithmetic and computer part of CCE is problematic for teachers.	3,80	1,258	-,273
h25 - Societal pressure still affects the students negatively.	4,76	1,052	-1,343

Factor 7: School culture

Item-Total Statistics			
h39 - We count on others for assistance (we trust each other for assistance).	3,84	,688	,216
h40 - We believe that others care about you.	3,88	,440	-,685

h41 - Teachers are involved in the decision-making process.	4,21	,588	-,045
h42 - A school leadership team or advisory council assists the administration with decisions.	4,04	,790	-,073
h43 - A parent leadership team or advisory council assists the administration with decisions.	3,48	,963	,671

Factor 8: School climate

Item-Total Statistics			
h44 - The administration has high expectations for teacher performance.	4,44	,961	-1,959
h45 - The schools mission is posted for everyone to see.	4,48	,963	-2,071
h46 - The faculty is in agreement about the mission of the school.	4,52	,823	-1,290
h47 - Teachers vary instructional strategies according to the needs of the students.	4,28	,737	-,509
h48 - The relationship that exists between parents and the teachers is a good one.	4,64	,569	,135
h49 - The relationship that exists between parents and the administration is a good one.	4,72	,678	-1,332
h50 - Teachers believe that every student can learn and can improve.	4,83	,482	-,519

Student factors along with the items

Factor 1: Comprehensive and reliable evaluation

Item-Total Statistics				
	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
s12 - Both scholastic and non-scholastic performers are well appreciated in the classroom.	30,92	25,172	,479	,557
s13 - Teachers communicate me both my strengths and weaknesses.	30,60	27,601	,416	,582

s15 - I'm evaluated in a fair way.	31,03	27,164	,397	,584
s06 - The way in which teachers evaluate me is influenced by their personal opinion about me.	32,02	27,407	,217	,642
s10 - My teachers are interested only in scholastic things, not in the way I feel or do other things.	31,39	25,558	,349	,597
s03 - CCE has reduced societal pressure in a big level.	31,16	29,740	,183	,639
s07 - I feel confident with the way I am evaluated.	30,87	29,220	,315	,607
s09 - My teachers evaluate every relevant aspect of my learning.	30,82	28,830	,341	,601

Factor 2: Valid evaluation

Item-Total Statistics				
s05 - Before doing evaluation, I know what I must learn.	18,63	9,399	,364	,533
s04 - My evaluation results correspond to my real learning.	18,74	8,637	,403	,510
s01 - PSA is very helpful for developing our problem solving skills.	18,76	9,711	,295	,568
s11 - CCE's all-inclusive and timely evaluation is very much helpful for our future planning.	19,00	8,422	,401	,510
s02 - Teachers explain me clearly how they reach to the mark they give me.	18,81	9,787	,290	,571

Factor 3: Damaging evaluation

Item-Total Statistics				
s16 - Societal pressure still affects the students negatively.	6,56	6,789	,303	,442
s08 - The transition from more student friendly exams in Primary Education to more serious evaluation in Secondary Education has been problematic for me.	6,17	6,290	,338	,384
s14 - Some teachers still make damaging comments to students.	5,78	5,473	,335	,392

Factor 4: School climate

Item-Total Statistics			
s26 - The relationship that exists between my parents and the teachers is a good one.	,751		,222
s25 - My teachers review previous work before introducing new material.	,694		
s27 - The relationship that exists between my parents and the administration is a good one.	,614	-,130	
s24 - I believe that teachers vary instructional strategies according to our needs.	,572	,249	-,167

Factor 5: Parental support

Item-Total Statistics				
s21 - My parents help me while doing homework.	8,00	7,528	,322	,258
s22 - I have other family members' support in studies.	6,92	8,263	,259	,367
s23 - I have special classes like tuition other than regular school class.	7,75	6,707	,240	,420

Factor 5: Importance of education for parents

Item-Total Statistics				
s17 - My parents believe that a good education is the best way to become successful.	5,49	,923	,281	.
s18 - My parents believe that I should be allowed to choose any field of study that I like.	5,59	,668	,281	.