

DECLARATION

I, the under signed, hereby declare that this dissertation entitled “**A study of the continuous professional development program conducted for the secondary school teachers of GSEB schools of Vadodara city**” is my own work, & that all the sources that I have or quoted have been indicated or acknowledged by means of complete references.

Date: 27th April, 2015

Pratima R Patel

Place: Vadodara

CERTIFICATE

This is to certify that Ms. Pratima R. Patel has been working for her M. Ed dissertation under my guidance and supervision on **“A Study of the continuous professional development program conducted for the secondary school teachers of GSEB schools of Vadodara city”** This dissertation is submitted in partial fulfillment of the requirement for the degree of Master of Education from Navrachana University. This is her original work to the best of my knowledge.

Guide

Vadodara
April, 2015.

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She, as a highly learned educationist, assisted me with her guidance and expertise with utmost tolerance and patience,

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CHAPTER I

CONCEPTUAL FRAMEWORK

"Education is the most powerful weapon which you can use to change the world."

Nelson Mandela

1.0. INTRODUCTION.

Education plays an important role in the progress of an individual's mind and country. People are made aware of what is going on in the world and can understand these issues and take necessary measures, if they are educated. Education tames the stray mind, nurturing its capabilities and potentialities. Webster defines *education* as the process of educating or teaching and '*Educate*' is further defined as "to develop the knowledge, skill, or character of..." Thus, from these definitions, we might assume that the purpose of education is to develop the knowledge, skill, and character of students.

Formal Education is imparted in an educational institution—a school or college. In ancient times in India, it was mostly imparted at the residence of the 'guru'. It is consciously and deliberately planned to bring about specific change in the 'learner'. School is the most important agency of formal education. Non-formal Education system is an open one with regards to various aspects of education, i.e., admissions, curriculum, place of instruction, mode of instruction and the time and duration of instruction. Open University, open learning, the correspondence courses and distance education are the more modern forms of non-formal education.

1. ROLE OF TEACHER IN GIVING QUALITY EDUCATION.

Teachers are considered to be the prime agents of social change and reconstruction, thereby leading to the establishment of a new social order. Teaching is the systematic shaping of a student's behavior and the teacher acts as a manager, controller, predictor and director of learning. The role of the teacher is to determine desired behavior and to design the necessary

conditions for fulfillment of the same.

The teacher is a dynamic force of the education system; the education of teachers is an integral part of the educational system of any country, which is also intractably linked with her social system.

The Education Commission (1964-66), the first Commission in independent India which examined all the facets of education at all levels, recommended that the quality of education will depend on the competence and character of teachers. **National Education Policy of India (1986)** also has observed, "The country has reached a stage in its economic and technical development when a major effort must be made to derive the maximum benefit from the assets already created and to ensure that the fruits of change reach all sections. Education is the highway to that goal of all round development, both material and spiritual. The status of the teacher reflects the socio-cultural ethos of the society".

In acknowledgement of this important role of teachers in imparting quality education, the number of teachers and teacher education institutions in India has grown during the last few decades. The teacher education system covers more than 800 secondary teacher education Institutions. A chain of teacher education institutions like District Institutes of Education (500), Colleges of teacher Education (87), Institutes of Advanced Studies in Education (38) and State Councils of Educational Research and Training (SCERT) provide the much needed support to uphold the quality of school education in the country. There are around 35,000 teacher educators working in these institutions. The teacher work force is about 5 million 35,000 teacher educators, among which nearly three million are employed. The percentage of trained teachers is assumed to be 90 percent, though in some of the regions, there are significant numbers of untrained teachers raising doubts regarding the quality of education imparted.

2. NEW TRENDS IN EDUCATION.

In the 21st century, education has become a competitive human enterprise. Like all other investments, people spend money, effort and time in education and expect good returns. The outcomes calculated in terms of economic, social and at times political gains was what motivated people to invest heavily in education.

In the current "information age", a new economy has emerged in which knowledge is traded as a marketable commodity. In this global knowledge economy, it is imperative that school students be equipped to undertake appropriate access to this storehouse of data and use it effectively to fulfill their information needs. The unprecedented volume of information that is now available has generated a need for complex analytical skills to appropriately access this information in an efficient, meaningful way. The efficient handling of this vast information requires us to expand the scope of functional literacy (reading, writing and arithmetic) to include the twentieth century skills as well. To achieve this goal in a meaningful way, educational institutions themselves must restructure their frameworks to form learning communities rather than institutions whose core function is the dispensing of information. "Globalization" has produced an imperative for continual reappraisal of practices in order to maintain a competitive edge. In educational terms, this may be interpreted as the need to update practices in keeping with the findings of international research, and to continually conform to changing national and international trends.

Responding to these changes is dependent on the quality of teachers. If schools are to achieve their educational aims, there must be effective systems to select, prepare, deploy, manage and support teachers and help them develop their professional skills over a working lifetime. Teacher professional developments are the tools that policy makers use to convey broad visions, disseminate critical information, and provide guidance to teachers. According to Olivia and Pawlas (1997), professional developments programs are activities planned and carried out to promote the personal and professional growth of teachers.

3. CONTINUOUS PROFESSIONAL DEVELOPMENT FOR ENHANCING PROFESSIONAL COMPETENCE.

The term Continuing Professional Development (CPD) as used in this Study refers to all kinds of learning opportunities that help teachers to strengthen their professional practices, attain higher professional competence and expand their understanding of self, role, context, career and sharing of activities taking place within and across schools. It refers to any experience that teachers engage in to widen their knowledge, skills and understanding of their work in line with goals, values of the schools and the interests and needs of teachers. Duke and Stiggins, (1990).Beerens, (2000).Norton, (2008).

There has been a strong tradition of teacher training that emphasizes obtaining the required pedagogical skills, instructional technology, and practical experiences for teachers. Hallinan and Khmelkov, (2001) which have emerged as a result of the new trends. Due to this, Educators and policy makers have shifted their attention from improving schools to improving teaching. This has also been indicated by the growing body of educational research that highlighted the critical role of the teacher in the learning process. Greene (1995) stated that since teachers were expected to be the agents for educational reform, they need to be empowered to think about what they were doing and to comprehend and design instructional practices to achieve the 'new' educational objectives.

Therefore, the traditional models of teacher CPD may be inadequate to satisfy the expectations and challenges to teacher preparation, as some programs lacked the necessary coordination with the existing curriculum and the realities of the classroom. Effective professional development of teachers begins with an understanding of teachers' needs and their work environments.Gaibleand Burns, (2005). In fact, teachers need continuous exposure and training to improve their skills.

Although majority of teachers consider themselves to be knowledgeable and confident, at the same time, due to the new expectations and challenges, they have a perception of a gap between their current knowledge and what they need to know to become an expert teacher. If in-service teacher training programs are established with the involvement of

participants, they would meet participants' needs, level of awareness, mastery, and concerns.

Many countries in the world are confronted with formidable challenge of how to expand the size of their teaching force while improving professional quality. Good CPD programs were expected to fill this gap. Again, the issue here would be that even with systems with quality pre-service training packages, the reality of the schools was that teachers need to continually refresh their skills from time to time to meet the requirements of changing times. However, policy on CPD for secondary school teachers has been fragmented, incomplete and more often than not simply non-existent. The development of coherent, medium term, financially sustainable teacher policy, tailored to meet the demand for new and existing teachers, has been widely neglected, despite internationally agreed goals in education.

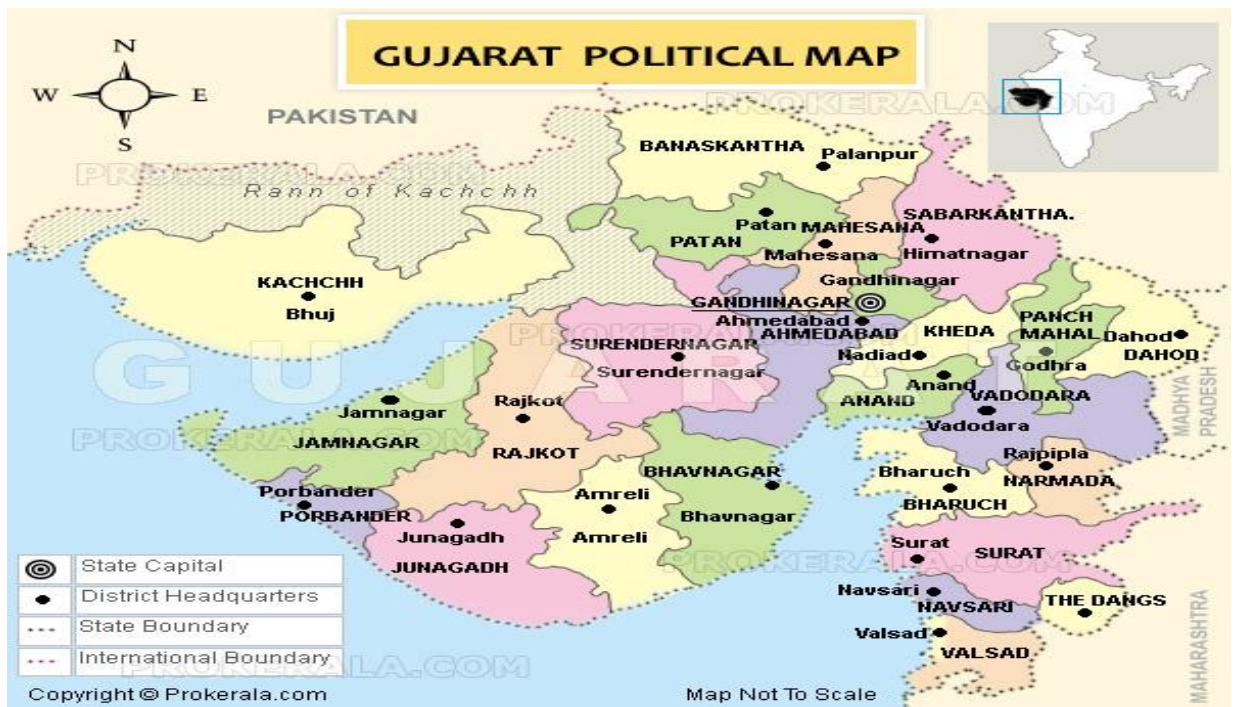
Teachers are taking to different approaches in education in order to keep pace with the needs of twenty-first century learning. There have been lots of changes in the education system worldwide. The changes that took place in schools have changed the role of teachers too. They are integrating technology into instruction by encouraging students to use computers for research or work with adaptive learning technology to grasp new concepts. Clearly, technology isn't just helping students evolve, it's also changing the role of teachers in the classroom. 21st century teachers have mastered certain skills that educators in the past never even had to consider.

Back in India, our concern for both equity and quality has compelled us to adopt practices both for inclusion of masses as well provision of education of good quality. Several national initiatives have been introduced which emphasize the need for continuous teacher enrichment programs to cater to 'quality education'.

Gujarat has been among the pioneers in quality education. One has to concede to the point that education has played a key role in Gujarat's success in every field in the past decade. The education sector in Gujarat has seen a sea change with the literacy rate increasing from 69.14 % in 2001 to 79.31% in 2011.

The schemes initiated by the education department have truly led to a complete turnaround in the way the importance of education is perceived in the State.

4. THE STATE OF GUJARAT: SCENARIO OF EDUCATION.



-Source-<http://www.probharat.com/india/states/maps/gujarat-political-map.php>

The State of Gujarat was established on 1st May 1960. It is the westernmost State in India, also locally known as ‘Jewel of the West’. Gujarat’s capital is Gandhinagar and its largest city is Ahmedabad. It is home to the Gujarati speaking people of India.

As per the 2011 India Census Report, the total population of the State of Gujarat was 60,383,628; out of which the rural population comprised of 57.4% and the urban population comprised of 42.6%. The State has 33 districts. The Literacy rate of the State according to the 2011 census was 80.18%, reflecting a considerable increase from the rate reported in the 2001 census, i.e. 69.14%.

The schools of Gujarat are affiliated to the Gujarat Secondary and Higher Secondary Education Board (GSHSEB). Many of the private schools in Gujarat are also affiliated to

the Central Board of Secondary Education (CBSE) and Council for the Indian School Certificate Examinations (CISCE) as also the IB Board. Gujarat has 13 State Universities and 4 Agricultural Universities.

The Gujarat Council of Educational Research and Training (GCERT) is a pivotal institution at the State level for the enhancement of qualitative education at primary and secondary schools. It was "State Institute of Education" before 1988. It was later upgraded as a SCERT in 1988, under the resolution of State Education Department. The upgraded SCERT, now named as Gujarat Council of Educational Research and Training (GCERT) is a fully structured State level academic institution and is controlled and guided by a Governing body as well as an Executive Committee.

GCERT was shifted from Ahmedabad to Gandhinagar, the State Capital in 1997. Under the umbrella of GCERT, there are now 26 DIETs (District Institute of Education and Training) functional in 25 Districts. These DIETs impart pre-service and in-service training to the primary teachers of the State. There are seven branches namely Pre-service Teacher Education (PSTE), Work Experience (WE), District Resource Unit (DRU), Curriculum Material Development and Evaluation (CMDE), Educational Technology (ET), In-service Field interaction Innovation and Co-ordination (IFIC) and Planning and Management PM functioning in these DIETs. These DIETs are well equipped with qualified and experienced academic and administrative staff.

The GCERT works as a prominent institution for implementing the policies, programs and researches in the State. It provides resource support and guidance to all the teacher education institutions and works in collaboration with the NGOs, Subject experts, Educationists and pioneers in bringing about reforms in the remote and underserved areas of the State. It disseminates latest information with regard to modern trends and approaches in primary education, pre-service and in-service education, pedagogical advances in the country, wide use of distance education as a mode of training, organizing community awareness programs and updation of curriculum of primary education in view of new and emerging concerns. Even the State Ministry of Education banks upon its expertise.

The Council is committed to bringing about qualitative improvement in school education particularly Elementary Education, development of curriculum syllabi, instructional material and evaluation strategies to explore suitable solutions to educational challenges with the changing times. The GCERT has scaled a unique journey with experimentation from chalk to satellite, scaling an arduous terrain in the field of educational reforms.

5. VADODARA CITY.

Vadodara, also known as Baroda, is the third largest city in the Indian State of Gujarat after Ahmedabad and Surat. It is the administrative headquarters of Vadodara district. Located on the banks of the Vishwamitri River, it is also known as the ‘SanskariNagari’, i.e. ‘Cultured City’. Vadodara is one of India’s most cosmopolitan cities. It is a great and fitting memorial to its late ruler, SayajiRaoGaekwad III (1875-1939 AD).

Modern Baroda owes its beauty, its educational institutions and its masterpieces of architecture to the insight and vision of this great ruler. It was the vision and broadmindedness of the Gaekwads, the subsequent industrialization, the proliferation of academic activities and a strategically important geographical location, that Baroda has become a hub for a wide variety of people from all over India and also from all over the world.

Vadodara is synonymous with education. The patronage of education started with Maharaja SayajiRao and the city has built further on the academic infrastructure established by him. The present educational foundation rests on over 20 public schools and over 100 private schools. Towering benevolently over all is the Maharaja SayajiRao University (M.S.U.), the jewel in the crown of Baroda. It is the largest university in Gujarat, famous for various faculties and departments, including the Fine Arts, Performing Arts, Technology, Management, Psychology, Social Work, Law and Medicine streams. This university has been ranked amongst the top ten universities by ‘India Today’ and ‘Hindustan Times’ in their surveys.

6. SCHOOL EDUCATION IN VADODARA CITY.

Vadodara city has been an important cultural and educational part of Gujarat state while also being a pioneer in the field of Primary Education. In Vadodara city there are

variations in the management of education. There are schools which are Private Aided, Private Unaided, Municipal School Board, Central School and State Board Schools.

The Vadodara Municipal Corporation schools (VMC) are totally financed by the State Government and are governed by their rules and regulations. The State Government makes provision for all the requirements i.e. physical or financial. These schools are under the Municipal School Board which was formed on the 9th of November, 1953 with the goal of providing Primary education to the children in the age group of 6-14 year, in the city of Vadodara.

As per the information procured from the District Education Office (JillaShikshanAdhikariKacheri), Vadodara (2012-13); there are 271 schools in the city of Vadodara, with English, Gujarati, Hindi, Marathi and Sindhi as medium of instruction; catering to the educational needs of the local population. Out of which around 109 schools are Secondary Education Schools and bifurcating it further, around 65 English Medium Schools are identified to provide education till the secondary classes.

For the smooth administration of these schools, the entire city is broadly classified into 4 zones and 28 wards depending on their localities; with the schools distributed across these wards.

Thus, Education holds a significant position in the design of Vadodara and its educational institutions are looked upon to shoulder the responsibility of educating the ambitious and progressive population.

The conceptual framework thus created attempts to furnish a relevant backdrop for the present Study. It provides the base to establish the need for this study, which is elaborated in the following section.

7. NEED FOR THE STUDY.

The need for Continuous Professional Development has been accepted universally for the up gradation and enrichment of teaching practices. Professional development consists of all natural learning experiences and those conscious and planned activities which are

intended to be of direct or indirect benefit to the individual teacher or school and which contribute to the quality of education.

Teaching is not limited to textbooks, it prepares students for life and keeps them engaged and interested in a world that is rapidly changing. Teachers are expected to come out of their chalk and talk practices and face this immense and imminent challenge. Because, if they lack the required training in education and if they cannot give their heart to their profession, eventually the system will fail.

All our policy documents indicate the necessity of teachers being involved in CPD in order to improve the quality of education at the classroom level. Teachers must keep abreast of new knowledge and practices and then implement the same in their classroom teaching. Today, the country is in need of intelligent (not clever) and imaginative (not plagiarist) individuals, who are equipped with thinking skills. Education is the only apostle we can look up to, which can take up the challenge of creating such stalwarts. In fact, various Educational Commissions and Committees have been emphasizing the issue of bringing in quality in Indian education. The major step envisaged to achieve this goal is the introduction of CPD, despite all these claims, there is a mis-match prevalent between the teachers that are being produced by the institutions and what the policies indicate as the priority areas. Also, although there are efforts for continuous professional development, there is hardly any compulsion for certification nor any regular monitoring mechanism to assess its implementation or effectiveness.

Thus, the present Study is being conducted to unravel the status of CPD in the city of Vadodara in Gujarat. The assessment would involve a study whether the objectives of CPD outlined to satisfy the larger goals of the nation are being addressed and whether the path sketched out for CPD implementation is being followed.

The investigator aspires to find out, whether CPD has earned a better place in the minds of the teachers? Is there an increase in their awareness levels with respect to its various components? Are they actually using the mechanisms of CPD to inculcate higher-order thinking skills in students, and in doing so, what difficulties are they facing? These are some questions, the investigator sought to find answers to, through this Study.

Thus, through this Study, the investigator would be able to depict the present scenario of an important and much needed educational initiative – Continuous Professional Development of teachers.

CHAPTER-2
REVIEW OF RELATED
STUDIES

CHAPTER 2

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CHAPTER II

REVIEW OF RELATED RESEARCH

2.0. INTRODUCTION.

By undertaking a literature review, the researcher is able to critically summarise the current knowledge in the area under investigation, identifying any strengths and weaknesses in previous work, thereby helping him\her to identify the same in the present research and thus eliminate the potential weaknesses, whilst bringing to the fore the potential strengths. In addition, a good and full literature search will provide the context within which to place the Study.

Thus, a comprehensive review of related literature is important because it provides an up-to-date understanding of the subject and its significance; identifies the methods used in previous research on the topic and provides comparisons for one's own research findings.

It is important to note that researcher problems and their solutions are a function of 'Co-operative' efforts. It helps a researcher to get familiarized with what is already known in the area chosen for research. This then enables the researcher to combine his efforts with those of others, and contribute to create a complete picture.

Keeping in mind the above views, an attempt is made in this chapter to present the related research done in the area of the present Study.

To identify the type of research work undertaken in the investigator's field, the investigator made a serious attempt to review studies done both in India and abroad. All the selected Studies were then classified under broad categories, as per the requirement of the present Study.

REVIEW OF RELATED LITERATURE

2.1. NATIONAL STUDIES

2.2. INTERNATIONAL STUDIES

The studies are further elaborated in separate sections and the implication of these Studies in relation to the present Study is finally churned out and stated at the end.

2.1.NATIONAL STUDIES

2.1.1. NATIONAL STUDIES HIGH LIGHTING THE IMPORTANCE OF CPD.

Chutani and Rattan (1997) conducted a Study on, “Identification of training needs of secondary school teachers in English Haryana: DPEP Cell, SCERT, Gurgaon”.

The objectives of the Study were: (i) to assess the specific views of teachers on the teacher training conducted at the BRC-level during 1995-96, (ii) to identify particular areas, methods and difficulties faced by teachers in teaching English at the secondary level, (iii) to assess the availability of English in schools, (iv) to evaluate the usage of English and (v) to enlist topics that teachers would like to be included in teacher training package in 1997-98.

Methodology: The required data was collected from 400 teachers-including 185 female 7 comprising 287 government secondary school teachers working in rural schools selected through purposive sampling. A questionnaire to assess in-service training needs of teachers in English was developed in a workshop, was pre-tested and duly modified. DPEP faculty in SCERT English textbook if they so desired. The data were analyzed using percentages.

The major findings of the Study were: Most of the topics discussed in the training were useful for teachers. Teachers were satisfied with the effective delivery of modules. There was a meaningful display of teaching material during the training. Training was truly participatory, involving all participants and dispelling their doubts. Participants receives training material well in time. Training was activity-based [Project duration: December 1996-February 1997]

Sunwani (1997) conducted the Study of “Innovation in-service teachers training, and practices of Aggregate voluntary organization of Orissa. Orissa: Regional Institute of Education, Bhubaneswar”.

The objectives of the Study were: (i) to identify the objectives of Aggregate in general and its educational objectives, in particular, (ii) to study the essential components of in-service teacher training practices being followed by the organization, and (iii) to evaluate the feasibility of its training practices as an alternative model for replication in other situations. Scope and geographical coverage: Kashipur block in Rayagada district.

Methodology: A study team of the Regional Institute of Education, Bhubaneswar conducted the study. The data for the study was based on observation (during the first four days) of a teachers' training program organized by Agra games from 15-20 November, 1996, interview of the organization's Education Coordination (EC) of Aggregate and its other functionaries. According to the information provided by the EC, a four-day training program for teachers is conducted once every two months. Emphasis of such training is usually on capacity building of teachers in classroom teaching, community mobilizations and how to act as animators for sharing views and experiences among the trainees and trainers. The training manuals developed by NCERT (including its Oriya version translated by SCERT) were used in the training programs. Besides, other training materials such as posters and charts developed by the organization were also used. Cultural programs by trainees and teaching by participating teachers were followed by discussions and finally constructive criticism training was being put to practice in classroom teaching.

The major findings of the Study were: Sharing of experience between trainers and the trainees motivated the teachers to participate in this program. The specific objective of the training i.e. capacity building of the participants, forced trainers to be more goal-oriented in their training activity in order to realize the same. The training programs tried to develop in the participants the capacity to prepare and use teaching-learning aids according to their needs. These programs have helped in regenerating the human resource of the organization by using some of its students as facilitators of education (or guru bhais). They had enabled teachers to act as village level animators for better mobilization of community resources.

Lakdawala (1977) conducted the Study of, "Professional Growth of women Teacher of Secondary schools of greater Bombay".

The objectives of the Study were: To assess the professional growth of the trained graduate women teachers having at least five years' experience of teaching and to find out their in-service training need, also to assess their contribution to the profession and to find out their difficulties in achieving professional growth and finally to find out their job satisfaction.

The sample included 91 schools constituting 15 percentages of all the schools were selected on a random stratified basis. Final data were obtained from 375 teachers working in these selected schools. Tools consisted of a questionnaire and a self-on evaluation form both to be filled in by the teacher-respondents. Method employed in the study was a Survey method.

The major findings of the Study were: There was a striking difference between the earlier specializations of the teachers and subjects they had to teach like English, history and geography. More than 75 percentage teachers had to take more than 30 periods per week; about 65 percentage teachers spent more than an hour a day for correction work; and about 53 spend more than an hour a day in the preparation for teaching. There was not a single activity of attending courses attracted the highest number of teachers and research work attracted the higher of teachers. More than 25 percentage teachers implemented new techniques in the classroom teaching; the three most frequently used techniques were using audio-visual aids, individualized instruction, and group discussion. Excepting the activity the proportion of unmarried teachers was higher than that of married ones. According to teachers the reasons responsible for not doing any writing work of the school, contributing to the professional growth were lack of time due to routine work the school, Lack of time due to the demanding home atmosphere and exhausting school work. Three main reasons for not knowledge of such course leading to the professional growth were opportunities, lack of knowledge of such courses classes and the heavy work load. Only 45 percentage teachers were fully satisfied with their jobs.

Sharma (1955) conducted the Study "A Growth and Development of In-service education for secondary school Teachers in the state of Bihar since (1955)".

The objectives of the Study were (i) to trace the growth and development of in-service education in Bihar since 1955, and (ii) to bring out clearly the philosophy, nature and

general implication for the organization of in-service education programs for continuing education of secondary school teachers. The National Council of Educational Research and Training was the pioneer of in-service education programs in the country, which gave birth to extension service in the states. The techniques of in-service education program had borne fruits, but still the way was long and thorny and the educationists had to discover better techniques to obtain the goals. There had been a sharp decline in the organization of activities with regard to in-service education program after the administered by the NCERT had been taken over by the Government of Bihar. The Department of Education and Education Ministry should look into the problems and see that the in-service education program did not remain on paper only. They had to organize to extension centers on sound footing and create conditions for then effective functioning. This they could do by allowing functioning. This they could do by allowing those centers to have separate identity as they used to have during the NCERT administration days.

Gupta (1979) conducted the Study of the “In-service Teaching Needs of the secondary Teacher educators, Dept. of Teacher Educations NCERT, (1979)”.

The objectives of the Study were: (i) to study the relationship between the qualification and the in-service education proneness of secondary teachers educators, (ii) to study the relationship between the professional experience and the in-service education proneness of secondary teacher educators, (iii) to identify the type of in-service education courses preferred by secondary teacher educators in view of the emerging curriculum changes at the school level and the corresponding changes in the teacher education curriculum, and (iv) to identify the specific units under each of the curricular areas identified at above and (v) to study the congruence between the qualifications and the instructional allocation.

Tools for the sample: comprised 16 principals /vice-principals/professors, 13 senior lecturers/ readers, 103 lectures /assistant professors and 6 tutors /others from twenty-eight colleges of education. The tool used for data collection was a specially prepared questionnaire. The techniques used to analyses the data were chi-square test and content analysis.

The major findings of the Study were: (i) There was some measure of association though not very strong, between the qualifications of secondary teacher- educators and their in-

service education proneness (ii) There was a small measure of association between the teaching experience and the in- service education proneness of teacher educators. (iii) In view of the emerging curricular changes at the school level and subsequently at the school level and the in-service education course required by secondary teacher educators were identified: (a) socially useful productive work, (b) vocationalization, (c) working with the community (d) non-formal education, and (e) pedagogical and methodological subjects (iv) By and large, there was congruence between the qualifications and the instructional allocation, except in the case of those secondary teacher educators who, were involved in the teaching of Methodology of Teaching Geography as they did not have any degree in geography.

2.2. INTERNATIONAL STUDIES

2.2.1. INTERNATIONAL STUDIES HIGHLIGHTING THE IMPORTANCE OF CPD.

Stake and Stufflebeum (1983) conducted the Study titled “Evaluating the Impact of Continuing Professional Development (CPD)”.

The objectives of the Study were: (i) to investigate the range of evaluative practices for CPD in use in schools (ii) to provide materials which would aid schools in evaluating CPD in the future.

The main findings were – (i) In the survey, the most frequently evaluated component was participant satisfaction, which was always evaluated in over 35% of schools according to CPD leaders. Value for money was the second most frequently evaluated element, with over 51% of respondents claiming that this element was evaluated usually or always. (ii) Survey data showed that changes in pupil attitude were usually or always evaluated by only 24% of schools, making it the least frequently evaluated aspect. (iii) Evaluation of the impact of CPD was generally undertaken by school at three levels (i.e. participant reaction, participant learning and use of knowledge and skills) 100% of the interview phase schools were found to be evaluating the impact of CPD at all of these levels but only 41% of the interview phase schools were the evaluating impact on organizational support and change. The interview data also showed that only 25% of the - 5 - schools

involved in the study were evaluating the impact of CPD at the level of pupil learning outcomes. (iv) The types of evaluation employed by schools were found to be restricted by their interpretation of CPD. The narrower the interpretation, the more basic the forms of evaluation employed. (v) CPD leaders reported feeling unprepared for the role. They also highlighted that learning from experience was better preparation for the role than formal preparation opportunities.

Fennema (1996), Franke (1998), Honjnacki and Grover (1992), Zohar (1999) conducted the Study “Impact of thinking skills programs and engagement in enquiry oriented CPD on teachers classroom practices”.

The objectives of the Study were: (i) to study increased flexibility and adjustments to the long-term planning to accommodate spending more time on building on the students’ responses and to secure better progression. (ii) to study a refocusing of priorities so that more attention is paid to the underlying concepts and processes rather than factual content and shifts in The impact of the implementation of thinking skills programs and approaches on teachers.

The main findings were: One common thread running through all the studies is the way in which teaching using a thinking skills approach to bring about a shift in the teachers’ attention so that they focus on different aspects of the teaching and learning process. They are able to learn more from their students and describe the classroom as a positive environment in which they are able to respond and develop their practice to facilitate greater student responsibility and autonomy (Fennema., 1996; Zohar, 1999; Ferretti., 2001). The importance of the teacher being a learner in the context of the classroom is stressed and, in one study, they talk of the teachers developing greater empathy with their students (McGregor and Gunter, 2001). What appears to be particularly powerful is the combination of positive reinforcement for teachers from the enthusiastic response of their students, combined with a degree of cognitive dissonance as their perceptions of the capabilities of their students are subverted. While there is evidence that teaching using a thinking skills approach is beneficial in promoting teacher inquiry and promoting changes in pedagogy, the process can be demanding and not all teachers benefit to the same degree. A longitudinal set of studies of teachers using an approach called

cognitively guided instruction (CGI) to teach mathematics in elementary schools in the US found that not all teachers followed the same of inquiry and change even though they implemented the CGI approach in their classrooms (Fennema., 1996; Franke., 1998). For some teachers, it seemed to be enough to try out the approach and confirm that it worked in their classroom; this did not then lead on to further inquiry about how and why the approach was effective. So that, while CGI with its focus on students' mathematical thinking has the potential to engage teachers in inquiry, the authors suggest that the experiences may not be sufficient as it is the meaning that the teacher constructs that acts as a stimulus for what they term 'self-sustaining generative change' (Franke, 1998). The studies highlight the need for support for teachers in extending and deepening their reflections on experience and grounding this in an emergent pedagogy by having access to a wider critical community. The importance of practical tools, such as the use of video- and audio-recording of classroom interactions to enable teacher reflection on their practice, is emphasized. Wilks and Emery, (1998), Franke, (1998). The use of student learning logs was another method of providing structured feedback on the teaching and learning process that helped teachers to construct new mental models to guide their pedagogy (Naisbett, 1997). The keeping of teacher diaries noting the progress of the intervention is also mentioned as a useful tool for supporting pedagogical inquiry (Crump.,1988; Tavernier, (2001). Highlighted across the studies is the importance of close and sustained collaboration between the teachers and the researchers who have designed the approaches and/or are responsible for the inservice training. Joint-planning of lessons and team-teaching feature in a number of the studies (Crump., 1988; Donnelly., 1999; Ferretti., 2001) as does the need to engage teachers actively in discussion about the impact of the approaches during the project so that they have the opportunity to compare and contrast their experiences with those of their peers.

Hustler (2003) conducted the Study "Teachers' Perceptions of Continuing Professional Development".

The objectives of the Study were: (i) to provide a baseline of teachers' previous experience of CPD, their current attitudes and their future expectations; (ii) to facilitate subsequent monitoring of the impact of the CPD strategy on teachers' experience,

attitudes and expectations; (iii) to inform the Government's CPD strategy and investment over the next few years.

Methodology: (i) The fieldwork, involving a questionnaire survey and a case study phase, took place between February and July 2002. The questionnaire focused on INSET and CPD activities undertaken during 2001, and more general CPD experiences undertaken during the previous five years. Over 2500 teachers in primary, secondary and special schools returned their questionnaires and their profile closely matched that of the teaching force as a whole (DfES, 2002). Case study visits were made to a sample of 22 schools across the country. In addition to augmenting the survey data the central product of the case studies was a series of 'CPD pen-portraits' of individual teachers.

The major findings of the Study were: (i) Most teachers were satisfied with their CPD over the last 5 years. Key features of worthwhile CPD were perceived relevance and applicability to school/classroom settings. Negative feelings were especially associated with 'one size fits all' standardized CPD provision, (e.g. much New Opportunities Fund (NOF) ICT training), which did not take account of teachers' existing knowledge, experience and needs. (ii) During 2001 most CPD was focused on teaching skills and subject knowledge, and was led predominantly by school staff. Few teachers took part in CPD activities such as research, secondments, award bearing courses or international visits, but these were highly valued by participants. (iii) Although thinking about CPD varied in relation to school context and career stage, most teachers worked with traditional notions of CPD (such as courses, conferences, INSET days). (iv) Financial cost (perceived and/or real), distance from training opportunities, and workload, the last especially for older teachers, were important inhibitors of access to CPD. (v) Most teachers felt that the principle drivers for CPD activity over the last 5 years had been school development needs and national priorities and that these had taken precedence over individual needs. (vi) Most teachers accepted as reasonable that there should be a balance between system (school and national) CPD needs and individual needs. However, they felt that personal/individual interests now needed more prioritization with additional opportunities for professional control and self-regulation. (vii) Attitudes to CPD were shaped by complex interrelationships between local structural and cultural factors (within and between schools) and teachers' career stage, age and subject affiliations. However,

the status, knowledge, and approach of the CPD coordinator (and the Senior Management Team (SMT) more generally) could radically effect, positively or negatively, teachers' attitudes towards and understandings of CPD. A Government-commissioned report on CPD found that standardized 'one size fits all' provision was criticized by teachers.

Feiman-Nemer(2001) conducted the Study "Student teaching programs designed to foster critical reflection and critical pedagogy".

The objectives of the Study were:(i)to study the culture of schools and classrooms and their relationship to the larger political milieu. (ii) to study creative use of time, flexible scheduling to work together in school day, subsidizing of summer institutes and courses, etc.

Methodology: In a study of 3250 teachers who had participated in over 80 individual professional development activities of various types and varying duration, through the Australian Government Quality Teacher Program. Addition recommends that resources and attention be given to the technical and structural elements of the teachers' work life". Structures must also be in place to support and encourage professional learning and collaboration. Student Teaching at the University of Wisconsin the activist stance of the New College program contrasts with the more analytic stance of the University of Wisconsin student teaching program. Developed by teacher educators closely identified with the critical orientation, Wisconsin's student teaching program is designed to foster critical reflection and critical pedagogy. Earlier statements of the program's rationale stressed the need for teachers to reflect on the moral and political implications of school structures and classroom practices and participate in curriculum development and educational policymaking (Zeichner, 1981-82). Recent refinements call for teachers to add the role of political activist outside the classroom to their primary role as educators.Liston and Zeichner, (1988),Zeichner and Liston, (1987). The student teaching curriculum has five elements.Liston and Zeichner, (1987).

The major findings of the Study were: (i) The first is a teaching component that combines the gradual assumption of classroom responsibilities with an emphasis on curriculum development. (ii) The second is an inquiry component that focuses attention on the

culture of schools and classrooms and their relationship to the larger political milieu. Students carry out some investigation related to their own practices or the settings where they work.

(iii) The third component, a weekly seminar, is designed to help students "broaden their perspectives on teaching, consider the rationale underlying alternative possibilities for classrooms and pedagogy, and assess their own developing perspectives toward teaching". (iv) The fourth component, encourage student teachers to reflect systematically on their own development and their actions in classrooms and in the school. Finally, supervisory conferences provide an arena for analysing teaching in relation to student teachers' intentions and beliefs, the classroom context, the content of instruction, and the hidden curriculum.

Bolam and Weindling (2006) conducted the Study "Benefits, status and effectiveness of Continuous Professional Development for teachers in England".

The objectives of the Study were:(i) to study CPD that leads to changes in pupils', teachers' or school practices.

The major findings of the Study were: There is a lack of effective CPD in terms of levels of classroom contextualized practice, collaboration with colleagues, and research-informed professional learning. (2) There is a lack of effective CPD practice in terms of both the form and duration of CPD activities. (3) There is little indication that current CPD is seen as having an impact on raising standards or narrowing the achievement gap. This is despite the fact that the vast majority of teachers thought that CPD would have a positive impact on pupils' learning and achievement. (4) Teachers identify a wide range of benefits of CPD; however, these benefits vary significantly according to school and teacher characteristics.

Cordingley (2007) conducted the Study "A systematic review on how teachers can be supported in their CPD with the help of specialist expertise".

The objectives of the Study were:(i)to study the approaches identified as enhancing the effectiveness of CPD included interviewing participants to establish 'individual starting points' and tailoring CPD to address particular needsupdate individuals' knowledge of a

subject in light of recent advances in the area; (ii) to study the individuals' skills, attitudes and approaches in light of the development of new teaching techniques and objectives, new circumstances and new educational research; (iii) to study how to apply changes made to curricula or other aspects of teaching practice; (iv) to enable schools to develop and apply new strategies concerning the curriculum and other aspects of teaching practice; (v) to study and exchange information and expertise among teachers and others, e.g. academics, industrialists; (vi) to study how to help weaker teachers become more effective (OECD TALIS, 2009).

Methodology: Professional development forms and modes described in the survey comprise: (i) collaboration between schools or teachers across schools (e.g. observational visits to other schools or teacher networks); (ii) individual or collaborative research on a topic of professional interest; (iii) collaboration within the schools in which teachers work, by coaching/mentoring/peer observation, collaborative planning and teaching, and the sharing of good practices; (iv) external expertise in the form of courses, workshops, conferences/seminars or formal qualification programs; (v) informally, reading professional literature (journals, evidence-based papers, thesis papers), or engaging in informal dialogue with peers on how to improve teaching. Effective CPD was described as 'self-directing' i.e. specialists ensured that practitioners had a level of autonomy as they developed and applied new learning to their practice. The major findings of the Study were: The review noted that effective CPD combined innovative specialist input with an ongoing program of school-based support. Formal 'input' was described to be 'extensive and sustained' with peer support available.

The major findings of the Study were: According to research evidence (Cordingley and Bell, 2012), CPD approaches which demonstrated characteristics linked to effectiveness include: (i) collaborative enquiry – extended, peer-supported, collaborative, evidence-based learning activities coupled with risk taking (experimenting with new, high leverage, high demand approaches) and structured professional dialogue about evidence; (ii) coaching and mentoring – a vehicle for contextualizing CPD and for embedding enquiry-oriented learning in day-to-day practice. Co-coaching in particular empowers practitioners to try out new things by providing a context of reciprocal vulnerability which speeds up the development of trust. Specialist coaches and mentors support,

encourage, facilitate and challenge professional learners and demonstrate new approaches in action in their context. Effective coaching and mentoring also draws on evidence from observation and draws in other resources; (iii) networks – collaborations within and between schools depending upon and propelled to success by CPD. They draw on internal and external expertise, clearly focused on learning outcomes for particular student groups. The quality of the collaboration and the selection of a focus that can draw contributions from all members is more important than size; (iv) structured dialogue and group work – practiced in pairs and small groups, providing multiple opportunities for exploring beliefs and assumptions, trying out new approaches and giving and receiving structured feedback.

2.2. IMPLICATIONS FOR THE PRESENT STUDY

The reviewed Studies demonstrated in this chapter are few among the many studies, which provide a proper base to substantiate the present Study. Extracting the aspects relevant for the present Study from each of the reviewed summaries helped the investigator to frame the implications for the present Study. These implications are presented below as per the broad categories framed in this chapter.

2.3. IMPLICATION OF REVIEW OF RELATED LITERATURE

The researcher has undertaken a Study titled ‘A study of the Continuous Professional Development Programs conducted for the Secondary School Teachers of GSEB schools, Vadodara city’.

From above studies it becomes evident that the implementation of new training practices focusing on CPD was introduced right from secondary level. Though the State has made all-out efforts to implement CPD in its true spirit, the questions that remain unanswered are whether CPD has been actually and effectively implemented in all classes and what problems are being faced by teachers while implementing. As a result, teachers are beginning to take a different approach to education in order to accommodate the needs of 21st century students.

While teachers must always communicate with their students since the time of Gurukul, the way in which they do so, has evolved over the last decade. Rather than standing in

front of a classroom and talking about important concepts, they are now encouraging dialogue, allowing students to question what they are learning and to think critically. New approach to communication stimulates more direct interaction with students and a better understanding of the concept. Teachers are expected to help students develop the ability to look at problems from different angles, rather than simply repeating and memorizing the “right answer”. Teachers can help students learn to think critically by presenting them with open problems and encouraging them to come up with creative solutions.

2.4. RATIONALE FOR THE PRESENT STUDY.

“The importance of competent teachers to the nation’s school system cannot be over emphasized...It is common knowledge that the academic and professional standards of teachers constitute a critical component of the essential learning conditions for achieving the educational goals. The length of academic preparation, the level and quality of subject matter knowledge, the repertoire of pedagogical skills the teachers possess to meet the needs of diverse learning situations sensitivity to contemporary issues...critically influence pupil learning and the larger processes of social transformation.” (NCFTE, 2010; p2)

The development of a nation relies on the knowledge acquired through education and its practical applications. Considering any efficient education system or educator, effective instructional strategies in which the contents were effectively delivered are the main pillars of quality education system. Quality education is a pre-requisite for national, regional and global development.

For ‘quality education’, we need quality teachers who are committed to teaching and equipped with the necessary knowledge, skills and competencies for effective teaching. Quality teachers and teaching alone can be the strong agents of social re-engineering and national reconstruction.

Professional upgradation via In-service teacher education received support through central government funding for the establishment of Institutes in Education, District Institutes of Education and Training (DIETs) in each district. These institutions, together with SCERTs in States, provided space for conducting in-service training for teachers.

Resource Centres were established across the country, with the explicit mandate to provide in-service training to secondary school teachers in learner-centred and school based support to teachers.

SarvaSikshaAbhiyan(SSA, 2001) has also placed emphasis on continuous in-service teacher education, requiring each teacher to receive 20 days of training every year. All teachers are members of associations which have from time to time taken up academic activities and organized conventions and meetings to discuss professionally important developments.

NGO initiatives in several parts of the country have developed and implemented models of teacher professional development and support in ways that directly impact the classroom practices. Degrees of success in terms of motivating teachers to alter and develop their classroom practice in ways that improve students' learning and provide educationally rich experiences to them. Evidence of 'effectiveness' of training programs and support activities, especially within the government system, is quite evident.

A significantly large number of teachers implemented new techniques in their classroom teaching, audio-visual aids, individualized instruction, and group discussion as can be seen from the studies quoted earlier.

The researcher's own personal experience as a teacher indicates the need for continuous professional development to update and enrich teaching practices and this is what prompted her to take up this issue of concern.

CHAPTER-3

PLAN AND PROCEDURE

CHAPTER 3

PLAN AND PROCEDURE

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CHAPTER III

METHODOLOGY

3.0. INTRODUCTION.

Methodology is one of the most important aspects in any research work. It gives us an idea about how the Study has been conducted. The methodology of any research work needs proper attention and care for its planning and execution. If inappropriate methodology is used or if appropriate methodology is used poorly, the result of the study could be misleading. Thus, it depends on the rigor of the representation of the findings. There are four main features of research methodology; designing, sampling, data collection, and data analysis.

This chapter deals with the design of the study, sample, tools and techniques used and the procedure of data collection.

3.1. STATEMENT OF THE PROBLEM.

The Study is titled as, “A Study of the Continuous Professional Development Programs conducted for the Secondary School Teachers of GSEB schools of Vadodara city”.

3.2. RESEARCH QUESTIONS.

1. How will teachers improve student learning and achievement?
2. What expertise, knowledge, and tools do we need, to rethink learning in school?
3. What kind of professional development programs will impact teacher quality?
4. Are our efforts directed in this direction?

3.3. OBJECTIVES OF THE STUDY

1. To identify the professional needs of secondary school teachers of GSEB Schools of Vadodara city.

2. To study the essential components of the ongoing CPD Programs for Secondaryschool teachers of Vadodara city.
3. To co-relate the ongoing CPD program with the needs expressed by the teachers.

3.4. DELIMITATION OF THE STUDY.

The present Study is delimited to the teachers in the secondary sections of English medium GSEB Schools of Vadodara city.

3.5. METHODOLOGY.

The Survey method was used to carry out the present Study.

3.7. POPULATION OF THE STUDY.

All the teachers who are working as teachers in secondary schools, GSEB Vadodara, were the population of the present Study.

3.8. SAMPLE FOR THE STUDY.

30% schools and all the teachers in those schools were taken up as sample for the study. The stratified sampling technique was used to select the samples to address the objectives of the Present Study.

There are around 109 secondary schools in the city of Vadodara, which functions under the Gujarat State Education Board. Out of these, 65 schools were identified as English medium schools, as per the list procured from the DEO, Vadodara. They are SVS-5, SVS-6, SVS-7 and SVS-8. The investigator identified the number of English medium schools from each zone (SVS), which is listed below.

- Number of English medium schools in SVS-5 = 10
- Number of English medium schools in SVS-6 = 26
- Number of English medium schools in SVS-7 = 16
- Number of English medium schools in SVS-8 = 13

Thus, total number of English medium schools in Vadodara city = 65

In order to arrive to the final sample size, the investigator selected 30% of the schools from each of the zones (SVS), which are shown below.

- 30% of English medium schools from SVS-5 = 3
- 30% of English medium schools from SVS-6 = 8
- 30% of English medium schools from SVS-7 = 5
- 30% of English medium schools from SVS-8 = 4

Thus, 30% of English medium schools in Vadodara city = 21 schools

The investigator visited all these selected schools for data collection, and ultimately obtained data from total 21 schools. All the teachers teaching in the secondary sections of the schools, which added up to 118, provided data for the present Study. The process of sample selection is diagrammatically shown below.

The process of sample selection is diagrammatically shown below.

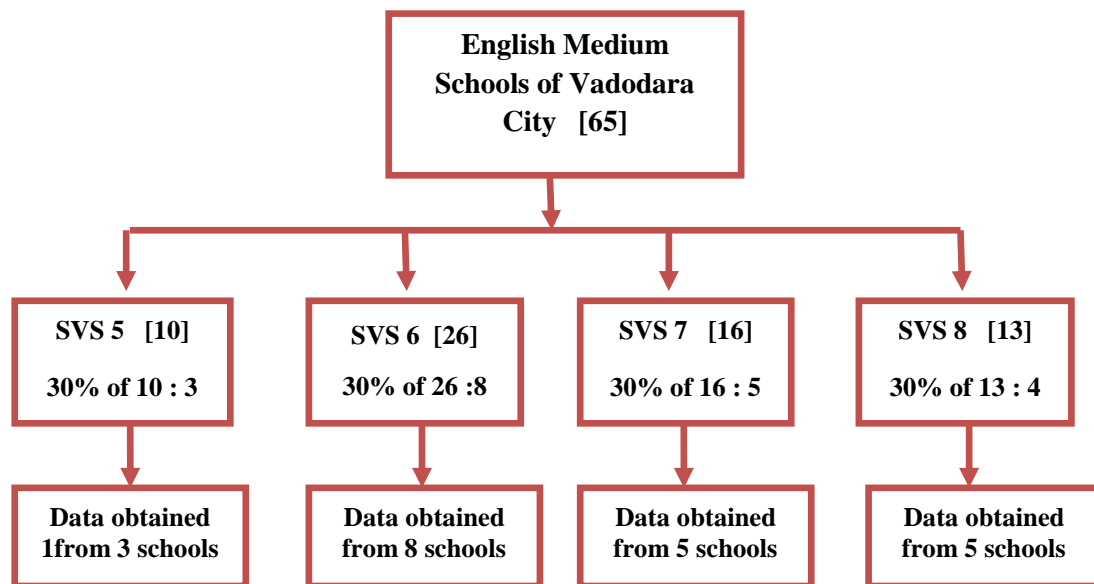


Figure 5.18.: Process of Sample Selection

In order to collect data for the second objective, the investigator selected 5 government officials/administrators responsible for the training and monitoring of teachers teaching in GSEB schools in Vadodara. The selection of the government officials/administrators was done on the basis of their willingness to participate and their availability.

3.9. TOOLS FOR DATA COLLECTION.

Questionnaire had been used as tools for data collection in the present Study.

Preparation of the tool

Tools adopted for the Present Study were questionnaire.

The questionnaire comprised close ended and open ended questions to probe as and when it was thought necessary. The open-ended questions were framed in order to seek additional information wherever necessary.

In the process of preparation of tools, major concentration was paid to the utility of the tool with regard to various objectives of the Study. The tool took final shape after passing through different stages of formulation.

Validation of the Tool

For validation, the prepared tool was presented to five experts; two experts and three experienced teachers, in GSEB schools.

Prior permissions was taken from the experts and the tool, attached with a confirmation letter specifying the title and the objectives of the Study, were presented to them. The Experts were requested to give their opinion and suggestions regarding the language of the tool and the content validity of the tool.

Various comments were received from these Experts, to substantiate the Study. Oral as well as written comments were incorporated to modify the tool before proceeding ahead with the data collection procedure.

Data Collection

The investigator personally visited the specified number of secondary schools to collect the data from GSEB Schools of Vadodara.

This section describes the field work carried out for data collection. Data was collected in four different stages as shown below -

Stage 1: The data collection comprised of personal visits to the selected schools. It included gaining access to the Principal, attaining permission for tool administration (copy of permission letter is enclosed) and handing over the required number of

questionnaires to be filled up by the teachers teaching in the secondary sections of the respective schools.

Stage 2: The actual data collection took several visits to the sample schools to get back the duly filled questionnaires from the teachers. It also involved a few telephonic conversations to recheck and authenticate the data.

Stage 3: This phase involved, finding the government officials/administrators who were involved in the operational aspects of CPD in the schools of Vadodara and could provide relevant data for the Study. Appointments were then fixed with these officials.

Stage 4: It took three visits to the Education Office of Vadodara to get proper responses from the officials. This sums up the efforts made by the investigator to get authentic data for the Study.

3.10. TIME FRAME

Approximately two months were required to visit the schools, seek permission, distribute the questionnaires and collect them back.

3.11. DATA ANALYSIS

The data was collected from administrators and teachers by giving them questionnaire.

It was conducted in two steps: first of all taking the permission from the school authority for conduction of this survey in their school.

Later on researcher had gone to the school personally and gave the respective tools to teachers.

Researcher also gave the questionnaires to the administrators.

The data collected was organized and analyzed by researcher using appropriate techniques as follows:

The data collected through questionnaires from teachers of the secondary schools of Vadodara city was analyzed using frequency, percentage analysis and content analysis.

DATA ANALYSIS

Sr. No.	Objectives	Sources of Data	Nature Of Data	Tool	Data Analysis
1.	To identify the professional needs of secondary school teachers of GSEB Schools, Vadodara city.	Teachers in secondary schools of GSEB	Qualitative and Quantitative	Questionnaire	Frequency and % analysis, Content Analysis
2.	To study the essential components of the ongoing CPD Program for Secondary school teachers of Vadodara city.	Teachers in secondary schools of GSEB; Administrators /Officials	Qualitative and Quantitative	Questionnaire	Frequency and % analysis, Content Analysis
3.	To co-relate the ongoing CPD program with the needs expressed by the teachers.	'Trained' teachers in secondary School	Qualitative	Questionnaire	Frequency and % analysis, Content Analysis

Procedure of Data Analysis

The data procured from the questionnaire, was analyzed objective-wise, both quantitatively as well as qualitatively.

The data obtained from open-ended questions were analyzed both quantitatively and qualitatively employing the technique of content analysis which provided a base for interpretations. The responses were read repeatedly, the points emerging were identified also identifying the similarity of responses. Those were then quantified as percentages.

Also, the number of respondents who did not give responses was counted. Absence of any response was also important and indicated the nonexistence/absence of certain important aspects related to the area under concern. This number was then converted into percentage to present this fact, quantitatively.

Thus, in the present chapter, discussion about methodology of the present Study has been presented. The tools prepared and implemented in the field, generated a lot of data needed for the present Study. The analysis and interpretation obtained from this data is presented in the following chapter.

3.12. CONCLUSION

Thus, in this chapter, the investigator has presented in detail the methodology used to collect data from the sample of the study, using different tools which have been constructed by the researcher herself considering the research questions and objectives of the study.

The Researcher's topic is 'A study of the continuous Professional development program conducted for the secondary school teachers of GSEB schools of Vadodara city'. Teachers of the schools were the best sample so the researcher elicited their responses for a better understanding of the scenario of Continuous Professional Development implemented in the secondary schools of Vadodara city.

The methodology of data analysis and interpretation is presented in the next chapter.

CHAPTER-4
DATA ANALYSIS
AND INTERPRETATION

CHAPTER 4

DATA ANALYSIS AND INTERPRETATION

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CHAPTER IV

DATA ANALYSIS AND INTERPRETATION

4.0 INTRODUCTION.

The most important step in the process of research is the analysis and interpretation of data, because it is the creative aspect and the crux of the total research study. The value of any Study depends very largely on the degree to which its results are intelligently analyzed and interpreted; on the other hand, it is the researcher's task to summarize the findings of his Study in a clear and precise manner, so that the results can be studied at a glance. Hence, it is necessary to analyze and interpret the raw data to give them a critical and a structured look and so that the necessary inferences can be made.

4.1 ANALYSIS AND INTERPRETATION OF DATA OBTAINED FROM THE QUESTIONNAIRE.

The design adopted for the present Study was 'survey'. A questionnaire was developed by the investigator as a tool to collect the data as per the objectives of the Study. The three objectives formulated for the Study, respectively comprised of 13 major questions with several sub questions. Data available from 118 questionnaires were analyzed and interpreted here forth. (Copy of questionnaire opened in ended question Appendix-3

4.1 ANALYSIS AND INTERPRETATION OF DATA FROM QUESTIONNAIRE.

The design adopted for the present Study was 'survey'. A questionnaire was developed by the investigator as a tool to collect data as per the objectives of the Study.

The first objective formulated for the Study was to identify the professional needs of the secondary school teachers of GSEB schools of Vadodara city. The data available from 118 questionnaires were analyzed and interpreted. The tool designed to elicit data for this

objective comprised of seven questions, some close ended while others were open ended questions.

4.1.1. ANALYSIS RELATED TO OBJECTIVE 1.

The Objective was to identify the professional needs of Secondary school teachers of GSEB schools of Vadodara city.

4.1.1. Analysis of the data related to the need for Professional training /updatation.

Q. 1. Why do you feel the need for professional training/updatation? (Refer Appendix-3)

The responses given by the teachers to question 1 was analyzed as follows –

- 19% of the teachers responded that CPD was important for ‘*teacher skill updatation*’.
- 19% of the teachers said periodic knowledge updatation should be there in educational field for which CPD was necessary.
- 14% of the teachers said they would get to know innovative techniques/activities in every sector of education through CPD activities.
- 14% of the teachers said that teachers need to get ‘informative’ ideas thus, such a forum was necessary.
- 34% of the teachers gave no response.

Table 4.1.1.: Need for professional training/updatation

Sr.no	Need for professional training/updatation	Response
1.	Teacher skill updatation	19%
2.	Periodic knowledge updatation of teachers	19%
3.	Teachers will get to know innovative techniques	14%
4.	Teachers need to get informative ideas	14%
5.	Unrelated\No response	34%

4.1.2. Analysis of the responses given by the teachers related to the most important consideration for them regarding Continuous Professional Development

Q.2. What is the most important consideration for you regarding Continuous Professional Development?

- Subject matter enrichment
- Learning Innovative instructional methods
- Learning judicious use of Technology for teaching learning
- Dealing with students

The responses given by the teachers to the close ended question 2 was analyzed as follows –

The data procured from this question was analyzed statistically and tabulated as follows-

Table 4.1.2.: Important considerations regarding CPD

Sr. no.	Important considerations regarding CPD	Response
1.	Subject matter enrichment	18%
2.	Learning Innovative instructional methods	48%
3.	Learning judicious use of Technology for teaching learning	28%
4.	Dealing effectively with students	21%
5.	Any other	2.54%

The following is the graphical representation of the above given data

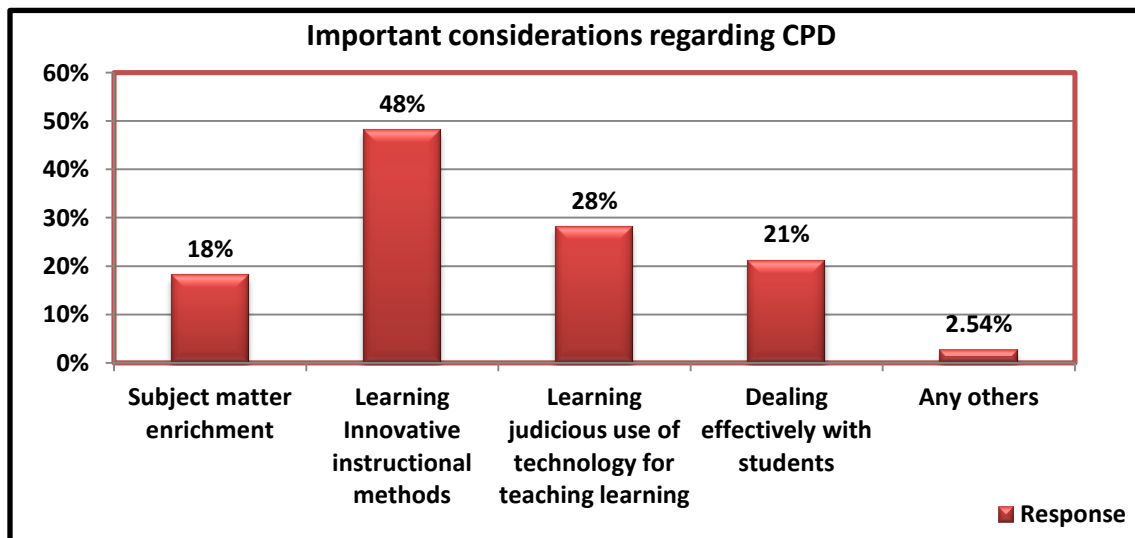


Figure 4.1.2.: Important considerations regarding CPD

Responses to this question regarding the most important consideration regarding CPD revealed the following-

- 18% of the teachers said CPD was important for Subject matter enrichment.
- 48% of the teachers said that CPD enabled the learning of innovative instructional methods.
- 28% of the teachers thought that CPD enabled the learning of judicious use of Technology for teaching learning.
- 21% of the teachers responded that CPD would equip them to deal with students more effectively.
- 2.54% of the teachers gave no response.

4.1.3. Analysis of the data related to specific areas, which would be of interest to teachers with respect to CPD.

Q.3. What specific areas other than the above are of interest to you?

The responses given by the teachers to the open ended question 3 was analyzed as follows –

Table 4.1.3.: Teachers perception of importance of CPD

Sr.no.	Teachers perception of importance of CPD	Response
1.	Greater awareness of changing trends in the profession	14%
2.	Learning innovative instructional methods in education	10%
3.	Learning judicious use of technology for teaching learning	12%
4.	Dealing with students effectively	09%
5.	Training in education through activity based learning methods	13%
6.	Unrelated\No response	42%

Responses to this question regarding the Teachers perception of importance of CPD

training revealed the following –

- 14% of the teachers said that CPD would give awareness of changing trends in the profession.
- 10% of the teachers said that CPD would help them to learn innovative instructional methods in education.
- 12% of the teachers said that via CPD they wanted to use technology effectively.
- 9% of the teachers said that CPD programs should enrich their knowledge of educational psychology to deal effectively with students.
- 13% of the teachers said that they wanted more inputs regarding activity based learning.
- A significantly large number of teachers gave no response.

4.1.4. Analysis of the data related to the most preferred method of training.

Q.4. What according to you is the most preferred method of training?

The data received from this close ended question was analyzed statistically and tabulated as below –

Table 4.1.4.: Teacher responses regarding the preferred methods of training

Sr. No	Teacher responses regarding the preferred methods of training	Response
1.	Self-instructional modules	19%
2.	Self-instruction online	24%
3.	Lectures by Experts	33%
4.	Hands-on courses	19%
5.	Weekend workshops	27%
6.	No response	03%

The following is the graphical representation of the data

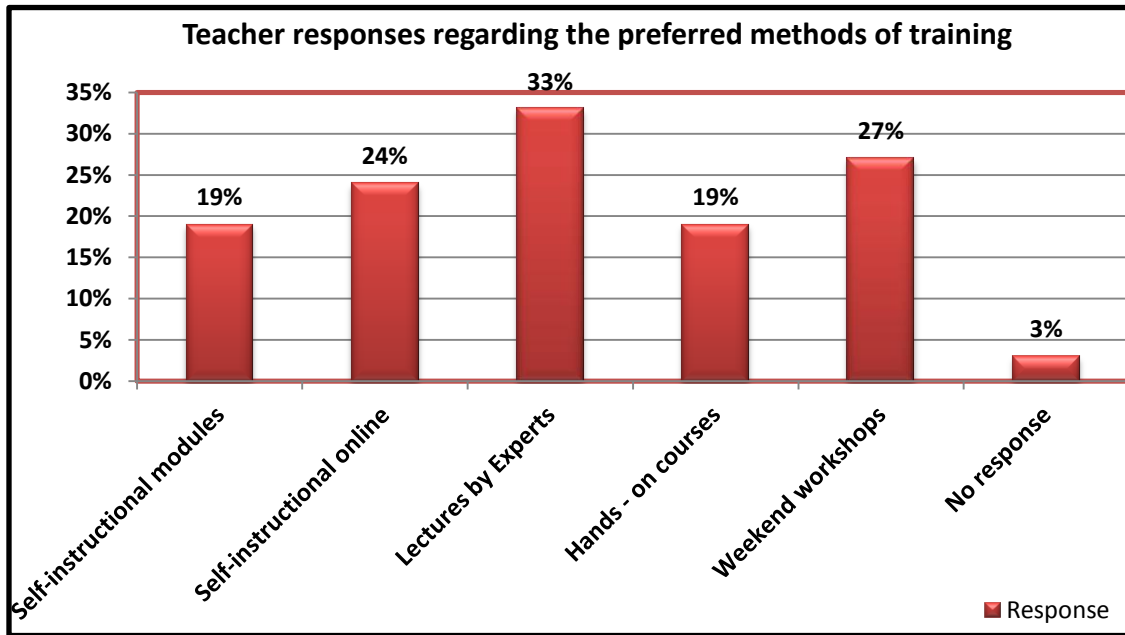


Figure 4.1.4.: Teacher responses regarding the preferred methods of training

Responses to this question regarding the most preferred methods of training revealed the following –

- 19% of the teachers preferred the Self-instructional modules.
- 24% of the teachers preferred Self-instruction online.
- 33% of the teachers favored Lectures by Experts.
- 19% of the teachers were in favor of hands-on courses.
- 27% of the teachers preferred weekend workshops.
- Only 3% of the teachers did not give any response regarding their most preferred methods of training.

4.1.5. Analysis of the data related to the frequency of CPD programs for maximum effectiveness.

Q.5. What according to you should be the frequency for maximum effectiveness?

The data received from this close ended question was analyzed statistically and tabulated as below –

Table 4.1.5.: Teacher responses regarding frequency for maximum effectiveness

Sr. no	Frequency for maximum effectiveness	Response
1.	CPD should be conducted yearly	21%
2.	CPD should be conducted monthly	18%
3.	CPD should be conducted once a week/ weekends	31%
4.	Unrelated/ No response	30%

The following is the graphical representation of the data

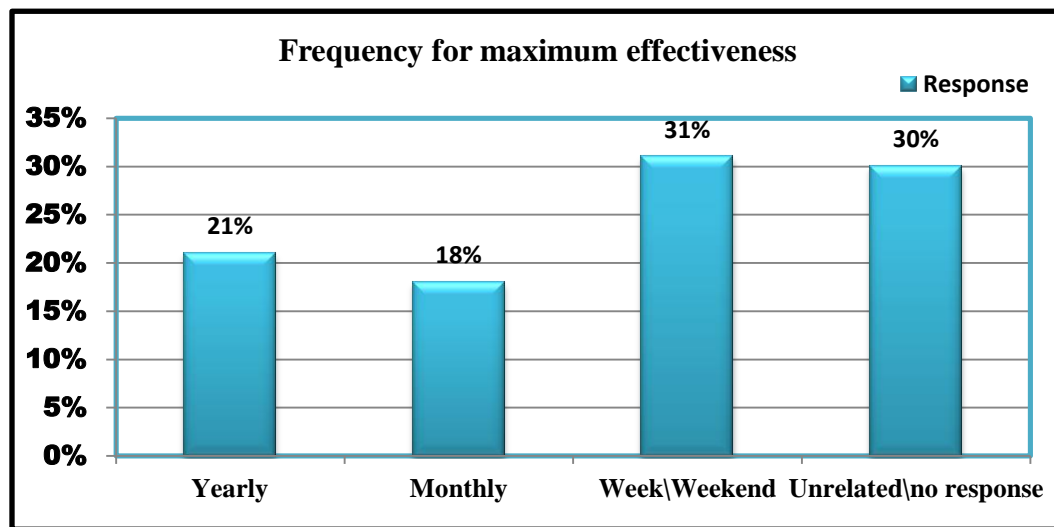


Figure 4.1.5: Frequency for maximum effectiveness

As shown in the above representations,

- 21% of the teachers said that CPD should be conducted on a yearly basis.
- 18% of the teachers said that CPD should be conducted monthly so that teachers would learn and enrich their knowledge indirectly impacting their student’s education.
- 31% of the teachers said that CPD should be conducted on weekends like Saturday because teachers can take part after completing their educational duties, Teachers opined that CPD should be conducted frequently so that teachers could be more creative and innovate.
- 30% of the teachers gave no response.

4.1.6. Interpretation of the analyzed data procured from the professional needs of Secondary school teachers of GSEB schools of Vadodara city.

Focusing on teacher education over the professional life-cycle indicates that even initial teacher education of the highest quality cannot provide teachers with the knowledge and skills necessary for a lifetime of teaching. India has a four-phase model comprising initial teacher education, induction (year one of teaching), early professional development (years two and three). Conferences and seminars, formal courses, problem solving in the workplace, self-directed study are critical to the success of CPD programs. Teleconference system and instructional videos, Websites form the basis of the professional development programs.

With respect to Objective 1, it was found that Majority of the teachers uphold the need for professional updation stating that teachers must be aware of the changing trends in their profession to be effective.

Majority of the teachers felt that CPD was necessary for skill updation, getting to know innovative teaching strategies/ methodologies as well as the judicious use of technology in the instructional process. They preferred weekend workshops showing their interest in regular CPD programs. However, in each question there was also a significantly large number of teachers who did not respond indicating that there was resistance to change. This could be a barrier to the successful implementation of CPD.

Analysis related to OBJECTIVE 2.

Objective 2 was designed to study the essential components of the ongoing continuous professional development programs for secondary school teachers of Vadodara city.

The tool designed to elicit data for this objective comprised of seven questions, some close ended while others were open ended questions.

4.2.1. Analysis of the data related to how many Continuous Professional Development programs are conducted in a year.

Q1. How many CPD programs are conducted in a year?

The responses given by the teachers to the close ended question was analyzed as follows

–

Table4.2.1: Number of programs for CPD conducted per year

Sr.no	Number of programs for CPD conducted per year	Response
1.	1-2 per year	21%
2.	3-4 per year	17%
3.	5 and more than 5 per years	28%
4.	Unrelated\No response	44%

The following are the graphical representation of the data –

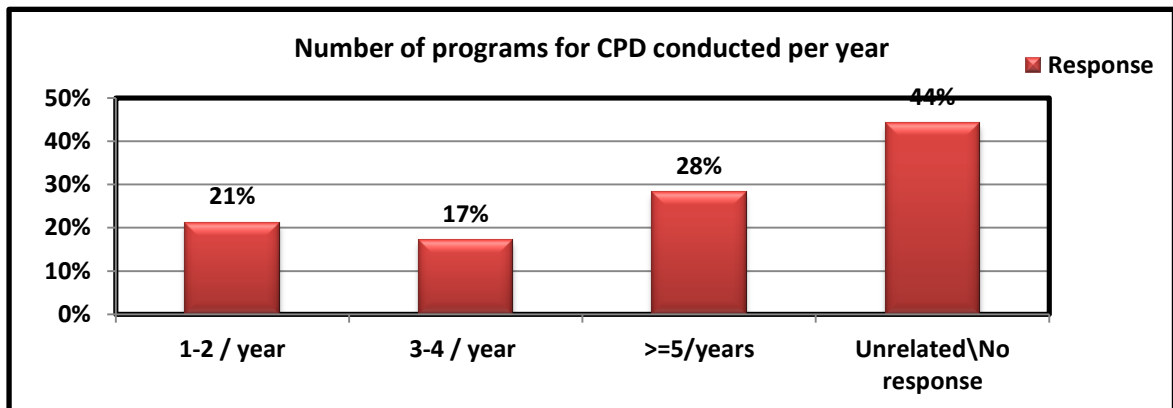


Figure 4.2.1: Number of programs for CPD conducted per year

The data, as represented above, revealed that

- 21% of the teachers said that numbers of programs for CPD programs conducted were 1 - 2 per year.
- 17% of the teachers said that numbers of CPD programs conducted were 3 - 4 months per year.
- 28% of the teachers said that 5 and sometime more than 5 CPD programs conducted in a year.
- 44% of the teachers gave no response.

4.2.2. Analysis of the data related to the duration of the CPD programs.

Q.2. What is the duration of these programs?

The responses given by the teachers to this question was analyzed as follows –

Table 4.2.2: CPD Program duration

Sr.no	CPD Program duration	Response
1.	Few hours/week	30%
2.	Few days/month	48%
3.	Weekends for few months in a semester	22%

The following are the graphical representation of the data –

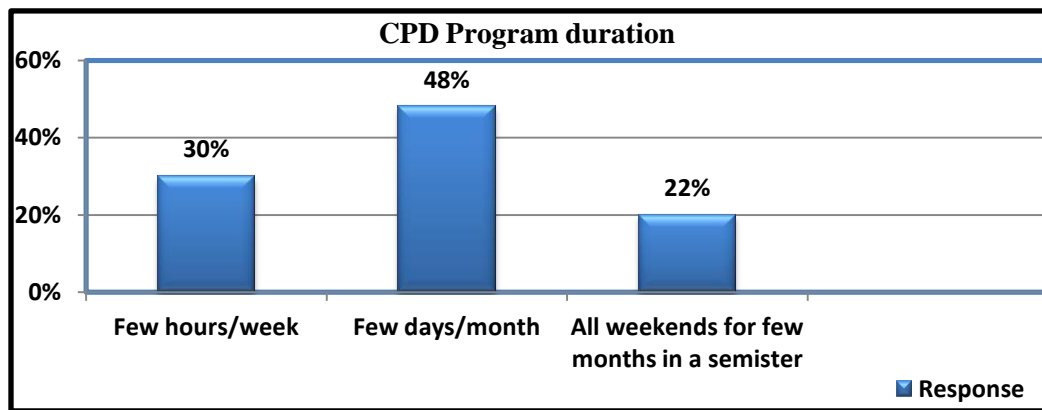


Figure 4.2.2: CPD Program duration

The data, as represented above, revealed that

- 30% of the teachers said that CPD program duration should be for few hours for the teachers, mainly during the ‘zero’ period.
- 48% of the teachers said that CPD program duration should be for few days per month for the teachers.
- 22% of the teachers said that CPD program duration should be in the weekends for all the months in a semester.

– Only 2% of the teachers gave no response for this question.

4.2.3. Analysis of the data related to how the CPD Programs are conducted.

Q.3. How are these Programs conducted?

- School wise?
- District wise?
- During academic year?
- During weekends/vacation periods?
- Conducted for a full day
- In large groups (more than 100 teachers)

The responses given by the teachers to the close ended question was analyzed as follows

–

This question was a close ended question and the following findings emerged.

Table 4.2.3: Manner of conducting CPD Programs

Sr.no.	Manner of conducting CPD Programs	Response
1.	School wise	31%
2.	District wise	24%
3.	During academic year	09%
4.	During weekends/vacation periods	25%
5.	In large groups	64%

As shown in the above representations -

- 31% of the teachers reported that the CPD programs were conducted School wise,
- 24% of the teachers said that the CPD programs were conducted District wise,
- 09% of the teachers said that the CPD programs were conducted during the academic year,
- 25% of the teachers reported that the CPD programs were conducted during weekends/vacation periods,
- 64% of the teachers said that the CPD programs were conducted in large groups only.

4.2.4. Analysis of the data related to the CPD Are there any hands on training workshops.

Q-4. Are there any hands on training workshops?

This questionnaire was an open ended question to which the following findings emerged.

Table 4.2.4: Whether hands-on Training workshops are conducted

Sr. no	Whether hands-on Training workshops are conducted	Response
1.	No	18%
2.	Yes	47%
3.	Unrelated\No response	35%

The following are the graphical representation of the data –



Figure 4.2.4: Whether hands-on Training workshops are conducted

As per the data representation given above,

- 18% of the teachers reported that no hands-on training workshops were conducted as part of the CPD programs.
- 47% of the teachers reported that hands-on training was provided during the CPD workshops.
- 35% of the teachers gave unrelated\ no response to this important question.

4.2.5. Analysis of the data related to monitoring mechanisms for the CPD programs.

Q.5. Is there any monitoring mechanism? If yes please give details.

This questionnaire was an open ended question and the following data emerged.

Table 4.2.5. : Monitoring mechanisms for CPD

Sr. No	Monitoring mechanisms for CPD	Response
1.	No	28%
2.	Yes	27%
3.	Undecided	13%
4.	No response	32%

The following are the graphical representation of the data –

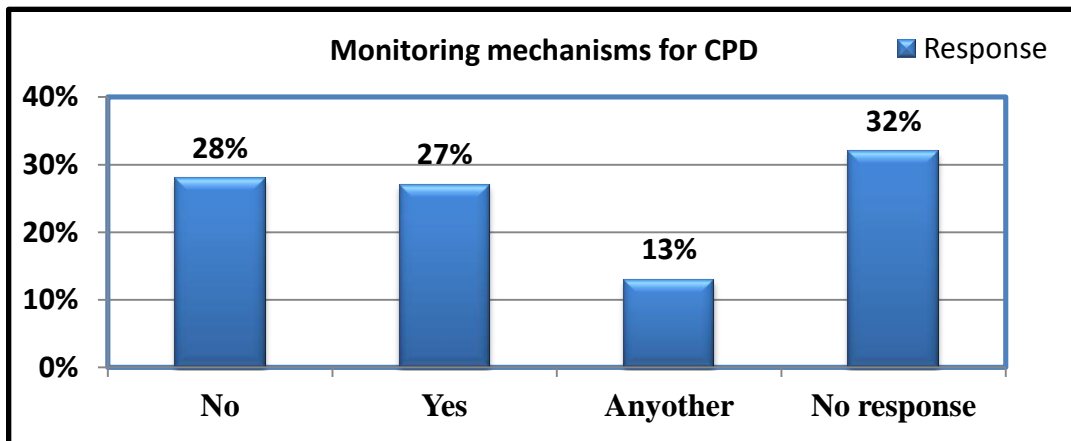


Figure 4.2.5: Monitoring mechanisms for CPD

As indicated by the above representations, the responses regarding monitoring mechanisms for CPD revealed the following -

- 28% of the teachers shared that there were no monitoring mechanisms for CPD.
- 27% of the teachers reported that there were monitoring mechanisms for CPD.
- 13% of the teachers were undecided while a large number of teachers gave no response to this important aspect of CPD conducting.
- 32% of the teachers gave no response.

4.2.6. Analysis of the data related to whether CPD is compulsory or optional?

Q6.Is continuous professional development compulsory or optional?

This questionnaire was an open ended question to which the following findings emerged.

Table 4.2.6: Whether CPD is compulsory or optional for New/Senior Teachers

Sr.no	Whether CPD is compulsory or optional for New/Senior Teachers	Response
1.	Compulsory for New Teachers	42%
2.	Compulsory for Senior Teachers	53%
3.	Optional for both	03%
4.	Compulsory for all the teachers	33%
5.	No response	13%

The following are the graphical representation of the data –

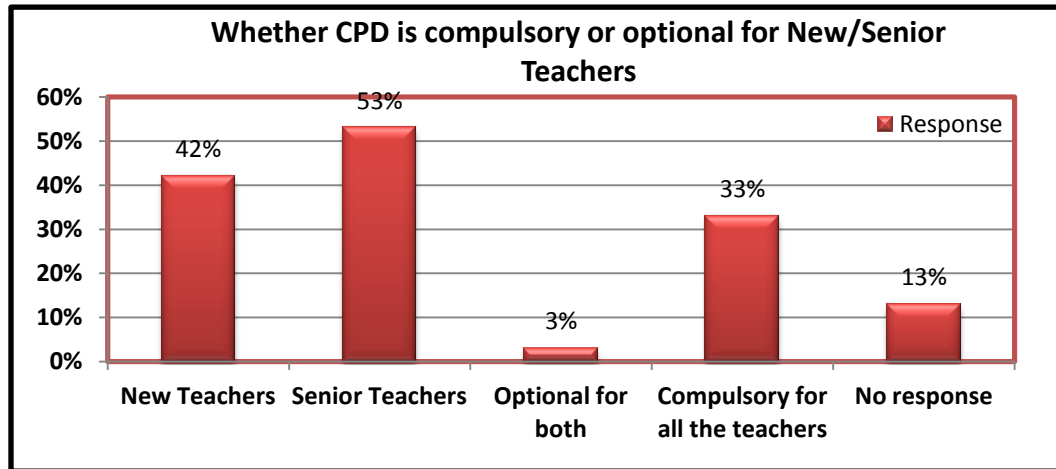


Figure 4.2.6: Whether CPD is compulsory or optional for New/Senior Teachers

As indicated by the above representations,

- 42% of the teachers said that CPD was compulsory for the New teachers.
- 53% of the teachers said that CPD was compulsory for the senior teachers.
- 03% of the teachers said that CPD was optional for New Teachers/Senior Teachers.
- 33% of the teachers said that CPD was compulsory for all the teachers.
- 13% of the teachers said gave no response to this question.

4.2.7. Analysis of the data related to the follow up mechanisms done by the authorities

Q.7. How is follow up done by the authorities?

This questionnaire was open ended question and following findings emerged.

Table 4.2.7.: Status of follow up done by the authorities for CPD

Sr.no.	Status of follow up done by the authorities for CPD	Response
1.	Yes	12%
2.	No	14%
3.	No conclusive answer	74%
4.	No response	48%

As indicated by the above representations,

- 12% of the teachers responded that follow up was done.
- 14% of the teachers responded that no follow up was done,
- 74% of the teachers did not give any conclusive answer,
- 48% of the teachers gave no response.

Analysis related to OBJECTIVE 2.

Objective 2 was designed to study the essential components of the ongoing continuous professional development programs for secondary school teachers of Vadodara city.

The data was collected from the government officials/administrators for the present Study.

The tool designed to elicit data for this objective comprised of seven questions, some close ended while others were open ended questions.

4.2.8. Analysis of the data related to how many Continuous Professional Development programs are conducted in a year.

Q1. How many CPD programs are conducted in a year?

The responses given by the administrators to the close ended question was analyzed as follows-

Table4.2.8: Number of programs for CPD conducted per year

Sr.no	Number of programs for CPD conducted per year	Response
1.	1-2 per year	40%
2.	3-4 per year	20%
3.	5 and more than 5 per years	20%
4.	Unrelated\No response	20%

The following are the graphical representation of the data –

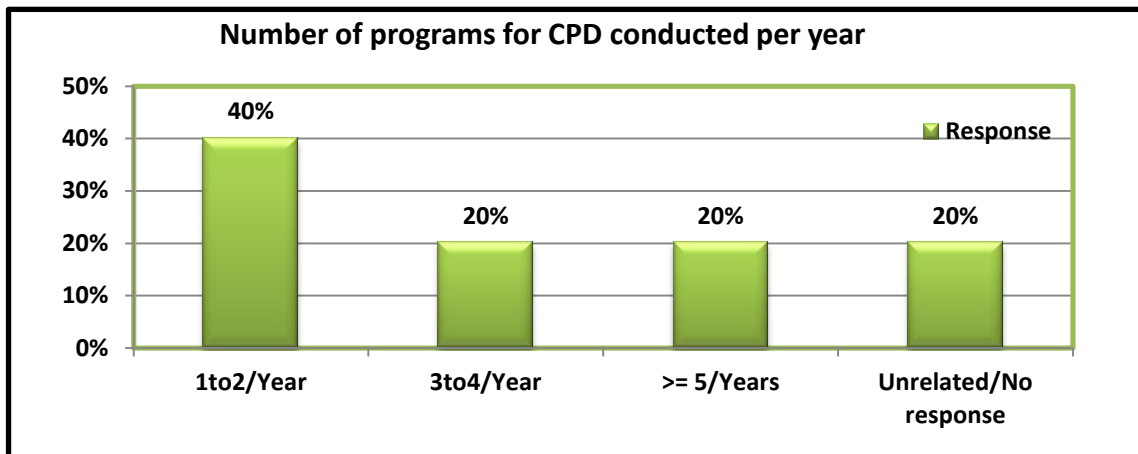


Figure 4.2.8: Number of programs for CPD conducted per year

The data, as represented above, revealed that

- 40 of the administrators said that numbers of programs for CPD programs conducted were 1 - 2 per year.
- 20% of the administrators said that numbers of CPD programs conducted were 3 - 4 months per year.
- 20% of the administrators said that 5 and sometime more than 5 CPD programs conducted in a year.
- 20% of the administrators gave no response.

4.2.9. Analysis of the data related to the duration of the CPD programs.

Q.2.What is the duration of these programs?

The responses given by the teachers to this question was analyzed as follows –

Table 4.2.9: CPD Programs duration

Sr.no	CPD Programs duration	Response
1.	Few hours/week	20%
2.	Few days/month	40%
3.	No response	40%

The following are the graphical representation of the data –

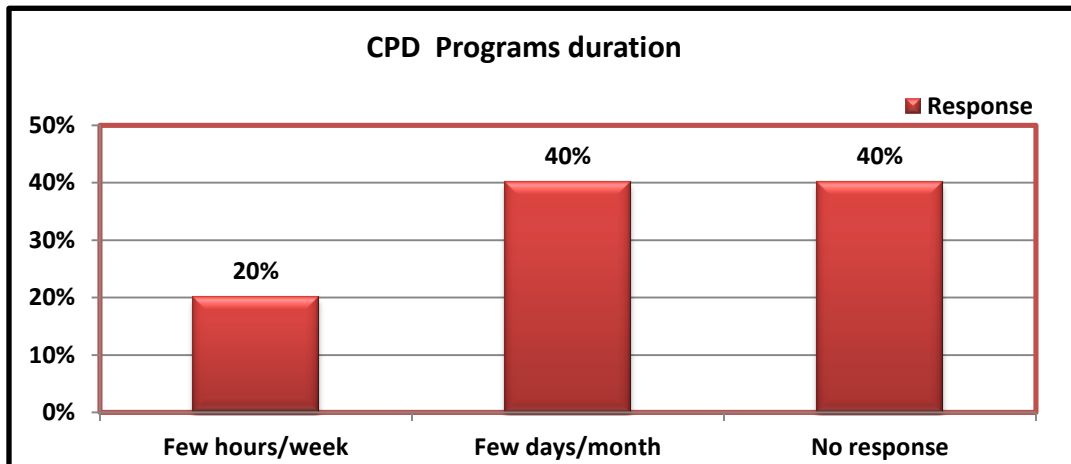


Figure 4.2.9: CPD duration of programs conducted per year

The data, as represented above, revealed that

- 20% of the administrators said that CPD program duration should be for few hours for the teachers, mainly during the ‘zero’ period.
- 40% of the administrators said that CPD program duration should be for few days per month for the teachers.
- 40% of the administrators said that CPD program duration should be in the weekends for all the months in a semester.

4.2.10. Analysis of the data related to how the CPD Programs are conducted.

Q.3. How are these Programs conducted?

- School wise?
- District wise?
- During academic year?
- During weekends/vacation periods?
- Conducted for a full day
- In large groups (more than 100 teachers)

The responses given by the teachers to the close ended question was analyzed as follows-

This question was a close ended question and the following findings emerged.

Table 4.2.3: Manner of conducting CPD Programs

Sr.no.	Manner of conducting CPD Programs	Response
1.	School wise	00%
2.	District wise	60%
3.	During academic year	20%
4.	During weekends/vacation periods	40%
5.	In large groups	00%

As shown in the above representations -

- 60% of the administrators said that CPD programs were conducted District wise,
- 20% of the administrators said that CPD programs were conducted during the academic year,
- 40% of the administrators said that CPD programs were conducted during weekends/vacation periods,

4.2.11. Analysis of the data related to hands on training workshops.

Q-4. Are there any hands on training workshops?

This questionnaire was an open ended question to which the following findings emerged.

Table 4.2.11: Whether hands-on Training workshops are conducted

Sr. no	Whether hands-on Training workshops are conducted	Response
1.	No	60%
2.	Yes	20%
3.	Unrelated\No response	35%

The following are the graphical representation of the data –



Figure 4.2.11: Whether hands-on Training workshops are conducted

As per the data representation given above,

- 60% of the administrators reported that no hands-on training workshops were conducted as part of the CPD programs.
- 20% of the administrators reported that hands-on training was provided during the CPD workshops.
- 20% of the administrators gave unrelated\ no response to this important question.

4.2.12. Analysis of the data related to monitoring mechanisms for the CPD programs.

Q.5. Is there any monitoring mechanism? If yes please give details.

This questionnaire was an open ended question and the following data emerged.

Table 4.2.12. : Monitoring mechanisms for CPD

Sr. No	Monitoring mechanisms for CPD	Response
1.	No	40%
2.	Yes	40%
3.	No response	20%

The following are the graphical representation of the data –

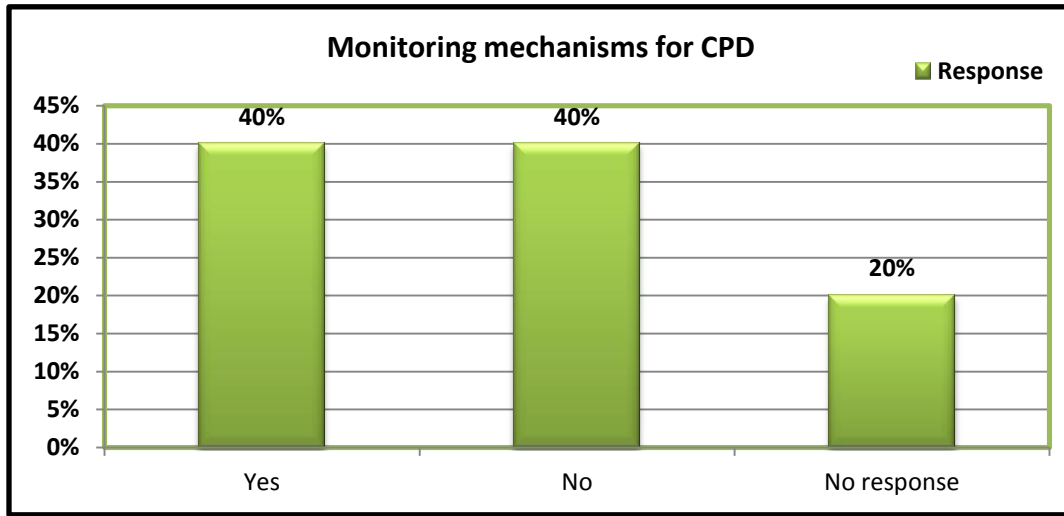


Figure 4.2.12: Monitoring mechanisms for CPD

As indicated by the above representations, the responses regarding monitoring mechanisms for CPD revealed the following –

- 40% of the administrators reported that there were monitoring mechanisms for CPD.
- 40% of the administrators shared that there were no monitoring mechanisms for CPD.
- 20% of the teachers gave no response.

4.2.13. Analysis of the data related to whether CPD is compulsory or optional?

Q6. Is continuous professional development compulsory or optional?

This questionnaire was an open ended question to which the following findings emerged.

Table 4.2.13: Whether CPD is compulsory or optional for New/Senior Teachers

Sr.no	Whether CPD is compulsory or optional for New/Senior Teachers	Response
1.	Compulsory for New Teachers	60%
2.	Compulsory for Senior Teachers	60%
3.	Optional for both	20%

The following are the graphical representation of the data –

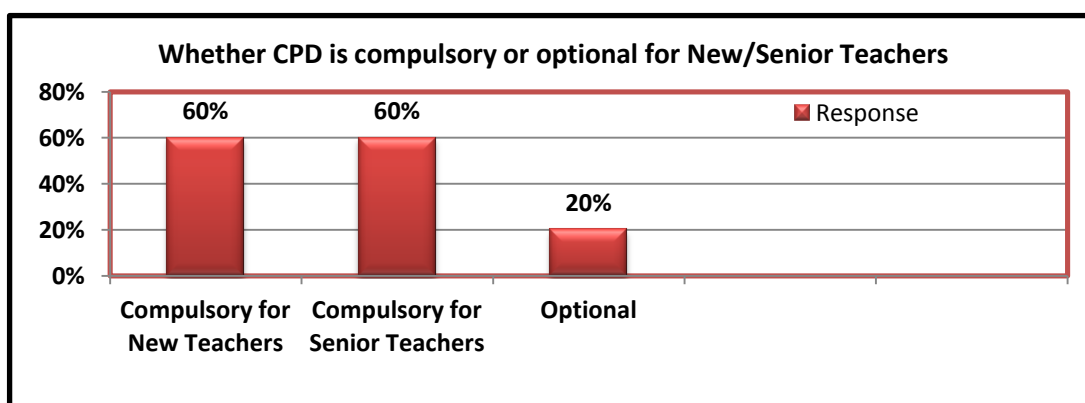


Figure 4.2.13: Whether CPD is compulsory or optional for New/Senior Teachers

As indicated by the above representations,

- 60% of the administrators said that CPD was compulsory for the New teachers.
- 60% of the administrators said that CPD was compulsory for the Senior teachers.
- 20% of the administrators said that CPD was optional for New Teachers/Senior Teachers.

4.2.14. Analysis of the data related to the follow up mechanisms done by the authorities

Q.7. How is follow up done by the authorities?

This questionnaire was open ended question and following findings emerged.

Table 4.2.14.: Status of follow up done by the authorities for CPD

Sr.no.	Status of follow up done by the authorities for CPD	Response
1	Yes	20%
2	No	20%
3	No conclusive answer	40%

As indicated by the above representations,

- 20% of the administrators responded that follow up was done.
- 20% of the administrators responded that no follow up was done.
- 40% of the administrators did not give any conclusive answer.

4.2.15. Interpretation of the analyzed data procured from the CPD Program. This Objective2 was designed to study the essential components of the ongoing continuous professional development program for secondary school teachers of Vadodara city.

This Objective was designed to find out the manner of implementation and the questions were designed accordingly. To the question on how many CPD programs were conducted in a year, there were varied responses which imply that CPD programs are being conducted round the year.

The variation in the responses may indicate that different programs are conducted for different subjects and sections as per the need of the subject/section. When asked for their views, teachers responded by even saying that the zero period could be used for this training showing their awareness and keenness to learn new things. Majority of the teachers even offered to come on vacation/weekends to enrich their learning and suggested that more hands on training be imported. These responses indicate their willingness to enrich their professional practices. However, there was a mismatch between the responses of the teachers and the administrators indicating that standardization and strict regulations would have to be enforced so that more uniformity was brought into the CPD system.

Analysis of data for Objective 3 - To co-relate the ongoing continuous professional development programs with the needs expressed by the teachers.

4.3.1. Analysis of the data related to the, ongoing continuous Professional Development of teachers and whether they have contributed to CPD.

Q.3. Do you think the ongoing continuous professional development programs have contributed to your continuing professional development? If Yes, How? If No, why not? (Please give specific examples.)

This questionnaire was an close ended question and the following findings emerged.

Table: 4.3.1. Whether CPD Programs have contributed to professional development

Sr.no	Whether CPD Programs have contributed to professional development	Response
1.	CPD No	18%
2.	CPD Yes	47%
3.	No response	35%

The above data is graphically represented as follows -

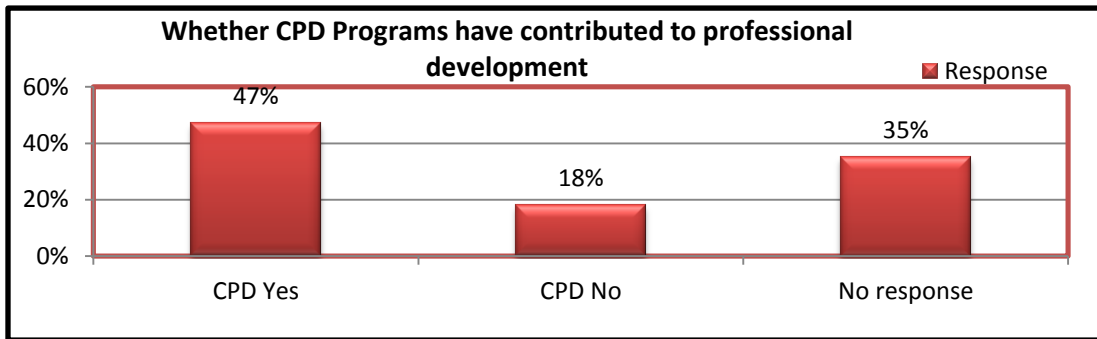


Figure 4.3.1.: Whether CPD Programs have contributed to professional development

As indicated by the above representations,

- 18% of the teachers said there were no hands on training and thus the CPD programs had not contributed significantly.
- 47% of the teachers said yes and were satisfied with the inputs received.

– 35% of the teachers gave no response.

4.3.2. Interpretation of the analyzed data procured to co-relate the ongoing continuous professional development program with the needs expressed by the teachers.

From the responses given by the teachers to the question whether the ongoing professional development programs (workshops, seminars, Training) were successful in terms of their contribution to skill and knowledge enrichment, majority of the teachers responded positively, that is, they were satisfied with the quality of the programs. Those who replied negatively gave the reason that there were not too many hands on training workshops.

Thus, the analyzed data indicated that while teachers were satisfied with the ongoing CPD programs, mere lectures would not suffice; it would have to be followed by actual hands on training for effective understanding and implementation in the classroom.

CHAPTER 5
SUMMARY, FINDINGS
AND SUGGESTIONS

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CHAPTER V

SUMMARY

5.0 INTRODUCTION.

Education plays an important role in the progress of an individual's mind and country. People are made aware of what is going on in the world and can understand these issues and take necessary measures, if they are educated. Education tames the a stray mind, nurturing its capabilities and potentialities. Webster defines *education* as the process of educating or teaching and '*Educate*' is further defined as "to develop the knowledge, skill, or character of..." Thus, from these definitions, we might assume that the purpose of education is to develop the knowledge, skill, and character of students.

Formal Education is imparted in an educational institution-a school or college. In ancient times in India, it was mostly imparted at the residence of the 'guru'. It is consciously and deliberately planned to bring about specific change in the 'learner'. School is the most important agency of formal education. Non-formal Education system is an open one with regards to various aspects of education, i.e., admissions, curriculum, place of instruction, mode of instruction and the time and duration of instruction. Open University, open learning, the correspondence courses and distance education are the more modern forms of non-formal education.

5.1. ROLE OF TEACHER IN GIVING QUALITY EDUCATION.

Teachers are considered to be the prime agents of social change and reconstruction, thereby leading to the establishment of a new social order. Teaching is the systematic shaping of a student's behavior and the teacher acts as a manager, controller, predictor and director of learning. The role of the teacher is to determine desired behavior and to design the necessary conditions for fulfillment of the same.

The teacher is a dynamic force of the education system; the education of teachers is an integral part of the educational system of any country, which is also intractably linked with her social system.

The Education Commission (1964-66), the first Commission in independent India which examined all the facets of education at all levels, recommended that the quality of education will depend on the competence and character of teachers. **National Education Policy of India (1986)** also has observed, "The country has reached a stage in its economic and technical development when a major effort must be made to derive the maximum benefit from the assets already created and to ensure that the fruits of change reach all sections. Education is the highway to that goal of all round development, both material and spiritual. The status of the teacher reflects the socio-cultural ethos of the society".

In acknowledgement of this important role of teachers in imparting quality education, the number of teachers and teacher education institutions in India has grown during the last few decades. The teacher education system covers more than 800 secondary teacher education Institutions. A chain of teacher education institutions like District Institutes of Education (500), Colleges of teacher Education (87), Institutes of Advanced Studies in Education (38) and State Councils of Educational Research and Training (SCERT) provide the much needed support to uphold the quality of school education in the country. There are around 35,000 teacher educators working in these institutions. The teacher work force is about 5 million 35,000 teacher educators, among which nearly three million are employed. The percentage of trained teachers is assumed to be 90 percent, though in some of the regions, there are significant numbers of untrained teachers raising doubts regarding the quality of education imparted.

5.2. NEW TRENDS IN EDUCATION.

In the 21st century, education has become a competitive human enterprise. Like all other investments, people spend money, effort and time in education and expect good returns. The outcomes calculated in terms of economic, social and at times political gains was what motivated people to invest heavily in education.

In the current "information age", a new economy has emerged in which knowledge is traded as a marketable commodity. In this global knowledge economy, it is imperative that school students be equipped to undertake appropriate access to this storehouse of

data and use it effectively to fulfill their information needs. The unprecedented volume of information that is now available has generated a need for complex analytical skills to appropriately access this information in an efficient, meaningful way. The efficient handling of this vast information requires us to expand the scope of functional literacy (reading, writing and arithmetic) to include the twentieth century skills as well. To achieve this goal in a meaningful way, educational institutions themselves must restructure their frameworks to form learning communities rather than institutions whose core function is the dispensing of information. "Globalization" has produced an imperative for continual reappraisal of practices in order to maintain a competitive edge. In educational terms, this may be interpreted as the need to update practices in keeping with the findings of international research, and to continually conform to changing national and international trends.

Responding to these changes is dependent on the quality of teachers. If schools are to achieve their educational aims, there must be effective systems to select, prepare, deploy, manage and support teachers and help them develop their professional skills over a working lifetime. Teacher professional developments are the tools that policy makers use to convey broad visions, disseminate critical information, and provide guidance to teachers. According to Olivia and Pawlas(1997), professional developments programs are activities planned and carried out to promote the personal and professional growth of teachers.

5.3. CONTINUOUS PROFESSIONAL DEVELOPMENT FOR ENHANCING PROFESSIONAL COMPETENCE.

The term Continuing Professional Development (CPD) as used in this Study refers to all kinds of learning opportunities that help teachers to strengthen their professional practices, attain higher professional competence and expand their understanding of self, role, context, career and sharing of activities taking place within and across schools. It refers to any experience that teachers engage in to widen their knowledge, skills and understanding of their work in line with goals, values of the schools and the interests and needs of teachers (Duke and Stiggins, 1990;Beerens, 2000; Norton, 2008).

There has been a strong tradition of teacher training that emphasizes obtaining the required

pedagogical skills, instructional technology, and practical experiences for teachers (Hallinan and Khmelkov, 2001) which have emerged as a result of the new trends. Due to this, Educators and policy makers have shifted their attention from improving schools to improving teaching. This has also been indicated by the growing body of educational research that highlighted the critical role of the teacher in the learning process. Greene (1995) stated if that, teachers were expected to be the agents for educational reform; they need to be empowered to think about what they were doing and to comprehend and design instructional practices to achieve the 'new' educational objectives.

The traditional models of teacher CPD may be inadequate to satisfy the expectations and challenges to teacher preparation, as some programs lacked the necessary coordination with the existing curriculum and the realities of the classroom. Effective professional development of teachers begins with an understanding of teachers' needs and their work environments (Gaibleand Burns, 2005). In fact, teachers need continuous exposure and training to improve their skills.

Although majority of teachers consider themselves to be knowledgeable and confident, at the same time, due to the new expectations and challenges, they have a perception of a gap between their current knowledge and what they need to know to become an expert teacher. If in-service teacher training programs are established with the involvement of participants, they would meet participants' needs, level of awareness, mastery, and concerns.

Many countries in the world are confronted with formidable challenge of how to expand the size of their teaching force while improving professional quality. Good CPD programs were expected to fill this gap. Again, the issue here would be that even with systems with quality pre-service training packages, the reality of the schools was that teachers need to continually refresh their skills from time to time to meet the requirements of changing times. However, policy on CPD for secondary school teachers has been fragmented, incomplete and more often than not simply non-existent. The development of coherent, medium term, financially sustainable teacher policy, tailored to meet the demand for new

and existing teachers, has been widely neglected, despite internationally agreed goals in education.

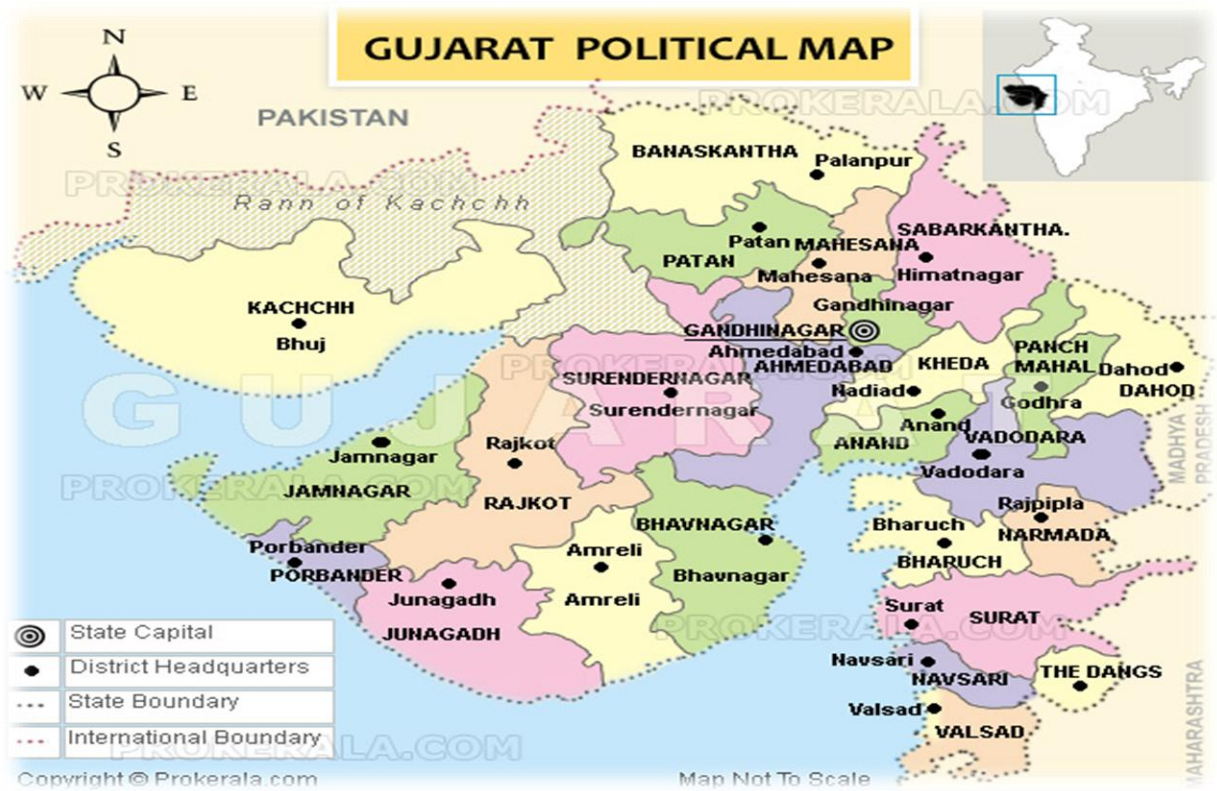
Teachers are taking to different approaches in education in order to keep pace with the needs of twenty-first century learning. There have been lots of changes in the education system

Worldwide. The changes that took place in schools have changed the role of teachers too. They are integrating technology into instruction by encouraging students to use computers for research or work with adaptive learning technology to grasp new concepts. Clearly, technology isn't just helping students evolve, it's also changing the role of teachers in the classroom. 21st century teachers have mastered certain skills that educators in the past never even had to consider.

Back in India, our concern for both equity and quality has compelled us to adopt practices both for inclusion of masses as well provision of education of good quality. Several national initiatives have been introduced which emphasize the need for continuous teacher enrichment programs to cater to 'quality education'.

Gujarat has been among the pioneers in quality education. One has to concede to the point that education has played a key role in Gujarat's success in every field in the past decade. The education sector in Gujarat has seen a sea change with the literacy rate increasing from 69.14 % in 2001 to 79.31% in 2011. **The schemes initiated by the education department have truly led to a complete turnaround in the way the importance of education is perceived in the State.**

5.4. THE STATE OF GUJARAT: SCENIARIO OF EDUCATION.



--Source --<http://www.probharat.com/india/states/maps/gujarat-political-map.php>

The State of Gujarat was established on 1st May 1960. It is the westernmost State in India, also locally known as ‘Jewel of the West’. Gujarat’s capital is Gandhinagar and its largest city is Ahmedabad. It is home to the Gujarati speaking people of India.

As per the 2011 India Census Report, the total population of the State of Gujarat was 60,383,628; out of which the rural population comprised of 57.4% and the urban population comprised of 42.6%. The State has 33 districts. The Literacy rate of the State according to the 2011 census was 80.18%, reflecting a considerable increase from the rate reported in the 2001 census, i.e. 69.14%.

The schools of Gujarat are affiliated to the Gujarat Secondary and Higher Secondary Education Board (GSHSEB). Many of the private schools in Gujarat are also affiliated to the Central Board of Secondary Education (CBSE) and Council for the Indian School Certificate Examinations (CISCE) as also the IB Board. Gujarat has 13 State Universities and 4 Agricultural Universities.

The Gujarat Council of Educational Research and Training (GCERT) is a pivotal institution at the State level for the enhancement of qualitative education at primary and secondary schools. It was "State Institute of Education" before 1988. It was later upgraded as a SCERT in 1988, under the resolution of State Education Department. The upgraded SCERT, now named as Gujarat Council of Educational Research and Training (GCERT) is a fully structured State level academic institution and is controlled and guided by a Governing body as well as an Executive Committee.

GCERT was shifted from Ahmedabad to Gandhinagar, the State Capital in 1997. Under the umbrella of GCERT, there are now 26 DIETs (District Institute of Education and Training) functional in 25 Districts. These DIETs impart pre-service and in-service training to the primary teachers of the State. There are seven branches namely Pre-service Teacher Education (PSTE), Work Experience (WE), District Resource Unit (DRU), Curriculum Material Development and Evaluation (CMDE), Educational Technology (ET), In-service Field interaction Innovation and Co-ordination (IFIC) and Planning and Management PM functioning in these DIETs. These DIETs are well equipped with qualified and experienced academic and administrative staff.

The GCERT works as a prominent institution for implementing the policies, programs and researches in the State. It provides resource support and guidance to all the teacher education institutions and works in collaboration with the NGOs, Subject experts, Educationists and pioneers in bringing about reforms in the remote and underserved areas of the State. It disseminates latest information with regard to modern trends and approaches in primary education, pre-service and in-service education, pedagogical advances in the country, wide use of distance education as a mode of training, organizing community awareness programs and updation of curriculum of primary education in view of new and emerging concerns. Even the State Ministry of Education banks upon its expertise.

The Council is committed to bringing about qualitative improvement in school education particularly Elementary Education, development of curriculum syllabi, instructional material and evaluation strategies to explore suitable solutions to educational challenges with the changing time. The GCERT has scaled a unique journey with experimentation from chalk to satellite, scaling an arduous terrain in the field of educational reforms.

5.5. THE EDUCATIONAL SCENARIO IN VADODARA.

Vadodara, also known as Baroda, is the third largest city in the Indian State of Gujarat after Ahmedabad and Surat. It is the administrative headquarters of Vadodara district. Located on the banks of the Vishwamitriver, it is also known as the 'SanskariNagari', i.e. 'Cultured City'. Vadodara is one of India's most cosmopolitan cities. It is a great and fitting memorial to its late ruler, SayajiRaoGaekwadIII (1875-1939 AD).

Modern Baroda owes its beauty, its educational institutions and its masterpieces of architecture to the insight and vision of this great ruler. It was the vision and broadmindedness of the Gaekwads, the subsequent industrialization, the proliferation of academic activities and a strategically important geographical location, that Baroda has become a hub for a wide variety of people from all over India and also from all over the world.

Vadodara is synonymous with education. The patronage of education started with Maharaja SayajiRao and the city has built further on the academic infrastructure established by him. The present educational foundation rests on over 20 public schools and over 100 private schools. Towering benevolently over all is the Maharaja SayajiRao University (M.S.U.), the jewel in the crown of Baroda. It is the largest university in Gujarat, famous for various faculties and departments, including the Fine Arts, Performing Arts, Technology, Management, Psychology, Social Work, Law and Medicine streams. This university has been ranked amongst the top ten universities by 'India Today' and 'Hindustan Times' in their surveys.

5.6. SCHOOL EDUCATION IN VADODARA CITY.

Vadodara city has been an important cultural and educational part of Gujarat state while also being a pioneer in the field of Primary Education. In Vadodara city there are variations in the management of education. There are schools which are Private Aided, Private Unaided, Municipal School Board, Central School and State Board Schools.

The Vadodara Municipal Corporation schools (VMC) are totally financed by the State Government and are governed by their rules and regulations. The State Government

makes provision for all the requirements i.e. physical or financial. These schools are under the Municipal School Board which was formed on the 9th of November, 1953 with the goal of providing Primary education to the children in the age group of 6-14 year, in the city of Vadodara.

As per the information procured from the District Education Office (Jilla Shikshan Adhikari Kacheri), Vadodara (2012-13); there are 271 schools in the city of Vadodara, with English, Gujarati, Hindi, Marathi and Sindhi as medium of instruction; catering to the educational needs of the local population. Out of which around 109 schools are Secondary Education Schools and bifurcating it further, around 65 English Medium Schools are identified to provide education till the secondary classes.

For the smooth administration of these schools, the entire city is broadly classified into 4 zones and 28 wards depending on their localities; with the schools distributed across these wards.

Thus, Education holds a significant position in the design of Vadodara and its educational institutions are looked upon to shoulder the responsibility of educating the ambitious and progressive crowd.

The conceptual framework thus created attempts to furnish a relevant backdrop for the present Study. It provides the base to establish the need for this study, which is elaborated in the following section.

5.7. NEED FOR THE STUDY.

The need for Continuous Professional Development has been accepted universally for the up gradation and enrichment of teaching practices. “Professional development consists of all natural learning experiences and those conscious and planned activities which are intended to be of direct or indirect benefit to the individual teacher or school and which contribute to the quality of education”.

Teaching is not limited to textbooks, it prepares students for life and keeps them engaged and interested in a world that is rapidly changing. Teachers are expected to come out of their chalk and talk practices and face this immense and imminent challenge. Because, if

they lack the required training in education and if they cannot give their heart to their profession, eventually the system will fail.

All our policy documents indicate the necessity of teachers being involved in CPD in order to improve the quality of education at the classroom level. Teachers must keep abreast of new knowledge and practices and then implement the same in their classroom teaching. Today, the country is in need of intelligent (not clever) and imaginative (not plagiarist) individuals, who are equipped with thinking skills. Education is the only apostle we can look up to, which can take up the challenge of creating such stalwarts. In fact, various Educational Commissions and Committees have been emphasizing the issue of bringing in quality in Indian education. The major step envisaged to achieve this goal is the introduction of CPD,

Despite all these claims, there is a mismatch prevalent between the teachers that are being produced by the institutions and what the policies indicate as the priority areas. Also, although there are efforts for continuous professional development, there is neither hardly any compulsion for certification nor any regular monitoring mechanism to assess its implementation or effectiveness.

Thus, the present Study is being conducted to unravel the status of CPD in the city of Vadodara in Gujarat. The assessment would involve a study whether the objectives of CPD outlined to satisfy the larger goals of the nation are being addressed and whether the path sketched out for CPD implementation is being followed.

The investigator aspires to find out, whether CPD has earned a better place in the minds of the teachers? Is there an increase in their awareness levels with respect to its various components? Are they actually using the mechanisms of CPD to inculcate higher-order thinking skills in students, and in doing so, what difficulties are they facing? These are some questions, the investigator sought to find answers to, through this Study.

Thus, through this Study, the investigator would be able to depict the present scenario of an important and much needed educational initiative – Continuous Professional Development of teachers.

5.8. REVIEW OF RELATED LITERATURE.

By undertaking a literature review, the researcher is able to critically summarise the current knowledge in the area under investigation, identifying any strengths and weaknesses in previous work, thereby helping to identify the same in the present research and thus eliminate the potential weaknesses, whilst bringing to the fore the potential strengths. In addition, a good and full literature search will provide the context within which to place the study.

Thus, a comprehensive review of related literature is important because it provides an up-to-date understanding of the subject and its significance; identifies the methods used in previous research on the topic and provides comparisons for one's own research findings.

– NATIONAL STUDIES.

Chutani and Rattan (1997) conducted a study, on identification of training needs of secondary school teachers in English'. Haryana: DPEP Cell, SCERT, Gurgaon, Sunwani (1997) conducted the study of "Innovation in-service teachers training, practices of Aggregate voluntary organization of Orissa. Orissa: Regional Institute of Education, Bhubaneswar". Lakdawala (1977) conducted the study of "Professional Growth of women Teacher of Secondary Schools of Greater Bombay". Sharma (1955) conducted the study of "Growth and Development of In-service education for secondary school Teachers in the state of Bihar". Gupta (1979) conducted the study of the, "In-service Teaching Needs of the secondary Teacher educators", Dept. of Teacher Educations NCERT, (1979).

– INTERNATIONAL STUDIES.

Stake and Stufflebeum (1983) conducted the study titled "Evaluating the Impact of Continuing Professional Development (CPD)". Fennema (1996) Franke (1998) Honjnacki and Grover (1992); Zohar (1999) conducted the study of the, "Impact of thinking skills programs linked changes in teachers' classroom practice with teachers' engagement in inquiry-oriented CPD (Baum field et al, 2005). Zeichner (1999) conducted the study of the, "Emergence of learning in communities of practice evolving out of multiple research traditions". Hustler (2003) conducted the study on "Teachers' Perceptions of Continuing

Professional Development. FeimanNemer(2001) conducted the study “Student teaching program designed to foster critical reflection and critical pedagogy. Garet(2005, 2001) conducted the study ‘Long-Term Impact of On-Demand Professional Development on Student Performance: A Longitudinal Multi-State Study, Bolam and Weindling (2006) conducted the study “Benefits, status and effectiveness of Continuous Professional Development for teachers in England”. Cordingley (2007) conducted the study, “A systematic review of how teachers can be supported in their CPD with the help of specialist expertise”.

5.9. IMPLICATIONS FOR THE PRESENT STUDY.

The reviewed Studies demonstrated in this chapter are few among the many studies, which provide a proper base to substantiate the present Study. Extracting the aspects relevant for the present Study from each of the reviewed summaries helped the investigator to frame the implications for the present Study. These implications are presented section-wise as per the broad categories framed in this chapter.

5.10. IMPLICATION OF REVIEW OF RELATED LITERATURE.

The researcher has undertaken a Study titled, ‘A study of the Continuous Professional Development Programs conducted for the Secondary School Teachers of GSEB schools, Vadodara city’.

From above studies it becomes evident that the implementation of new training practices focusing on CPD was introduced right from secondary level. Though the State has made all-out efforts to implement CPD in its true spirit, the questions that remain unanswered are that whether CPD has been actually and effectively implemented in all classes, what problems are being faced by teachers while implementing. As a result, teachers are beginning to take a different approach to education in order to accommodate the needs of 21st century students.

While teachers are always needed to communicate with students since the time of Gurukul, the way in which they do so, has evolved over the last decade. Rather than standing in front of a classroom and talking about important concepts, they are now

encouraging dialogue, allowing students to question what they are learning and to think critically. New approach to communication stimulates more direct interaction with students and a better understanding the learning. Teachers are expected to help students develop the ability to look at problems from different angles, rather than simply repeating and memorizing the “right answer”. Teachers can help students learn to think critically by presenting them with open problems and encouraging them to come up with creative solutions.

5.11. RATIONALE FOR THE PRESENT STUDY.

“The importance of competent teachers to the nation’s school system cannot be over emphasized...It is common knowledge that the academic and professional standards of teachers constitute a critical component of the essential learning conditions for achieving the educational goals. The length of academic preparation, the level and quality of subject matter knowledge, the repertoire of pedagogical skills the teachers possess to meet the needs of diverse learning situations...sensitivity to contemporary issues...critically influence...pupil learning and the larger processes of social transformation.” (NCFTE, 2010; p2)

The development of a nation relies on the knowledge acquired through education and its practical applications. Considering any efficient education system or educator, effective instructional strategies in which the contents were effectively delivered are the main pillars of quality education system. Quality education is a pre-requisite for national, regional and global development.

For ‘quality education’, we need quality teachers who are committed to teaching and equipped with the necessary knowledge, skills and competencies for effective teaching. Quality teachers and teaching alone can be the strong agents of social re-engineering and national reconstruction.

Professional up gradation via In-service teacher education received support through central government funding for the establishment of Institutes in Education, District Institutes of Education and Training (DIETs) in each district. These institutions, together with SCERTs in states, provided space for conducting in-service training for teachers.

Resource Centers were established across the country, with the explicit mandate to provide in-service training to secondary school teachers in learner-centered and school based support to teachers.

Sarva Siksha Abhiyan(SSA, 2001) has also placed emphasis on continuous in-service teacher education, requiring each teacher to receive 20 days of training every year. All teachers are members of associations which have from time to time taken up academic activities and organized conventions and meetings to discuss professionally important developments.

NGO initiatives in several parts of the country have developed and implemented models of teacher professional development and support in ways that directly impact the classroom practices. Degrees of success in terms of motivating teachers to alter and develop their classroom practice in ways that improve students' learning and provide educationally rich experiences to them. Evidence of 'effectiveness' of training programs and support activities, especially within the government system, is quite evident.

A significantly large number of teachers implemented new techniques in the classroom teaching, audio-visual aids, individualized instruction, and group discussion as can be seen from the studies quoted earlier.

5.12. STATEMENT OF THE PROBLEM

The Study is titled as, "A Study of the Continuous Professional Development Programs conducted for the Secondary School Teachers of GSEB schools of Vadodara City".

5.13. RESEARCH QUESTION

1. How will teachers improve student learning and achievement?
2. What expertise, knowledge, and tools do we need to rethink learning in school?
3. What kind of professional development programs will impact teacher quality?
4. Are our efforts directed in this direction?

5.14. OBJECTIVES OF THE STUDY

1. To identify the professional needs of secondary school teachers of GSEB Schools of Vadodara City.
2. To study the essential components of the ongoing CPD Programs for Secondary school teachers of Vadodara city.
3. To co-relate the ongoing CPD programs with the needs expressed by the teachers.

5.15. METHODOLOGY

The Survey method had been used to carry out the present Study.

5.16. DELIMITATION OF THE STUDY

The present Study is delimited to the teachers in the secondary sections of EnglishMedium GSEB Schools of Vadodara city.

5.17. POPULATION

All the administrators and teachers who are in secondary schools, GSEB of Vadodara, will be the population of the study.

5.18. SAMPLE FOR THE STUDY

30% schools and all the teachers in those schools were taken up as sample for the study. Total 21 schools were taken as a sample and 118 teachers of secondary schools were taken as a sample. Administrators too shared their valuable experiences with respect to CPD.

The stratified sampling technique was used to select the samples to address the first three objectives of the Present Study. There are around 109 secondary schools in the city of Vadodara, which functions under the Gujarat State Education Board. Out of these, 65 schools were identified as English medium schools, as per the list procured from the DEO, Vadodara. The city of Vadodara is divided into four zones termed (SVS). They are SVS-5, SVS-6, SVS-7 and SVS-8. The investigator identified the number of English medium schools from each zone (SVS), which is listed below.

- Number of English medium schools in SVS-5 = 10
- Number of English medium schools in SVS-6 = 26
- Number of English medium schools in SVS-7 = 16
- Number of English medium schools in SVS-8 = 13

Thus, total number of English medium schools in Vadodara city = 65

In order to arrive to the final sample size, the investigator selected 30% of the schools from each of the zones (SVS), which are shown below.

- 30% of English medium schools from SVS-5 = 3
- 30% of English medium schools from SVS-6 = 8
- 30% of English medium schools from SVS-7 = 5
- 30% of English medium schools from SVS-8 = 4

Thus, 30% of English medium schools in Vadodara city = 21 schools

The investigator visited all these selected schools for data collection, and ultimately obtained data from total 21 schools. All the teachers teaching in the secondary sections of the schools, which added up to 118, provided data for the present Study. The process of sample selection is diagrammatically shown below.

The process of sample selection is diagrammatically shown below.

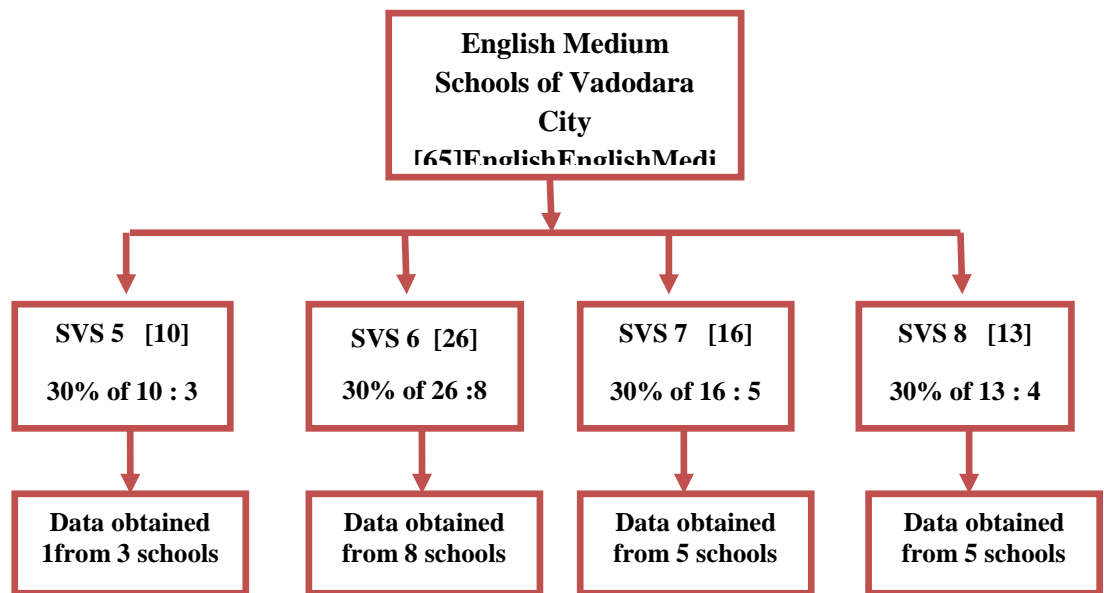


Figure 5.18.: Process of Sample Selection

In order to collect data for the second objective, the investigator selected 5 government officials/administrators responsible for the training and monitoring of teachers teaching in GSEB schools in Vadodara. The selection of the government officials/administrators was done on the basis of their willingness to participate and their availability.

5.19. TOOLS FOR DATA COLLECTION

Questionnaire had been used as tools for data collection in the present Study.

Preparation of the tool

Tools adopted for the Present Study were questionnaire.

The questionnaire comprised close ended and open ended questions to probe as and when it was thought necessary. The open-ended questions were framed in order to seek additional information wherever necessary.

In the process of preparation of tools, major concentration was paid to the utility of the tool with regard to various objectives of the Study. The tool took final shape after passing through different stages of formulation.

Validation of the Tool

For validation, the prepared tool was presented to five experts; two experts and three experienced teachers, in GSEB schools.

Prior permissions was taken from the experts and the tool, attached with a confirmation letter specifying the title and the objectives of the Study, were presented to them. The Experts were requested to give their opinion and suggestions regarding the language of the tool and the content validity of the tool.

Various comments were received from these Experts, to substantiate the Study. Oral as well as written comments were incorporated to modify the tool before proceeding ahead with the data collection procedure.

Data Collection

The investigator personally visited the specified number of secondary schools to collect the data from GSEB Schools of Vadodara.

This section describes the field work carried out for data collection. Data was collected in four different stages as shown below -

Stage 1: The data collection comprised of personal visits to the selected schools. It included gaining access to the Principal, attaining permission for tool administration (copy of permission letter is enclosed) and handing over the required number of questionnaires to be filled up by the teachers teaching in the secondary sections of the respective schools.

Stage 2: The actual data collection took several visits to the sample schools to get back the duly filled questionnaires from the teachers. It also involved a few telephonic conversations to recheck and authenticate the data.

Stage 3: This phase involved, finding the correct government officials who were involved in the operational aspects of CPD in the schools of Vadodara and could provide relevant data for the Study. Appointments were then fixed with these officials.

Stage 4: It took three visits to the Education Office of Vadodara to get proper responses from the officials.

This sums up the efforts made by the investigator to get authentic data for the Study.

5.20. TIME FRAME

Approximately two months were required to visit the schools, seek permission, and distribute the questionnaires and collecting them back.

5.21 . DATA ANALYSIS

The data was collected from administrators and teachers by giving them questionnaire.

It was conducted in two steps: first of all taking the permission from the school authority for conduction of this survey in their school.

Later on researcher had gone to the school personally and gave the respective tools to teachers.

Researcher also gave the questionnaires to the administrators.

The data collected was organized and analyzed by researcher using appropriate techniques as follows:

The data collected through questionnaires from teachers of the secondary schools of Vadodara city was analyzed using frequency, percentage analysis and content analysis.

DATA ANALYSIS

Sr. No.	Objectives	Sources of Data	Nature Of Data	Tool	Data Analysis
1.	To identify the professional needs of secondary school teachers of GSEB Schools, Vadodara city.	Teachers in secondary schools of GSEB	Qualitative and Quantitative	Questionnaire	Frequency and % analysis Content Analysis
2.	To study the essential components of the ongoing CPD Program for Secondary school teachers of Vadodara city.	Teachers in secondary schools of GSEB, Administrators /Officials	Qualitative and Quantitative	Questionnaire	Frequency and % analysis Content Analysis
3.	To co-relate the ongoing CPD program with the needs expressed by the teachers.	'Trained' teachers in secondary School	Qualitative	Questionnaire	Frequency and % analysis Content Analysis

5.22.MAJOR FINDINGS OF THE STUDY.

The major findings were as follows:-

- Majority of the secondary school teachers were in agreement that continuous professional development was essential to be aware of current practices and trends in education
- The Study indicated that according to the secondary school teachers, the important areas that CPD would cover are subject matter enrichment, learning of innovative instructional methodologies, learning the judicious use of technology, and effective dealing of students.
- The Study indicated that majority of the teachers, (33%) preferred lectures by Experts but there was a significantly large number that wanted such training as self-instructional modules (19%) and also those teachers who preferred to do the instruction via technology (24%).

- A large number of teachers suggested that hands- on training would be effective over mere lectures (19%).
- The Study also indicated that a large number of teachers (31%) favored weekly training and also suggested zero periods so that implementation could be done simultaneously in the teaching classes.
- There was however, for each question a number of teachers who did not respond. Thus, the Study indicated that there were areas in CPD planning and implementation that needed attention.

5.23. DISCUSSION.

Focusing on teacher education over the professional life-cycle indicates that even initial teacher education of the highest quality cannot provide teachers with the knowledge and skills necessary for a lifetime of teaching. India has a four-phase model comprising initial teacher education, induction (year one of teaching), early professional development (years two and three). Conferences and seminars, formal courses, problem solving in the workplace, self-directed study are critical to the success of CPD programs. Teleconference system and instructional videos, Websites also form the basis of the professional development programs.

From the Study it emerged that majority of the teachers uphold the need for professional updation stating that teachers must be aware of the changing trends in their profession to be effective.

Majority of the teachers felt that CPD was necessary for skill updation, getting to know innovative teaching strategies/ methodologies as well as the judicious use of technology in the instructional process. They preferred weekend workshops showing their interest in regular CPD programs. However, in each question there were also a significantly large number of teachers who did not respond indicating that there was resistance to change. This could be a barrier to the successful implementation of CPD.

To the question whether the ongoing professional development programs (workshops, seminars, Training) were successful in terms of their contribution to skill and knowledge enrichment, majority of the teachers responded positively, that is, they were satisfied with

the quality of the programs. Those who replied negatively gave the reason that there were not too many hands on training workshops.

Thus, the Study indicated that while teachers were satisfied with the ongoing CPD programs, mere lectures would not suffice; it would have to be followed by actual hands on training for effective understanding and implementation in the classroom. The findings were similar to previous research studies and indicate that CPD must be taken up seriously and implemented and monitored periodically.

5.23. SUGGESTIONS FOR FURTHER STUDY.

The investigator has carried out the Study with the limited time and samples. In future, studies should be conducted with large samples and more tools that can enhance the researcher. It can be done in qualitative and quantitative way also. With regards to this study, the following future studies can be suggested as:

- Study can be taken for the primary and higher secondary teachers, since these academic requirements are for more complex.
- Studies can be conducted on how technology can be effectively used for continuous professional development.
- Studies can be conducted to test the effectiveness of these programs in terms of student academic achievement.

5.24. CONCLUSIONS.

Teacher professional enrichment should be made compulsory so that teachers keep pace with changing times and educational objectives. This is the only way to keep our educational systems updated.

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APPENDICES

LIST OF EXPERTS FOR THE VALIDATION OF THE TOOLS

1. Dr. P. V. Xavier
Principal,
School of Science and Education,
Narachana University
Vadodara

2. Dr. Vandana Talegaonkar,
Assistant Professor,
School of Science and Education,
Navrachana University
Vadodara

3. Mrs. Elizabeth Mathew
Assistant Teacher
Higher secondary section
Don Boscob school
Vadodara

4. Ms. Vaibhavi Pandya
Designation (Economics)
Secondary section
Vibgyor High International school
Vadodara

5. Mr. Prakash Patelia
Assistant Teacher
Secondary section
Don Boscob school
Vadodara



Navrachana University
VasnaBhayli, Road
Vadodara.

To,

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Subject - Request to validate tools

Respected Sir / Madam,

I, Ms Pratima R Patel, am an M.Ed. student at the School of Science and Education, Navrachana University, Vadodara.

Dissertation is a compulsory part of the M.Ed. Curriculum. My research topic is, "*A study of the continuous professional development programme conducted for the secondary school teachers of GSEB schools in Vadodara city*".

I have developed the tools as per the objectives of the Study and request you to validate these tools. I have attached a one page summary stating the Title of the Study, Objectives and the sample for the Study.

I look forward to your feedback to enrich my Study.

Thanking you,

Yours Sincerely,

Ms.Pratima R Patel,

M.Ed. Program, School of Science and Education,

Navrachana University,

Vadodara 391410.

**A Study of the Continuous Professional Development
Program Conducted for the Secondary School Teachers
of GSEB Schools of Vadodara City**

**Questionnaire for Objective 1 - To identify the professional needs of Secondary school teachers of
GSEB schools of Vadodara city**

1. Why do you feel the need for professional training/updation?

**2. What is the most important consideration for you regarding Continuous Professional
Development?**

(Please tick the most suitable option)

- **Subject matter enrichment**
- **Learning Innovative instructional methods**
- **Learning judicious use of Technology for teaching learning**

3. What specific areas other than the above are of interest to you ?

4. What according to you is the preferred method of training? (Please tick the most suitable option).

- **Self-instructional modules**
- **Self-instruction online**
- **Lectures by Experts**
- **Hands-on courses**
- **Weekend workshops**

5. What according to you should be the frequency for maximum effectiveness?

**A Study of the Continuous Professional Development
Program Conducted for the Secondary School Teachers
of GSEB Schools of Vadodara City**

Questionnaire for Objective 2 - To study the essential components of the ongoing continuous professional development programs for secondary school teachers of Vadodara city.

1. How many Continuous Professional Development programs are conducted in a year?

2. What is the duration of these programs?

3. How are these Programs conducted?

- School wise?
- District wise?
- During academic year?
- During weekends/vacation periods?
- Conducted for full day?
- In large groups (more than 100 teachers)

4. Are there any hands on training workshops?

5. Is there any monitoring mechanism? If yes please give details.

6. Is continuous professional development compulsory or optional?

- New Teachers
- Senior Teachers

7. How is follow up done by the authorities?

**A Study of the Continuous Professional Development
Program Conducted for the Secondary School Teachers
of GSEB Schools of Vadodara City**

Questionnaire for Objective 3 - To co-relate the ongoing continuous professional development program with the needs expressed by the teachers.

- 1. Do you think the ongoing continuous professional development programmes have contributed to your continuing professional development?**

If Yes, How.? (Please give specific examples.)

If No, why not ? (Please give specific examples.)

**Study of the Continuous Professional Development
Program Conducted for the Secondary School Teachers
of GSEB Schools in Vadodara City**

Semi structured interview schedule for Principals:

This is the part of an M.Ed dissertation (research) for knowing the Continuous Professional Development Program Conducted for the Secondary School Teachers of GSEB Schools in Vadodara City. This semi structured interview schedule is prepared with the purpose of understanding the Continuous Professional Development Program Conducted for the Secondary School Teachers of GSEB Schools in Vadodara City. This work is purely intended for the purpose of research only.

Questionnaire for Objective 2 - To study the essential components of the ongoing continuous professional development programs for secondary school teachers of Vadodara city.

8. How many Continuous Professional Development programs are conducted in a year?

9. What is the duration of these programs?

10. How are these Programs conducted?

- School wise?
- District wise?
- During academic year?
- During weekends/vacation periods?
- Conducted for full day?
- In large groups (more than 100 teachers) / in small groups?

11. Are there any hands on training workshops?

12. Is there any monitoring mechanism? If yes please give details.

13. Is continuous professional development compulsory or optional?

- **New Teachers**
- **Senior Teachers**

14. How is follow up done by the authorities?
