

**A STUDY OF THE POLICIES AND PROGRAMMES FOR THE
PROFESSIONAL DEVELOPMENT OF SCHOOL TEACHERS IN
THE UNITED STATES OF AMERICA**

A Thesis submitted to
The Maharaja Sayajirao University of Baroda
for the Award of Doctor of Philosophy in Education

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VADODARA**

MAY2013

DECLARATION

I declare that the thesis entitled “**A STUDY OF THE POLICIES AND PROGRAMMES FOR THE PROFESSIONAL DEVELOPMENT OF SCHOOL TEACHERS IN THE UNITED STATES OF AMERICA**” has been prepared by me under the guidance of Dr. K. Pushpanadham, Associate Professor, Department of Educational Administration, Faculty of Education and Psychology, The Maharaja Sayajirao University of Baroda, Vadodara. No part of this thesis has formed the basis for the award of any degree or fellowship previously.

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CERTIFICATE

This is to certify that **MrsMeera Subramanian** has completed her doctoral study titled

“A STUDY OF THE POLICIES AND PROGRAMMES FOR THE PROFESSIONAL DEVELOPMENT OF SCHOOL TEACHERS IN THE UNITED STATES OF AMERICA” under my guidance. This is her original work submitted to The Maharaja Sayajirao University of Baroda, Vadodara for the Award of Degree of Doctor of Philosophy in Education. The results embodied in the same have not been submitted elsewhere for the award of any degree or diploma. It is further stated that the doctoral research was carried by fulfilling the requisite attendance criteria as per O. Ph.D.:3(i) of The Maharaja Sayajirao University of Baroda, Vadodara.

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LIST OF ABBREVIATIONS

S. .NO	ACRONYM	FULL FORM
1.	AYP	Adequate Yearly Progress
2.	ALEC	American Legislative Exchange Council
3.	CE	Certificate of eligibility
4.	CEAS	Certificate o Eligibility with Advance Standing
5.	ED	United States Department of Education
6.	HOUSE	High Objective Uniform State Evaluation
7.	IHE	Institutions of Higher Education
8.	LEA	Local educational Agency
9.	MDESE, DESE	Missouri Department of Elementary and Secondary Education
10.	NAEP	National Assessment Educational Progress
11.	NCERT	National Centre of Educational research and Training
12.	NCES	National Centre for Educational Statistics
13.	NCF	National Curriculum Framework
14.	NCLB	No child Left Behind
15.	NCLBA	No child Left Behind Act
16.	NJDOE	New Jersey Department of Education
17.	NSDC	National Staff Development Council
18.	PD	Professional Development
19.	PDC	Professional Development Committees
20.	PTSB	Professional Teaching Standards Board
21.	RPDC	Regional Professional Development Centre
22.	SASS	Schools and Staffing Survey
23.	SEA	State Educational Agency
24.	STAR PRGRAM	Standardized Testing and Reporting Program
25.	USA, US	United States of America

CHAPTER I
INTRODUCTION

1.0 Introduction

The advent of Globalization has connected the world at so many different levels. Hence, there are ensuing changes with respect to approaches, attitudes and changed mind-sets to compete at the international level. This leads to a concerted search for an elevated quality of life. The phenomenon of “Globalization” is increasingly becoming the focal point of every human endeavour. Globalization as defined by Knight and de Wit (1997) is “the flow of technology economy, knowledge, people, values, ideas ... across the borders. Globalization affects each country in a different way due to a nation’s individual history, tradition, culture and priorities”. Scholars have different views about this term; however, it generally refers to economic, political and cultural integration of the global community (nations). One area globalization influences is; education, because educational systems ought to produce individuals vested with the right skills and knowledge to be able to operate effectively. Therefore nations across the world have been striving to create the right educational environment to promote effective teaching and learning to achieve the unique requirements of globalization.

The impact of globalization on Education could be well understood by the UNESCO’s “International commission on Education for the Twenty-First Century” (Commonly known as Delors-Commission) “Learning: The Treasure Within” (1996: p85-97) which begins with an analysis of the trends and tensions which face us in the future and the challenges these pose for education. The Report emphasizes that the new information technologies could revolutionize the way we teach and learn, and stresses the potential of the new technologies for expanding distance education to reach even the underprivileged in the developing countries. Most educators worldwide accept its broad vision of learning throughout life, based on the harmonious building of four pillars: learning to know, learning to do, learning to live together, and learning to be.

The intention of these pillars of education is to think about education in a more encompassing fashion that people can learn to deal with social, environmental, economic, and political and equity issues on a global scale in a sensible way. Just how well it can be achieved depends on how committed people become to life-long and life-broad learning that focuses on global events and issues. The Report also reminds of those remarkable assets possessed by every nation - the store of knowledge, skills and values embedded in the cultures of each nation. It is this store of knowledge and skill which needs to be cultivated and used wisely.

1.1 Quality Concerns in Education

In the era of globalization, knowledge has become an essential commodity and the real wealth of a nation is its people. Knowledge is at the core of all development efforts in advancing economic and social wellbeing of the people. The nations are now transiting to a knowledge society where the quality and relevance of education would play a crucial role in economic development. Poor quality of teaching, learning and systemic level inefficiencies affect the learners as well as the society in many ways. The long term implication is the economic sustainability of the production process. Education is the primary agent of transformation towards sustainable development, increasing people's capacities to transform their visions for society into realities. Education for sustainable development teaches individuals how to make decisions that consider the long-term future of the economy, ecology and equity of all communities.

A quality education has the power to provide children with the protection they need from the hazards of poverty, labour exploitation and diseases, and give them the knowledge, skills, and confidence to reach their full potential. Achieving these goals by the schools requires a high quality-teaching workforce. Research confirms the common sense view that high quality teachers are the foundation of highly effective schools and teacher effectiveness is the key to educational outcomes. Quality is a relative concept and not something that is absolute (Aggarwal, 2000)

The phrase "quality in education" implies standards and efficiency based on the content in which the term is being used. In general, quality in education is an umbrella concept which includes all those aspects of education which make it efficient and good. Delors's report (1996) emphasizes "a greater focus on quality

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is desirable everywhere, even in countries where all children are enrolled in basic education” (p.120). Nations across the globe are thriving for quality education. It can be said that most of the developed countries have been able to frame policies towards achieving a higher standard in the quality of education. The developing countries, on the other hand, are in the process of achieving the same with an emphasis on technology and manpower expertise.

In order to provide education of the highest quality in schools one must have teachers of the highest quality. Research internationally confirms that a highly skilled and professional teaching force does, and will continue to make a difference. In the pursuit of quality education especially in the USA several reforms have been introduced to update the knowledge and skills for teachers’ continuous professional development. The U.S report titled “What Matters Most: Teaching for America’s Future,” the U.S National Commission on Future of America (1996) states categorically that “In terms of students’ achievement, the teacher is a more significant factor than any other kind of school resource”. The Government acknowledges the vital role that teachers have in imparting knowledge and skills to young people and in striving for educational equality and teachers are given training accordingly.

Teacher education and professional development in the USA has been influenced by the implementation of the No Child Left Behind Act (NCLBA) of 2001. NCLB contains a “teacher quality” component that mandates, each teacher be “highly qualified” to teach the subjects they teach and recommended for continuous training and professional development of teachers. The preferred school concept of quality education is arising because of differential quality and standards of teaching and to have high standards in all schools. The delivery of quality education is possible only through quality teachers. The teacher has to be equipped with all the knowledge required for effective teaching.

India is a young progressive dynamic democratic country. She is presently engaged in developing quality education for her citizens. It also calls for adequate preparation for programs in the teacher training institutions. India has made significant effort in the Teacher professional development programs. National Council for Teacher Education has been working in this direction to establish quality standard in school education in general, and Teacher Education

in specific. However, India, like other developing countries, needs a clear and transparent policy and regulatory framework.

The World Bank in a report on primary education in India (World Bank, 1997) examined a number of research reports and concluded that the quality of education in Indian schools is poor. The factors that determine the quality of education include:

- The curricula and the teaching resources
- Quality and availability of learning materials
- Textbooks
- The quality of teachers

Quality teachers are the single, greatest determinant of student achievement. Teacher's education, ability, and experience account for more variation in student achievement than all other factors. Studies have found that 40 to 90 per cent of the difference in student test scores can be attributed to teacher quality (Darling Hammond, 1997). Knowing the subject matter, understanding how students learn, and practicing effective teaching methods translate into greater student achievement. Therefore, it is vitally important that teachers be well prepared when they begin teaching and continue to improve their knowledge and skills throughout their careers.

Only through professional development, teacher can fulfill their roles and responsibilities within the education system. Teachers are the most important resource in schools. Differences in teacher effectiveness account for a large proportion of differences in student outcomes – far larger than differences between schools (Kyriakides et al., 2000; Hanushek 1997; 2003; Krueger 1999; 2002; 2003). In fact, outside of family background, teacher effectiveness is the largest factor influencing student outcomes (OECD 2009) The evidence from other countries is remarkably consistent (Hanushek et al. 1998; Nye et al. 2004; Rockoff 2004; Hanushek et al. 2005; Aaronson et al. 2007; Leigh and Ryan 2011). A student with an excellent teacher (at the 90th percentile) would achieve in half a year what a student with a less effective teacher (at the 10th percentile) will learn in a full year (Leigh 2010; Hanushek 1992). These impacts are cumulative. Students with less effective teachers in consecutive years are more likely to fall behind. These researches confirm that high quality teachers

are the most important factor in schools. This can be achieved by high quality professional development.

Globalization, regional integration, and the ever-increasing mobility of students and scholars have made the need for internationally recognized standards in education among and between nations. In an attempt to raise the standards of education, the developing countries need to study the various educational systems prevalent in different parts of the world in order to acquire a global outlook. A study on Professional Development in the USA is one such way to understand this aspect.

1.2 Professional Development: Meaning and Importance

Professional development (PD) serves as the bridge between where prospective and experienced teachers are now and where they need to be, to meet the new challenges of guiding all students in achieving higher standards of learning and development. Professional Development generally refers to the ongoing learning opportunities available to teachers, and other education personnel, through their schools and districts. Effective Professional Development is seen as increasingly vital to school success and teacher satisfaction. Educational reforms in the United States and around the world are setting ambitious goals for student learning and there is a great recognition and importance for Professional Development. Professional Development has been identified as an integrated part of educational reforms (Gusky, 2000; Hawley and Valli, 1999; Lewis, Parsad, Carey, Bartfai, Farris and Smerdon, 1999) and has been included in documents like Educational Excellence for All Children Act of 1999 (U.S Department of Education 1999) and No Child Left Behind (Bush, 2001). Lewis et al., (1999) wrote “The inclusion of a national goal for teacher Professional Development represents an increased focus on professional development as an important vehicle for school reforms and education excellence” (p-21). Various educational reforms papers and documents claim that professional development is the key to (1) raising student achievement, (2) implementing high academic standards, (3) transforming schools, (4) improving instruction and (5) creating authentic professional learning communities (Guskey, 1995; Libermann, 1995; Sparks and Hirsh, 2000).

Conceptual Background

Professional Development is the key to keeping teachers abreast of current issues in education, helping them to implement innovations, refine their practices and broaden themselves both as educators and individuals (Darling-Hammond 1990). New type of expertise are required of teachers in order for them to keep abreast of the emerging knowledge base and be prepared to use it to continually refine their conceptual and craft skill(Guskey& Hiberman,1997). This requires a great deal of learning on the part of the teachers and will be difficult to make without the support and guidance (Ball and Cohen, 1999; Borko, Putman, 1995).With schools today facing an array of complex challenges—from working with an increasingly diverse population of students, to integrating new technology in the classroom, to meeting rigorous academic standards and goals—observers have stressed the need for teachers, to be able to enhance and build on their instructional knowledge (National Commission on Teaching & America's Future, 1996).

Professional Development refers to the education a teacher receives after the teacher has had the teacher education and entered the teaching profession. It includes all the programs, educational, social, or others, in which the teacher takes a vital part; all the extra education which the teacher receives at different institutions by way of refresher and other professional courses, and all the travel and visits which he undertakes. All these expand his experience and vision.

Professional Development has traditionally been provided to teachers through school in-service workshops. The term in-service is self-explanatory. In the classic conception of that model, the district or school brings in an outside consultant or curriculum expert on a staff-development day to give teachers a one-time training, seminar on a variety pedagogic or subject-area topic. Such an approach has been routinely lamented in the professional literature.

According to the Secondary Education Commission, (Government of India,1953) “However, excellent the program of teacher training may be, it does not produce an excellent teacher. Increased efficiency will come through individual and group effort and improvement”. The Education commission (1964-66) highlights, “The need of in-service education is most urgent in the teacher profession because of the rapid advancement in all fields of knowledge and continuing evaluation of pedagogical theory and practice.”

Conceptual Background

According to Buch, (1968) “In-service education is a program of activities, aiming at the continuous growth of teachers and education personnel,...”. In service may be regarded as the sponsoring and pursuing of activities which will bring new insight, growth, understanding and cooperative practices to the member of teaching profession and arouse in them actions to improve them in every possible manner.

National Curriculum Framework 2005, (Government of India, NCERT, 2005) indicated that any curriculum renewal effort needs to be supported with a well thought –out and systematic program of in-service education and school based teacher support. In-service education cannot be an event but rather is a process, which includes knowledge, development and changes in attitudes, skills, disposition and practice — through interactions both in workshop settings and in the school. A training policy needs to be worked out, defining parameters such as the periodicity, context and methodology of programs. But efforts to strengthen quality and ensure vibrant rather than routine interactions would require far more decentralized planning with clarity on goals and methods for training and transfer.

The Commission on teacher Education in USA (1996) explained Professional development clearly as: “The continued education of teachers’ means much more than making up defects in preparation. It means continuous growth in the capacity to teach. It means broadened understanding of human development and human living. And now, more than any period at school history, it means growth in one’s capacity to work with others.”

Great teachers help create great students. An inspiring and informed teacher is the most important school-related factor influencing student achievement. So, it is critical to pay close attention to how training and support for both new and experienced teachers are being given. It is critical for veteran teachers to have ongoing and regular opportunities to learn from each other. The best professional development is ongoing, experiential, collaborative, and connected to and derived from working with students and understanding their culture.

Professional Development is taken to keep oneself up to date with current thinking in one’s subject area and in pedagogy. The new media of learning, technology based teaching, knowledge system and raising one’s own

qualifications requires continuous learning. It also refreshes and revitalizes teachers and gives them a chance to share ideas with colleagues and experts in their field. Professional Development is crucial to the long term development of teachers as well as for the long term success of the programs. The need for ongoing renewal of professional skills and knowledge is not a reflection of the inadequate training but simply a response to the fact that not everything teachers need to know, can be provided at the pre service level and knowledge base of teaching constantly changes.

Professional development is directed towards both the institutional goals and the teachers' own personal goals. Achieving personal growth and improving departmental performance go hand in hand. Ongoing professional development keeps teachers up-to-date on new researches on how children learn, emerging technology tools for the classroom, new curriculum resources that will develop them holistically to meet the world-class standards in the given context. Professional development will help to deepen and broaden content knowledge and enable teachers to anticipate and prepare for changes in the teaching-learning process. It also empowers teachers to identify problems and make complex decisions to solve them. It improves the job performance skills of an individual teacher and to extend the experience of an individual teacher for career development or promotion purposes, different type of development is needed at different levels.

What teachers know and help students to achieve is what matters in schools today. The knowledge and skills of teachers' are impacted by ongoing professional and staff development. Professional development does not exist in a vacuum, nor does it happen without conscious support from school leaders. In USA to make professional development compulsory, States set policies for induction, and professional development. Districts also set policies in addition to or in lieu of state policy. Local colleges and universities use these policy guidelines to organize their teacher induction and Professional Development activities.

With the explosion of knowledge, easy and speedy communication, it is difficult not to lift one's eyes towards what is happening in other countries. Knowledge about the educational system of other countries greatly helps in planning the

system of education in another country. It adds to the knowledge and better understanding. But more than that, it serves the specific purpose of introducing reforms helping to seek solution to the problems of other countries or involving in a joint endeavor to meet common challenges for making this planet a better place to live in.

A systematic examination of other cultures and other systems of education, understanding the resemblances and differences, the causes and solutions behind the various problems that are common to all provide a better perspective of international educational scenario (Vernon Mallinson – 1951). There is a need to explore how education is related to economic, political and social development in both developed and developing countries. It is a cross cultural program which can help in understanding the how and why of successful policy-making to improve educational practices of different countries. Such studies explored in depth and a comprehensive approach to education that intentionally prepares researches to be active and engaged participants in an interconnected world.

Organizations and Nations are coming up with quality education. The United Nations Millennium Summit in September 2000, 189 nations signed the Millennium Declaration, the ‘Millennium Development Goals’(MDG) to be achieved by 2015 which responds to the world’s main development challenges. For achieving quality education, the United Nations Developmental Plan, the MDG advocates that the world’s nations’ strive for achieving the pre-defined 8 goals. Education (Goal 2) and to Develop a Global Partnership for Development (Goal 8) being developmental goals. Most of the developed countries have reached the goals. International education provides to understand how the developed countries are able to achieve the target. It also provides a platform for the researchers to understand the ground realities of quality education in specific context like the teacher development and study the best practices of professional development of teachers.

A study of the various systems of education especially of the developed countries, through which the best policies and programs for promoting quality school education, can be formulated in one’s own country. The Knowledge Commission of India (2005) reported Quality research is fundamental for generating intellectual capital necessary to survive and sustain economic growth

and prosperity in the competitive world. Technological development made things possible to study and understand the different practices of other nations and which can be applied to the national context with some changes. International cooperation in education is seen in the context of partnership – rather than aid – where countries assist each other by sharing their successful experiences, technologies, material and financial resources and learning to appreciate each other's cultural heritage. Educational policies are vital for quality education.

So, the researcher has made an effort, to understand the policies and programs for the continuous professional development of teachers in the USA, in order to draw implications to the Indian context.

1.3 Policy Making in Education

Policies provide guidelines and clear framework for action for any organization. Every nation has its own policies for development. Policy can be understood as a broad organizational framework or guidelines that help in decision making as well as a strategy to attend to the significant issues and challenges. The success of any policy is largely dependent on its implementation. Usually, policies are translated into various programs and effectively executed to obtain the desired goals. Policies can be micro as well macro. Micro policies are local specific and issue specific which have less scope whereas macro policies are more broad and general in nature and have wider scope.

The context in which the policy operates is important. Formulating a policy requires a good understanding of local needs, opportunities and constraints (population needs, capacities and commitment of local actors). A variety of stakeholders need to be consulted in the process of policy making.

In the field of education, educational policies are important to be studied because of its contribution for the development of education. In India, National Policy on Education (NPE) 1986 and revised 1990 and Program of Action 1992 are significant for addressing various challenges of Education. With respect to teachers' professional development, these policies have highlighted that the emphasis should be on developing a teacher rather than on training one. The NPE also lays emphasis on continuing education of teachers and the need for teachers to meet the thrusts envisaged in this policy.

In the United States of America, the No Child Left Behind (NCLB) Act, initially authorized in 1965 as the Elementary and Secondary Education Act (ESEA), was signed into law on January 8, 2002 as a means of holding states, school districts and schools more accountable for improving the academic performance of each student regardless of economic status, race, ethnicity, proficiency in English or disability. The NCLBA has given guidelines for teacher development programs. The teacher development programs are based on these recommendations.

It is necessary to study the programs of professional development of teachers within the framework of national and regional policies. Such an analysis would provide a clear understanding as to what extent policies are realized through various programs in its real sense. In this study the researcher is interested to study the professional development programs for teachers in USA with specific reference to federal and state policies.

1.4 Historical Background of United States of America

The United States of America (commonly referred to as the United States, the U.S., the USA, or America) is a federal constitutional republic comprising of fifty states and Districts of Columbia. The USA is the third largest country by total area and by population. The USA is one of the world's most ethnically diverse and multicultural nations, the product of large-scale immigration from many countries. The United States economy is the largest national economy in the world. The nation was founded by thirteen colonies of Great Britain located along the Atlantic seaboard. On July 4, 1776, they issued the Declaration of Independence, which proclaimed their independence from Great Britain and their formation of a cooperative union. The Philadelphia Charter adopted the current United States Constitution on September 17, 1787; its ratification, in the following year made the states part of a single republic with a strong central government. When these became unworkable, a new Constitution was written in 1789, and it became the basis for the United States federal government, with war hero George Washington as the country's first president (Wikipedia). The United States emerged as a world economic and military power after many civil wars in 1890 (Wikipedia).

Conceptual Background

Education in the United States is provided mainly by government, with control and funding coming from three levels: federal, state, and local. School attendance is mandatory and nearly universal at the elementary and high school levels (often known outside the United States as the primary and secondary levels).

In the year 2011, there were 76.6 million students enrolled in schools from kindergarten through graduate schools. Of those enrolled in compulsory education, 5.4 million were attending secondary schools.



Figure: 1.1 Political Map of the United States of America
(Source: <http://www.infoplease.com/states.html>)

Fifty States and the Two Districts constitute the United States of America. With the type of diverse demographics and system, the education system follows the federal government's policies as a base with few modifications.

1.5. History of Education in the United States of America

The history of education in the United States, or foundations of education, covers the trends in educational philosophy, policy, institutions, as well as formal and informal learning in America from the 17th century to today. Early American education was primarily private or religious, and it brought

mass schooling and literacy to the nation well before the public school system we know today was legislated into existence. Public schooling arose in response to an influx of immigrants who had different religions or cultures. Its primary focus was to establish social order and mainstream vast numbers of immigrant children into a common school setting.

Formal education in the United States dates from 1635, when the Boston Latin School was founded in colonial New England. Grammar schools were established in the larger cities of each colony throughout the rest of the 18th century, as well as several religious colleges. The American Revolution started the formal education for women, and the American Civil War brought education for black children. However in the south Homeschooling remained predominant, until the mid-19th century. In the 19th century, Government supported, free public schools for all started and established after the revolution, as the results of efforts of men like Horace Mann, BookerandT. Washington. By 1870, all states had free elementary schools. As the 20th century drew nearer, states started passing laws to make schooling compulsory, and by 1910, 72 percent of children attended school. Private schools and colleges continued to spread during this times and land grant colleges were started in the in the rural centres. First true high schools were started in the year 1910.

Educational efforts cantered on reducing the inequality of the schooling system during the rest of the 20th century. The desegregation of elementary and high schools a national priority was made after the landmark Supreme Court case *Brown v. Board of Education*. The Pell Grant program helped poor minorities gain access to college. Special education was made into federal law in 1975.

Standardized testing was made a requirement, by The Elementary and Secondary Education Act of 1965 and in 1983, a commission was established to evaluate their results and propose a course of action. As a result No Child Left Behind Act of 2001 was established (U.S.Dept. of Education, 1983)

1.5.1 Education Acts of the United Statesof America

The United States Department of Education, also referred to as Education Department (ED), is a Cabinet-level department of the United States government. Created by the Department of Education Organization

Act (Public Law 96-88) and signed into law by President Jimmy Carter on October 17, 1979, it began operating on May 16, 1980.

The Elementary and Secondary Education Act (ESEA) was passed in 1965 as a part of the "War on Poverty". ESEA emphasizes equal access to education and establishes high standards and accountability. The law authorizes federally funded education programs that are administered by the states. In 2002, Congress amended ESEA and reauthorized it as the No Child Left Behind Act (NCLBA).

The Higher Education Act (HEA) 1965(Pub. L. No. 89-329) authorizes funding to improve K-12 teacher preparation programs in higher education institutions. It includes accountability provisions for the quality of the graduates from these programs. It also supports efforts to increase teacher recruitment. The 108th Congress is acting on legislation to reauthorize HEA. Legislation amending the teacher provisions of the HEA was passed by the House on July 9, 2003, and on June 2, 2004.

The Higher Education Act of 1971 was reauthorized in 1968, 1972, 1976, 1980, 1986, 1992, 1998, and 2008. Current authorization for the programs in the Higher Education Act expires at the end of 2013. Before each reauthorization, Congress amends additional programs, changes the language and policies of existing programs, or makes other changes.

The No Child Left Behind Act of 2001 (P.L. 107-110) reauthorized the Elementary and Secondary Education Act (ESEA), replacing the Eisenhower Professional Development program and the Class Size Reduction program with a single formula grant program supporting an array of activities to improve the elementary and secondary teachers. In addition, among other provisions, the reauthorized ESEA includes a separate program of math and science partnerships to improve teaching in those fields. (APPENDIX-A)

Section 1111 (b)(8)(C) of the Elementary and Secondary Education Act, as amended by NCLB mandates the State Educational Agency (SEA) should hire High Quality Teachers (HQT) to teach in Title I programs and Title II, Part A, Class Size Reduction programs(NCLB,2002).

Conceptual Background

Title I, Part A, requires that Local Educational Agencies (LEAs) use at least five per cent (5%) of their Title I funds for professional development activities to ensure that teachers who are not currently highly qualified meet that standard by the end of the 2006-07 school year (Section 1119[1]). In addition, any school identified as in need of improvement for failing to make adequate yearly progress must spend ten per cent (10%) of its Title I, Part A, funds on professional development, including teacher mentoring programs (Section 1116[c][7][A][iii]) (NCLB.2002).

Title II, Part A, activities include, but are not limited to, various forms of high-quality, scientifically based professional development in gaining subject-matter knowledge, improving teaching skills, assisting teachers in the use of state academic content standards and student achievement standards (NCLB 2002, U.S. Dept. of Education).

The most recent and forceful statement, given by President Obama in 2010 on government policy for the preparation and professional development of teachers, is the reauthorization of the Elementary and Secondary Education Act (ESEA), signed into law by President Obama.

The teachers in rural areas are required to teach more than one academic subject. The new flexibility is designed to recognize this challenge and provide additional time for these teachers to prove that they are highly qualified.

Under this new policy, teachers in eligible, rural districts who are highly qualified in at least one subject will have three years to become highly qualified in the additional subjects they teach. They must also be provided professional development, intense supervision or structured mentoring to become highly qualified in those additional subjects.

Changing Federal Role: NCLBA had a significant shift in federal role with regard to the teachers. Prior to 105th congress and amendments the federal aid for teaching was focused on in-service training with limited fund. After the amendment in 1998, teacher quality enhancement programs were included to the Higher Education Act. The federal government has allocated through ED funds \$3.5 billion for teacher activities. This funding includes \$ 2.93 billion for Principal and Teacher training. This also brought in the teacher accountability requirements for teacher education programs (CRS Report RL 31254).

1.5.2 Organisation of the United States Department of Education

The United States Department of Education (ED) is a cabinet-level department of the United States Government. The department was recreated by the Department of Education Organisation Act (Public Law 96-88) and signed into law by President Jimmy Carter on October 17, 1979, and began operation from May 4, 1980 (US Dept. of Education, 1979). The Department of Education is administered by the United States Secretary of Education. It is by far the smallest Cabinet-level department, with about 5,000 employees.

The department of Education establishes policy for, administers and coordinates most Federal assistance to education under the supervision and direction of the Secretary of Education. Its mission is to ensure equal access to education and to promote educational excellence throughout the Nation. The Secretary of Education advises the President on education plans, practices and programs and coordinates between the Federal and State government in educational matters. There are several departments under the Office of the Secretary, like the Office of the Elementary and Secondary Schools. Innovation and Improvement; Federal Student Aid; Office of Planning, Evaluation and Policy development; Office of Safe and Drug free Schools and office of Inspector General. As with other federal agencies, the ED operates with the assistance of several advisory committees.

State Education Department of each State has its office of Secretary Education and under which the State Board of Education works. Education in the US is highly decentralized and the federal government and Department of Education are not heavily involved in determining curricula or educational standards (with the exception of NCLB). This has been left to the state and local school districts. The quality of educational institutions is maintained through an informal accreditation.

1.5.3 Educational System in the United States of America

The educational developments in the American education have evolved gradually by the American history and philosophy. The first settlers of America, who fled from the religious and political persecution of the European government found themselves thrown upon their own resources in relative isolation of their settlements. This strengthened them to create a new

independent nation. The tremendous opportunities afforded by the undeveloped country resulted in all emphasis on “the immediately practical faith that no idea or ideal is worth anything unless it can be made to work”.

It developed the conviction “that tomorrow must be better than today, that the worship of tradition means stagnation, that every change and every innovation spells progress”. Out of the same frontier conditions developed individualism and democracy and the ideals of local co-operation and social usefulness. These national characteristics, emerging out of historical circumstances greatly influenced the educational philosophies and practices of the USA. Education, in the USA, is a large scale public enterprise. Very few democratic countries spend as much on education as the USA. Many features of the American education have surprised the foreigners. One of the basic ideals was to extend equal educational opportunity to all citizens of America.

The goals of American education are derived from the social philosophy as expressed in the National constitution adopted in 1787. The constitution of the USA makes no reference to education but Article X confers upon States powers over education and legal responsibility for the maintenance of educational systems. The Tenth Amendment delegates the function of public education to the states. However, the federal government does play an active role in the educational development after the War Between the States. Federal government focused attention on “Central Welfare” clause of the Constitution as an avenue for permitting some kind of Federal involvement in the education system. Several Acts have been passed by the Federal Government which has a great bearing on education.

The relationship between the Federal, State and the local government pertaining to education may be described as the partnership in which each of the three levels of government, at one time or another participate in varying ways and degrees in the establishment and support of education. The State Department of Education works in partnership with the local school systems. It exercises a leadership role in improving the quality of public education and performs those functions which the local agencies cannot on their own. There is a considerable coordination between the two.

Conceptual Background

In the USA the first year of compulsory schooling begins with children at the age of five or six. Children are then placed in year groups known as grades, beginning with first grade and culminating in twelfth grade. Many different variations exist across the country in the typical ages and grade groupings in public and private schools.

School education in the US is organized in three stages the elementary school, junior high school and senior high school. The post- secondary education is divided into undergraduate programs, Master's degree studies and doctoral studies. Figure 6 gives an outline of the school education in US.

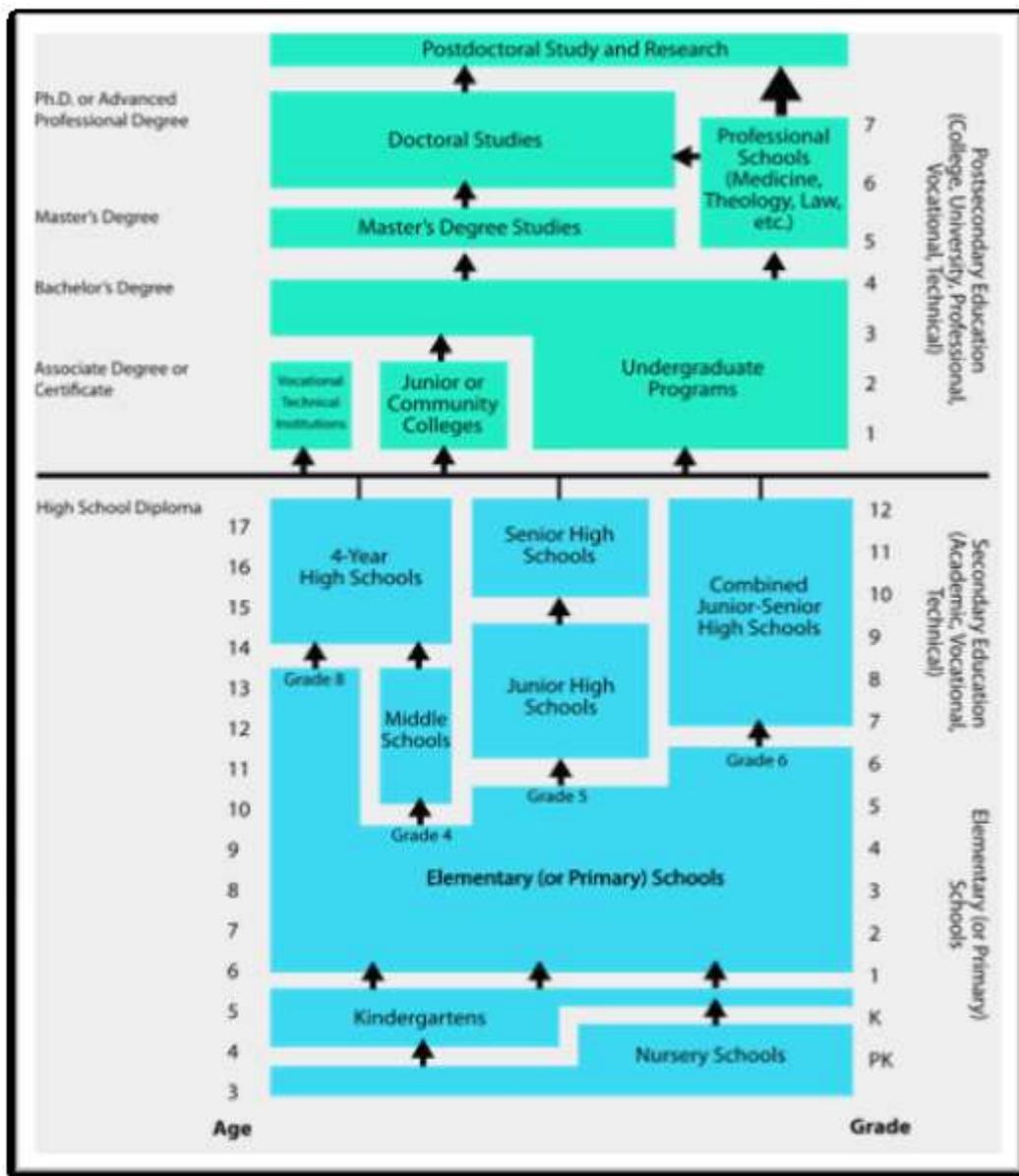


Figure: 1.2 Structure of School Education in the USASource: http://en.wikipedia.org/wiki/Education_in_the_United_States

1.5.4 Local School System in United States of America

All schools located in a particular area come under one school system and are under one board or officer. It is quasi-corporate with a board or chief officer who has the responsibility for either complete or partial autonomy in the administrations of all public schools within its boundaries.

There are three different types of schools in America. **Public school** is an elementary or secondary school in the USA supported by public funds and providing free education for children of a community or district. These schools do not charge tuition fees. They are funded through federal, state and local taxes. **Private schools** cost money. Private schools do not receive tax revenues, but instead are funded through tuition, fundraising, donations and private grants. **Charter School** is a publicly funded school that is typically governed by a group or organization under a contract or charter with the state; the charter exempts the school in selected state from local rules and regulations. In return for funding and autonomy, the charter school must meet accountability standards. A school's charter is reviewed (typically every 3 to 5 years) and can be revoked if guidelines on curriculum and management are not followed or the standards are not met. In the education system in the United States, the public schools with specialised courses or curricula are called the **Magnet Schools**. "Magnet" refers to how the schools draw students from across the normal boundaries defined by authorities (usually school boards) as school zones that feed into certain schools. Magnet schools emerged in the United States, in the 1960s, as one of the means of remedying racial segregation in public schools, and they were written into law in Sec. 5301 of the Elementary and Secondary Education Authorization. Demographic trends following the 1954 *Brown v. Board of Education* Supreme Court decision revealed a pattern later characterized as white flight, the hyper segregation of African Americans and European Americans, as the latter moved to the suburbs (Wikipedia).

There are magnet schools at the elementary school, middle school, and high school levels. In the United States, where education is decentralized, some magnet schools are established by school districts and draw only from the district, while others (such as the Massachusetts Academy of Math and

Conceptual Background

Science, Las Vegas Academy, Clark High School Academy of Finance, Academy for Mathematics, Science, and Applied Technology, Maine School of Science and Mathematics, and Commonwealth Governor's Schools in Virginia) are set up by state governments and may draw from multiple districts. Other magnet programs are within comprehensive schools, as is the case with several "schools within a school." In large urban areas, several magnet schools with different specializations may be combined into a single "center," such as Skyline High School in Dallas (Wikipedia).

Apart from these schools, since 1982, the U.S. Department of Education has sought out schools where students attain and maintain high academic goals, including those that beat the odds. These schools are called the **Blue ribbon School**. The National Blue Ribbon Schools Program recognizes public and non-public elementary, middle, and high schools where students achieve at very high levels and/or where the achievement gap is narrowing. The Program sets a standard of excellence for all schools striving for the highest level of achievement. The National Blue Ribbon Schools Program is part of a larger U. S. Department of Education effort to identify and disseminate knowledge about best school leadership and teaching practices. The Blue Ribbon Schools Program honours public and private schools based on one of two criteria:

Schools whose students, regardless of backgrounds, are high performing: These are schools ranked among the state's highest performing schools as measured by their performance on state assessments or in the case of private schools, that score at the highest performance level on tests referenced by national norms in at least the most recent year tested; and Schools with at least 40 percent of their students from disadvantaged backgrounds that improve student performance to high levels as measured by the school's performance on state assessments or nationally-normed tests.

Local school districts are governed by Boards of Education comprising of elected citizens who serve for fixed terms and may usually stand for re-election. Public education in many communities in the USA has been made the function of a **school district** serving one or more towns. A school district is a unique body usually with coequal districts like that of a city or a county, and has similar powers. Its legislative body, elected by direct popular vote or by

appointment by other governmental officials, is called a *school board*, *board of trustees*, or *school committee*, and this body appoints a *superintendent*, usually an experienced public school administrator, to function as the district's chief executive for carrying out day-to-day decisions and policy implementations.

1.5.5 Teacher Education in USA

USA cite the importance of a well-trained teaching force as essential to preparing students to function competently within the increasingly technologically information based society. In USA, each state set standards for teacher education. Approximately 32 states have joined together to develop model standards for beginning teachers that are compatible with emerging standards for advanced certification, as currently being developed by the National Board for Professional Teaching Standards.

In USA an increasing number of states require some form of testing before entry into a teacher education program. In addition, 15 states and over 70 percent of colleges have set minimum grade-point averages for entry into teacher education (Darling-Hammond & Cobb, 1995).

Teacher education generally falls into three categories (Cobb, Darling-Hammond, & Murangi, 1995):

1. Certificate or diploma programs conducted in normal colleges, normal schools, and colleges of education established for the purpose of training teachers. These programs are usually for elementary teachers and gives importance to pedagogical preparation more than subject area preparation. In most cases these are 2- to 4-year programs.
2. Bachelor's degree programs conducted both at general and multipurpose universities. These programs emphasize greater subject matter preparation and relatively less pedagogical preparation. These are generally 3- or 4-year programs, with the teacher preparation portion lasting for one to two years.
3. Master's degree 5th-year programs. These programs are for candidates who have completed a bachelor's degree and continue for a master's degree or postgraduate diploma in education. The duration of these programs ranges from one to two years.

In USA teachers at all levels are prepared the same. Candidates are typically prepared through bachelor's degree programs or 5th-year programs that can lead to a master's degree.

Though there does exist some variations in curriculum content of teacher education programs, most offer some combination of coursework in subject matter, teaching methods and materials, child growth and development, and other education courses such as educational psychology, history and philosophy of education, and practical teaching experience. The extent of education coursework varies by grade level to be taught (Cobb, Darling-Hammond, & Murangi, 1995).

- “Student teaching or a strong clinical practice component is seen as an essential element to teacher preparation. The duration of such an experience varies widely and appears to be influenced by teaching level and sometimes the nature of the teacher education program. Practicing teachers who do not meet this standard must either complete additional coursework to earn the equivalent of a bachelor’s degree, or pass state content area exams in each subject they teach.”
- In the U.S., student teaching ranges from eight weeks to two full semesters with most programs averaging 12-15 weeks.

1.5.6 Professional Requirements of Teachers in USA

The professional training in education has grown with the expansion of public education in the USA. It was felt that with competent teachers the public schools could serve the community better. Hence, teachers’ colleges were established with that goal. With the changing curricula to suit the individual needs, aptitudes and interests, the teacher education proliferated into various branches such as School administration, Principals leadership for effective schools, Special education etc.

Different rules exist for prospective teachers and teachers who began teaching before NCLBA was adopted. States have greater latitudes regarding experienced teachers than with new teachers. The expectations, experienced teachers must meet, to be considered highly qualified vary considerably across states. In some states, teachers become certified to teach in the middle grades by majoring in

elementary education, with or without subject area minor(s). In other states middle grade teachers must have a double major in subject area and secondary education, or major in secondary education with double minors in two subject areas (e.g. mathematics and chemistry). Certification requirements may involve passing the elementary licensing exam only, or the elementary exam plus subject area exams, or the secondary licensing exam plus subject area exams(NCLBA).

Under NCLBA, high school teachers must major in the 2 subject areas they teach and pass a licensing exam in those subjects to be considered highly qualified. Practicing teachers, who do not meet this standard, must either complete additional coursework to earn the equivalent of a bachelor's degree, or pass state content area exams in each subject they teach. At the class level, a majority of 9th- through 12th-grade classes were taught by teachers with an in-field major, an in-field certification, or both.

1.5.7Licensure and Certification of Teachers' in USA

All 50 States and the District of Columbia require public school teachers to be licensed. Licensure is not required for teachers in most private schools. Usually licensure is granted by the State Board of Education or a licensure advisory committee. Teachers may be licensed to teach the early childhood grades (usually preschool through grade 3); the elementary grades (grades 1 through 6 or 8); the middle grades (grades 5 through 8); a secondary-education subject area (usually grades 7 through 12); or a special subject, such as reading or music (usually grades kindergarten through 12).

Requirements for regular licenses to teach kindergarten through grade 12 vary by State. However, all States require teachers to have a bachelor's degree and to have completed an approved teacher training program with a prescribed number of subject and education credits, as well as supervised practice teaching. Some States also require technology training and the attainment of a minimum grade point average. A number of States require that teachers obtain a master's degree in education within a specified period after they begin teaching.

Almost all States require applicants for a teacher's license to be tested for competency in basic skills, such as reading and writing, and in teaching and also require teachers to exhibit proficiency in their subject. Many school systems are presently moving toward implementing performance-based systems for

licensure, which usually require teachers to demonstrate satisfactory teaching performance over an extended period in order to obtain a provisional license, in addition to passing an examination in their subject. Most States require teachers to complete a minimum number of hours of continuing education to renew their license. Many States have reciprocity agreements that make it easier for teachers licensed in one State to become licensed in another state(NCLB, US Dept Ed., 2002)

Now, nearly all States also offer alternative licensure programs for teachers, who have a bachelor's degree in the subject they will teach, but lack the educational requirement for a license. This is in places where there is a lack of traditional licensed teachers, or for teachers who change their career to teaching. But these programs are conducted under the supervision of experienced educators. There is a teacher shortage in the subjects of Mathematics, Chemistry and Physics. Teachers from many countries, especially India have been imported. Their number of years of service in their respective country is taken into consideration. Teachers who have been imported have to complete the licensure programs within a specified time or their contracts are cancelled.

1.5.8 Requirement for Subject Competency

The University and the state verify the subject matter competency of a student teacher entering into the profession, whether he/she has met the requirements to teach a particular subject area. Apart from passing the bachelor of education program, the prospective teacher has to pass the Subject Exams for Teachers conducted by the State, in the appropriate subject area. Students who are seeking a single subject teaching credential (typically for junior high school or high school) may also verify subject matter competency by completing a CCTC-approved subject matter equivalency program and providing appropriate documentation. All students are required to verify subject matter competency prior to being placed into student teaching. Many states in the US require subject matter competency (www.cset.nesinc.com).

1.5.9 Programs and Policies of Professional Development of Teachers' in USA

The federal government is not responsible for the preparation, hiring, and work life of teachers; these responsibilities rest with states and localities. Nevertheless, the federal government, over the past several years, primarily through the U.S. Department of Education (ED), provides substantial resources to strengthen the teacher quality and quantity. They fund many programs of teacher training for supporting the teachers. The congress has been redefining the federal role in supporting the teachers (U.S. Dept. of Education, 2006)

The Department of Education routinely drafts and updates policies and procedures to offer guidance to school leaders, educators, parents and students to help create a high-quality learning experience from early childhood through adulthood. These policies and procedures are intended to improve the efficiency and cooperation among state, local and federal entities as they work to build and maintain high quality teachers.

In order to understand how policy is implemented within an organization, one must have a clear understanding of the structure of the organization and its impact upon the persons carrying out particular actions. It is necessary for individuals involved in the policy field to, first, have enough knowledge about the policy to clearly understand it. Second, they must have the necessary skills to put the policy into practice within specific bureaucratic contexts like schools. (Hill & Hupe, 2002).

In the area of professional development, Chapter 12.7(1) in Section 281 of the state administrative code requires schools to develop multicultural provisions for their staff. The language here is as follows:

“Each school or school district shall incorporate into its comprehensive school improvement plan provisions for the professional development of all staff. To meet the professional needs of all staff, staff development activities shall align with district goals; shall be based on student and staff information; shall prepare all employees to work effectively with diverse learners and to implement multicultural, gender fair approaches to the educational program; and shall emphasize the research-based practices to achieve increased student

achievement, learning, and performance as stated in the comprehensive school improvement” (Winssocki, 2008).

The guidelines for the in-service training of the teachers as given in NCLB are

- Partnerships with for-profit and non-profit entities through grants or contracts to provide professional development activities, course work, test preparation, and testing
- Paraprofessional training toward teacher certification
- High-quality professional development and training in core content knowledge and effective instructional strategies, methods, and skills required to meet the NCLBA teacher requirements content standards and student academic achievement standards in preparing students for the state assessments
- Training in the use of technology for instruction and analyzing achievement data
- Teacher mentoring, induction, and support programs for new teachers
- Implementation of approved CTC alternative certification and internship programs
- Charter school teachers of NCLBA core academic subject, as defined in the NCLBA Act of 2001, must meet all of the NCLB requirements. Charters may decide, for credentialing purposes only, that which is non-core. Federal law defines teacher requirements for NCLB Core Academic Subjects.
- NCLBA requires that the list of professional development activities accepted by the LEA be available to the public(Appendix-A).

1.5.10 Institutions Offering Professional Development for Teachers in the United States of America

Apart from the Department of Education, several non-profit organisations also supported federal government in its policy decisions.

- National Staff Development Council the largest non-profit organisation which was started in 1978 in Ohio (NSDC, 2007) was associated with the Federal Government for teacher professional development and school improvement.

Conceptual Background

- National Association for Mathematics Teachers (NAMT) which organises programs for mathematics teachers.
- National Association of Science Teachers (NAST)
- National Centre for Educational Statistics (NCES) which is a part of US department of Education also organises nation-wide surveys and programs for educating teachers for statistical data analysis.

This is the over view of the educational system in the USA. Education in the USA is a large scale public enterprise. The public education of America is unique to her culture. American people are fully cognizant of the power of education and hence concerned about the quality of education. In order to have this quality education, states set policies for teacher education, certification, induction, and professional development. Districts also set policies in addition to or in lieu of state policy. Local colleges and universities use these policy guidelines to organize their teacher education programs and their induction and professional development activities.

Though the States and the local school system set forth the rules, the federal government time and again has talked about the importance of education. President Johnson in his message to the Congress of the USA in 1965 stated, 'Every child must be encouraged to get as much education as he has the ability to take. Nothing matters more to the future of our country than education. We must demand that our schools increase not only the quantity, but the quality of American education'. In this millennium, President Bush in 2001 brought in the "No Child Left Behind (NCLB)," Bill which was implemented in 2002. NCLBA gives guidelines for quality teachers and the requirements of a highly qualified teacher.

There is a comprehensive mechanism to update the knowledge and skills and system for monitoring teacher continuous development, through which the USA has achieved quality education in schools. And in this context the researcher is interested to study thoroughly the policies and programs for the teacher professional development of USA and derive some implications to the professional development of teachers in India.

A brief account of the history of education in India, teacher education, the in-service programs and the professional development of teachers are discussed below.

1.6.1 History of Education in India

The Republic of India is a vast state located in South Asia, surrounded by the Himalayas to the north and the Indian Ocean on the other three sides. It is the largest democracy in the world, with about 1,135 million people (NCES,2007), or about 18 per cent of the total world population (over 6,451 million in 2006). It ranks second in the world in population and seventh in land area. According to the 2001 census, about 65 per cent are literate.

Historically, India has been the land of teachers and learners. Knowledge has always been regarded as the highest virtue in Indian society. The concept of a university is close to that of the forest ashrams of the ancient Hindu tradition for adult learning. India has a long and ancient history of imparting knowledge and has seen many transitions. These have been predominantly influenced by the various groups of people who have invaded India at different points of time. Hence, the contemporary educational context in India has been influenced by the different forms of education over the centuries. The Nalanda University established in fifth or sixth century was the oldest university-system of education in the world.

Western education became ingrained into Indian society with the establishment of the British Raj. Policies recognising the need for teacher training were framed and implemented by the Indian Ministry of Education, (later known as Ministry of Human Resource Development; Department of Education) during the post-colonial period. The period can be divided into the following categories:

1. Pre-Colonial Era (c. 1500 BC-1756 AD): The original education system consisted of village schools known as *gurukulas* or *agraharas*. Teachers known as *gurus* taught religious text such as Vedas, and Vedanta's, grammar, philosophy and languages. Vocational education, such as carpentry, metal works and farming, was also taught. These were primarily attended by male students of the upper castes (Kamat, 2003a).
2. Colonial Era (1756 AD-1947 AD): Schools were set up by the Christian missionaries during the British rule. The members of the British

government with the Indian social activists, to improve the condition of the marginalized groups through education (Srivatsava, 1988). Based on the European system, new schools were established replacing the original system of education. Teacher training was proposed in 1882, to prepare teachers for this new system. The Indian Education commission introduced separate teacher education programs to prepare teachers for the elementary and secondary levels (Maheshwari, n.d.c.).

3. Post - Colonial Era (1947 AD-Present Day): After independence, Government of India framed three National Policies on Education (1968,1979 &1986). The National Council for Teacher Education (NCTE) was established in 1995 with Teacher Training as one of its basic goals. The National Council for Education, Research and Training (NCERT), the State Council for Education, Research and Training (SCERT) and local Colleges of Education along with NCTE have been undertaking a number of training programs for teachers. Colleges of education are required to conduct annual training sessions for teachers on a variety of areas in education as laid out by the NCTE. Teachers participating in the training programs continue to search for ways to improve their classroom practice. On-going professional development and training should ideally be a part of effective practice. While opportunities need to be made available, a greater understanding of how teachers adopt to new instructional methods in their classrooms would be helpful.

1.6.2 Education Acts of India

To effectively carryout the education programs the Government of India, introduced the education acts. The Constitution of India has laid down the allocation of responsibility for various subjects to different tiers of the government. From 1950, when the Constitution came into force, till 1976, Education was essentially a State subject, with role of Central Government being limited to running Central Universities, Central institutions of training and research, and institutions of national importance, and coordination and determination of standards in institutions for higher, scientific and technical education and research.

The Constitution (42nd Amendment) Act, 1976, shifted Education, in general, from the “State List” to the “Concurrent List”, thus giving both Central and State Governments jurisdiction over it, concurrently. The concept of concurrency was given in paragraph 3.13 (“A Meaningful Partnership”) of the National Policy on Education, 1986. While the role and responsibility of the States in regard to education remained essentially unchanged, the Union Government accepted a larger responsibility to reinforce the national and integrative character of education, to maintain quality and standards (including those of the teaching profession at all levels), and to promote excellence at all levels of the educational pyramid throughout the country. The most important feature of the constitutional provision was provision of free and compulsory education to all children up to the age of fourteen years.

1.6.2.1 Important Legislations

Next to the Constitution, State Policy is articulated through legislations. Some of the important Central legislations having a bearing on the subjects allotted to the Department of Higher Education are: The University Grants Commission Act, 1956; The Copyright Act, 1957; The Apprentices Act, 1961; The All India Council for Technical Education Act, 1987, and The National Council for Minority Educational Institutions Act, 2004.

SarvaShikshaAbhiyan (SSA) launched to universalize elementary education of good quality all over the country in 2002. SSA is Government of India's flagship programme for achievement of Universalization of Elementary Education (UEE) in a time bound manner, as mandated by 86th amendment to the Constitution of India making free and compulsory Education to the Children of 6-14 years age group, a Fundamental Right.

SSA is being implemented in partnership with State Governments to cover the entire country and address the needs of 192 million children in 1.1 million habitations(MHRD,2001).

The Right of Children to Free and Compulsory Education Act or Right to Education Act (RTE) is an Indian legislation enacted by the Parliament of India on 4 August 2009, which describes the modalities of the importance of free and compulsory education for children between 6 and 14 in India under Article 21a of the Indian Constitution (MHRD, 2009).

1.6.3 Organisation of Department of Education in India

The Department of Education is a part of the Ministry of Human Resource Development. The ministry is divided into two departments: the Department of School Education and Literacy, which deals with primary and secondary education, adult education and literacy, and the Department of Higher Education, which deals with university education, technical education, scholarship etc. The erstwhile Ministry of Education now functions under these two departments, as of September 26, 1985. The Ministry of Human Resources Development is headed by a minister of cabinet rank as a member of the Council of Ministers and he is assisted by a minister of state, and Minister of State for Human Resource Development.

The Department of School Education and Literacy is responsible for development of school education and literacy in the country. The Department of Higher Education is in charge of secondary and post-secondary education. The Ministry is guided by the Central Advisory Board of Education (CABE) which is the national level advisory body. The education ministers of all the different states are members of the board. State-level ministries of education coordinate education programs at local levels. City school boards are under the supervision of both the state education ministry and the municipal government.

The central and the state governments have joint responsibility for education, with freedom for the state governments to organise education within the national framework of education.

1.6.4 Educational System in India

Education in India is provided by the public sector as well as the private sector, with control and funding coming from three levels: federal, state, and local. Child education is compulsory. Education in India falls under the control of both the Union Government and the states, with some responsibilities lying with the Union and the states having autonomy for others. The various articles of the Indian Constitution provide for education as a fundamental right. Most universities in India are controlled by the Union or the State Government.

India has made progress in terms of increasing primary education attendance rate and expanding literacy to approximately two thirds of the population. India's improved education system is often cited as one of the main contributors to

the economic rise of India. Much of the progress especially in Higher education, Scientific research has been credited to various public institutions. The National Council of Educational Research and Training (NCERT) is the apex body for curriculum related matters for school education in India. The NCERT provides support and technical assistance to a number of schools in India and oversees many aspects of enforcement of education policies. In India, the various curriculum bodies governing school education system are:

- **The Central Board of Secondary Education (CBSE):** This is the main governing body of education system in India. It has control over the central education system. It conducts exam and looks after the functioning of schools accredited to central education system.
- **The Council of Indian School Certificate Examination (CISCE):** It is a board for Anglo Indian Studies in India. It conducts two examinations 'Indian Certificate of Secondary Education' and 'Indian School Certificate'. Indian Certificate of secondary education is a k-10 examination for those Indian students who have just completed class 10th and Indian school certificate is a K-12 public examination conducted for those studying in class 12th.
- **The State Government Boards:** Apart from CBSE and CISCE each state in India has its own State Board of education, which looks after the educational issues.
- **The National Open School:** It is also known as National Institute of Open Schooling. It was established by the Government of India in 1989. It is a ray of hope for those students who cannot attend formal schools.
- **The International School:** It controls the schools, which are accredited to International Baccalaureate curriculum of international standard.
- Islamic Madrasah schools, whose boards are controlled by local state governments, or autonomous, are affiliated to DarulUloomDeoband.
- Autonomous schools like Woodstock school, Auroville, PathaBhavan and AnandaMargaGurukula.

1.6.5 Local School System in India

Education system in India can be divided into many stages as under:

- **Pre- Primary Stage** - It consists of children of 3-5 years of age studying in nursery, lower kindergarten and upper kindergarten. At this stage student is given knowledge about school life and is taught to read and write some basic words.
- **Primary Stage** - It includes the age group of children of 6-11 years studying in classes from first to fifth.
- **Middle Stage** - It consists of children studying in classes from sixth to eighth.
- **Secondary Stage** - it includes students studying in classes ninth and tenth.
- **Higher Secondary Stage**- Includes students studying in eleventh and twelfth classes.
- **Undergraduate Course** - Here, a student goes through higher education, which is completed in college. This course may vary according to the subject pursued by the student. For medical student this stage is of four and a half years plus one year of compulsory internship, while a simple graduate degree can be attained in three years.
- **Postgraduate Course** - After completing graduation a student may opt for post-graduation to further add to his qualifications.
- **Doctoral Studies** – A Student after post-graduation can continue to do a doctoral study through qualifiers.

1.6.6 Teacher Education in India

The teacher competence, sensitivity and teacher motivation primarily determines the quality and extent of learner achievement. The National Council for Teacher Education in India has defined teacher education as – A program of education, research and training of persons to teach from pre-primary to higher education level.

In India, Bachelor of Education (B.Ed) is a course offered for those interested in pursuing career in teaching. The B.Ed degree is mandatory for teaching primary schools and high schools. The minimum qualification required for entry into B.Ed course is Bachelor of Arts (B.A), Bachelor of Science (BSc) or Bachelor of Commerce (B.Com). While students from arts stream are trained to teach subjects like history, civics, geography and languages. The students from science streams are trained to teach Mathematics, Physics, Chemistry and Biology. After

B.Ed., students can pursue Masters in Education (M.Ed) in Indian universities. National Council for Teacher Education is statutory body which regulates courses in teaching in India. The Bachelor of Elementary Education (B.El.Ed.) program is a four-year integrated professional degree program of Elementary Teacher Education offered after the senior secondary (class XII) stage of school. Conceptualized by the Maulana Azad Centre for Elementary and Social Education (MACESE) of the Department of Education, University of Delhi and launched in the academic year 1994-95, the program is an attempt towards fulfilling the need for professionally qualified elementary school teachers. B.El.Ed. is designed to integrate the study of subject knowledge, human development, communication skills and pedagogical knowledge.. Both professional and academic options are available to students who graduate with a B.El.Ed. Degree.

There is another course, Diploma in Education (D.Ed) or TCH meant for teaching in primary and nursery schools in India. However, the qualification for admission to this course is passing the 12th grade.

1.6.7 Professional Requirement of Teachers in India

The idea of in-service education for teachers was discussed in the Kothari Commission (1964-66) and in the Chattopadhyay Commission (1983-85) as important in order to enable teachers to renew their knowledge. National Policy on Education received support through central government funding for the establishment of Institutes of Advanced Studies in Education (IASE) to open University Departments of Education and District Institutes of Education and training (DIET) in each district with a view to provide a space for the conduction of in-service courses for teachers of elementary and secondary schools. The SarvaSikshaAbhiyan (SSA, 2001) has also placed emphasis on continuous in-service teacher education requiring each teacher to receive 20 days of training every year.

The Education Commission (1964–66) recommended that in-service education for teachers should be organised by universities and teacher organisations to enable every teacher to receive two or three months of in-service education once in five years; that such program should be research based. National curriculum Framework (NCF) 2005 also insisted on the Professional Development of

teachers. NCF 2009 on teacher education has given different types of Professional Development like, short and long term workshops, sabbatical for study and research, professional conferences and meetings, professional forums, resource rooms and materials; Faculty Exchange Visits and Fellowships for teachers to undertake. But no particular requirements are there. Though certain PD programs are conducted it is not taken seriously by teachers.

At the national level organizations like the National Center for Education, Research and Training (NCERT), National Institute of Educational Planning and Administration (NIEPA) (now NUEPA), NCTE, AICTE, UGC, and DEC devise policy frameworks for teacher professional development and popularize them through periodical seminars, workshops, conferences etc. Short duration training and orientation programs are also held for the benefit of the teachers. These national level institutions also organize international seminars, workshops, conferences, etc. from time to time.

1.6.8 Institutions Offering Professional Development for Teachers' in India

The Ministry of Education has diploid the Department of extension Services at all India level for the effective organization of professional development of secondary school teachers. The in-service training of teachers is organized at sub-district, district, regional, state or central level. There are some institutes of national importance like NCERT (National Council for Educational Research and Training), NIEPA (National Institute of Educational Planning and Administration), CIIL (Central Institute of Indian Languages) etc. which conduct in-service training programmes on national level. At state level, there are State Council of Educational Research and Training (SCERT), State Institute of Education (SIE), colleges of Teacher Education (CTEs), State Institutes of Education and Training (SIET) which at the district level are called as DIETs. Given the size of the investment in professional development and the dependence of educational reform on providing effective professional development for Indian teachers; The knowledge base on the link between professional development and teachers' instructional practice, and student learning need to be strengthened.

1.7 Rationale of the Study

Teachers occupy an important place in the educational scenario. The success of the institutions ultimately depends upon the teachers in those institutions. They are the 'critical link' between the nation and the nation builders of tomorrow – students. Teachers need to be seen as creators of knowledge and thinking professionals. They need to be empowered to recognize that there is a need for shift, behaviorist to constructive domain.

One important way to provide teacher support is through PD. As Roland Barth (1990) said, "Probably nothing within a school has more impact on students in terms of skills development, self-confidence, or classroom behavior than the personal and professional growth of teachers." The primary way in which teachers are supported in their personal and professional growth is through professional development programs. Educational managers also need to be empowered for evolving and sustaining 'enabling environment' in schools for teachers and learners. The in-service model surely has a supplementary role to play in professional development. In-service program is an integral part of the secondary and higher secondary teacher education program which tries to ensure continuous professional growth. These programs may be of different types and may be organized periodically or arranged as per requirement.

The different types of professional development have not been extensively researched in India. Despite the policies on in-service training programs and other learning opportunities for Indian teachers, there is little knowledge about how professional development organized for teachers ever finds its way into classrooms to enhance student learning. The lack of investigation is even more evident when the focus of the impact is on the change in teachers' professional practice (Guskey & Sparks, 1991). In addition, there is little direct evidence on the extent to which important features of professional development are related to better teaching and increased student achievement in India.

Few studies provide detailed information about specific program elements that facilitate or hinder teacher learning and student achievement. While most district-sponsored learning opportunities are "transforming," there is little or no information about what these transformative experiences are, how they translate into teachers' classroom practice, and what, if any, effects they have on student

learning and accomplishment. As important as it is for teachers to have a quality educational experience and acquire many innovative instructive techniques during the participation phase of professional development, the more fundamental concern should be whether the new knowledge and skills are implemented in the classrooms.

Therefore, it would be helpful to the field of education, to compare and contrast these different approaches to better understand the relative merits of these professional development strategies in other countries. This information could help providers of professional development choose between different strategies and plan more effective professional development.

The in-service education and continuous professional development of teachers has been given prime importance in the USA over the last two decades. The specific factors responsible for this development are: the certification laws, professional organizations, community needs, size of schools, nature of job opportunities, research based programs and skills.

In the global era the USA is acknowledged as knowledge based society. It is a nation whose scientific elite for past 50 years has been in the forefront of research and discovery, a country whose major universities and training programs are the envy of the world and a magnet for students, scholars, teachers and scientists from other continents. The achievements in scientific, technological and medical sciences have made America the model for many countries. The USA has also developed a system of civic education that is among the very finest in the world. The Educational administration is both centralized and decentralized. USA is a leading country in education in the world today and its educational system is affecting the other countries by way of students' mobility for higher studies. This is possible because of the high quality teachers in secondary schools. Review of the related literature of the researches conducted in the USA provided an idea that this achievement is possible due to the continuous professional development programs for teachers, which are both Governmental and school based on content, pedagogy, evaluation and psychological based.

A systematic examination of other systems of education will help to plan effective policies and professional development programs for one's own

country. In a world where International relations and connections are getting more and more important and complex, it is of crucial importance to make it possible for researchers to broaden their outlook and learn more about other countries through research. Therefore, it would be helpful to compare and contrast different approaches to better understand the relative merits of the professional development strategies in other countries.

This information could help providers of professional development choose between different strategies and plan more effective professional development. Keeping these specific features of system for teacher development, the researcher has taken USA for the study. The study is aimed to know the educational policies and the programs of professional development and their implementation in the schools of the USA. Therefore the present study is planned with the following questions in mind and to explore the answers.

1.8. Research Questions

During the development of this present research study, several research questions have emerged in the area of teacher development programs.

1. What are the different policies formulated by the Federal and the State Government for Professional development of teachers in the USA?
2. What are the ongoing Professional Development Programs being conducted for teachers in the USA?
3. Do the teachers have the freedom to choose the type of Professional Development Programs to participate in the USA?
4. To what extent do teachers believe that such Professional Development Programs improve their teaching and classroom practice in the USA?
5. What is the impact of the Professional Development Programs on teacher development in the USA?
6. What extent does the USA Policies and Programs on teacher development is relevant to Indian context?

1.8.1 Statement of the Problem

A study of the Policies and Programmes for the Professional Development of School Teachers in the United States of America

1.9 Significance of the Study

While in India, the Central and State mandates and educational research, cite the effectiveness and need for professional development, the educational boards continue to implement professional development activities that lack clarity and focus and provide few opportunities for teachers to reflect on their work. These activities are usually presented in large group settings with little or no regards to the individual needs of teachers. The educational boards led professional development programs rarely uses the expertise of the faculty.

1.10 Organisation of Chapters

Chapter I: The introduction presents a detail of professional development and the policies and programs with regard to teacher professional development in the USA. An abbreviated history of approaches to professional development, requirement of highly qualified teachers, in the USA is chronicled. The school system of the USA is outlined. Chapter I also includes the educational system in India, Teacher professional development and the requirement of teachers. The importance of the study is emphasized.

Chapter II: The literature review cites research that claims about the policies and the programs for professional development of school teachers in the USA, in other countries and in India. It also includes the research on the programs in the area of content, pedagogy and logistics. Attributes of successful Professional Development and implementation of the programs to improve student achievement is included. The relevance of the review of literature to the study is discussed.

Chapter III: The chapter Plan and Procedure describes in detail research design of the study. Data collected which includes the interviews with the director of professional development for the school districts, the school principals and the focussed group discussion with the teachers and the participant observation. Other data includes the document procured from different sources, the results of the questionnaires for the teachers, the school principals. Procedure of data analysis is discussed.

Chapter IV: The analysis of the data collected through different sources and the findings of the research are reported in chapter IV. The findings focusses on the

policies for teacher professional development in USA, the perception of teachers on the different programs on content, methodology, feedback system and the impact of the programs. The findings also focus on the perception of principals and district administrators regarding Professional Development Programs.

Chapter V: The major findings of the study, the researcher's interpretation of the results within the context of the objectives of the study and the implications of the study to Indian Context are included.

Chapter VI: The summary of the study, suggestions for further research are incorporated.

1.11 Conclusion

Education has been the key change agent and therefore it is given utmost importance in the national policies and programs in all the countries. It is also ably accepted that teachers play a vital role in developing quality education. Teacher professional competencies, satisfaction, working condition and free will are considered most important for achieving quality in education. Pre-service teacher education programs equip teacher with pedagogical skills, however they are not sufficient to carry out teaching in an ever changing society. In-service teacher education is considered necessary for teacher development. The present study, thus tries to understand professional development in USA, 'as they have been offering this to teachers for a long time', by studying their policies and programs and draw relevant implications to the Indian context.

The following chapter provides the literature on the policies and programs of professional development in USA, other countries in the world and from India.

CHAPTER II

REVIEW OF The RELATED LITERATURE

2. Introduction

Educational reforms in the United States and around the world are setting ambitious goals for student learning and there is a great recognition and importance for Professional development. Professional development has been identified as an integrated part of educational reforms (Gusky, 2000; Hawley and Valli, 1999; Lewis, Parsad, Carey, Barfai, Farris and Smerdon, 1999) and has been included in documents like educational excellence for All Children Act of 1999 (U.S Department of Education 1999) and No child Left Behind (Bush2001).

Many societies are engaging in educational reforms in the changing times in education system. The most significant agents not only of educational reforms but also in the social reforms is the teachers (Reimers, 2003). The current educational reform movement has focused attention on teacher quality. The National Commission on Teaching and America's Future noted that the most important ingredient in educational reform is competent and qualified teachers. One of the key elements for competent and qualified teacher is their professional development. Professional development is strongly tied to teacher competence. Effective professional development is a critical component to promoting teacher quality (Sullivan, 1999). This belief is supported by Riley (1995) "...we must provide teachers with on-going opportunities to be the most informed, the most capable, and the most inspiring classroom leaders possible" (p. 161). The field of professional development has received attention during the past decade due to this double role teacher's play. Many studies have been conducted on professional of teachers to make the process more effective and meaningful.

Research on professional development is scattered throughout the subject area, focus ranging from classroom processes, teachers teaching skills and students learning of basic skills and structures to teachers' personal traits. Subject matter

research delved into student learning, focusing on students' reasoning and problem solving potentials rather than only on basic skills.

To thoroughly address the topic and to understand the respective trends and gaps, methodology used for conduction of the study and the commonalities and differences among the various studies, the literature was reviewed.

Researcher has reviewed relevant studies conducted in the area of Professional Development for teachers both in American and in Indian context and has presented below. Researcher has also presented the studies conducted in other countries. Literature for this review was collected from searches on several databases; Educational Research Abstracts (ERA), ERIC, ProQuest, EBSCO Professional Development, JSTOR Education, Springer Link, Scribed were found to be very useful websites. The review for the American studies were collected from Teachers College of Columbia library resources, New York; University of Pennsylvania library resources, Philadelphia; the Washington University library resources at St.Louis. The review for Indian studies was collected from Smt. Hansa Metha Library resources. The research abstracts (in three volumes (available in the website www.educationinindia.net) prepared by the Center for Advanced Study in Education library, The M.S. University of Baroda, Vadodara and Research Abstracts (5th and 6th survey).

The chapter is dealt under the following headings:

1. Research studies conducted on professional development of teachers in the USA
2. Research studies conducted in other countries on professional development of Teachers
3. Research studies conducted in India

2.1 Research Studies Conducted on Professional Development of Teachers in USA

A review of fifty nine studies conducted in USA for the professional development of teachers related to the present study under four headings (policies, programs, perceptions and evaluation/impact) have been chronologically presented in the following pages.

2.1.1 Policies on Professional Development of Teachers

Little (1989) found that most professional development activities tended to be isolated activities decided by the district office. The study focused on the policies and practices of professional development. 30 school districts in California were the probability sample of the study.

The findings of the study indicated that the policies were from central office and that a pattern heavily weighted toward district-level control of professional development and not school based on their individual needs. The programs were short-term or one-time activities, where follow-up was optional, rather than long-term professional development focused on a guiding vision. Most of the sessions were taught by outside experts focused on skill acquisition, and that teachers-as-designer and leaders of professional development activities were lacking. Their professional development programs were largely dissociated from their other policies and not an integral part of the school vision.

Sylvia (1995) conducted a study entitled ‘professional Development: Lessons from Research, Districts and teachers’. The focus of the study was to increase the prospects that locally-sponsored staff development will contribute to the professional growth of individual teachers, and that it will enhance the ability of the schools and districts to improve teaching and learning. A sample of 99 teachers was taken for the study. The data for the qualitative study was collected through interviews and questionnaires. The questionnaires included the perception of the teachers on incentives, benefits, content knowledge, time and factors affecting participation.

The results of the study revealed that teachers believe professional development is important. The districts policies helped in the improvement of incentives and the policies and programs focused on the individual’s needs. Efforts at site-based management and shared decision-making made sure that district goals and priorities are linked to effective strategies that encompass the needs, interests and enhancement of students and teachers. The study provided guidelines for the policy makers about the types of opportunities and incentives they can provide which would strengthen the teachers.

Kyle (2006) in the study *LEAPs of Faith: How California Districts' Planning Influences Teacher Professional Development*, seen professional development as a major instrument of school improvement. The goal of this study was to assess the general utility of a policy mandate approach for promoting teacher professional development. Utilizing a mixed-methods approach, this study examined California's requirement that all school districts engage in a planning process to implement the professional development requirements of the federal government's No Child Left Behind Act. Through an assessment of 38 district-authored professional development plans and interviews with district-level leaders and classroom teachers in eight case study districts, it was assessed the likelihood that a policy-mandated planning process would effectively promote meaningful, locally-implemented professional development for teachers. This assessment gave specific attention to how district responses to the policy varied by district size and district type (elementary or unified).

Results indicated that professional development activities differed little in the first year the policy was implemented (2003-2004) compared to the year prior to the policy's implementation (2002-2003). When compared to indicators of effective professional development derived from empirical literature, it appeared that there was much room for improvement in the activities offered to teachers by case study districts during both years. This indicated that the policy had minimal impact on the sampled districts in its first year of implementation. However, in general, larger school districts exhibited more capacity for providing effective professional development than smaller districts. More district-level leadership indicators were also exhibited by elementary districts compared to unified districts. The districts differed in the level of detail with which they outlined their professional development plans. Districts were much more likely to implement elements of their plan if they were specifically outlined.

Allison Ashley, and Christa (2007) in the study "An analysis of Missouri's current Teacher certification Policy and how it is meeting the needs of beginning teachers to work with students who are at risk", investigated the current teacher certification, the standards placed for Professional Development to meet the needs of students. Data was collected through questionnaires and

interviews with beginning teachers of the middle and high schools. The data collected from beginning teachers and administrators, coupled with the statistics, made it obvious that the gap exists between what the state of Missouri requires for certification and what beginning teachers need to be effective in working with students at risk. The certification policies need modifications to help the beginning teachers.

Desimone, Laura, Smith, Thomas, Phillips, and Kristie (2007) conducted a study on “Does Policy Influence Mathematics and Science Teachers' Participation in Professional Development?” The research suggests how the policy environment shapes teachers' choices to participate in either "effective" or "ineffective" professional development. Because No Child Left Behind (NCLB) and related reforms are making new demands on teachers, and professional development is one of the critical mechanisms by which educational system is improved. The study developed a three-level hierarchical linear model (HLM) to predict teachers' level of participation in different types of professional development activities using a national sample of high school mathematics and science teachers from the Schools and Staffing Survey (SASS). Findings revealed that authority, not power, is associated with teachers taking the kind of professional development that improves teaching and learning--activities focused on subject matter content and instructional strategies, as well as active interactions with other teachers around curriculum and instruction. Rigid implementation of policies does not help in teachers' professional development. Similarly, stability (measured by reduced teacher turnover), not the consistency of professional development with other reforms, is associated with taking effective professional development as the most useful opportunity for teacher learning.

Grossman, Tabitha, Hirsch and Eric (2009) studied the State policies and professional development. The data was collected from documents from school districts and State Educational Offices. The findings of the study revealed that the professional development decisions have been left to school districts and teachers by the State policies. States require teachers to complete a certain amount of professional development for license renewal but the quality or the relevance of the professional development was not regulated by the States. State

policies focus almost exclusively on the amount of time required and the types of opportunities that can be used for license renewal. States are not looking into data that could help determine whether professional development improves student learning. The study recommended that to enhance the quality of professional development and help ensure the investments made in professional development to improve student learning, governors must articulate to develop new models of professional development. This must be based on what limited research indicates on both the quality and impact of professional development. Specifically, states should: (1) Gather and use student achievement data to assess the effectiveness of professional development; (2) Use teacher evaluations and student learning data to create individualized professional development plans for teachers; (3) Establish research-based state standards to create a vision for high-quality professional development; and (4) Create an incentive-driven professional development initiative for teachers to acquire advanced skills.

Frank Valerie (2010) identified collective bargaining language and policies that support high-quality professional development in six states--Minnesota, New Jersey, New York, North Carolina, Ohio, and Texas--along with their national organizations. The three key ideas emerging from this study were: (1) Professional development is only as effective as the expectations set for it; (2) Within their unique contexts contract provisions and policy language about professional development are best considered and (3) Professional development can be dramatically enhanced through state policy and collective bargaining agreements. The following national recommendations emerged from the work of this initiative: (1) All states and districts should adopt and follow strong standards for professional development; (2) States and districts should develop easily understood, research-based, and graduated rating systems for professional development programs; (3) States and districts should provide adequate resources, including time and financial support, to ensure every educator engages in effective professional learning; (4) All states and districts should immediately implement new or expanded professional learning for school leaders, including principals and teacher leaders, to help them facilitate and integrate high-quality professional development into teachers' workdays; (5)

States and districts should require that school leaders' evaluations include how well they implement effective professional learning; and (6) States and districts should work collaboratively to establish parameters or guidance on teachers' role in all decisions related to professional development.

2.1.2 Programs for Professional Development of Teachers in USA

Desimone, Porter, Garet, Yoon, and Birman (2002), constructed their study on the results of Garet et al., (2001) study, that professional development which actively engages teachers in discussions of pedagogy increases the teacher's use of those activities in the classroom. Using a purposefully selected sample of 207 teachers in 30 schools, in 10 districts, in five states, they looked at specific features of professional development and their effect on changing classroom practices. Their longitudinal study surveyed teachers at high poverty schools at three years in a row: 1997, 1998, and 1999 in order to examine "the characteristics of professional development that foster change in teachers' instructional practices" (p. 84). The teachers described all of the components of a single professional development activity they had participated in over the last year. The findings of the study strengthened the earlier study that professional development that focused on a specific teaching practice (pedagogy) increased their use of that practice in their classrooms. When teachers engaged in active learning strategies, as interacting with their colleagues on a regular basis to discuss their work and students' learning, gained a "deeper understanding of how children think and learn". However the quality of the professional development programs does not depend on the duration, or time span, of the professional development activity.

Frank (2003) in a study entitled 'Culturally Responsive professional Development through Conceptual Change' analyzed the influence of participants' experiences on their culturally responsive pedagogical development. The study also considered the policy implications for higher education, schools and school districts, and the state. It is a case study which included qualitative inquiry methodologies. Four substitute teachers from three urban school districts participated in a professional development experience—autodidactic cultural diversity development—to learn about culturally responsive pedagogy and implement it in their classrooms. NVIVO, qualitative

research analysis software, was used to facilitate data analysis. The results indicated that participants' upbringing, collegiate experiences, substitute teaching experiences, and the professional development influenced their development as culturally responsive educators. Each participant's case highlights her or his development and the aspects of this experience that promoted the learning and implementation of culturally responsive teaching. Lived-experiences heavily influenced participants' learning, suggesting that efforts should be made to individualize learners' experiences when attempting to teach culturally responsive pedagogy. Data analysis indicated that the professional development program increased three of the participants' awareness of their students' cultures and influenced their implementation of culturally responsive practices in the classroom. The policy implications suggest that teacher preparation programs and school districts consider the pedagogical potential of the study and also substitute teaching experience when providing professional development. The study also recommended that policy makers must consider, regarding the value and applicability of the substitute teaching experience for pre-service teachers and cultural diversity professional development for substitute teachers.

Duygusonmex (2006) conducted a study titled "Examining the effects of a DNA fingerprinting workshop on science teachers' professional development and student learning" for secondary school teachers. Professional development program was conducted by the University. The methodology adopted was a quantitative research strategy. Data was also collected through interviews. 17 Teachers who had earlier attended the workshop in 2005 formed the sample of the study. The results indicated that the teachers' motivation to attend the DNA Fingerprinting professional development workshop was mainly influenced by the need to improve content knowledge and skills, and requirements associated with educational policies. Level of content knowledge was found to be a factor contributing to teachers' motivation to implement what was learnt in their workshop. Concerns related to student maturity and classroom management were also identified as factors influencing teachers' implementation behaviour. Evidence showed that the DNA Fingerprinting workshop was successfully implemented by classroom teachers.

Craig (2007) examined Professional Development reforms in the study “Act 1999-48 (24 P.S. Sections 12-1205.1 et seq.): An Analysis of Continuing Professional Education Reform in Pennsylvania and Implications for Policy and Practice”. The enactment of Act 1999-48 (24 P.S. §§ 12-1205.1 et seq.), or Act 48, in Pennsylvania signified a transition from optional continuing professional education to mandatory continuing professional education (CPE) for all Pennsylvania certified educators. The study examined 97 teachers from south Western Pennsylvania public school districts, compliance with the Act 48 legislation. This qualitative study examined (1) the extent to which CPE activities of educators in selected school districts in Pennsylvania’s Region 7 aligned with the requirements as set forth in the guidelines and (2) the extent to which the school districts CPE activities met their strategic plan goals. The analysis was based upon the review of documents that identified the school districts strategic plan goals and the CPE activities submitted to PDE for Act 48 credit during the 2005-06 school year. Data revealed that 18% of the school districts aligned fully the credit-bearing CPE activities to their strategic plan goals. To maintain the certification allowed for educators the CPE must be made available. The result of the study revealed that though the functionality of the legislation has been limited, at the very least, it has forced educators to participate in some type of CPE. As a result, all educators, not just newly certified educators, must once again reconsider their own identities as lifelong learners. The study also showed that in order for the initiative to have a more positive impact on the education of educators and students, systemic changes are required at all levels; the state, the school district, and the individual professional educator. Though the districts recommended many professional development activities for the teachers, not all of them complemented the strategic plan goals of the districts.

Hall (2007) in a case study on the district wide professional development examined the design, inspiration, implementation and impact of the program. The title of the study was Inspiration, Implementation, and Impact: examining Teacher Professional development in Successful School districts. The data for the qualitative study was derived from semi-structured interviews with districts assistant superintendents of curriculum and Instruction, school principals and

teachers, document review and observations. Research questions for the study included: How was the teacher professional development activities designed and planned? How was the teacher professional development activities carried out in the districts? And what was the impact of the professional development on teacher practice and student achievement? The result showed that the professional development activities were intent and focused. The districts encouraged teacher collaboration. The study provided positive example of how teacher collaboration centred on student learning as professional development has the potential to improve teachers' instruction and increase student learning.

Gwin (2008) investigated the implementation of a schedule-embedded professional development in the form of professional learning teams (PLTs) designed to foster improved teacher attitude toward professional development, increased dialogue and collaboration among teachers instructing the same course, and the development of the attributes of successful professional learning communities. This is a qualitative case study. The data was collected used through structured interviews with five department chairs in the school, surveys of the teachers in the school, and the researcher's reflective journal of the study including field notes. The major findings of the study indicate that the implementation of job embedded PLTs positively impacted teacher attitude professional development and increased the dialogue and collaboration among the teachers within the PLTs. The study also found the essential characteristics of successful professional learning communities and effective professional development during the implementation of the study.

Mario (2008) examined a job-embedded professional development program of the high school teachers in a study titled "Job embedded professional Development: A study of the perceptions and behavioural changes of Participants in a New England High School". The case study examined the following research questions: Which PD activities contribute to the teachers' perception of effective PD? How do teachers who participated in the job-embedded PD define "effective PD? What are the effects of the program and knowledge, skills and instructional practices? The data of this qualitative study was collected through interviews, participant-observation, and documentation. The results indicated that the PDP was successful in implementing school-wide

initiatives. The teachers reported that the program reinforced their skills in establishing classroom rituals and routines, creating better performance assessments and using assessment to driving instruction. It also revealed that the teachers were not exposed to the effective characteristics of professional development as defined by NSDC. It was useful in building the capacity of teachers to address high school reforms, and improve the achievement of students.

Stephanie (2009) examined the professional development processes at two California middle schools in a study entitled “A study of Professional Development in Two Middle Schools with significant increase in Statewide Test Scores”, comprising of a majority of an ethnic/racial minority subgroup as well as a majority of socio-economically disadvantaged students. A qualitative study was conducted by interviewing teachers and administrators, observing professional development meetings and classrooms, and studying school documents to examine how these schools organize and develop their professional development programs. The results showed that the a)The leadership at both sites collaborated with the district office to determine professional development decisions relevant to their individual needs, b) professional development opportunities largely were based on student results from assessment data, c) the design of the professional development activity included collaborative and active engagement strategies, d) the staffs’ perceptions of professional development activities potentially affected the impact of the teacher professional development activity, and e) the school leadership was viewed as important to creating and sustaining an environment of continuous learning through professional development opportunities.

Nonyelum (2010) in the study titled “Collaborative Professional Development and Curriculum Enactment: Teacher Reflection to Inquiry based Discussion in High School Science Classroom” incorporated a variety of resources. It includes AAAS criteria, research-based discussion strategies, educative curriculum materials, a common curriculum video artifacts and science education research articles. The teachers were provided with opportunities to engage in an iterative process of reflection and instruction to bring about instructional change; a process of self-examination and experimentation that was fostered in a small

group, collaborative, and sustained professional development program. The tools used for this qualitative study were interviews, professional development workshops, and teacher enactment. The findings showed that the design of professional development can foster a teacher learning community of reflective practice that promotes instructional change in inquiry-based science when resources are used to support and complement each other.

Teague (2010) investigated the awareness of the standards set by The National Staff Development Council (NSDC) for teachers in a case study of High Schools' Professional Development program based on the NSDC standards. NSDC has created twelve standards to assist teachers and administrators in creating a comprehensive professional development program. The standards include: Collaboration, Data-Driven, Design, Equity, Evaluation, Family Involvement, Leadership, Learning, Learning Communities, Quality Teaching, Research-Based, and Resources (NSDC, 2001). 143 teachers' perceptions on their school professional development program collected through a survey. The data was analyzed to determine the perceived strengths, weaknesses, and possible constraints of the school professional development program. The result of indicated that school professional development were effective and the teachers were aware of the NSDC standards. The research also suggested the possible methods to improve the program.

2.1.3 Perception of Teachers/Principals on Professional development Program

Bischoff (2004) in a qualitative study, Math and Science teachers' perceptions of the impact of professional development has on their teaching practice. An electronic survey of teachers was conducted to gather perceptions regarding the impact professional development had on teaching practice. Surveys and interviews of administrative personnel charged with professional development oversight were also utilized. The research questions were: the extent to which teachers perceive a connection between professional development opportunities and their teaching practices; what do teachers believe to be essential components of an effective PDP? The components which help them to reflect their own teaching practices; in relation to PD; the district's encouragement and support to teachers to become more reflective practitioners? The findings of the

study revealed that there is a need effectively plan, implement, and evaluate professional development program. The research has implications for professional development providers to ensure that effective professional development opportunities were offered to teachers.

Furman (2005) investigated teachers' perceptions of professional development experiences and resultant changes in knowledge, skills and practice, in a study titled "Teachers' Perceptions of Professional Development Experiences and changes in Knowledge, Skills and Practices: Implications for Policy and Practice". The research questions explored the structural features, the core features, and the outcomes of teachers' professional activities. Teachers' perceptions of their PD experiences were collected through questionnaire based on Teacher Activity Survey, (US Department of Education, 2000). The findings showed that both traditional and reformed type of PD can enhance the knowledge and skills and change in teaching practices when the design of PD activity includes a focus on content and duration that allows time for feedback opportunities.

Sorensen (2007) conducted a study on "Examining A Professional Development Process for Increasing Classroom Implementation of WEdGate". In this research, the effectiveness of an instructional technology professional development program designed to train teachers and administrators how to integrate WEdGate products into the classroom was studied. WEdGate is an internet portal developed by the Wyoming Department of Education to provide support for standards-based planning, instruction, and assessments. This training program utilized components that research indicates are important if successful implementation is to take place: administrative support, managing the training process, and on-going or continuous training. This study included five Wyoming school districts that provided the professional development training and five Wyoming school districts that did not provide the training. A survey was developed to determine the teacher and principal perceptions of the effectiveness of different aspects of the training. The findings of this study indicated that the training did increase the use of the WEdGate by the teachers. This study also revealed that effective implementation process of the professional development programs has greater impact.

Sefrit (2008) studied the mentoring/professional development program within the teaching profession to determine the extent and perceived value of the existing formal mentoring program in the Fort Zumwalt school district. The instrument used in this study was a survey designed by the district for the beginning teachers who finished their first year of teaching and the formal mentoring program. The results were analysed statistically by using Likert scores and Chi square test. The findings of the study revealed that: a) beginning teachers have the need and desire for a mentor, professional development plan and induction program; b) the majority of beginning teachers perceived the formal mentoring and professional development program was "very beneficial" to their individual growth as a teacher; and c) the person in the position of mentor made a significant difference in the success of the beginning teacher's first year teaching. As a result of this study's information, the formal mentoring program/ professional development plan for beginning teachers in the Fort Zumwalt School District was perceived to be effective for beginning teachers.

Spicer (2008) studied the teacher's perceptions as they relate to professional development, as the school systems face the daunting challenge of meeting state and federal mandates and legislations. In a quantitative research method, the data was collected from 218 Teachers. The research questions were teacher's current perceptions about professional development; the differences in teacher's perceptions of current professional development based on their teaching assignment. The results showed that the Novice teachers experienced the professional development to be high quality than the experienced teachers. The results indicated an inconsistency between teachers who taught various subject.

Floyd (2009) conducted a study on, "Fort Zumwalt School District Professional Development Plan: A qualitative study of Current District Perceptions and Proposed Changes". The data was collected from Fort Zumwalt K-12 certified teachers using three instruments: (a) reflection/evaluation sheets, (b) needs assessments, and (c) an electronic questionnaire. The data collected from these sources were analysed to answer the research questions.

Findings from the five research questions demonstrated that teachers in the Fort Zumwalt School District value the professional development opportunities that were attended. The teachers attended workshops to improve their teaching

skills, students' achievement and to advance their career and maintain certification. The scope for other professional development opportunities was limited within the district.

Jennifer (2009) conducted a study on, "Fort Zumwalt School District Professional Development Plan: A qualitative study of current secondary teacher perceptions and proposed changes". The objective of the study was to know the following: 1. what types of professional development opportunities are teachers choosing to participate? 2. What motivates teachers to participate in professional development activities? 3. When do teachers prefer to participate in professional development opportunities? 4. To what degree do teachers believe professional development experiences improve their teaching and classroom practices? 5. Do teachers believe that professional development programs are meeting their need to improve their teaching and classroom practices? The results indicated limited professional development participation due to lack of time, variety of topics, and structure or format needed to support ongoing, high quality professional development. The professional development is most effective when embedded in the school day and closely aligned with district goals and teacher needs.

Robinson (2009) studied the perceptions of principals regarding the role of professional development and appraisal system in teacher supervision. Historically, many principals understood the purpose of teacher supervision to be the improvement of instruction. A convenience sample of 310 principals from a metropolitan area responded to a questionnaire. The questionnaires covered several topics including principals' beliefs, attitudes, values, and practices regarding teacher supervision within the context of the Professional Development and Appraisal System (PDAS), the Texas state-developed and recommended instrument and protocol for conducting teacher performance appraisal. Analysis of the responses revealed that principals do not hold strong, central beliefs as to the purpose of teacher supervision, the efficacy of the PDAS system, or even who is the best person to conduct teacher supervision. Further, there is widespread inconsistency in the practices of principals in their formal documentation of teacher performance appraisals.

Rouser (2009) conducted a study to reveal teachers' perceptions of isolation and the impact that a peer visit protocol may have on teachers' reflective practice. This qualitative study took place in a small school district on the Mid-Atlantic coast of the United States. The case study approach involved ten teachers who participated in a professional development program known as "Roadmap to Results." The tools for the research involved a questionnaire, an artifact analysis, and a focus group interview. Findings indicated that by engaging in peer visits, the high school teachers in this study felt reduced feelings of isolation and an increased sense of community. The teachers also indicated there were higher degrees of support in applying new ideas in their classrooms, and this increased the degree of transfer of what was learned in professional development activities.

Suski (2009) in the study titled the "School District Administrators' Perceptions of The Quality of Professional Development in Pennsylvania's Public School Districts" evaluated the perceived quality of professional development programs in Pennsylvania's public school districts. School district administrators responsible for coordinating professional development were asked to respond to a survey to assess the extent to which the characteristics of high quality professional development are present in their districts' professional development programs. Perceptions about the challenges facing professional development coordinators in providing high quality professional development to all staff were also assessed. Information was gathered on the funding sources and number of school days allocated for professional development. A statistical analysis was performed on five areas of high quality professional development which include: program vision and goals, program planning, program design, program resources, and program evaluation. A paired-samples t-test was used to compare the mean scores across all five (5) areas. Program Planning, Program Design, Program Vision and Goals were found to be the strongest aspect of districts' professional development programs. Program Resources was determined to be the weakest area. The study also revealed that the challenges facing professional development coordinators in Pennsylvania's public school districts were lack of sufficient time to engage teachers in professional development activities and a lack of sufficient funding to support professional development needs.

Elliott (2010) studied the perceptions of teachers, facilitators and the principals on how they engage themselves in a data driven job-embedded professional development. Analytic induction was used to reveal notions about professional development context, thoughts about use of data and ideas about practice. The findings of the study showed that this form of professional development holds promise for support to a collaborative culture which uses data to guide decisions but had its own challenges. Professional development within many schools, districts has become more closely linked to school or district achievement goals, daily practice and student assessment data. Implementation of data-driven job-embedded professional development as a prominent form of professional development within a school or district should be considered carefully and critically.

Laurie (2010) investigated the influence of school culture, school goals, and teacher collaboration on teachers' attitudes toward their Professional Development Plans. Data were also collected on teachers' perceptions of the steps of the PDP process to determine which steps had the greatest influence on teachers' attitudes toward their Professional Development Plans. The sample for this study was 154 prekindergarten through high school teachers. Participants held a range of attitudes from very positive to very negative toward the Professional Development Plan. Significant correlations were found between teachers' attitudes toward the Professional Development Plan (TAPDP) and factors of school culture -Collaborative Leadership, Teacher Collaboration. Another purpose of the research was to determine the extent to which PDPs aligned with school goals and PDPs not aligned with school goals differed on teachers' attitudes toward the Professional Development Plan. The data indicated a very large effect size and highlighted that a very large portion of the variance in TAPDP scores was accounted for by whether a teacher aligned the PDP with a school goal or whether the PDP had little or no alignment with a school goal.

2.1.4. Evaluation and Impact of Professional Development Program

Wenglinsky (2000) examined the relationship between beginning teacher certification, content knowledge, and pedagogy practices on student achievement using data from NAEP. The NAEP had asked the beginning

teachers to report college coursework, content area training and education methodology practices. The study revealed that the students whose teachers received professional development opportunities in content areas scored better on NAEP. Students whose teachers majored or minored in mathematics education and who reported participating in professional development addressing diverse student populations----scored better in the respective subjects. This study examined the importance of not only teacher certification and content knowledge, but suggested a teacher's pedagogy knowledge and practices as a critical factor in student learning.

Chrystalla (2004) studied teacher generative growth as a result of participation in a research-based professional development program on the use of technology. Specifically, the study investigated the ways in which teachers integrated and extended the key facets of the program two years after its completion with particular emphasis on a) individual teacher characteristics, b) school contextual factors, and c) key components of professional development. The research focuses on the elements of success in longitudinal technology integration, rather than on the inhibitors to such technology adoption. Therefore, while the investigation draws on case study research of eight teachers, the centre of attention remains on the one exemplary teacher who exhibited the maximum characteristics of long-term professional growth. Results indicated that participation in professional development fostered increased technological knowledge and awareness, sustained use of technology integration into classroom instruction, and generation of more elaborate beliefs on the role of technology in teaching and learning.

Judith (2005) in a case study titled “the impact of a reform-based professional development program on the practices of eighth grade science teachers” studied the growth of secondary science educators from pre-service teacher preparation through their involvement in a Master's interdisciplinary Science program to their classroom practices. The qualitative analysis suggested that increasing science content knowledge through professional development programs gives teachers greater confidence to teach integrated science. A case study method with 21 teachers was administered. The data collected through observation, interviews and documents were triangulated and analysed. Participation in a

professional development program focused on their pedagogical knowledge and helped to teach inquiry based lessons for their students. The participant teachers experienced change after the program as neither the graduate programs nor the teacher education programs prepared them to teach integrated science.

Brutsman (2006) examined the impact of a district level professional development writing course on teacher implementation practices of information addressed in the course. A particularistic case study of Qualitative method was used to study teacher participation. Each teacher's implementation practices, and teacher use of artifacts and /or tools of appropriation was impacted by participation in the program was also studied. Analysis of data yielded that some teachers were consistent in their implementation, and some missed opportunities to use artifacts introduced in their courses. The findings of the study revealed that the participation of teachers in professional development not only impacted implementation practices but also teachers tend to emulate these practices with students. The mentors assigned to beginning teachers demonstrated proficiency at implementing district programs and content contained therein. The recommendations of the study were that, the district programs need to address contextual factors related to professional development. It may also need to address content knowledge.

Kelly (2006) investigated the effects of professional development on classroom teachers in the study entitled "Does one School District's Professional Development Model Lead to Improved Student Academic Achievement". The study addressed the research questions like how effective are professional development programs in a suburban/metropolitan school district and what impact do the professional development programs have on student academic achievement in the school district? The study method used was both qualitative and quantitative. The findings of this study described professional development make significant changes in the knowledge, skills, practices, and attitudes of teachers with the ultimate goal of improving student learning.

Marie (2006) in a study the effects of professional development in literacy on selected teachers in reading workshop, investigated the relationship between the instructional practices of selected urban high school teachers and their understanding of how to teach reading. The objective of the study was to gather

insight into how a professional development program might influence high school teachers to change their practices and their understandings about reading instruction. Data sources included classroom observations; interviews with teachers, students and an administrator; PD meetings, documents from PD sessions. Results indicated that when teachers participated in a PDP in reading, they changed their instructional practices and understanding of teaching reading and students were more enthusiastic about reading and positive endorsement for certain aspects of the PDP.

Meade (2006) evaluated the professional development programs and practices of small private Christian schools based on the perception of administrators and teachers. Seven research questions provided the frame for examining educators' perception regarding their professional development experiences. The perceptions of the teachers and administrators were compared through the use of nonparametric chi square test and Mann Whitney U tests. Results indicated significant congruence between the perceptions of the respondents. The teachers and administrators perceived their professional development experiences as effective and aligned with NSDC staff development standards.

Roman (2007) studied the effects of a professional development program conducted by geoscience education institute upon secondary school science teachers. The study was based on the (1) the effects of a five-day long constructivist and field-based earth science education upon 26 secondary school science teachers' earth science conceptual knowledge, perceptions of fieldwork, and beliefs about teaching earth science; and (2) the implementation of participants' newly acquired knowledge and experience in their science lessons at school. Qualitative data included questionnaires, semi-structured interviews, reflective journals, pre-post concept maps, and pre-post lesson plans. The results indicated that the PD Program improved the participants understanding of earth science concepts, content, and processes related to the geology of Puerto Rico. Participants also improved their earth science teaching beliefs, perceptions on field-based education, and reflected on their environmental awareness and social responsibility. Participants were greatly benefited from the field-based learning environment, inquiry-based teaching approaches modelled, the attention given to their affective domain, and reflections on their teaching practice.

Pradere (2007) focused on the development, implementation and evaluation of a school based staff development project in his study on ‘Effective Staff Development Connected to Increased Student Achievement’. The study addressed the research questions like; is there a change in teachers instructional practices as a result of participating in the professional development program; are the teachers adopted the new instructional practices; are these changes have an impact on student performance as calculated on the Measures of Academic Progress (MAP) assessment. The study established qualitative research methods including survey, interview, and classroom observation. To measure changes in student performance, traditional univariate and multivariate statistical techniques were utilized. The findings revealed that students whose teachers exceeded proficient skill levels in instructional practices and student engagement demonstrated higher performance levels in reading and language on the MAP assessment than those students whose teachers met or approached desired skill levels in those two areas.

Daniel (2008) studied the professional development program and its impact on teacher performance (transfer of skills and knowledge from training to the classroom) and student achievement on high stakes test in subject areas. The study tried to answer the questions like (a) how does professional development support the instructional practices of novice high school teachers? (b) What is the impact of professional development of novice high school teachers on test results as demonstrated in teacher’s value added assessment scores? The sample consisted of 128 teachers from the school district. The data was collected on using an on-line survey. The data was analysed using chi square test. The results indicated that the school district is supporting both professional growth of the teachers and also the teaching-learning of students in the classroom. The professional development opportunities were offered throughout the year to improve the teaching skills. The mentor programs were effective which enhanced content-based conversations and skill development within the classroom.

Kathy (2008) examined formative evaluation procedures for professional development used by selected Pennsylvania schools and their relationship to student achievement. This was a descriptive research study. Data were acquired

through PDE public records and a survey instrument from principals. Results of quantitative analysis indicated that many procedures were employed to evaluate professional development. Methods to evaluate participant reactions to activities were more prevalent than all other levels of evaluative practice. The findings revealed that the advancing schools demonstrated significantly higher use of professional development standards for evaluation than static schools. There was no statistically significant difference. Although Pennsylvania Act 48 regulations mandate all staff development programs be evaluated based on student learning, evaluative procedures focused on student learning was the least used of all evaluation methodologies for all schools in this study.

Mazzie (2008) investigated the relationship between students' standardized test scores in science and (a) increases in teacher assessment literacy and (b) teacher participation in a Teacher Quality Research (TQR) project on classroom assessment. The samples for these studies were teachers from underperforming schools who volunteered to take part in a professional development program in classroom assessment. School groups were randomly assigned to the treatment group. For Study 1, teachers in the treatment received professional development in classroom assessment from a trained assessment coach. Teachers in the control received no professional development. For Study 2, teachers in Treatment 1 received professional development in classroom assessment from a trained assessment coach and teachers in Treatment 2 received professional development in classroom assessment from a facilitator with one day of training. Teachers in both groups completed a measure of assessment literacy, the Teacher Quality Research Test of Assessment Literacy Skills (TQRTALS), prior to the beginning and then again at the conclusion of the four month professional development program. A hierarchical linear model (HLM) analysis was conducted to determine the relationship between students' standardized test scores in science and (a) increases in teacher assessment literacy and (b) teacher TQR status. Findings of the study based upon these analyses, revealed that the professional development program increased teachers' assessment literacy skills; however, the professional development had no significant impact on student achievement.

Murphy (2008) investigated whether there is a link between teacher professional development for school improvement and student achievement by analyzing data of the Missouri Commissioner's Award School Districts and other Missouri school districts. Quantitative research methods were used to evaluate professional development practices which were regarded as high-quality professional development and its impact on student achievement in Missouri K-12 public schools. Missouri Assessment Program (MAP) data from 24 Missouri Commissioner's Award of Excellence school districts and 24 comparison Missouri school districts were analysed. The achievement rates researched were the MAP achievement tests among nine subgroups, Adequate Yearly Progress (AYP) rates, graduation rates, and American College Testing (ACT) scores. The results indicated that high-quality professional development is an important component for teacher growth and student achievement. There were no statistical differences in ACT rates and graduation rates between Commissioner's Award school districts and comparison schools. The results also indicated gains in AYP subgroup achievement rates of Commissioner's Award school districts and comparison between the years of 2003 and 2006.

Steinbeck (2008) analyzed the impact of the Select Teachers as Regional Resources (STARR) program on the former STARR participants' personal empowerment, professional growth and the influence on subsequent career roles. It was a survey study conducted to determine (a) if any relationships existed between selected demographic variables of teachers who have participated in the STARR program and the participants' current self-perceived empowerment and (b) if differences existed in the self-perceptions about empowerment for the participants in the STARR program prior to beginning participation in the program, immediately after the completion of the program, and currently. A mixed methodology using both qualitative and quantitative analysis was conducted to determine the participants degree in the STARR program described beneficial experiences from the program, influences of the program on their professional development, and the influences of the program on their subsequent career roles. The results implied that the STARR program had a profound impact on their professional skills and confidence. The STARR program opened doors to new careers and leadership opportunities.

Howland, (2009) studied the, “Effects of individualized professional development on the theoretical understandings and instructional practices of teachers”. The primary purpose of this study was to analyse the outcomes of an original method of teacher-learners, while capitalizing on the current state of knowledge regarding effective professional development characteristics, and teacher cognition and learning. Specifically professional development that acknowledged and addressed the specific learning needs. The analysis revealed what changes occurred in the instructional practices and theoretical understandings of elementary teachers as they participated in Individualized Professional Development (IPD). The findings suggested three different levels of teachers whose needs were different in collaborative groups based on similar support needs, teacher-learners were then provided with Individualized Learning Activities to support their level of theoretical understandings and/or level of curriculum implementation.

Kelly (2009) studied the ‘Professional Development of Teachers of Mathematics’ which forms a holistic, rich description of the way a professional development experience transformed teachers of mathematics. This professional development targeted teachers from six underachieving schools in a southern state who were trained for a week in inquiry techniques of instruction. A case study design was used to study the impact, this experience had upon participants. Three of the high school teachers were the subjects of analysis. Additional data were incorporated from project administrators and other teachers and assistants involved with the professional development experience. Data sources included highly structured questionnaires, observations, semi-structured interviews, documents, archival records and e-mails. Data were gathered before, during and after the experience to compare findings. Themes were developed from the data sources to assess the way that the professional development transformed the pedagogies and the beliefs of the teachers. Results suggested that designers of professional development must take into account the previous experience of the participants, especially their perceived professional needs and beliefs. Designers also need to be aware of participant’s content knowledge and pedagogical skills. The findings of this study had impact on the

planning, execution and evaluation of professional development programs in education and other fields.

LaBombard (2009) conducted A Qualitative Case Study of Professional development processes in the Classroom: From Initiatives to Implementation. School districts increasingly use professional development programs to improve instruction and, as a result, students' outcomes. This study explored the impact of an instruction development and evaluation processes used by professional development staff in relation to teachers' subsequent demonstrated improvement in knowledge, skills, participation in school organizations, and classroom practices. It is a qualitative study, which used Tallerico's professional development as a framework and examined 5 professional development program processes in 2 selected districts. Participants totalled 25 purposively selected teachers from both districts. Data sources were pre-program interviews, classroom observations, and post program reflections. Data were analyzed using open and axial coding to identify themes and trends. Although results indicated varying knowledge retention levels based on the different program processes used, more notable was the minimal demonstration of retained knowledge and skills being implemented in classrooms. Though, half of the participants indicated they found collaborative problem solving the most beneficial process for successfully implementing professional development, but they did not use the process in their classrooms. This study impacts social change because it indicates a need for in depth examination of instructional methods to see which types motivate and inspire teachers most and it provides professional development specialists with a clear understanding of the professional development structure that will help them evaluate those programs' impacts and value in improving classroom instruction.

Lisa (2009) studied the relationship between high quality professional development and student achievement in the state of Missouri as measured by the Missouri Assessment Program (MAP). The Missouri Assessment Program results of the school districts served by the Missouri Regional Professional Development Centres were compared to the percentage of teachers who participated in high quality professional development activities offered through the Missouri Regional Professional Development Centres. A Pearson Product

Moment Correlation was used to determine the degree of association between high quality professional development activities offered through the Missouri RPDC regions and MAP. The data in this study was analyzed using an Excel© spread sheet and combined indices of Communication Arts and Math. The results indicated that there were no significant relationship existed between high quality professional development activities offered through the Missouri Regional Professional Development Centres and student achievement as measured by the MAP.

Miller (2009) explored how professional development enhanced innovative instruction and achievement within the learning environment. A student-centred environment particularly helped students in the areas of reading and math. This allowed teachers to use a combination of instructional strategies to meet the students' needs. Today's students no longer benefitted from one instructional approach. Today, all students needed an enhancement in their learning. The best way to do this was through professional development experiences that offered improved classroom practice and strengthened community relationships. The areas focused upon were curriculum and instruction, the learning climate for students, social services for students, and parental-community support for the students. The study was developed from a qualitative theoretical framework related to the learning action model. The learning action model prepared the teacher to develop professionally, in an effort to equip the students to develop emotionally, socially, and physically in the chosen learning environment. The study developed a 27-question survey and was given to randomly selected two hundred and fifty (250) faculty and staff. The results indicated the use of teacher developed professional development programs which were successful but could not indicate whether student achievement in the learning environment increased or not.

Viggiano (2009) examined implementation of the ePortfolio, and also examined the professional development necessary to increase teacher confidence and knowledge of the pedagogy involved in their use. A qualitative case study was conducted. Research methodology combined questionnaires, observations, and interviews. Four secondary teachers' implementation of the ePortfolio was documented. The study revealed that teachers were more likely to implement

electronic portfolios if they receive training in the technology, were given adequate support, and have available computers for students to use. Teachers valued the ePortfolio for use with students but were not using the ePortfolio as an assessment tool either to inform instruction or increase student achievement; therefore, professional development needed to go beyond technology to include pedagogy, including reflection and assessment, to fully realize the potential of the ePortfolio. Even when teachers and principals believe facilitating the ePortfolio as part of the teacher's job, the time and resources required can overwhelm teachers and cause them to hesitate in the implementation of electronic portfolios. Research recommends that the ePortfolio can reach its full potential through teacher feedback to improve implementation. Schools can continue to work in isolation with varying degrees of success, or the state can give support. The state needs to have a process in place, such as focus group meetings, to receive suggestions and continue to upgrade the database to meet consumer needs.

Cynthia (2010) conducted a study on “The Effects of High Quality Professional Development Activities for Teachers on Students' Tennessee Comprehensive Assessment Program”. The objective of the study was to determine the level of technology integration as perceived by the teachers and administrators and to determine the professional development opportunities at each level. Three hundred and twelve teachers from thirteen high schools and across diverse content areas responded to a questionnaire. The principals from each of the thirteen high schools and a random sampling of the responding teachers were also interviewed. The findings in this study indicated that the majority of the teachers were integrating technology at a routine level. Professional development that included independent exploration, collaborative time with peers and on-site coaching had enabled these teachers to utilize technology for lessons and classroom management as well as to facilitate their students in using technology tools. This study also indicated that in order for teachers to move to higher levels of technology integration, the professional development should include differentiated, collaborative, real time opportunities on a frequency of at least once in a month.

Elizabeth (2010) studied the effectiveness of professional development and resource allocation to student achievement. The research question was: What is the relationship between professional development expenditures and student achievement? This study collected and analyzed professional development expenditures and student achievement data for 2007 for middle and high schools (N = 426, N = 1234 respectively) in Texas. A partial correlation, controlling for socioeconomic status and English proficiency, revealed that there is no relationship between professional development expenditures and 8th grade student achievement in language arts, mathematics, social studies, and science. High school results revealed small, but negative relationships between professional development expenditures and student achievement in English, mathematics, and science. Consequently, the study concluded that expenditures for professional development are not yielding positive returns in the student achievement domain. It is the quality of professional development which has the positive impact on student achievement.

Kano (2010) examined the effects of professional development on the infusion of engineering design into high school curricula. The National Centre of Engineering and Technology Education (NCETE) sponsored professional development workshops at California State University, Los Angeles (CSULA). Four in-service teachers with backgrounds in physics, chemistry, industrial education, math, and electrical engineering participated. The three sources provided were used to answer the research question, "What are the effects of professional development on infusing engineering design into high school science, technology, engineering, and math (STEM) curricula"? Three major themes emerged from the data. They were (a) incorporation of professional development content, (b) challenges with incorporating professional development content, and (c) benefits of incorporating professional development content. It was shown that the effect that the NCETE professional development had on the infusion of engineering design into high school curricula varied among each of the four teachers due to their subject area, educational backgrounds, and experiential knowledge. The study revealed that one step approach to professional development is not enough to cater to the individual teacher's requirements.

Lesley (2010) examined the impact of teachers' professional development activities on student achievement. This was carried out by quantitatively examining the amounts of professional development (number of activities and number of days) and qualitatively examining the types of professional development activities. The responses of a questionnaire by the Public Schools teachers' were examined. A two-way ANOVA was conducted to determine if the number of professional development activities and number of professional development days impact student achievement in mathematics and Reading/Language Arts as measured by TVAAS. The analysis of data suggested that teachers' participation in high-quality professional development did not impact student achievement in Reading/Language Arts and mathematics as well. The results of this study indicated that more research needs to be done to examine the impact of teachers' professional development on student achievement.

Ralph (2010) in the study entitled "Changes in High School Chemistry Teacher Beliefs and Practice after a Professional Development program" proposed that when professional development modelled the inquiry-approach and provided time for peer-observed enactment and reflection, it would produce change in in-service chemistry teachers' beliefs and practices. Case study methodology was used to collect a variety of in-depth data on teachers' beliefs and practice including interviews, journals, classroom videotape and participant-observation, to address the research questions: (1) how does the use of an inquiry approach with in-service chemistry teachers in a professional development result in their re-examining their pedagogical theories? (2) How does the reflection on the inquiry approach and practice teaching result in changes in these teachers' pedagogical theories? (3) How do the changes in these teachers' pedagogical theories translate into their classroom practice? Semi-structured interview data revealed that 7 of 9 in-service chemistry teachers showed evidence of change in their beliefs over a year-long professional development program. Reflection data from the participating teachers showed they believed that modelled inquiry placing them in the student-learner role helped them to re-examine their pedagogical theories and develop more inquiry-based beliefs. Additionally, the professional development's emphasis on collaboration, peer-observed

enactments, guided reflection, and the establishment of a community of learners helped them to re-examine their pedagogical theories and develop more inquiry-based beliefs. 5 of 9 in-service teachers translated their beliefs into inquiry practice in their classrooms.

Rosemary (2010) investigated the level of implementation of formative assessment strategies among Rhode Island high school teachers and students in three districts: urban, suburban, and urban-ring. The research also analyzed the relationship of the disciplines taught, the time and quality of professional development teachers had, and district urban city relative to their levels of implementation of formative assessment strategies. A concurrent mixed methods design was used to survey high school teachers (N = 137) and students (N = 129) in three school districts. Focus group interviews with volunteer students (n = 23) and teachers (n = 19) provided depth of understanding to the relationship between each group's perception of implementation. The results of a "t" test found significant difference between students and teachers regarding teacher modification of instruction when students are struggling. Correlational analysis results showed a significant positive relationship between teachers' use of feedback strategies and the amount of professional development received on this same topic. Qualitative information validated quantitative data. Recommendations to national, state, and local education institutions included strategies to incorporate formative assessment within a balanced assessment system and substantial and on-going professional development for teachers to support its implementation.

Susan (2010) compared the science achievement and high school completion rates of students in a large high school implementing professional learning community concepts. The primary methodology employed was a causal-comparative quantitative study. The data collected included was archived 2008 and 2009 Texas Academic Knowledge and Skills (TAKS) test scores, archived high school completion rate data and survey responses from science teachers, administrators, science instructional facilitators and science department heads. The following conclusions were derived based on the data analysis in this study: (1) Professional learning community concepts and practices identified by DuFour et al. (2006) were being implemented (2) Professional learning

community concepts and practices positively affect science student achievement in large high schools (3) The implementation of professional learning communities does not appear to have an impact on students' Commended performance on the science Texas Assessment of Knowledge and Skills (TAKS). (4) The high school completion rate for "all students" is higher.

Casale (2011) investigated a sequential explanatory study of teachers' perceptions of professional development and the extent to which they believe it expands their knowledge and skills and improves student learning and alternate models of professional development. Approximately 1,000 teachers responded to an online survey questionnaire. Teachers also participated in a follow-up focus group discussion. Data from the survey questionnaires were analyzed via descriptive statistics. Teachers perceived that the topic chosen by and facilitated by the teachers were effective. The successful experiences assisted the teachers to apply what they had learned and they had time to meet the resource person to discuss the effectiveness of the program. The results also revealed the extent to which teachers were aware of other models of professional development than the traditional workshops. This awareness according to the teachers would help them to choose the type of professional development programs. The result will help in designing more personalised learning programs for the teachers by the policy makers and district authorities.

Blake and Eddie (2012) in the article entitled "Promoting Teacher Development in a Racially/ Ethnically, Socioeconomically, Linguistically and Academically Diverse School: A US Case Study" provided the analysis of a site-based professional development model that is grounded in teacher best practices. The administration and teacher leaders of the school developed a teacher-centred coaching model. The post-program survey of the practice-based approach to the development of teachers enabled the improvement of their instructional methods and assisted in building knowledge that was useful beyond a particular reform program. The analysis also showed that the program was developed through research and involved the best practices where the teachers were empowered to: identify the area of focus for growth; gather information about best practices related to the area of development; facilitate training sessions on the topics of interest identified by the teachers; and engage

all teaching faculty in study as a learning community. Suggestions for improvement based on international standards of best practice for professional development of teacher educators were offered.

2.2 Research Studies Conducted in Other Countries on the Professional Development of Teachers

The studies conducted in other countries related to the present study found eleven in number. The studies presented chronologically as follows:

2.2.1 Policies on the Professional Development of Teachers

Hardy and Lingard (2008) draw on Bourdieu's field theory and related concepts of habitus and capitals, to explore policy implementation in relation to a particular case of teacher professional development in Queensland, Australia. The implementation process was described as an effect of the policy field and the field of teachers' work. The policy field demonstrates intra-field tensions between the federal "Quality Teacher Programme" (QTP) and a raft of state policies, particularly those associated with the Queensland meta-policy, "Queensland State Education 2010" (QSE, 2010). The experiences of principals and a group of teachers engaged in professional development in a cluster of six schools in south-east Queensland, Australia were utilised to investigate the effects of this complex policy ensemble. The specific focus is on the "Curriculum Board", a cross-school body created by the principals in the participating schools, and its mediated work in policy implementation and teacher learning. The article analyses the effects of the involvement of the principals in the creation of the board, the limiting impact of QTP requirements to involve consultants rather than support for teacher release, and the limited influence of the board on teacher learning and policy implementation in the individual schools. The findings of the study showed the disjunctions between the logics of practice of the policy field and that of teachers' work, and the ways in which the differing habitus of principals and teachers and teacher members of the board affected teacher learning and policy implementation.

2.2.2 Programs on the Professional Development of Teachers

Sylvia and Choi (2009) presented a qualitative study on how teachers entering the profession at different times made sense of their professional lives and

continuing professional development (CPD) experiences against the CPD policy structure and wider educational context in Hong Kong over the last five decades. The life history method was used. The findings of the study showed that teachers' self-directed professional development was driven by a commitment to the moral purposes of teaching. This was characterized by their active agency in professional knowledge construction, and the organizational conditions in schools facilitated by supporting them. The study also revealed that fierce competition among individuals and schools, intensification of work, stress, uncertainty and alienation on the part of teachers evidenced the de-humanizing effects of an increasingly market-oriented approach to school education.

Ngala and Odebero (2010) conducted a survey on management of staff development programs in Kenya. 100 teachers from 100 low performing and high performing schools were the sample for the study. A modified Likert Scale type of questionnaire was administered. The study revealed that the most popular staff development programs were taking higher education and training, in-service courses and participating in workshops, seminars and conferences among others. School management skills, evaluation techniques, academic achievement correlates and wider content were learnt in such programs. Teachers in the high performing schools were found to take more interest in staff development programs compared to their colleagues in the low performing schools. The study recommended granting paid study leave and allocating more funds and time to serving teachers to enable them to participate in staff development programs. Equally imperative is retraining of teachers aimed at radical attitudinal change towards staff development activities related to their respective teachers.

Philpott, Furey and Penny (2010) explored the need for innovative leadership in teacher education in the Canadian context, in a study on promoting leadership in the On-going Professional Development of Teachers Responding to Globalisation and Induction with a particular call for renewed professional development of current teachers. Contemporary classrooms were evolving at a pace faster than projected within a country defined as multicultural, recent demographic shifts, interregional migration, growing ethnic diversity, and the

emergence of a paradigm of inclusion. Effective training for teachers is the need to bring in an urgent need for leadership among students. This paper recommends that on-going professional development must be characterized by six focus areas in order to empower teachers with pragmatic skills to balance the needs of their diverse classes. The authors conclude that a first step in this process is training for administrators who lead professional development in schools.

Hammond and Rothman (2011) in a study entitled “Teacher and School Leader Effectiveness: Lessons Learned from High-Performing Systems” compared the policies in Finland, Ontario, and Singapore. These jurisdictions have attracted a great deal of attention in other countries education policy circles recently, and with good reason. They are among the highest-performing countries in education in international tests of student achievement, and their results are among the most equitable in the world. Finland, Ontario, and Singapore also provide important lessons for discussions of policies to develop teacher and school leader effectiveness. All attribute their educational success in large measure to their efforts to recruit, prepare, develop, and retain a strong educator workforce within a purposeful human capital system. The findings of the study revealed that the right efforts to improve teacher effectiveness can lead to higher and more equitable student achievement. These efforts as revealed in by the study include: (1) a systemic approach; (2) strong recruitment and preparation; (3) attractive teaching conditions; (4) continuous support for learning; and (5) proactive leadership development. The three countries also provide training for principals and teachers for instructional leadership. Ontario has a Principals qualification Program for prospective principals. In Singapore, there is a training program for six month after the selection process. All programs have extensive clinical training. This assists the teachers to professionally develop themselves.

Mona, Rima and Zeina (2012) examined the attitudes of the secondary and middle school teachers in a case study at one school regarding the effect of the professional development program on the quality of their teaching practices and motivation. The data was collected through Questionnaires, focus group interviews and observations and data results were triangulated. The findings

show that for the novice teachers professional development program of the school was more beneficial than the experienced teachers. The findings also show that the teachers have proposed modifications for the program. The teachers' perceived that the programs were need based it is more effective.

2.2.3 Perception of Teachers on the Professional Development

Hinds (2007) in a Case Study entitled *Teacher Professional Development and Its Impact on the Improvement of Practice in One Ontario Secondary School* focused on teacher professional development in one high school in Ontario, Canada, and explored how teachers perceived their emerging experiences as impacting on their practices. Administrators' perspectives on teacher professional development also were sought. Using a framework of adult learning, self-efficacy, collective efficacy and supervision for renewal, the study addressed questions like how does a sample of high school teachers understand the definition and function of professional development? How does the existing design and implementation of professional development contribute to teachers' respective practices? What goals and aspirations do teachers have for professional development and how might those goals and aspirations contribute to their practices? Are the school board's goals and aspirations for the design and implementation of professional development in conflict with or congruent with the goals and aspirations held by the teachers in the study? Key findings from in-depth interviews, validation surveys and observations revealed that the literacy initiative and mentoring for leadership programs were successful in promoting professional development of teachers. The present institutional teacher professional development programs, however, did not meet teachers' individual learning needs and had little or no sustained impact on their practices. Findings indicated that beginning teachers needed subject content and instructional strategies consistent with their assignments, mentoring, and skills in mapping the curriculum; mid-career teachers needed training on inclusive classrooms, opportunities for collaborative work, and career counselling; and experienced teachers needed challenges for renewal, mentoring in communications technology and student assessment, and opportunities for promotions.

Yiasemina and Loizos (2008) in the study investigated the Greek Cypriot teachers' in-service training needs in the context of local demands for educational reform and the drive to reformulate teachers' professional development. Data for the qualitative study were collected through an open-ended questionnaire and through individual and focus-group interviews. The results indicated the teachers' dissatisfaction towards the in-service training program. The teachers indicated that the programs need to focus on pedagogical needs, establishing practicality and active learning, setting multiple resources and maximising participation. Teachers concern reflected a transition from traditional training activities towards reform and lifelong learning policies. The study suggested further research and administrative actions to improve the in-service programs.

John (2011) explored the experiences of eight Hong Kong teachers of academic subjects who took a full-time, short-term professional development course in a qualitative study. Course was designed to provide them with specialized knowledge and classroom skills required to teach content subjects through the English medium. In-depth interviews with participants and discourse analysis methods were used to collect data and analysis. The findings showed that the participants believed that the course in terms of their classroom teaching was positive. The participants faced significant challenges in their preferred identity. The course experiences have contributed to the rigid, antigenic identities of the teachers. Suggestions were given to improve the designing of the course.

2.2.4 Evaluation and Impact of Professional Development for teachers

Hoque, Alam and Abdullah (2011) in the study described the teachers' professional development activities in Bangladesh and explored the hypotheses about the relationship between teachers' traditional professional development activities and school improvement. Data was collected through questionnaires from 127 principals and 694 teachers from 127 secondary schools from Bangladesh. Hierarchical multiple regression analysis was used for analysis. The results of the analysis showed significant impacts of some of teachers' professional development activities on school improvement. The findings revealed that if schools put more emphasis on teachers' collaboration, in-service training and classroom observation and less emphasis on individual action

enquiry maximum school improvement can be achieved. The findings of this study provides important information for the policy makers, educational managers and especially for the headmasters and teachers concerned with the improvement of teachers' quality in secondary schools of Bangladesh.

Opfer and Pedder (2011) explored three influences on the effectiveness of teacher professional development for improving schools--the individual teacher, the learning activities in which teachers participate and the structures and supports provided by schools for teacher learning in the study, *The Lost Promise of Teacher Professional Development in England*. The data was from documents of survey data collected for a national study of teacher professional development in England. The findings of the analysis indicated that supports for professional learning by teachers in high performing schools display many of the characteristics associated with effective professional learning though the professional development of teachers in England is generally ineffectual and lacks school level systems and supports, the professional development. The findings supported the earlier report of the importance of school capacity in influencing learning and improvement and also revealed the link between school factors and professional learning of individual teachers.

2.3 Research Studies conducted in India on Professional development of Teachers

Reviews of fifteen studies conducted in India for the professional development of teachers related to the present study have been chronologically presented below:

2.3.1 Policies on the Professional Development of Teachers

Abraham (2004) in a study entitled “Conversions, connections and Critical thinking: collaborative Action research with Women Science teachers in Hyderabad, India” studied the implementation of constructivist instructional methods through an Action research. The National Policies on Education in India have recognised the need for professional development. But the science teachers continue to look for innovative methods to improve teaching through professional development. Data were collected through interviews, reflective memos, research journal and documents. The findings of the study revealed that

teacher development depends on teacher background and experience, teachers' views on science education and the school environment. The teachers' views on science education were affected by constructivist's instructional strategies. The teaching was made enjoyable and less burdensome by the constructivists' methods. The study recommended that the teacher education institutes may consider creating collaborative networks between researchers and teachers.

2.3.2 Programs for the Professional Development of Teachers

Srivatsava (1966) studied the growth and organization of in-service program in India. The objective of the study was to find the historical development of the in-service program, the activities undertaken by the organisations, the achievement of the program, to find the impact of the program on the teachers and to study some major issues. The sample was the head of selected secondary schools, teachers of the secondary schools, administrators of the Boards of secondary education and extension services. Questionnaires, Opinionnaires, attitude scales and interviews were used as tools. The findings revealed that there is a significant improvement in attitudes with increasing number of activities. The strength of the program depends on the quality of the institutes and the staff.

Theresa (1983) carried a study titled "A critical study of personal development programs" stated that education and training are necessary for the developing personnel, competency but different in purpose. Training programs should be planned and started as one form of preparation to help the teachers' personal and professional developments. Successful program evaluation was not done.

2.3.3 Perception of Teachers on the Professional Development

Pacholi (1997) emphasized that teachers' effectiveness; area and experience are predictors of teacher's attitude towards the profession. In-service training should be organized regularly to promote the effectiveness level and professional attitude of teachers.

Mathur (2000) in her study Identification of Training Needs of Higher Secondary Biology teachers of Baroda city for their professional development stated that the Biology teachers need professional development programs. The objective was to study the various tasks performed by the Biology teachers of

higher secondary schools and to identify the training needs for the professional development of higher secondary school biology teachers. The findings revealed that they had no time to enhance themselves as they have been given other subjects to teach. The teachers were in favour of professional development programs to enrich in content knowledge. The training programs are drafted on papers and not implemented; the training needs of the biology teachers were not identified and content up gradation was not there in the few training programs which were conducted by the district Education Office

Meera (2009) studied the Professional Development Programs for Secondary and Senior Secondary school teachers in Baroda City. The objective was to study the different PD programs organized by schools, the area of context, content and process, the issues and challenges and the perceptions of teachers and principals. Qualitative survey method was used. A total of 4 English medium schools, two from CBSE and two from the GHSSEB, the teachers and the principals of each school comprised the sample of the study. The data was collected through interviews and questionnaires. The findings revealed that the programs were not need based, content based, and mostly based on psychology. The state board teachers and principals opined that the programs conducted by the district education office lacked proper resource persons, facilities and it was a ritual to attend the programs. The study also found that teachers were interested in a school based professional development program. The experienced teachers needed refresher courses in content knowledge and pedagogy.

2.3.4 Evaluation and Impact of Professional Development for teachers

Mama (1980) studied the impact of in-service education on teachers in the state of Maharashtra. The main objective of the study were (i) to find out the number, media and the kind of programs in Maharashtra; (ii) to examine the concept of in-service education; (iii) to find out the opinion of teachers on in-service programs, (iv) to examine the facilities offered to teachers to attend in-service education programs and (v) to find out the nature of attendance at the in-service programs. The survey method was used for the study. The tools used for data collection were questionnaires for principals and teachers of secondary schools and principals of colleges of teacher education and an interview for the experts

in education and principals and teachers of secondary schools. The findings of the study were that the colleges of education conducted a variety of programs, most of which dealt with subject matter, planning of tests, evaluation, audio visual aids. Little importance was attached to in-service education. No efforts were made to involve the teachers in planning, evaluation and follow up of in-service programs. The school teachers had to access to college libraries except while participating. Adequate communication did not exist between the colleges of education and the secondary schools. The concept of in-service program was not clear to the teachers. The in-service programs were conducted as weekend courses.

SCERT (A.P) (1980) evaluated the in-service training programs run by the science teaching centers with respect to their academic and administrative aspects. The findings were that many activities and projects undertaken during the programs made the participants enthusiastic to undertake such projects in their schools also. Many of the concepts and demonstrations in Biology were conducted in an impressive manner.

Jangaira (1981) tried to find the effectiveness of training in teaching skills through micro teaching and stated that in-service training brought about overall improvement in teaching skills (viz. reinforcement, illustrations, pupil participation). The study followed a pre-test-post-test single group design. Eight week observations of the selected teachers were conducted. The Baroda General Teaching Competence Scale and skill competence Scales were used to measure general teaching competences and skill competencies of the teachers. The findings showed significant gain in the mean scores on the competence to use the five teaching skills (reinforcement, probing stimulus variation, illustrating with example). There was change in the teaching competence of the teachers after the program.

SCERT (A.P) (1982) enquired the relevance of the in-service training program and found that more than 60% of the participant felt that the course was good and acquainted teachers with new development in science. It was theoretically relevant but most of the teaching activities were not applicable in classroom and problems of science teaching were not considered.

Bailkeri (1983) studied the Effect of Self-Instructional Remedial Microteaching Course on the Instructional Competence of In-service Secondary School Mathematics Teachers. The objectives of the study were (i) to prepare a mathematics instructional competence scale, (ii) to diagnose the weak instructional skills of in-service mathematics teachers (iii) to prepare remedial self-instructional microteaching course (RSIMC) materials to strengthen the weak skills, (iv) to provide in-service training to the teachers through RSIMC, (v) to evaluate the effectiveness of the RSIMC in improving mathematics instructional competence, and (vi) to study the reactions of participant teachers to the SIMC. Fourteen teachers who were found to be weak in the skills of asking probing questions and of concretizing abstract ideas with examples participated in the experiment. The Dharwad Mathematics rating scale was used. A rating scale was also prepared with a view to collecting reactions of participant teachers to the SIMC. The effectiveness of the course was tested by comparing pre-treatment scores with immediate post-treatment scores and immediate post-treatment scores with delayed post-treatment scores using t-test. The findings of the study were: 1. The remedial SIMC was effective in improving mathematics general instructional competence of in-service teachers of secondary schools in terms of the six instructional skills taken together and each skill independently, excepting the skill of using black-board. 2. In-service teachers sustained mathematics general instructional competence in terms of the six skills taken together and each skill independently (excepting skill of using black-board) strengthened by RSIMC even two months after training. 3. Participant teachers held a favorable attitude towards the SIMC.

Butala (1987) studied the in-service educational programs conducted by secondary teachers training colleges of Gujarat and emphasized on the needs to be identified before conducting a training program. The objectives of the study were (i) to study the existing position of in-service educational programs in secondary teacher training colleges, (ii) to study the usefulness of the program and to study the in-service programs according to the assessments of the participants, resource personnel and coordinators. Stratified inferential sampling was used and questionnaires and interviews were used as tools. The major findings were very few colleges conducted in-service programs. Majority of the

teachers were not covered under any in-service program. Only lectures, seminar and workshop were the mode of in-service. The teachers preferred programs in the working days. They also preferred summer vacation. Attendance certificate was considered a proper incentive. The in-service programs were not evaluated systematically.

Shahi (1989) critically studied the school based professional activities for teachers and found that a number of activities are taking place but 70% of teachers do not like to plan lessons, 70% felt the need of demonstration lessons, teachers were duped to attend seminars on the basis of seniority and not needs, problems related to reference books etc.

Bhadresh (1992) conducted a study titled “A study of the In-Service education programs for the secondary school teachers and principals organised by the extension service centre, faculty of education and psychology, Maharaja Sayajji Rao university of Baroda.” The objectives of the study was to know the history and development of in-service education in Gujarat state; to survey and review the programs organised for the professional education of secondary school teachers by the extension center and to study the perceptions of the teachers regarding the programs. The findings show that the extension centers should reorganize and concentrate on the programs. There is a need for feedback system and that the extension centres should not be closed.

Tyagi (2010) in the study entitled “School-Based Instructional Supervision and the Effective Professional Development of Teachers” conducted a comparative study from the selected government, private-aided and private senior secondary schools in India to consider how academic supervision and support by educational authorities help improve the teaching-learning process and the professional development of teachers in government and private-aided senior secondary schools. The study also examined how heads of government and private-aided institutions feel about placing emphasis on providing instructional supervision for teachers. They and their staff obtain little or no feedback or academic support from educational authorities in this field. It also investigated how heads improve the teaching-learning process and provide effective professional development of teachers at school level. The paper argues for the provision of effective school-based instructional supervision and support for the

professional development of teachers by heads. It concludes by recommending various measures for strengthening the efforts of the heads of government and private-aided institutions, given the lack of academic support from educational authorities.

2.4 Summary of the Review of Related Literature

The researcher has reviewed a total of 85 research studies. This comprises of 59 studies from USA, 11 studies from other countries and 15 studies from the Indian context. A summary of the reviewed literature on professional development of teachers is categorised and presented under the following sub headings: studies on policies (9), programs (22), perception of teachers and principals (16), impact of the programs (31) and evaluation (7) of the programs.

2.4.1 Policies for the Professional Development of Teachers

There are nine studies (USA -7, other countries – 1, India – 1) related to the policies for professional development of teachers. Little (1989) focused on the policies and practices of professional development. The study found that professional development programs of the school were disassociated from the guiding policies of the school districts and were not an integral part of the school vision. Grossman, Tabitha, Hirsch and Eric (2009) found the state policies focused exclusively on the time required and the types of opportunities that can be used for renewal of licensure but the quality and the relevance of the professional development was not regulated by states. Frank and Valerie (2010) studied the policies that support professional development in six states. The study revealed that professional development was enhanced in these states through state policies. Sylvia (1995) found that the school districts police helped in the improvement of incentives to teachers. Allison Ashley, and Christa (2007) analysed teacher certification policy and how it is meeting the needs of beginning teachers and found that a gap between the policies for certification and the implementation of the policy. The study suggested that policies for certification need modifications. Desimone, Laura, Smith, Thomas, Phillips, and Kristie (2007) attempted to find whether the participation in professional development is influenced by policies. The study revealed that stabilizing the existing policies gives teachers opportunities to participate.

Hardy and Lingard (2008) found that there is disjunction between policies and implementation of policies in Queensland, Australia.

2.4.2 Programs for the Professional Development of Teachers

There are twenty one studies (USA – 9, other countries – 7, and India – 5) related to the programs conducted for the professional development of teachers. Desimone, Porter, Garet, Yoon, and Birman (2002), found that the quality of the professional development programs does not depend on the duration, or time span of the professional development activity but professional development depends when the programs were focused on a specific teaching practice (pedagogy) and teacher collaborations. Frank (2003) found that the awareness of their students' cultures and culturally responsive practices in the classroom increased after the teachers attended culturally responsive the professional development program and implemented it in the classroom. Teachers' motivation to attend different professional development workshop was mainly influenced by the need to improve content knowledge and skills, and requirements associated with educational policies Duygu (2006). The study conducted by Ngala and Odebero (2010) revealed that the most popular staff development programs were taking higher education and training, in-service courses and participating in workshops, seminars and conferences among others. Sylvia and Choi's (2009) showed that teachers' self-directed professional development was driven by a commitment to the moral purposes of teaching. This was characterized by their active agency in professional programs conducted by the school districts were intent and focused. The districts encouraged teacher collaboration. The study provided positive example of how teacher collaboration centred on student learning as professional development has the potential to improve teachers' instruction and increase student learning. The result of Gwin's (2008) study indicated that the implementation of job embedded PLTs positively impacted teacher attitude and professional knowledge construction. Hall (2007) found that the professional development development increased the dialogue and collaboration among the teachers within the PLTs. Mario (2008) found that the professional development program reinforced the skills in establishing classroom rituals and routines, creating better performance assessments. Nonyelum's (2010) findings showed

that the design of professional development can foster a teacher learning community of reflective practice that promotes instructional change in inquiry-based science. Teague (2010) indicated that school professional development was effective and the teachers were aware of the NSDC standards. Philpott, Furey and Penny (2010) in their research paper recommended that on-going professional development must be characterized by six focus areas in order to empower teachers with pragmatic skills to balance the needs of their diverse classes. A study conducted by Hammond and Rothman (2011) on three countries revealed that the right efforts to improve teacher effectiveness can lead to higher and more equitable student achievement. These efforts as revealed in by the study include: (1) a systemic approach; (2) strong recruitment and preparation; (3) attractive teaching conditions; (4) continuous support for learning; and (5) proactive leadership development. Srivatsava (1966) found that the strength of the training programs for teachers depends on the quality of the training and the staff of the extension centre. The study revealed that there was a significant improvement in the attitudes of the teachers with the increasing number of programs attended. Theresa (1983) found that training programs should be planned and started as one form of professional development for teachers.

2.4.3 Perception of Teachers on the Professional Development

There are seventeen studies (USA -11, other countries -3, India -3) related to the perceptions of teachers on the professional development programs. Bischoff (2004) found that the teachers perceived that the professional development programs need to be effectively planned, implemented, and evaluated. Yiasemina and Loizos (2008) found the teachers' dissatisfaction towards the in-service training program. The teachers indicated that the programs need to focus on pedagogical needs, establishing practicality and active learning, setting multiple resources and maximising participation. Teachers concern reflected a transition from traditional training activities towards reform and lifelong learning policies. Sorensen (2007) indicated that the teachers perceived the training increased the use of the WEdGate in the classroom. The study also revealed that effective implementation process of the professional development programs has greater impact. Sefrit (2008) found that the majority of beginning

teachers perceived the formal mentoring and professional development program was "very beneficial" to their individual growth as a teacher; the mentor made a significant difference in the success of the beginning teacher's first year teaching. Spicer (2008) found that the Novice teachers experienced the professional development to be high quality than the experienced teachers. Hinds (2007) found that beginning teachers needed subject content and instructional strategies consistent with their assignments, mentoring, and skills in mapping the curriculum; mid-career teachers needed training on inclusive classrooms, opportunities for collaborative work, and career counselling; and experienced teachers needed challenges for renewal, mentoring in communications technology and student assessment, and opportunities for promotions. Floyd's (2009) study showed that the teachers value the professional development opportunities that were attended by them. The teachers attended workshops to improve their teaching skills, students' achievement and to advance their career and maintain certification. Jennifer (2009) found that the professional development programs were most effective when embedded in the school day and closely aligned with district goals and teacher needs. Suski (2009) found that the administrators of School District of Pennsylvania perceived that the Program Planning, Program Design, Program Vision and Goals were found to be the strongest aspect of districts' professional development programs. Program Resources was determined to be the weakest area. Elliott's (2010) study showed that professional development holds promise for support to a collaborative culture which uses data to guide decisions. Professional development within many schools, districts has become more closely linked to school or district achievement goals. John (2011) found that the teachers believed that the course in terms of their classroom teaching was positive. The course experiences have not changed the rigid, antigenic identities of the teachers. Mathur's (2000) study revealed that the teachers had no time to enhance themselves as they have been given other subjects to teach. The teachers were in favour of professional development programs to enrich in content knowledge. The training programs are drafted on papers and not implemented; the training needs of the biology teachers were not identified and content up gradation was not there in the few training programs which were

conducted by the district Education Office. Meera (2009) found that the programs were not need based, content based, and mostly based on psychology. The state board teachers and principals opined that the programs conducted by the district education office lacked proper resource persons and facilities. The study also found that teachers were interested in a school based professional development program. The experienced teachers needed refresher courses in content knowledge and pedagogy.

2.4.4 Impact/Effect of Professional Development for teachers

There are thirty two studies (USA -23; other countries -3; India -6) related to the impact/effect of professional development programs for teachers. Wenglinksy (2000), Pradere (2007) and Rosemary (2010) found that students whose teachers majored or minored in in a particular subject education and who reported participating in professional development programs scored better in the respective subjects and demonstrated higher performance levels. Studies revealed that professional development program increased teachers' assessment literacy skills (Mazzie, 2008) and change in the teaching competence of the teachers after participating in the programs (Jangaira, 1981). However, the results of studies indicated that professional development had no significant impact on student achievement (Mazzie 2008; Lisa, 2009; Leslet, 2010). Steinbeck's (2008) study implied that the STARR program had a profound impact on their professional skills and confidence. The STARR program opened doors to new careers and leadership opportunities. From the studies it was found that the individual teachers' needs are different (Howland, 2009) and the teachers knowledge retention levels varies (LaBombard 2009). Chrystalla (2004) indicated participation in professional development fostered increased technological knowledge and awareness, sustained use of technology integration into classroom instruction. Judith (2005) found that Participation in a professional development program focused on the teachers' pedagogical knowledge and helped to teach inquiry based lessons for their students. The participant teachers experienced change after the program as neither the graduate programs nor the teacher education programs prepared them to teach integrated science. Brutsman's (2006) study revealed that the participation of teachers in professional development not only impacted implementation

practices but also teachers tend to emulate these practices with students. Kelly (2006) found that professional development made significant changes in the knowledge, skills, practices, and attitudes of teachers with the ultimate goal of improving student learning. Marie's (2006) study indicated that when teachers participated in a PDP in reading, they changed their instructional practices and understanding of teaching reading and students were more enthusiastic about reading and positive endorsement for certain aspects of the PDP. Roman (2007) found that the PD Program improved the participants understanding of concepts, content, and processes. Participants were greatly benefited from the field-based learning environment, inquiry-based teaching approaches model. Daniel's (2008) study indicated that the school district is supporting both professional growth of the teachers and also the teaching-learning of students in the classroom. The professional development opportunities were offered throughout the year to improve the teaching skills. The mentor programs were effective which enhanced content-based conversations and skill development within the classroom. Miller (2009) indicated the use of teacher developed professional development programs were successful. Cynthia's (2010) study. Professional development that included independent exploration, collaborative time with peers and on-site coaching enables teachers to utilize technology for lessons and classroom management and also facilitated their students in using technology tools. Kano (2010) found that one step approach to professional development is not enough to cater to the individual teacher's requirements. Ralph (2010) found that the professional development's emphasis on collaboration, peer-observed enactments, guided reflection, and the establishment of a community of learners helped teachers to re-examine their pedagogical theories and develop more inquiry-based beliefs. Hoque, Alam and Abdullah (2011) revealed in the study that if schools put more emphasis on teachers' collaboration, in-service training and classroom observation and less emphasis on individual action enquiry maximum school improvement can be achieved. Opfer and Pedder (2011) found that supported the earlier report of the importance of school capacity in influencing learning and improvement and also revealed the link between school factors and professional learning of individual teachers. Mama (1980) The findings of the study were that the colleges of education conducted a variety of

programs, most of which dealt with subject matter, planning of tests, evaluation, audio visual aids. No efforts were made to involve the teachers in planning, evaluation and follow up of in-service programs. Bailkeri (1983) The findings of the study were: The remedial SIMC was effective in improving mathematics general instructional competence of in-service teachers of secondary schools in terms of the six instructional skills taken together and each skill independently Tyagi (2010). It also investigated how heads improve the teaching-learning process and provide effective professional development of teachers at school level. SCERT (A.P) (1982) enquired the relevance of the in-service training program and found that more than 60% of the participant felt that the course was good and acquainted teachers with new development in science. It was theoretically relevant but most of the teaching activities were not applicable in classroom and problems of science teaching were not considered.

2.4.5 Evaluation of the Professional Development Programs

On evaluation of the professional development programs ten studies (USA-6, India -6) reviewed. Furman (2005) found that both traditional and reformed type of professional development can enhance the knowledge and skills and change in teaching practices when the design of professional development activity focused on content and duration and also allowed time for feedback opportunities. Meade's (2006) evaluated the professional development program and indicated significant congruence between the perceptions of the respondents. The teachers and administrators perceived their professional development experiences as effective and aligned with NSDC staff development standards. Murphy (2008) found that high-quality professional development is an important component for teacher growth and student achievement. There were no statistical differences in ACT rates and graduation rates between Commissioner's Award school districts and comparison schools. The results also indicated gains in AYP subgroup achievement rates of Commissioner's Award school districts. Kathy's (2008) study revealed that the advancing schools demonstrated significantly higher use of professional development standards for evaluation than static schools. Student learning was the least used of all evaluation methodologies in the school districts although Pennsylvania Act 48

regulations mandate all staff development programs be evaluated based on student learning.

Viggiano (2009) found that technology based (ePortfolio) teaching was very effective with but ePortfolio was not used as an assessment tool either to inform instruction or increase student achievement, It is a good way to support the students in assessment. Casale (2011) examined to what extent teachers were aware of other models of professional development than the traditional workshops. The awareness of the teachers helped the teachers' to choose the type of professional development programs. Blake and Eddie (2012) found that the program was developed through research and involved the best practices where the teachers were empowered to: identify the area of focus for growth; gather information about best practices related to the area of development; facilitate training sessions on the topics of interest identified by the teachers. SCERT (A.P) (1980) evaluated the in-service training programs run by the science teaching centres with respect to their academic and administrative aspects. The study found that the activities and projects undertaken during the programs made the participants enthusiastic to implement such projects in their schools also. Many of the concepts and demonstrations in Biology were conducted in an impressive manner. Butala (1987) found that very few colleges conducted in-service programs. Majority of the teachers were not covered under any in-service program. Only lectures, seminar and workshop were the mode of in-service. The teachers preferred programs in the working days. They also preferred summer vacation. Attendance certificate was considered a proper incentive. The in-service programs were not evaluated systematically. Studies also revealed that there were no feedback systems (Bhadresh, 1992). Shahi (1989) evaluated school based professional activities for teachers and found that a number of activities were taking place but it was need based.

2.5 Implications of the Review of the Literature for the Present Study

Professional development has been identified as an integrated part of educational reforms (Gusky, 2000; Hawley and Valli, 1999; Lewis, Parsad, Carey, Barfai, Farris and Smerdon, 1999). Professional development is the key to keeping teachers abreast of current issues in education, helping them to implement innovations, refine their practices and broaden themselves both as

educators and individuals (Darling-Hammond 1990). New type of expertise are required of teachers in order for them to keep abreast of the emerging knowledge base and be prepared to use it to continually refine their conceptual and craft skill.

From the review of literature it was found that professional development programs are important for teachers to enhance their teaching competencies. Studies also revealed that the effectiveness of the programs is largely depending on the expertise of the resource persons and the relevant design based on the needs of the teachers (Desimone, Porter, Garet, Yoon, and Birman, 2002; Nonyelum, 2010; Srivatsava, 1966). The state policies focused exclusively on the time required and the types of opportunities that can be used for renewal of licensure but the quality and the relevance of the professional development was not regulated by states (Grossman, Tabitha, Hirsch and Eric , 2009). The study revealed how the policies are meeting the needs of beginning teachers and found that a gap between the policies for certification and the implementation exists (Allison Ashley, and Christa, 2007).

The novice teachers experienced the professional development to be high quality than the experienced teachers (Spicer, 2008; Sefrit, 2008). From the review it was found that the professional development programs need to be effectively planned, implemented, and evaluated. Teachers found the programs to be ineffective (Yiasemina and Loizos, 2008; Meera, 2009).

From the review of literature it was found that the right efforts to improve teacher effectiveness can lead to higher and more equitable student achievement (Hammond and Rothman, 2011; Wenglinksy, 2000; Pradere, 2007; Rosemary,2010) . Teacher developed professional development programs which included independent exploration, collaborative time with peers and on-site coaching enables teachers to utilize technology for lessons and classroom management were very successful and also facilitated the students in using technology tools (Miller,2009; Cynthia, 2010; . Hoque, Alam and Abdullah, 2011). The studies also revealed that effective evaluation and feed-back systems are essential for professional development programs to be effective (Murphy, 2008; Furman, 2005).

Reviewing the methodologies, tools and techniques employed by various studies, the researcher could gather insight for the present study. Studies on policies were all qualitative studies which used, questionnaires for teachers, interviews with district authorities and document analysis (Sylvia, 2005; Kyle,2006; Grossman, Tabitha, Hirsch and Eric, 2009). There were 2 case studies conducted on programs (Frank, 2003; Hall, 2007). A few quantitative studies were conducted (Duygu, 2006; Spicer, 2008; Robinson, 2009, Suski, 2009). Surveys were conducted and the data was analysed by mixed methodology (Sefrit, 2008; Teague, 2010). There were 32 studies conducted on the impact of the professional development programs. There were five studies which used mixed methodology (Steinback, 2008; Rosemary,2010; Meade,2006;Pradere,2007; Kelly,2006). Quantitative studies were seven in number (Murphy, 2008; Miller, 2009), the rest of the studies were qualitative which were descriptive studies and case studies(Ralph, 2010; Kelley,2009; Susan,2010). Most of the studies triangulated the data received from the interviews, questionnaires and the observations to find the impact of the program. The researcher could get insight into the methodologies and formulate the methodology for the present study.

2.6 Conclusion

The researcher have not come across any study pertaining to the specific policies related to professional development of teachers in India. Further, most of the studies conducted in this area in India are data based and interpreted quantitatively rather than qualitatively. The studies that were reviewed, especially studies in USA, it was found that most of the studies were conducted on the evaluation of the programs in terms of content, logistics, methodology and impact of specific programs and were qualitative in nature. Very few international comparative educational studies are conducted in India and therefore, the researcher strongly feels that the present study is extremely relevant in this context to study the policies and programs of professional development of USA and draw some implications to India.

Chapter III deals with the plan and procedure of the study, the various tools and technique used to collect the data and the methodology used to analyse the data obtained.

CHAPTER III
PLAN
AND
PROCEDURE

3.0 Introduction

This chapter presents the research questions and description of the sample,, instrumentation and procedures of data collection. A great deal of literature has emerged describing the characteristics of effective professional development, effect on student achievement and the perceptions of teachers. Despite the large body of literature, little research has been conducted to study the different policies formulated by the Federal and the State Government, for Professional development of teachers in the USA, perception of teachers, impact of the professional development programs on teacher development and the relevance of the USA policies and programs of the professional development of teachers, to Indian context.

In this chapter, the researcher has presented a detailed plan and procedure of the study. It gives a clear idea of the type of study, population, sample of the study, data needed for the study, sources of data, tools used for data collection, procedure for data collection and data analysis.

3.1 Statement of the Problem

A Study of the Policies and Programmes for the Professional Development of School Teachers in the United States of America

3.2 Objectives of the Study

1. To study the Federal and State Policies related to Professional Development Programs for the School teachers in the USA, in terms of;
 - a. Guidelines for Teachers
 - b. Professional Standards and Requirements
 - c. Monitoring and Appraisal System
 - d. Career Advancement, if any
2. To study the ongoing Professional Development Programs in USA, in terms of content, methodology and feedback system.

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3. To study the opinions of Teachers and the Principals regarding the Professional Development programs.
4. To study the issues and challenges in managing the Professional Development Programs.
5. To study the relevance and to draw implications to the Indian context.

3.3 Explanation of The Terms Used

1. Policies: Refers the broad guidelines that direct the plan of actions. Policies describe the federal and State Government guidelines for the PD of teachers in the USA.
2. Programs: Refers to the activities evolved from the relevant policies at the Federal and State level.
3. Professional Development Programs: Refers to in-service teacher development programs conducted by federal, state governments and school based for enhancing the teacher competencies.

3.4 Delimitation of the Study

This study was delimited to the three States and the District of Columbia of the USA and selected School Districts and the Teachers and Principals of the high schools from these four States only.

3.5 Methodology

The nature of the problem and the objectives of the study, determines the method of research conducted. Going by the objectives of the study descriptive method is followed in this study. In educational research descriptive survey method is most widely used because of the ease and directness of the method. It is helpful for describing educational phenomena in terms of the conditions or relationships that exists, opinions that are held by principals, teachers and administrators, without expressing value judgment.

3.6.1 Population of the Study

All the secondary schools of USA (Public, Private and Charter Schools) constituted the population of the study. Table 3.1 shows the total number of secondary schools in USA

Table: 3.1 Total Number of Secondary Schools in USA

S.NO	Institutions by Type	No.of Secondary Schools 2009-10
1.	Public Schools	24,348
2.	Charter Schools	5,714
3.	Private Schools	3,040
Total		33,102

SOURCE: U.S. Department of Education, National Center for Education Statistics. *Digest of Education Statistics, 2011* (NCES 2012-001),

3.6.2 Sample of the Study

Purposive sampling technique was used for selecting the states for the study with the following criteria:

1. States where the academic excellence is comparatively higher in the last four years as per American Legislative Exchange Council Report (ALEC). This report is published every year by the Federal Government in USA and places the states according to their educational attainment.
2. Under each selected state one school district was selected where the research study was accepted.
3. Under each school district, schools, where permission was granted for research were chosen.
4. The principals and the secondary school teachers of the selected schools constituted the sample for the present study.

The Table 3.2 indicates the ranking of the four selected States as per the ALEC report.

Table: 3.2 Selected States in USA for the Study

S.no	State	Rank				No.of School Districts	No.of High Schools
		2006-07	2007-08	2008-09	2009-10		
1	Missouri	19	28	28	20	522	609
2	New Jersey	12	09	09	10	603	485
3	Pennsylvania	20	19	19	07	501	598
4	District of Columbia	51	51	51	51	109	32

Source: ALEC Educational Report Card 15th and 16th Edition (2009-10)

The State of Missouri was 19th in the year 2006-07 and in the years 2007-08 and 2008-09 it was ranking 28th. Again in the year 2009-10 it is ranked at 20. The State of New Jersey was ranked 12 in 2006-07 but is seen constantly

within the first 10 ranks in the following years. The State of Pennsylvania was 20th in the year 2006-07 and improved to 7th rank in the year 2009-10. The District of Columbia ranks at 51. Out of the 50 states and districts in the USA, three States where the academic excellence is comparatively improved in the last year were selected. One school district in each state is selected for the study. The State of Missouri has five hundred and twenty two School districts and has six hundred and nine high schools (Department of Education Missouri State). The State of New Jersey has six hundred and three School districts and four hundred and eighty five high schools (New Jersey Department of Education). There are five hundred and one School Districts and five hundred and ninety eight high schools in the State of Pennsylvania (Pennsylvania Department of Education). The District of Columbia has hundred and nine School districts and 32 High Schools (US Department of Education, 1999).

3.6.2.1 Research Context: Description of the Sample States in USA

A brief demographic description and the educational system of the four sample states of USA are presented here.

3.6.2.1.1 State of Missouri

The state of Missouri is located in the Midwestern part of USA. Missouri generally mirrors the demographic, economic and political makeup of the USA and has long been considered a political bell weather state. It is also a transition between the Eastern and Western USA, as St. Louis is often called the "Western-most Eastern city".



Figure 3.1 Map of State of Missouri

Source: <http://geology.com/state-map/missouri.shtml>

The Missouri State Board of Education has general authority over all public education in the state of Missouri. It is made up of eight citizens appointed by the governor and confirmed by the Missouri Senate.

Education is compulsory from ages seven to seventeen per Statute 167.031, RSMO. The district must ensure that the child is enrolled in and regularly attends public, private, parochial school, home school or a combination of schools for the full term of the school year.

The compulsory attendance age for the district is seventeen (17) years of age or having successfully completed sixteen (16) credits towards high school graduation in all other cases. Children between the ages of five (5) and seven (7) are not required to be enrolled in school. Missouri schools are commonly but not exclusively divided into three tiers of primary and secondary education: elementary school, middle school or junior high school and high school. The public schools system includes kindergarten to 12th grade. District territories are often complex in structure. In some cases, elementary, middle and junior high schools of a single district feed into high schools in another district. Home schooling is legal in Missouri and is an option to meet

the compulsory education requirement. It is neither monitored nor regulated by the state's Department of Elementary and Secondary Education.

A supplemental education program, the Missouri Scholars Academy, provides an extracurricular learning experience for gifted high school students in the state of Missouri. The program is based on the premise that Missouri's gifted youth must be provided with special opportunities for learning and personal development in order for them to realize their full potential.

Another highly accepted gifted school is the Missouri Academy of Science, Mathematics and Computing, which is located at the Northwest Missouri State University. The University of Missouri System is Missouri's state wide public university system. Among private institutions Washington University in St. Louis is among the top 20 university.

3.6.2.1.2 State of New Jersey

New Jersey is a state in the North eastern and Middle Atlantic regions of USA. It is also the third wealthiest state in USA by 2011 median household income. The State Board of Education provides opportunities for all students to receive an education that will prepare them to be competitive in the international scenario in the future. The State Board values public input and believes that parents, educators and taxpayers should be informed as the educational policies and programs that are important to New Jersey's citizens. Public schools in New Jersey are dedicated to providing all students with a free public education.



Figure 3.2 Map of State of New Jersey

Source: <http://geology.com/state-map/new-jersey.shtml>

In 1875, the New Jersey Constitution was amended to address the subject of educational opportunity. Public school became free for everyone between ages 5 and 20, and education was made compulsory for all students between the ages of 6 and 16. Special classes and services were developed for gifted students as well as for those who were physically, mentally and emotionally challenged.

The number of public schools in New Jersey is 2500 with an enrolment rate of 1.35 million in the year 2011-2012. The school age of the student is 6-16. The teaching profession was enhanced by many of New Jersey's reforms. Chief among them was the Provisional Teacher Program, or alternate route to certification. In this program, New Jersey became the first state in the nation to create a way for the talented college graduates who could become teachers without attending traditional teacher preparation programs. This alternate route program was a great success, serving as a model for programs in other states and having an international reputation.

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The state's public and independent colleges and universities form a system that efficiently provides broad access to higher education. The overall rate of participation in higher education is high compared to other states, as is the overall level of educational attainment, providing the state with an educated citizenry and workforce. The university lists includes public, private, large, small, women's and Catholic institutions and Princeton is the most prestigious university of New Jersey.

3.6.2.1.3 State of Pennsylvania

Pennsylvania, officially the Commonwealth of Pennsylvania, is a US state that is located in the North eastern and Mid-Atlantic regions of the United States, and the Great Lakes region. It is the 6th most populous, and the 9th most densely populated state among the 50 States in USA.

Pennsylvania has 500 public school districts, thousands of private schools, publicly funded colleges and universities, and over 100 private institutions of higher education. There are 3,303 schools having 1,821,146 students enrolled. According to the state law, school attendance is compulsory from the age of 8 until the age of 17. According to Act 169 of the Pennsylvania General Assembly, home school is an option for compulsory school attendance (<http://www.education.state.pa.us>).

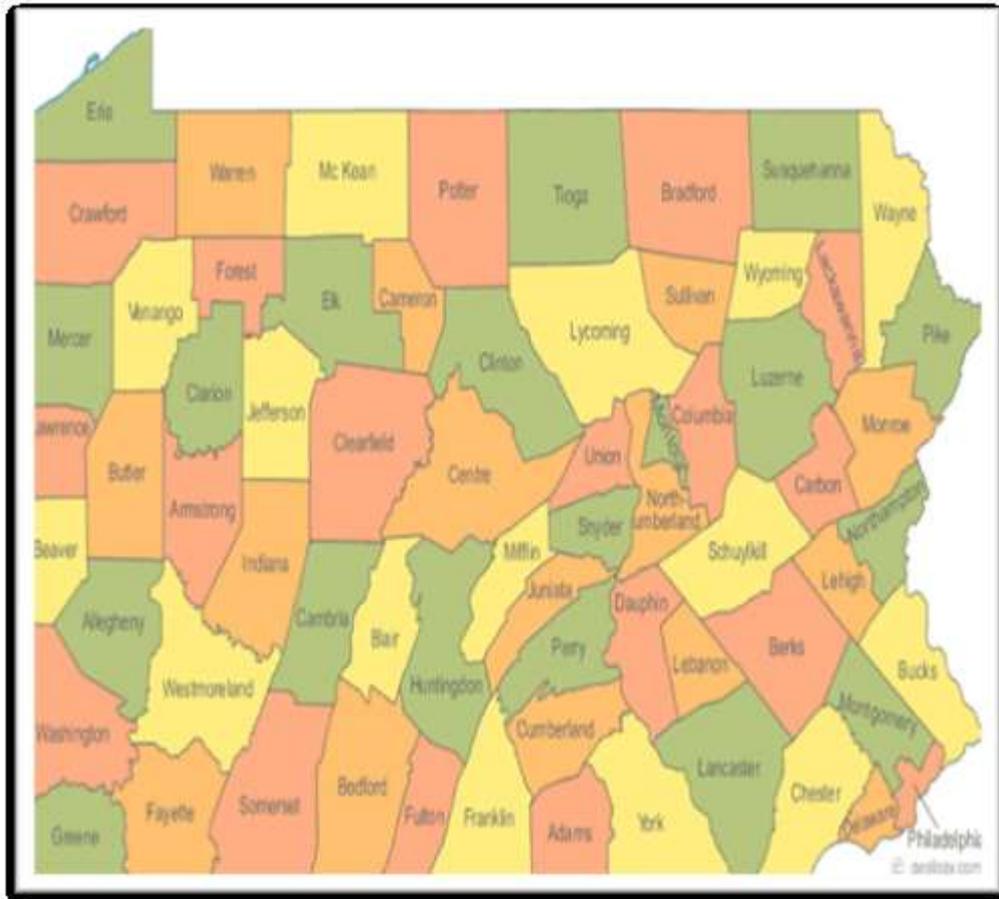


Figure 3.3 Map of State of Pennsylvania

Source: <http://geology.com/state-map/pennsylvania.shtml>

The Pennsylvania State System of Higher Education (PASSHE) is the public university system of the Commonwealth, with 14 state-owned schools. There are 4 state-related schools (organisation of Higher education) which are independent institutions receiving some state funding. There 15 publically funded two year community colleges and technical schools that are separate from the PASSHE.

The University of Pennsylvania, one of the IVY League schools (The Ivy League is an athletic conference composed of sports teams from eight private institutions of higher education in the North-eastern United States. The term Ivy League also has connotations of academic excellence, selectivity in admissions, and social elitism, located in Philadelphia, is the first university in the United States and which also established the first medical school in the United States. The Pennsylvania Academy of the Fine Arts is the first and oldest art school in the United States.

Pennsylvania has 93 colleges and universities that offer teacher education programs approved by the Department of Education. Pennsylvania requires assessments of all candidates in basic skills, general knowledge, professional knowledge and subject area knowledge before a certificate may be issued to an applicant.

3.6.2.1.4 The District of Columbia

The demographics of District of Columbia (now Washington D.C) reflect an ethnically diverse, cosmopolitan, mid-size capital city of the United States of America.

District of Columbia Public Schools (DCPS) operates the city's 123 public schools. The number of students in DCPS steadily decreased for 39 years until 2009. During the academic year 2010–11, 46,191 students were enrolled in the public school system. DCPS has one of the highest-performing school system yet a few lowest-performing school systems in the country, both in terms of infrastructure and student achievement. The District of Columbia Public Charter School Board monitors the 52 public charter schools in the city.

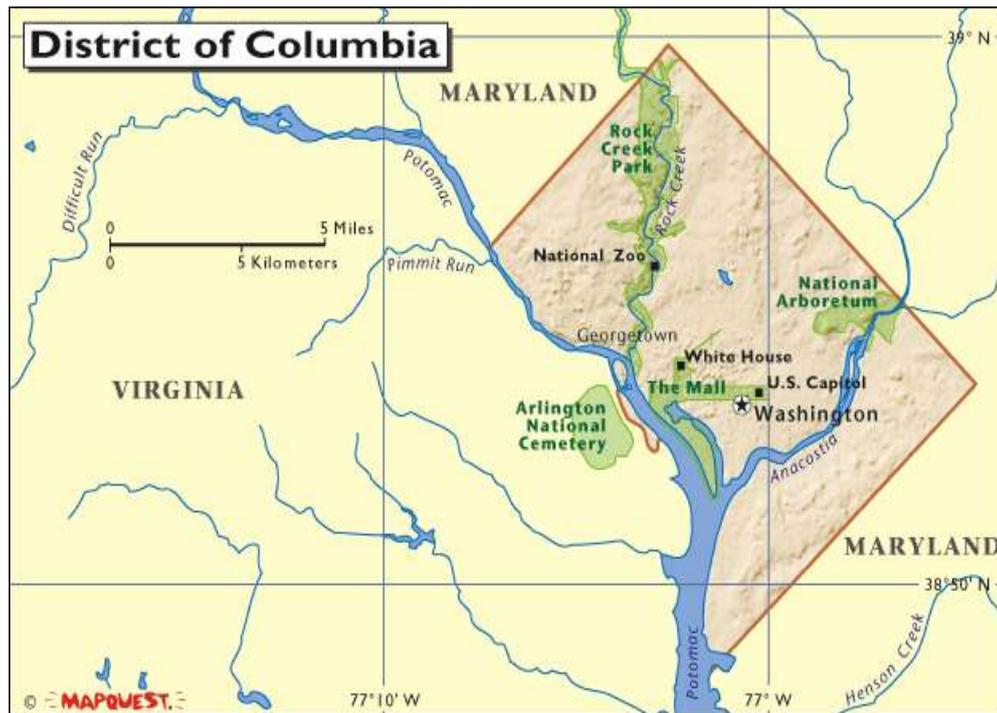


Figure 3.4 Map of District of ColumbiaSource:www.istanbul-city-guide.com

The higher education system is both private and public. The private colleges are well known. There are a few community colleges which cater to the needs of the financially low income students. Private universities include American University (AU), the Catholic University of America (CUA), Gallaudet University, George Washington University (GW), Georgetown University (GU), Howard University, and the Johns Hopkins University School of Advanced International Studies (SAIS). The Corcoran College of Art and Design provides specialized arts instruction and other higher-education institutions offer continuing, distance and adult education.

3.6.3 Selected School Districts of the Four States of USA

Table 3.3 indicates the name of the city and the name of the school district and the number of high schools. In the State of Missouri St. Louis Public School District (SLPS) in St. Louis was selected. SLPS has fourteen high schools. Hoboken Public School District in the city of Hoboken in New Jersey State has five high schools. In the State of Pennsylvania, Philadelphia city has one school district the School District of Philadelphia (SDP). SDP has forty five high schools. The District of Columbia has one school district, District of Columbia Public Schools with thirty two high schools.

TABLE: 3.3 Selected School Districts and the No. of high Schools in that School District

S.no	State	City	No.of School Districts	Name of the School District	No.of High Schools
1	Missouri	St. Louis	1	St. Louis Public School District	14
2	New Jersey	Hoboken	1	Hoboken Public School District	5
3	Pennsylvania	Philadelphia	1	School District of Philadelphia	45
4	District of Columbia	Washington DC	1	District of Columbia Public Schools	32

Convenient random sampling was used to select the cities. The school districts in the sample states were selected where permission has been procured. The researcher approached the Research Review committee of the school districts for permission to conduct research in their school districts. The following documents were sent to the committee for approval, as per the regulation of the state: (Appendix –A1-9)

Application to conduct research

1. Abstract of the study
2. Research Proposal
3. Reference of the Study
4. Supporting documents
 - a. Consent Forms for Principals and teachers
 - b. Interview Protocol for Principals and the Directors of Professional Development
 - c. Questionnaire for Principal
 - d. Questionnaire for Teachers
5. Research Proposal Data Form
6. Department Letter

The research committee comprises of the superintendent of the School district, director of Professional development, senior educationists and members of the School District education. The committee meets once in a month to review the research proposals and gives their consent if the proposal meets the standards of the district. The researcher received permission from two school districts to conduct research in their school district (School District of

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Philadelphia and St. Louis Public School districts). Copies of the permission letters are attached in the Appendix (Appendix –B). In the other two states permission was given orally. After that the researcher approached the school principals with the formal letter of request for permission to perform the research study in their school. A copy of this letter is attached in Appendix (Appendix - F). The nature of the study and the required data for it was explained orally also by the researcher to the principals. A few principals readily granted permission to conduct the research.

Each principal adopted different ways of informing the staff of the school about the researcher. Two principals called for a meeting of the teachers and introduced the researcher. Two principals took the researcher for a tour of the school and introduced the researcher to the teachers. Three principals sent notice to the teachers about the presence of the researcher. They were asked to help the researcher with whatever information she wanted. The different ways of introducing the researcher however, did not affect the working of the school. A consent letter was given (Appendix – A) to the teachers also informing about the purpose, nature and the type of data required from them.

The following table 3.4 gives the sample distribution.

TABLE: 3.4 Distribution of the Sample

S.no.	State	City	No.of School Districts	No.of Directors of Professional Development in the School Districts	No.of Schools	No.of Principals	No. of Teachers
1.	Missouri	St.Louis	1	1	2	2	30
2.	New jersey	New York city	1	-	1	1	16
3	Pennsylvania	Philadelphia	1	1	3	3	43
4	District of Columbia	Washington DC	1	-	1	1	19
Total	4	4	4	2	7	7	108

- I. In the State of Missouri, St. Louis Public School District review committee reviewed the proposal and permitted the researcher to conduct the research study in their school district (Appendix-B).

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- The Principals of two schools (School A and School B) consent to participate in the research (Appendix-C). Fifteen teachers in each school were the sample for the study.
- II. In the State of New Jersey, Hoboken school district was selected. One high school principal responded (School C)
- One Principal and 16 teachers from that school were the respondents for the study.
- III. In the State of Pennsylvania, the School District of Philadelphia review committee permitted the researcher for the research study (Appendix-E). Three secondary school Principals agreed to respond to the research. (Appendix-C).
- In School D, one Principal and fourteen teachers responded.
 - In School E, one Principal and nine teachers responded.
 - In School F, one Principal and twenty teachers responded.
 - Overall in the State of Pennsylvania, three principals of the three schools and forty three teachers from the three schools were the respondents for this study.
- IV. In the District of Columbia, one private school agreed (School G).
- One Principal and nineteen teachers responded the questionnaire.
- V. The professional development directors of the School District of St. Louis and the School District of Philadelphia agreed for the interview.

Over all four States in the USA were selected for the study. The sample consisted of one hundred and eight teachers, seven Principals from seven schools and two professional development directors from two school districts. Figure 3.5 describes the sample and the sampling techniques used for selection of the sample.

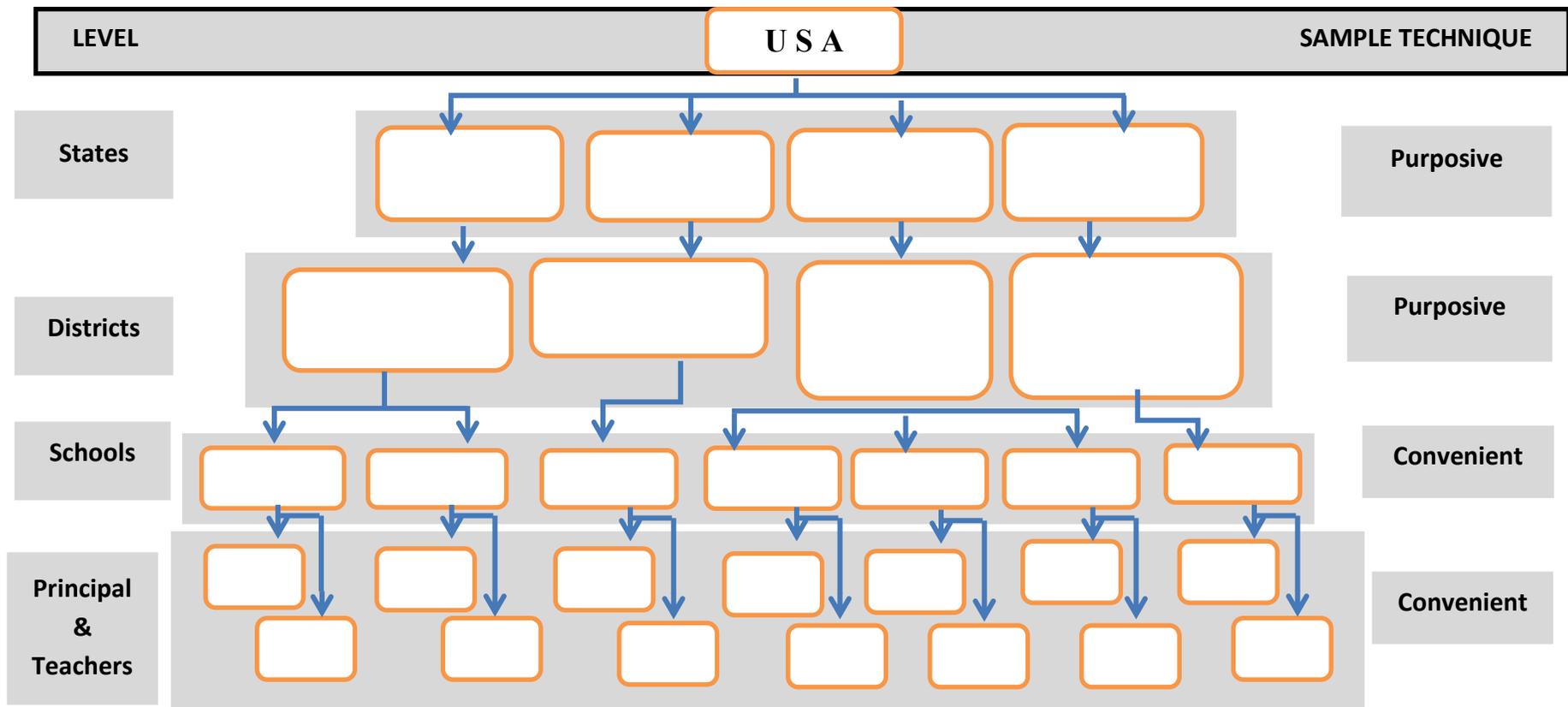


Figure. 3.5 Sample and Sampling Techniques used for Selection

3.7 Procedure for Data Collection

Various forms of data were gathered from the different sources to analyse to answer the research objectives. The following table describes the procedure for data collection- in terms of objectives, source of information and the research tools used. Researcher personally visited the sample institutions and collected data.

Table – 3.5 Procedures for Data Collection

S.no	Area of Inquiry (objectives)	Data collection method	Source of Data
1.	Federal, State and School District policies for the professional development of teachers	Documents (Reports, Documents, relevant material)	Documents procured from the Education office of the School Districts and web sites Interview of the Administrators
2.	On-going professional development programs conducted by State, School district and the Schools	Participant Observation Focus group discussion Interview	Professional development program Teachers Principal
3.	Perception of teachers on the programs, in content, methodology, logistics and incentives	Questionnaire Focus Group discussion	Teachers
4.	Perception of principals on the programs, implementation of the programs and challenges	Questionnaire Interview	Principal
5.	Perception of the Administrators of the School Districts	Interview	Directors of Professional Development for teachers, of the School Districts

3.8 Methods of Obtaining Data

In order to collect relevant and authentic data, one has to device appropriate tools and suitable techniques. Tools form a very important part of research. There are several research tools varying in design, operation and complexity of features. Researcher used document analysis, participant observation, interviews, focused group discussion with teachers and questionnaires for teachers and principals in this study. The tools were prepared with adequate care.

The present study gathered information regarding the policies and the programs for the professional development of school teachers in USA, in

terms of objectives, its relevance to emerging educational context, its content and its mode of presentation. In designing the tools, major aspects of the content area could be covered by its appropriate proportion and due care was taken for validity of the tools used. Review of the related literature indicated that many such studies also used questionnaires, interview schedules and participant observation and document analysis collection of data.

In the present study following tools were used for collecting the required data.

1. Document Analysis
2. Participant Observation
3. Questionnaire for teachers
4. Questionnaire for principals
5. Focus group discussion with teachers
6. Interview Schedule for principals
7. Interview Schedule for the professional development directors of the school districts

3.8.1 Document Analysis

The researcher used document analysis in this study as a method for qualitative inquiry. The researcher collected the reports of the policies of the federal and state government from the respective Web sites and also from School Districts Office of the selected school districts for the present study personally as a primary source of information. Another primary source was the documents from the Professional Development Programs, beginning teachers mentor programs and the implementation and evaluation records. Documents were also collected from Principals about the professional development programs in the school site. Since the review of the documents was an unobtrusive process and did not interfere with the school day, it was feasible to review and discuss with the principals. In order to increase the validity of documents analysis, the researcher recorded field notes. The relevant documents were analysed for the purpose of the nature of policies pertaining to the Professional development of teachers, guidelines for implementation and specific rules and regulations for the teacher development in school education.

3.8.2 Participant Observation

The researcher personally visited the centre where Professional development program was taking place and observed the on-going Professional development program to understand the actual transaction of the programs in terms of content, methodology and feedback system. This gave the researcher the first hand information about the actual transaction of the program, perception of the teachers regarding the nature of the program, need of the program, the logistics of the programs, impact of the programs on the teachers, adoptability of the program in the classroom practice and in their teaching learning process. This also gave the information of the resource persons.

The researcher attended the Math teachers' content knowledge workshop conducted by the St. Louis Public School District. The school district's goal was that all students improve in math curriculum. Based, on this a math content and methodology improvement course was offered to teachers from grade 8 to grade 10, to gain knowledge and implement strategy. The researcher's interest to attend the program was to understand how participation in this program helped the teachers in improving their knowledge and how does participation impacted in the implementation of the instructional practices addressed during the professional development.

The information about the professional development program had been given in the calendar of events to the teachers during the summervacation. The program was conducted in the office of the St. Louis Public School district. The course instructor was the professor in the department of mathematics in the university. He had been in the field for more than 20 years and had been taking course work for teachers.

There were 10 beginning teachers, 8 teachers in their 4th and 5th year of teaching and 8 tenured teachers, teaching grade 8 to grade 10, the researcher and the instructor in attendance.

3.8.3 Interviews

School districts were always called upon to document that they met the state mandates. Surveys and documents could provide only the "facts" reported to

the state. Through qualitative research, the researcher could learn the “truth” about the mandate and what was truly happening in the school level. As the researcher was physically present during the whole proceedings, an element of authenticity is added to the study and lends itself to a high level of credibility. The director of professional development of the school districts and the principals of the schools which were under study were interviewed.

3.8.3.1 The Director of Professional Development of the School District

The researcher interviewed the Director of Professional Development of the school district to understand the policies for the professional development of teachers and to understand how the programs were conducted, implemented and evaluated.

After the researcher obtained consent from the administrator, interview sessions were arranged at the office of the school districts. It was estimated that the interview session lasted approximately two to three hours, with the understanding that the participants had an advance copy of the questions. The interview questions remain open-ended in order to avoid leading the participants. Follow up interviews were conducted over the phone and e-mail. Since the directors’ consent was not given, interviews were not tape-recorded and so a written account in the form of field notes was maintained.

3.8.3.2 Principals

The researcher interviewed the Principals to understand the policies of the federal and state government for the professional development of teachers, the on-going professional development programs, the issues and challenges associated with the planning and implementation of the Professional development programs. After the researcher obtained the consent from the principal, the interview session was arranged in the school building. The interview lasted approximately for one to one and a half hour. The follow up interview were conducted through telephone and e-mail. Interviews began with a brief introduction of the researcher and the intentions and purpose of the study. This led to the general open ended questions about their institutions, the recruitment and development of the teachers. A sample of the interview protocol and question guide can be seen in AppendixD. The

interview schedule of the principles is enclosed in the appendix (Appendix – D)

3.8.4 Focus Group Discussion with Teachers

A goal of the focus group was to highlight the understandings and meanings that may be revealed by participants and the several explanations articulated by the participants. In order to encourage active involvement by all members, participants were given an advance copy of the topics of discussion. This may have offered more opportunities for participants to be actively involved with time to reflect prior to the focus group. It was recognized by the researcher that there would be less control over the data as the participants may ask questions and express opinions, but the researcher kept participants focused on the open-ended pre-determined questions. When organizing a focus group, suggested membership is around six to ten participants. The role of the researcher in the focus group is critical. It is the researcher who will set the tone, the purpose, and facilitate interaction of the participants. Overall, the collaborative nature, multiple perspectives, and empowerment of participants of the focus group are some of the greatest benefits of this method of qualitative inquiry.

For focus group discussion the teachers who had responded to the questionnaires were chosen based on their interest and availability. The researcher gained permission from each building principal to invite teachers to participate in the focus group. The teachers were invited either through phone or e-mail. The researcher explained the nature, purpose, time-line and confidentiality of the study. The list of teachers who agreed to participate was prepared by the researcher. A Table presenting the number teachers who participated in the focus group discussion is attached in the appendix (APPENDIX-E). Their names were not mentioned to maintain confidentiality.

3.8.5 Questionnaires

Questionnaire as a tool for a particular study depends upon the objectives of the study, the amount of time at the disposal of the investigator, the availability of time of the participants and the competency of the researcher.

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Based on these criteria, the researcher developed questionnaires for teachers and principals to meet the demands of the objectives.

Questionnaire consisting of both open ended and closed ended questions were developed by the researcher, based on a thorough review of the literature. The questionnaires were validated. This questionnaire helped to understand the teachers' perception of the Professional development programs, need of the programs, their freedom to choose the programs, impact of the programs, issues and challenges.

3.8.5.1 Questionnaire for Teachers

The first step in the preparation of questionnaire was to attain a thorough grasp of the field, objective and nature of data needed. In the present study the guidelines from the related articles were gathered to have an in depth knowledge about the area of investigation. The researcher had gone through the review of related literature which showed that there were some questions which could help the researcher to form new questions. The researcher took help for a few subtopics and questions from Sylvia (1995) and Suski (2009) studies, to form new questions.

The second step in the preparation, researcher delimited the study to a point that the researcher was able to get a reasonable answer to the questions. Researcher eliminated all questions from which data cannot be found readily.

Third step in the preparation was to take into consideration the length of the questions and some of the items were deleted. Further it was examined to ensure that every item must serve a definite purpose.

In the fourth step the researcher made the rough outline of the questions and subtopics were grouped and finally 8 components with 100 questions were prepared. The components of the questionnaire consists of the profiles of teachers and principals, Educational and Professional competencies, Nature of programs participated, Perception on different policies, Perception regarding the Professional Development efforts by the state and school districts, the on-going PD Programs in USA, in terms of content, methodology and feedback system, the opinions of Teachers and regarding

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the Professional Development programs and the issues and challenges in managing the Professional Development Programs.

In the next step the length and the grouping of question was taken into consideration. More general questions were kept first and detail and specific questions towards end.

Next the questionnaires were shown to the guide and after discussion some questions were deleted and some modifications or additions were made. The first draft of questionnaires for teachers covering different aspects of policies and programs of the professional development of the teachers in the USA was prepared.

Realising the importance of the scholarly construction of tool, the draft questionnaires were thereafter sent to different individuals related to the field; experts in order to obtain their views regarding the questions. Following points were kept in view – whether the questionnaire covered all the aspects regarding the policies and programs of the school teachers in USA, whether the items were clear and easy to understand, whether the questionnaires were adequate or in- adequate about the mode of responses. There were four categories of personnel (Teacher Educators of Universities, Resource persons, Research Scholars and Language experts) to whom the questionnaire were given to elicit their view content validity and language aspect. The total numbers of experts were twelve (Appendix -F).

The opinion of the experts was collected through their responses. Through discussions with guide and based on experts suggestions the questionnaires were finalised. Going by the objective of this study the final questionnaire was designed consisting of ten sections of questions in closed ended or open ended format (Appendix G). For the closed ended questions a five point scale was used. The respondents indicated how closely their perceptions matched the question or statement on a rating scale. The number at one end of the scale represented least agreement or *strongly disagree*, and the number at the other end of the scale represented most agreement or *strongly agree* (Gall, Borg, & Gall, 2003). The open- forms of the questions were constructed to provide greater depth of the response and freedom given to the respondent

to reveal his/her opinion and to clarify his/her responses. From the responses, the researcher could make a generalization of the opinions.

Table 3.6 Dimensions of Final Draft of Questions for Teachers

S.no	Components	Total Questions	Types of Questions	
			Open	Closed
1.	Profile details	04	04	-
2	Professional experience	13	13	-
3	Perception on the design and development of professional development programs	11	01	10
4	Perception on the content and methodology of professional development program	13	01	12
5	Perception on the logistics of the professional development program	10	01	09
6	Perception on the impact of professional development program	13	01	12
7	Perception on incentives for participation in professional development programs	11	01	10
8	Perception on the issues and challenges of professional development program	12	02	10
9	Suggestion for the improvement of professional development programs	09	09	-
10	Miscellaneous	01	01	-
	Total	97	34	63

Table 3.6 indicates the dimensions of the final draft of questions which consisted of ten components with 97 questions.

The first and the second questions were designed to collect the personal information from the respondent regarding position, level of education, experience, the number of professional development programs attended in last two years, nature and type of program and the source of information for continuous professional development. The next six sections consisting of multiple choice questions were designed to assess the perception of teachers on the design and development, content and methodology, logistics, impact,

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incentives for participation and the issues and challenges of professional programs.

The following is a description of the purpose of each of the items.

- Question III explored the perceptions on the design and development of professional development programs were included to explore the extent to which teachers were involved, whether it was a part of educational improvement plan of the school, whether the professional development program was need based, whether it was relevant or provided opportunity for collaborative learning and reflective teaching and creative problem solving. A response on the five point scale was required for each of the questions.
- Question IV contained 10 sub questions which explored the content and methodology of teachers' professional development experience. Whether the programs focused on research based content which improved their subject knowledge and familiarised them with other subjects. Did the programs include research based teaching methodology, use of ICT in teaching learning process. Whether the programs were helpful to teachers to develop skills to support students of diverse group and effectively interpret learning outcomes of the students. A response on the five point scale was required for each of the questions.
- Question V solicited information about the logistics of the programs. The purpose of the question was to understand the administrative support given, information about the professional development programs, location, accommodation, and student free days for participation. The questions also revolved around whether the time was convenient for the teachers to participate in the programs.
- Question VI explored the perceptions on the impact of professional development programs. The questions were developed to explore the extent to which the programs had a positive impact on the teachers, improved their classroom management, classroom organisation and resources, pedagogical skill, teaching capacity and on personal

appraisal. A response on the five point scale was required for each of the questions.

- Question VII solicited information about the incentives for participation in professional development programs. The questions also revolved around whether the participation helped in carrier advancement, job security, helped in accreditation, recertification and evaluation. A response on the five point scale was required for each of the questions. The questions also explored the information on subsidised conference fee, sabbatical leave and stipends for participation.
- Question VIII contained 10 sub questions which explored the issues and challenges of professional development programs. These sub questions solicited information on the issues like time off from work, pupil free days, challenges in implementation, loss of instructional time, financial support given by school and school districts.
- Question IX was an open ended question inviting suggestions on the improvement of professional development programs on content, methodology, implementation, evaluation, incentives, resource persons and logistics.
- Question X was an open ended question which encouraged the teachers to share anything else other than the information given from question III to question IX.

3.8.5.2 Questionnaires for Principals

The questionnaires for the principals were directed towards the principals' perception on the teachers' professional development. The questionnaires were designed to study the Principal's perception on the on-going programs, the need of the programs, does the program have an impact on the school development, teachers' professional growth and the issues and challenges faced in the implementation of the programs.

The first step was to attain a grasp of the field, the objectives of the study and the nature of data to be collected. The researcher studied the books, articles and some dissertations to have in-depth knowledge about the area. The researcher reviewed the related literature, which showed that there were some questionnaires which could help the researcher to formulate new questions.

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The study was delimited to a point where the researcher would be able to get reasonable answers to the objectives. Thus the researcher eliminated all questions which pertained to data which can be found readily and often more accurately from other sources. The length of the questions was taken into consideration in the next step and a rough outline of the questionnaires was prepared. Questions on the subtopics were grouped and a total of ten components were prepared. The first and the second questions were designed to collect the personal information from the respondent regarding position, level of education, experience, and responsibility as an academician or administrator. Third, fourth and the fifth questions were designed to gather information about the school such as the management structure, establishment of the school, number of teachers and the kind of curriculum. The sixth through eighth questions contained both multiple choice questions and open ended questions which assessed the policies for professional development of teachers, design and development of professional development programs and the evaluation of the implementation of the professional development programs. The ninth question addressed the issues and challenges in the implementation of the programs.

In the next step the questionnaires were shown to the guide and after discussions few questions were deleted. And few were modified. Then the first draft of the questionnaires was ready.

In the next step, recognising the importance of the study, the draft questionnaire was sent to experts working in the field of education in order to obtain their views regarding the questionnaire. It was kept in view whether the questionnaire covered all aspects; whether the questions were clear, correct and easy to follow.

There were four categories of personnel Teacher Educators of the Universities, Resource persons in the field of administration, research scholars and language experts to whom the questionnaires were given for seeking the opinions on the content validity and language aspect. The total number of experts was twelve.

The opinions of the above experts were collected through their responses. After reviewing the suggestions the final draft questionnaire was prepared.

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Through discussions with guide and based on experts suggestion the questionnaires were finalised. Going by the objective of this study the final questionnaire was designed consisting of ten sections of questions in closed ended or open ended format (Appendix - H).

Table 3.7 Dimensions of Final Draft of Questionnaire for Principals

S.no	Components	Total Questions	Types of Questions	
			Open	Closed
1.	Profile	04	04	-
2.	Educational and Professional competencies	04	04	-
3.	Management structure	03	03	-
4.	Policies for the professional development of teachers	05	-	05
5.	Design and development of professional development programs for teachers	05	04	01
6.	Evaluation of the PD programs for teachers	07	02	05
7.	Feedback and appraisal	06	06	-
8.	Issues and Challenges	02	02	-
9.	Key achievements of the school	01	01	-
Total		37	26	11

3.9 Data Analysis Procedure

The researcher collected the data from the professional development policy documents of the three states and the District of Columbia in USA, questionnaires from teachers and principals, interviews of principals and the directors of professional development and focus group interviews of the teachers. A combination of qualitative and quantitative methods was used to analyze data relative to the research questions and objectives.

While many researchers see quantitative and qualitative methodologies as dichotomous, the researcher chose to bring together these two types of data during analysis. Maxwell and Loomis (2003) argue for an integrative mixed methodology that focuses on the fit between the purpose and methods of the study but cautions that one must maintain "paradigmatic integrity" within a study. They call for a synthesis of methodologies that is not homogeneous but

maintains the 'culture' of each approach. "Researchers [should] become bicultural," he writes, they must learn to inhabit the borderlands between the two paradigms (Maxwell & Loomis, 2003). On the other hand, Greene (2003) calls for a dialectical approach to mixed methodology that recognizes the paradigmatic in different kinds of data, but uses these differences, "through the tension they invoke—to generate meaningfully better understandings" (Greene & Caracelli, 2003).; however, the researcher would also look for convergence and divergence between analyses of quantitative and qualitative data to make high-level inferences relating the study.

3.10 Conclusion

Chapter III established a detailed account of the research methodology, research design, population and sampling, instrumentation, data collection procedure and data analysis procedure in order to gather information and study the policies and programs for professional development of school teachers in USA. The steps outlined in chapter III were followed to ensure the integrity of the study. A total of one hundred and eight teachers, seven principals and two professional development directors from the states of Missouri, New Jersey, Pennsylvania and the District of Columbia in USA, formed the sample of the study.

The next chapter, Chapter IV discloses the results of the analysis of the data collected through different sources in order to answer the research questions.

CHAPTER IV
ANALYSIS
AND
INTERPRETATION
OF DATA

4.0. Introduction

This chapter presents the detailed analysis and interpretation of the data collected from the respondents through various sources for the purpose of the study. The data collected through documents, survey questionnaire, focused group interviews and participant observation was triangulated to study the policies and programs for the professional development of school teachers in USA.

4.1 Scheme of Analysis

A mixed methodology was used to analyse the data, and it has been presented in four sections.

- Section I-a detailed report of the profile of the participants (Teachers and Principals) is presented.
- Section II- the findings from the document analysis on the policies for the professional development of teachers are delineated
- Section III- a detailed report of the professional development programs conducted by the federal government, state governments, school districts and the schools which are under study are presented
- Section IV- the first part delineates the responses to a questionnaire for the teachers and principals. The second part of Section IV, describes the analysis of the questionnaire for principals. The third part, triangulation of the data collected through focus group discussion with teachers, a detailed analysis of the data acquired through interviews of the principals and the professional development directors is also presented.

4.2 SECTION – I

The data was collected through a survey administered to the teachers and the Principals. A total of 108 Teachers and 7 Principals responded to the survey. Individual profile data collected from the teachers for this study included:

- Educational and Professional qualification
- Professional experience as a teacher and in the current employment in the school
- Status and licensure
- Participation in Professional development program

Individual data collected from the principals for the study includes:

- Educational and Professional qualifications
- Professional experience as a teacher and as a principal
- School demographic data, such as the management structure, total number of teachers, curriculum followed in the school etc.

4.2.1. Academic and Professional Qualifications of Teachers

The following table revealed the academic and professional qualifications of teachers in the sample schools, which were procured from the survey questionnaire for the teachers.

From the table (4.1) below it was observed that a majority of the male and female teachers in the sample schools have a Master's Degree in the subject area along with the professional degree in teaching pedagogy. The Private Schools and the Charter schools were permitted to have teachers without the professional qualifications; however training was required in the subjects they teach.

Table: 4.1 Academic and Professional Qualifications of Teachers

Qualification		States In USA Where The Sample Schools Exists						
		Missouri		New Jersey	Pennsylvania			District Of Columbia
		A	B	C	D	E	F	G
MALE								
Academic Qualification	UG	30 (3)	33.33 (2)	50 (3)	57.14 (4)	50 (2)	16.66 (1)	15.38 (2)
	M	70 (7)	66.66 (4)	50 (3)	42.84 (3)	50 (2)	83.33 (5)	69.23 (9)
	D	--	--	--	--	--	--	15.38 (2)
Professional Qualification	Y	90 (9)	83.33 (5)	100 (6)	100 (7)	100 (4)	100 (6)	69.23 (9)
	N	10 (1)	16.66 (1)	--	--	--	--	30.76 (4)
FEMALE								
Academic Qualification	UG	20 (1)	66.66 (6)	40 (4)	14.28 (1)	40 (2)	50 (7)	66.66 (4)
	M	80 (4)	83.33 (3)	60 (6)	80.75 (6)	60 (3)	50 (7)	33.33 (2)
	D	-	--	--	--	--	--	--
Professional Qualification	Y	100 (5)	88.88 (8)	90 (9)	100 (7)	100 (5)	85.71 (12)	100 (6)
	N	--	11.11 (1)	10 (1)	--	--	14.28 (2)	--

**Figures in Parenthesis shows the no. of Male (M) and Female (F) Teachers*

U.G – Under Graduate. M - Master degree. D – Doctoral degree.

*Y – Possess Professional qualification. N – Do not possess professional qualification
Teacher questionnaire I*

4.2.2 Professional Experience of Teachers

The following table (4.2) presents the professional experience of the teachers as well as their teaching experience in the present school (Teacher questionnaire II – A & B).

The analysis of the data revealed that majority (more than 70%) of the teachers in the sample schools had more than five years of professional teaching experience in schools at the time the survey was conducted. It was also found that more than 50% of the male teachers have been working in the same school for more than six years. Therefore attrition is less prevalent in the sample schools.

Table: 4.2 Professional Experiences of Teachers

Experience		States In USA Where The Sample Schools Exists						
		Missouri		New Jersey	Pennsylvania			District Of Columbia
		A	B	C	D	E	F	G
MALE								
Total No.ofyears	Less than 5 years	30 (3)	16.66 (1)	16.66 (1)	14.28 (1)	--	14.28 (2)	15.38 (2)
	More than 5 years	70 (7)	83.33 (5)	83.33 (5)	85.71 (6)	100 (4)	85.71 (12)	84.61 (11)
No.of years in the Present School	1-2 Years	20 (2)	33.33 (2)	16.66 (1)	--	--	--	07.69 (1)
	2-5 Years	10 (1)	16.66 (1)	--	71.42 (5)	25 (1)	07.14 (1)	07.69 (1)
	5-6 Years	30 (3)	--	16.66 (1)	14.28 (1)	25 (1)	21.42 (3)	07.69 (1)
	More than 6 Years	40 (4)	50 (3)	66.66 (4)	14.28 (1)	50 (2)	71.18 (10)	76.92 (10)
FEMALE								
Total No.of years	Less than 5 years	20 (1)	33.33 (3)	30 (3)	14.28 (1)	22.22 (2)	100 (6)	16.66 (1)
	More than 5 years	80 (4)	66.66 (6)	70 (7)	85.71 (6)	60 (3)	--	83.33 (5)
No. of years in the Present School	1-2 Years	20 (1)	22.22 (2)	--	28.57 (2)	20 (1)	--	--
	2-5 Years	40 (2)	33.33 (3)	40 (4)	28.57 (2)	20 (1)	50 (3)	16.66 (1)
	5-6 Years	--	--	20 (2)	14.28 (1)	40 (2)	50 (3)	50 (3)
	More than 6 Years	40 (2)	44.44 (4)	40 (4)	28.57 (2)	20 (1)	--	15.38 (2)

**Figures in Parenthesis shows the no. of Male (M) and Female (F) Teachers*

4.2.3 Status and Licensure of Teachers

Teachers' response to the survey question II E and F provided the status and licensure of teachers. The data revealed that there were three categories of teachers; permanent, temporary and tenured teachers. The details are tabulated in table 4.3 on the following page.

From table 4.3 it was observed that majority of the teachers in the sample schools are permanent teachers. More than 30% of the teachers are tenured teachers. It was also found that in all the sample schools, except School G the teachers have a teaching license. The novice teachers were given time (1-3 years) to procure their initial licensure. It was observed that school G has more number of teachers without teaching licensure as it is a private school

having the administrative autonomy. However all the teachers, including school G, fulfil the essential qualifications and experience laid down by the federal government.

Table: 4.3 Professional Status and Licensure of Teachers

STATUS & LICENSURE		STATES IN USA WHERE THE SAMPLE SCHOOLS EXISTS						
		MISSOURI		NEW JERSEY	PENNSYLVANIA			DISTRICT OF COLUMBIA
		A	B	C	D	E	F	G
MALE								
Professional Status	Permanent	90 (9)	100 (6)	50 (3)	71.42 (5)	100 (4)	66.66 (4)	100 (13)
	Temporary	--	--	--	--	--	--	--
	Tenured	10 (1)	--	50 (3)	28.71 (2)	--	33.33 (2)	--
Licensure	Yes	90 (9)	100 (6)	100 (6)	100 (7)	100 (4)	100 (6)	46.15 (6)
	No	10 (1)		--	--	--	----	53.84 (7)
FEMALE								
Professional Status	Permanent	100 (5)	66.66 (6)	70 (7)	100 (7)	100 (5)	92.85 (13)	100 (6)
	Temporary	--	--	--	--		--	--
	Tenured	--	33.33 (3)	30 (3)	--		07.14 (1)	--
Licensure	Yes	100 (5)	100 (9)	100 (10)	100 (7)	60 (3)	64.28 (9)	50 (3)
	No	---	--	--	--	40 (2)	35.71 (5)	50 (3)

*Figures in Parenthesis shows the no. of Male (M) and Female (F) Teachers

4.2.4 Participation of Teachers in Professional Development Programs

Teachers' responses to the questions (Teacher Questionnaire II- I & K) on participation in professional development programs which were organised by their respective school, school district, or any other organisations is presented in table 4.4

From the table below (4.4) it was observed that 100% of the teachers in the sample schools in the States of Missouri, New Jersey, Pennsylvania and District of Columbia have participated in Professional Development Programs. More than 75% of the teachers had attended programs organised by the school districts and schools. It was also observed that the school based

programs were more frequent in private schools. Other agencies like the National Association of Mathematics teachers, The National Association of Science Teachers, The National Staff Development Council etc. also organises professional development programs.

Table 4.4 Participation of Teachers in Professional Development Programs

PROFESSIONAL DEVELOPMENT PROGRAMS		STATES IN USA WHERE THE SAMPLE SCHOOLS EXISTS						
		MISSOURI		NEW JERSEY	PENNSYLVANIA			DISTRICT OF COLUMBIA
		A	B	C	D	E	F	G
MALE								
Participation	Yes	100 (10)	100 (6)	100 (6)	100 (7)	100 (4)	100 (6)	84.61 (11)
	No	--	--	--	--	--	--	15.38 (2)
Programs Organised By	School	100 (10)	16.66 (1)	30 (3)	85.71 (6)	75 (3)	83.33 (5)	53.84 (7)
	District	80 (8)	100 (6)	100 (6)	57.14 (4)	100 (4)	66.66 (4)	--
	State	40 (4)	50 (3)	16.66 (1)	28.57 (2)	--	16.66 (1)	15.38 (2)
	Others	50 (5)	33.33 (3)	100 (6)	28.57 (2)	50 (2)	16.66 (1)	76.92 (10)
FEMALE								
Participation	Yes	100 (5)	100 (9)	100 (10)	100 (7)	100 (5)	100 (14)	100 (6)
	No	--	--	--	--	--	--	--
Programs Organised By	School	100 (5)	66.66 (6)	80 (8)	100 (7)	80 (4)	85.71 (12)	33.33 (2)
	District	60 (3)	66.66 (6)	60 (6)	100 (7)	80 (4)	50 (7)	--
	State	40 (2)	22.22 (2)	40 (4)	28.57 (2)	20 (1)	21.43 (3)	--
	Others	40 (2)	66.66 (6)	40 (4)	14.28 (1)	20 (1)	14.28 (2)	83.33 (5)

**Figures in Parenthesis shows the no. of Male (M) and Female (F) Teachers*

4.2.5 Source of Information for Teachers' Regarding Professional Development Programs

Table 4.5 indicates the source of information for teachers about the Professional Development Programs. This information helps the teachers to decide what type of course they wish to participate in.

Table: 4.5 Source of Information for Teachers about Professional Development Programs

SOURCE OF INFORMATION OF THE PROGRAMS	STATES IN USA WHERE THE SAMPLE SCHOOLS EXISTS						
	MISSOURI		NEW JERSEY	PENNSYLVANIA			DISTRICT OF COLUMBIA
	A	B	C	D	E	F	G
MALE							
Academic Meetings	100 (10)	50 (3)	100 (6)	100 (7)	100 (4)	83.33 (5)	76.92 (10)
Professional Journals	80 (8)	100 (6)	66.66 (4)	100 (7)	75 (3)	50 (3)	61.53 (8)
Hand Books	60 (6)	50 (3)	33.33 (2)	71.42 (5)	25 (1)	--	38.46 (4)
Professional Bulletin	30 (3)	16.66 (1)	33.33 (2)	--	--	--	30.76 (4)
University Course	20 (2)	16.66 (1)	16.66 (1)	14.28 (1)	25 (1)	33.33 (2)	--
Others	--	--	16.66 (1)	--	--	16.66 (1)	--
FEMALE							
Academic Meetings	100 (5)	66.66 (6)	80 (8)	100 (7)	80 (4)	100 (14)	66.66 (4)
Professional Journals	60 (3)	88.88 (8)	40 (4)	71.42 (5)	80 (4)	57.41 (8)	83.33 (5)
Hand Books	40 (2)	88.88 (8)	50 (5)	71.42 (5)	40 (2)	21.42 (3)	66.66 (4)
Professional Bulletin	40 (2)	44.44 (4)	20 (2)	14.28 (1)	20 (1)	33.33 (2)	--
University Course	--	55.55 (5)	50 (5)	28.57 (2)	40 (2)	28.57 (4)	--
Others	20 (1)	11.11 (1)	20 (2)	14.28 (1)	--	33.33 (2)	--

**Figures in Parenthesis shows the no. of Male (M) and Female (F) Teachers*

The table above,(4.5)it was found that more than 85% of the teachers in the sample schools acquired information about professional development programs through academic meetings, in the school and in the school districts. It was also observed that professional bulletins and teachers' handbooks provide information about professional development programs. Additionally the states and the school districts provide information on their websites.

4.2.6 Focus of the Professional Development Programs Participated by the Teachers

It was inferred from the table below (4.6) that more than 75% of the teachers in the sample schools participated in subject content programs and teaching methodology programs. 25% of the teachers in the sample school participated in generic programs. It was also noted that the teachers' participation in behavioural programs was very low. Moreover very less number of teachers from the private school participated in the evaluation programs.

Table 4.6 Focus of Professional Development Programs Participated by the Teachers

FOCUS OF PROFESSIONAL DEVELOPMENT PROGRAMS	STATES IN USA WHERE THE SAMPLE SCHOOLS EXISTS						
	MISSOURI		NEW JERSEY	PENNSYLVANIA			DISTRICT OF COLUMBIA
	A	B	C	D	E	F	G
MALE							
Subject	100 (10)	66.66 (4)	66.66 (4)	85.71 (6)	75 (3)	83.33 (5)	76.92 (10)
Generic	20 (2)	--	33.33 (2)	14.28 (1)	25 (1)	33.33 (2)	15.38 (2)
Methodology	70 (7)	100 (6)	100 (6)	85.71 (6)	75 (3)	33.33 (2)	83.33 (5)
Evaluation	40 (4)	55.55 (5)	50 (3)	42.85 (3)	75 (3)	14.28 (2)	30.76 (4)
Behaviour	30 (3)	--	--	57.14 (4)	--	50 (3)	23.07 (3)
FEMALE							
Subject	100 (5)	88.88 (8)	80 (8)	100 (7)	80 (4)	100 (14)	50 (3)
Generic	--	44.44 (4)	30 (3)	14.28 (1)	60 (3)	21.42 (3)	07.69 (1)
Methodology	100 (5)	66.66 (4)	90 (9)	85.71 (6)	60 (3)	78.51 (11)	50 (3)
Evaluation	40 (2)	33.33 (3)	30 (3)	85.71 (6)	--	35.71 (5)	33.33 (2)
Behaviour	--	66.66 (4)	30 (3)	42.85 (3)	--	35.71 (5)	--

**Figures in Parenthesis shows the no. of Male (M) and Female (F) Teachers*

4.2.7 Academic and Professional Qualifications of Principals

Like the teachers' the principals' profile was procured through a survey questionnaire. From the following table(4.7) it can be inferred that most of the principals of the sample schools possess either a Master Degree or a Doctoral degrees in their subject areas along with a professional degree in teaching

pedagogy. It is observed that they also possess Principals Certification although, not many have Doctoral degree in their professional courses.

Table: 4.7 Academic And Professional Qualifications of Principals

S.NO	STATE	SCHOOL	ACADEMIC			PROFESSIONAL
			U.G	M	D	Yes
1.	Missouri	School A		Yes	--	Yes and Principals certification
		School B		--	Yes	Doctoral Degree in Education
2.	New Jersey	School C		Yes	--	Yes and Principals certification
3.	Pennsylvania	School D		--	Yes	Yes and Principals certification
		School E		Yes	--	Yes and Principal Certification
		School F		Yes	--	Doctoral Degree in Education
4.	District of Columbia	School G		--	Yes	Yes and Principal Certification

4.2.8 Professional Experience of Principals

Table 4.8 reveal that as of the time the survey was conducted, a majority of the principals of the sample schools had more than fifteen years of professional teaching experience in schools. It was also found that a majority of them have more than seven years of work experience as a principal.

Table 4.8 Professional Experiences of Principals

S.NO	STATE	SCHOOL	TOTAL NUMBER OF YEARS OF EXPERIENCE	
			AS TEACHER	AS PRINCIPAL
1.	Missouri	School A	14	11
		School B	15	09
2.	New Jersey	School C	18	01
3.	Pennsylvania	School D	05	32
		School E	25	07
		School F	15	10
4.	District of Columbia	School G	33	07

4.2.9 School Demographic Data

Table 4.9 reveals each school’s demographic data, such as the management structure, total number of teachers, and curriculum followed in the school.

The State curriculum is being followed by the five public schools under study. But a few of the schools also offer International Baccalaureate curriculum in Grade 11 and 12. The private school follows the Independent school curriculum offered by the federal government.

Table 4.9 School Demographic Data

S.NO	STATE	SCHOOL	MANAGEMENT STRUCTURE	TOTAL NUMBER OF TEACHERS	CURRICULUM
1.	Missouri	School A	Public	40	State
		School B	Public	23	State curriculum & Grade 11 &12 IB
2.	New Jersey	School C	Public	68	State
3.	Pennsylvania	School D	Public	46	State
		School E	Public	20	State
		School F	Charter	51	State
4.	District of Columbia	School G	Private	65	Independent

4.2.10 Summary of Section I

It was observed from the analysis of the data from Section I that the teachers and the principals fulfilled the criteria of being ‘highly qualified’ set by the government professionally. The key components emerged from section I has been elaborated as under.

4.2.10.1 Professional Standards and Requirements of Teachers

Professional standards for teachers in both public and private schools were clearly stated by the federal as well as the state policies of education. Private schools are given somewhat flexibility in terms of teacher’s professional competencies however quality of teachers is the prime concern of all the policies in education. Subject knowledge and the pedagogical knowledge are given importance in the professional standards of teachers. The novice teachers were given 1-3 years of time by the states to procure their initial licensure.

4.2.10.2 Attrition of Teachers

It was observed from the study that the teachers had rich teaching experiences. It was noted that teacher attrition in the sample schools was less in USA. This reflects that the teachers were able to understand the school context, the environment and understand the ethnic diversity of students.

This also reflects the teacher's job satisfaction level and the administrative support in the schools, which helped them to grow professionally.

4.2.10.3 Participation of Teachers in Professional Development Program

It was observed that all the teachers in the sample states have been participating in the professional development programs not only for acquiring credit hours but also to improve their pedagogical knowledge and the subject. Teachers are having autonomy to choose the type program they like to attend as per their convenient time.

4.2.10.4 Principals Professional Competencies

It was observed that the principals possessed academic and administrative competencies. Principals either possessed the principals' certification or doctoral degree in education as set by the state standards. Principals were able to give administrative support and guide the teachers in their professional requirements.

4.2.10.5 School Curriculum

Regarding the school curriculum, it was noted that school do follow the state curriculum however IB curriculum is also being implemented in some of the schools. Teachers working in IB schools are required to attend the professional development programs offered by IB and at the same time they need to fulfil the requirements of the state.

4.3 SECTION II

Data collected from different sources on policies of Professional development in USA are analyzed and presented in Section II. Policies provide guidelines and clear framework for action for any organization. The educational policies can be understood as a broad framework that help in decision making as well as a strategy to attend to the significant issues and challenges in education. The section elaborates the document analysis of the federal, state government and school districts policy documents.

4.3.1 Document Analysis

Documents are an important source of data. The primary source of data in documents refers to records and reports of legislative bodies, policies, minutes of the board meeting, report cards etc. In the context of this research, documents meant the policies of the federal, state, school district and school levels for the professional development of teachers. The researcher has collected documents personally from the offices of the school districts and from the websites of the US department of Education and the State Board of Education. The data on policies for a teacher's professional development, which were procured from different sources were analysed and are reported under the following subsections:

- Federal Policies
- State Policies
- Policies of the School Districts

4.3.1.1 Federal Policies for the Professional Development of Teachers

The federal government in USA is not responsible for the preparation, hiring, and work life of teachers; these responsibilities rest with states and localities. Nevertheless, the federal government, over the past several years, primarily through the U.S. Department of Education (ED), provided substantial resources to strengthen the quality and quantity of the teaching staff. It funds many programs of teacher training in order to support the teachers. The congress has been in the continuous process of redefining the federal role in supporting the teachers (U.S. Dept. of Education, 2000).

The Department of Education routinely drafts and updates policies and procedures to offer guidance to school leaders, educators, parents and students to help create a high-quality learning experience from early childhood through adulthood of the student. These policies and procedures are intended to improve the efficiency and cooperation among state, local and federal entities as they work together to train and maintain high quality teachers.

The educational policies in the USA started in the 17th century. Many educational policies were formulated, changed or modified over the decades to accommodate the growing needs of the society. The ESEA passed in 1965 was one of the major policies which emphasised on equal access to education and established high standards and accountability. In the year 2001 ESEA was reauthorized to improve the quality of education. The researcher has delimited the study of policies from NCLBA 2001.

The No Child Left Behind Act (NCLBA) 2001, created a significant shift in the federal agencies' role with regard to teachers. Prior to the 105th Congress and amendments (as explained in Chapter I), federal aid for teaching was focused on in-service training with limited fund. After the amendment in 1998, teacher quality enhancement programs were added to the Higher Education Act. NCLBA required all teachers of core academic subjects to be highly qualified by June 2006. Recognizing that most states were not on track to meet this deadline in all of their school districts, the US Secretary of Education, Margaret Spellings, issued a policy letter in October 2005 that extended the deadline until June 2007 for states that were making a "good faith effort" to comply with this act (Document Number: 6520, U.S Dept. of Education, 2005). As evidence of their good faith efforts, states had to submit plans to the US Department of Education (ED) that laid out the specific steps they were taking to meet the highly qualified teacher requirements by the end of the school year 2006-2007. State plans were put through a peer review process and assessed against six criteria specified by the Secretary (NCLB, 2001, sec. 9101, p. 1963).

The NCLBA of 2001 (Title IX, Part A) required that states ensure the availability of 'high quality' professional development for all teachers. The

NCLBA policies mandated the following for the high quality professional development of teachers and indicated that professional development should consist of:

1. Professional development activities that are used for the evaluation must be activities that increase teachers' knowledge of core academic subjects and are standards-aligned, sustained, intensive, and classroom-focused.
2. Activities that enable a teacher to become "highly qualified."
3. Activities that are integral to both school and district improvement plans.
4. Activities that improve classroom management skills.
5. One-day or short-term workshops or conferences are not acceptable and cannot be used to fulfil this requirement; the programs should be of minimum three days duration.
6. Activities that are developed jointly by teachers, principals, parents, and administrators.
7. Activities that are designed to enhance the teachers' and principals' use of technology as it relates to improved teaching and learning in core academic subjects.
8. Activities that enhance the knowledge and skills of teachers of limited English proficient students.
9. Activities that are regularly evaluated for their impact on increased teacher effectiveness as measured by improved student academic achievement.
10. Activities to provide instruction in methods of teaching students with special needs.
11. Activities on how school personnel can work more effectively with parents. NCLBA requires that the list of professional development activities accepted by the LEA (Local educational Authorities or school districts) be available to the public.
12. Other activities such as training for paraprofessional staff leading to their certification and licensure as teachers or forming partnerships

with institutions of higher learning to establish school-based teacher training programs.

13. Advance teacher understanding of effective instructional strategies that include instruction in the use of data and assessments to inform and instruct classroom practice.
14. For each 20 hours of content specific professional development a teacher would earn 5 points. (NCLB, 2002).
15. It was found from the documents that a high school teacher who is new to the profession have to demonstrate a high level of competency in each of the academic subject or successfully complete an academic major, a graduate degree, course work equivalent to an undergraduate major or advanced certification or credentialing and a state certification or licensure which can be acquired in 3 years' time.
16. From the documents procured through different sources, it has been found that apart from the Department of Education, several non-profit organisations also supported federal government in its policy decisions. The National Staff Development Council the largest non-profit organisation in the US which was started in 1978 in Ohio (NSDC, 2007) has been associated with the Federal Government for teacher professional development and school improvement. This organisation publishes a number of journals, books and guidelines to guide and assist educators in achieving the professional development goals which are in close proximity with the standards of the NCLB guidelines. It has also specified certain standards for staff development on context standards, process standards and content standards (NSDC, 2001).

Standards for Professional Development Set by NSDC:

The National Staff Development Council believed that "high quality staff development is essential to school reform and that school systems have an obligation to ensure that employees are thoroughly prepared to successfully discharge their responsibilities." In 2001, the Council released a revised set of standards for staff development which focused on context, process, and

content (<http://www.nsd.org>). These standards have become the gold standard for measuring high quality professional development.

Context Standards

- Organizes adults into learning communities whose goals are aligned with those of the school and district.
- Requires skilful school and district leaders who guide continuous instructional improvement.
- Requires resources to support adult learning and collaboration.

Process Standards

- Uses disaggregated student data to determine adult learning priorities, monitor progress, and help sustain continuous improvement.
- Uses multiplesources of information to guide improvement and demonstrate its impact.
- Prepares educators to apply research to decision making.
- Uses learning strategies appropriate to the intended goal.
- Applies knowledge about human learning and change.
- Provides educators with the knowledge and skills to collaborate within the teaching community

Content Standards

- Prepares educators to understand and appreciate all students, create safe, orderly, and supportive learning environments, and hold high expectations for the students' academic achievement.
- Deepens educators' content knowledge, provides them with research-based instructional strategies to assist students in meeting rigorous academic standards, and prepares them to use various types of classroom assessments appropriately.
- Provides educators with knowledge and skills to involve families and other stakeholders appropriately into the education system.

The federal policies under NCLBA and NSDC form the guidelines for the state policies. The state policies are aligned with NCLBA and concentrate on teacher licensure.

4.3.1.2 State Policies for the Professional Development of Teachers

From the documents collected it was found that the state policy initiatives influence professional development both quantitatively and qualitatively. States mostly concentrate on teacher licensure. Almost all the states have now abandoned the “life time” credentials. To maintain certification, teachers were required to take course work and obtain credits. Most state policies have now directed the school districts to pay attention to purpose, content, form and quality of professional development.

The state policies of the four states under the study were analysed based on the documents procured from the State Education Department web sites and from the offices of the school districts has been prepared and presented below.

4.3.1.2.1 Policies in the State of Missouri

The state of Missouri, according to the 2008 Schools and Staffing Survey (SASS), administered by the NCES, and the teacher surveys associated with the 2009 National Assessment Educational Progress(NAEP); was stated to be “Professionally active”. This documentation also revealed that the reforms that are consistent with research based professional development and improvements in student achievement enabled more teachers to participate in professional development programs. These programs range from teacher induction to curriculum support and study groups focused on specific subject areas. The policies prepared to this effect covered the points as follows:

- State need to maintain professional development standards
- Induction and mentoring programs for beginning teachers
- To maintain a state-level organisation or professional board that oversees teacher licensing, professional teaching standards and professional development.
- Districts are required to submit professional development plans for the teachers and minimum levels of professional learning for license renewal.

Missouri’s professional development policy originated in several significant pieces of legislation: the Excellence Education Act of 1985 (Excellence in Education Act, 1985) and the Outstanding Schools Act of 1993 (Outstanding

Schools Act, 1993). These policies invested in establishing Regional Professional Development Centres (RPDC) through which state-wide regional professional learning network was built. The legislation also established school-based Professional Development Committees (PDCs), made up of teachers as the decision-making body. Professional learning was put into the hands of teachers by this legislation. In these ways, the Outstanding School Act signalled the importance of teacher learning needs and made explicit and attainable the expectation that all teachers and schools invest in their own professional learning.

Missouri is unique in how it provides funding for professional development efforts. The Outstanding Schools Act requires districts to allocate 1 percent of state funding to local professional development efforts. An additional 1 percent of the state's overall budget is dedicated to state-wide professional development, which helps support the network of 11 RPDCs. Overseen by the Missouri Department of Education, the RPDCs provide a common and clearly articulated vision for supporting high-quality teaching through professional development that permeates policy and practice.

4.3.1.2.1 Recent Changes in State Policy

- **The State Assumes More Control:** Over the past decade, as the national education policy changed (e.g., through NCLB legislation), Missouri has slowly begun to assert more control over the state's educational governance. For instance, the Department of Elementary and Secondary Education (DESE) has increasingly held districts and schools more accountable for their performance. The goal of the Missouri School Improvement Plan (MSIP) process is to promote school improvement within each district and also at a state-wide level. The MSIP process identifies resource standards, process standards, and performance standards (DESE, 2006b).
- **Establishment of State and Local Mentoring and Induction Policies:** To that end, DESE initiated the Missouri State Action for Education Leadership Consortium (SAELP). This consortium helped mobilize support for state and local mentoring and induction policies. Additional legislation (SB 722) created an alternative route for administrative

certification of teachers with a master's degree and five years of teaching experience.

- **Performance based Evaluation of Teachers:** Missouri has started with performance based evaluations which includes student achievement results as a significant measure of teacher performance; also include meaningful, regular observations of classroom practice and timely and detailed feedback to teachers. These components form an important basis for a comprehensive and articulated system of educator effectiveness that aims to raise student achievement. These evaluations are used at a minimum, to update decisions regarding teacher development by providing relevant coaching, induction or professional development; using rigorous standards and streamlined, transparent, and fair procedures for granting tenure and full certification to teachers; or removing ineffective tenured and untenured teachers after providing ample opportunities to improve.
- **State Policy Focuses on the Lowest-Performing Schools:** Missouri recognizes the factor of local capacity and that there are often missing or severely depleted resources in some schools and districts within the state that are, for that lowest performing. Therefore, policymakers in Missouri are developing a policy (Areas of Critical Need legislation passed in 2006) to focus attention on and use of limited resources on the lowest-performing schools through professional development.

Mechanisms Established for State Accountability: Missouri established accountability mechanisms for its local school districts, through RPDC to help the school districts. The RPDC have wide-ranging responsibilities to design and facilitate programs that improve and enhance teachers' skills and knowledge. An accountability system for RPDCs incorporates a number of features. Participants in RPDC activities were assessed before and after the experience in order to measure the value added to the individual teacher. A longer-term goal of RPDCs was to assess K-12 students annually (using instruments in addition to the MAP test) and to track the data at the individual student level in order to determine the impact of the teacher's professional development experience on student learning. RPDCs involve

more faculty members from Colleges of Arts and Sciences in the design and delivery of content-based professional development as a teacher's content knowledge is vital for student achievement.

RPDCs were accountable for assisting low-performing schools and districts. Currently 94 of the state's school districts have been offered assistance through what DESE has designated as "Success Teams." At least two years prior to their accreditation review visit, districts are identified. The Commissioner of Education, the Commissioner of Higher Education, and the president of the university with which the RPDC is affiliated were collectively held responsible for evaluation and effectiveness of RPDCs. The accountability system reorganized the chain of command so that the RPDC director reports directly to the university president. The RPDC director was held accountable for the impact of the programs offered by the RPDC, and the university president to whom the director reports has been given the authority to replace an ineffective RPDC director.

By these policies Missouri State Education Department had advanced successfully in the professional development for teachers and the schools met the AYP requirements through RPDC.

4.3.1.2.2 Policies in the State of New Jersey

New Jersey's State Board of Education established a Professional Teaching Standards Board (PTSB), comprised of teachers, school administrators, the local board of education members, a higher education community, as well as state residents (community representation). According to the New Jersey Department of Education (2002) the key role of this board was the creation of New Jersey's first professional development requirements.

NCLB Title II Part A stipulates standards for preparing, training, and recruiting highly qualified teachers. The legislation requires that an emphasis be placed on academic content knowledge acquisition in teacher preparation programs, comprehensive teacher induction programs, and on-going, job embedded, as well as sustained professional development opportunities (NJDOE, 2006). The New Jersey Professional Standards for Teachers were developed by the New Jersey Professional Teaching Standards Board (PTSB). The PTSB worked closely with national experts from the Interstate

New Teacher Assessment Support Consortium (INTASC) of the Council of Chief State School Officers, the organization that developed the national model for professional standards for teachers. The PTSB also incorporated broad input from New Jersey educators.

The New Jersey Department of Education (2006) declared that in order to meet the federal definition of "highly qualified", teachers must at least have a Bachelor's degree; have a valid state certification; have passed the licensure exam; have been observed by the authorities for teaching for 3 months; subject proficiency exam certificate; no emergency certificates will be issued; CE and CEAS are considered state certification and demonstrate content expertise in the core academic subject(s) they teach.

Additionally, the NCLBA has provisions which require LEAs to provide to parents in Title I funded schools with information regarding teacher quality.

The New Jersey Department of Education (2007) in its June 30, 2007, memorandum to school districts to utilize its High Objective Uniform State Evaluation (HOUSE) Matrix. Content Knowledge Matrix documents college coursework, professional activities for the last four years for each core academic area, teaching activities, and successful teaching performance, teaching assignment and evaluates teachers except the veteran teachers to become highly qualified. However, the Individuals with Disabilities Education Act (IDEA) allows for greater flexibility relative to newly hired special education teachers to become highly qualified in the areas of math, language arts, and science (NJDOE, 2007).

4.3.1.2.2.1 New Jersey Professional Standards for Teachers and School Leaders

New Jersey's new professional standards for teachers and school leaders were adopted by the State Board of Education in December 2003 as part of the new licensing regulations. These new professional standards provide a clear vision of the knowledge, performances and dispositions that teachers and school leaders need to support the learning called for in the revised Core Curriculum Content Standards

It was found that the professional standards serve as the foundation for a more thoughtful certification system, more productive pre-service education and induction programs, and more effective and relevant professional

Professional Development for Teachers’ aim: Teachers shall participate as active, responsible members of the professional community, engaging in a wide range of reflective practices, pursuing opportunities to grow professionally and establishing collegial relationships to enhance the teaching and learning process.

4.3.1.2.2.2 New Jersey Licensure procedure and Plans

It was found from the documents that the New Jersey State Education Department provides guidelines to teachers for how to move into the five year professional development cycle(fig 4.1).

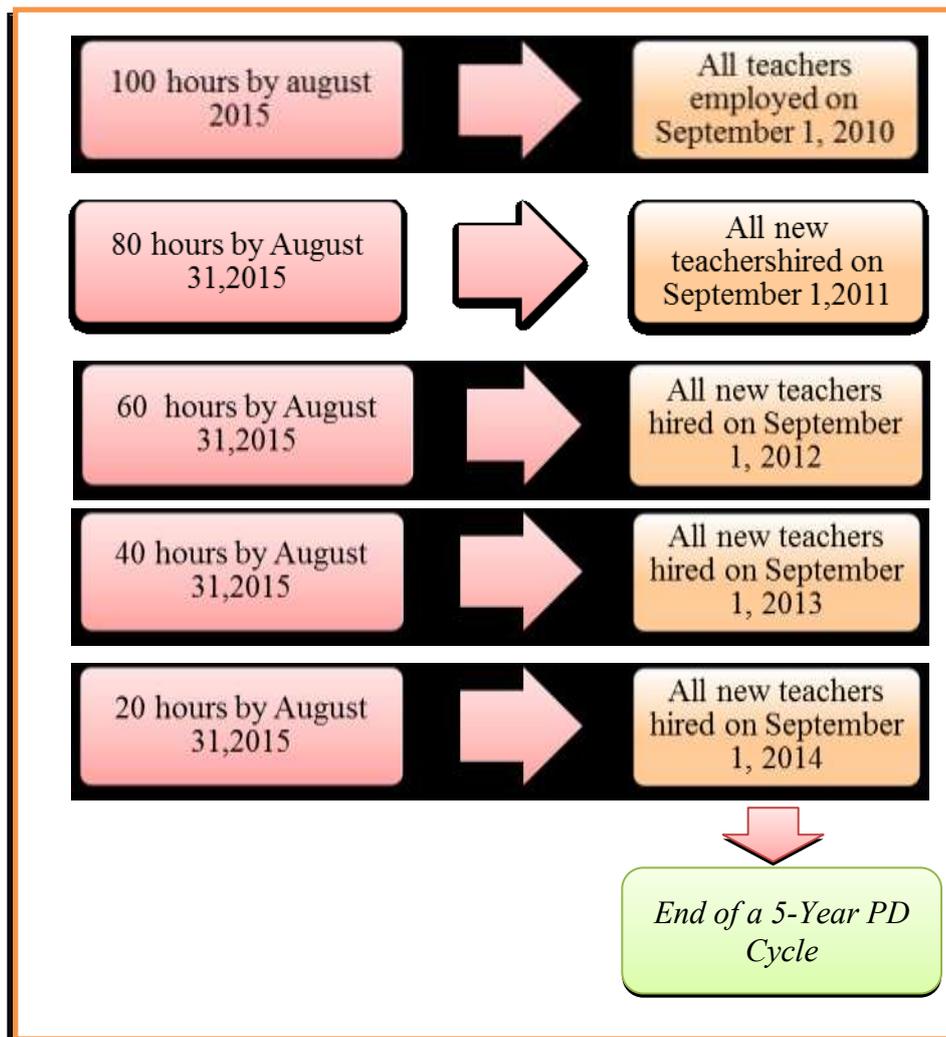


Figure 4.1 Moving into the Same Five Year Professional Development Cycle
Source: New Jersey Department of Education

4.3.1.2.3 Policies in the State of Pennsylvania

The Pennsylvania state education has set a code for the professional development of teachers, which follows Act 48 (1999).

Act 48 (1999): the law that established the program of continuing professional education for teachers and other professional educators. Act 48 is codified in section 1205.2 of the Public School Code of 1949, as amended, 24 P. S. § 12-1205.2.

Act 45 (2007): State legislation requires all practicing Superintendents, Assistant Superintendents, Principals, Assistant Principals, IU Executive Directors, and IU Assistant Executive Directors to attain 180 hours of approved professional development every 5 years in order to maintain active certification. These hours can only be attained through an approved PIL (Pennsylvania Inspired Leadership) course (PA Department of Education, 2008). School districts are responsible for monitoring this requirement and to assist teachers in maintaining compliance by providing professional development opportunities. (<http://www.pde.state.pa.us>)

NCLBA mandates that all teachers are required to achieve, a highly qualified status in order to maintain their teaching roles in the public school system. This federal legislation as well as Pennsylvania State's law (Act 48, 1999) has changed the face of professional development. Act 48 listed the following guidelines of high quality professional development in aligning with the requirements of NCLBA:

- Improve and increase teachers' knowledge of the academic subjects the teachers teach, and enable teachers to become highly qualified
- Give teachers, principals, and administrators the knowledge and skills to provide students with the opportunity to meet challenging state academic content standards and student academic achievement standards
- Improve classroom management skills (Creative way of starting the class; establishing relationship with learners; extra activities for intelligent learners etc.)
- Refrain from one-day or short-term workshops/conferences(NCLB, 2001, sec. 9101, p. 1963).

4.3.1.2.3.1 Professional Education Plan:

- This plan has been designed to meet the education needs of the school as an entity and its professional employees, so that they may meet the specific needs of students.
- Professional development must be based on sound research and promising practices, and it must be part of an approved plan for building educators' skills over the long term.
- The researches were being conducted by the teachers as action research and research conducted by school districts and the colleges and universities affiliated with the school districts. All research proposals have to be approved by a research review committee. Only research useful to the school districts for planning the professional development programs were permitted to conduct the research. All teachers have access to the research finding, so they can improve their teaching.
- Professional development activities must have content that will increase student learning.
- Teachers should have access to up-to-date knowledge of research and teaching methods in the content areas they are required to teach.

4.3.2.3.2 Act 48 Credit Courses:

- A course is a series of lessons offered for credit by a college/university or intermediate unit where each credit is equivalent to 14 class hours and 16 hours of related assignments culminating in an evaluated final product
- A program is a series of related continuing professional education events with a common theme and outcome that is offered for a specific number of hours, but it is recommended that such a program be at least 3.5 hours in long.
- Activities are the components of programs such as training sessions, specific and relevant conference sessions, walk-throughs, and the alignment of curriculum and standards.

4.3.2.3.3 Pennsylvania Policies

- All certified educators must complete 180 hours of professional development every five years, in compliance with their school district's plan. The 180-hour requirement can be met with six college credits, six

credits of continuing professional education courses, 180 clock hours of continuing professional education, or any combination of collegiate studies, continuing professional education courses or other programs, activities or learning experiences equivalent to 180 hours.

- For the purposes of calculating hours and credits, one credit of collegiate study or continuing professional education course is equivalent to 30 hours of continuing professional education.

4.3.1.2.3.2 National Professional Education Providers

- The College Board – Conducts Credit Courses and Subject content knowledge programs
- International Baccalaureate and Accelerated learning – focusses on preparing teachers to teach advanced placement Courses for IB classes
- National Board for Professional Teaching Standards –Conducts different need based programs
- Nationally accredited out-of-state colleges/universities for certificate holders residing out of the state (<http://www.pde.state.pa.us>) – conducts particular programs for the out of state teachers
- Annenberg Programs from U-Penn – Programs are conducts for teachers as leaders and for expanding the capacity and quality of school leaders
- Education Technologies – Conducts programs to provide technology support to school personnel.
- It was opined by the director of professional development of the SDP that Pennsylvania Inspired Leadership Institute (PAILI) has created professional Development opportunity for school leaders. This program facilitates the leaders to help low performing students to perform better. It is a state sponsored cohort-based program for school leaders. It functions through a regional collaboration of intermediate units and other partners, PAILI supports mentoring and a train-the-trainer component designed to create education leaders at all levels to improve student achievement across the state. The programs are delivered through regular, expert-facilitated convening / workshops in the region.

4.3.1.2.4 Policies in the District of Columbia

From the documents procured through various sources in the District of Columbia, the following were found:

- Orientation/Induction for new teachers to have a well-planned orientation approved by the school district within at least the first six months of their teaching.
- Professional Development Plans: Each program was funded a minimum of 0.5% (up to 8 hours) of its annual staff hours to support teachers in developing an annual professional development plan that begins with a practitioner needs assessment and units with its program improvement process. All teachers to have PD plans, and programs to be monitored.
- Paid Professional Development Release Time: Each program was funded in such a way that all teachers receive a minimum of 2.5% of their annual working time for paid professional development. Paid professional development includes any professional learning activity (group or individual) that advances practitioners towards achieving the goals outlined in their professional development plans.
- Performance Evaluation and Professional Improvement: Program organisers conducted performance evaluations of teachers. The teachers should show evidence of achievement, including: application of learning and reflection, or acquisition of new skills and knowledge, as described in the goals of their professional development plans. The performance evaluation results were used by teachers for future PD planning.
- Professional Development System: Each state has a funded state literacy resource centre that provided direct professional development to teachers and technical assistance to help schools organize in-house professional development. A person designated in each program and paid to be the (most often part-time) coordinator of program and professional development.
- Quality of Professional Development: Full-time facilitators of professional development have completed an annual plan for organizing and delivering professional development based on discussions with and needs assessments of practitioners and adult learners. Professional developers should be funded to stay grounded in the field, such as spending a

minimum of 2% of their time each year teaching in an ABE/ESOL classroom. States should also have an on-going formative evaluation system for gauging how well the PD system is reaching and serving all adult basic education practitioners and program directors.

4.3.3 Summary of Section II

It was observed from the analysis of the data of Section II that the federal government, the state government and the school districts sets policies and standards for the professional development of teachers. These policies are discussed under five dimensions below.

4.3.3.1 Relevance of the Policy

It was found that the federal government left the responsibility of public education to the states. However the federal government provided substantial resources to strengthen the quality of the teaching staff. It funds many programs of teacher training in order to support the teachers. The funding of the federal government to the states depends on the AYP scores of the schools. This policy made the schools to strive and achieve the AYP scores by improving the quality of teachers with high quality professional development programs. The federal government realised that the 'life-long licensure' halts the continuous learning of teachers and so the life-long licensure is removed in many of the states. To maintain the certification, teachers are required to take course work and participate in high quality professional development programs and obtain the required credits.

It was found that several non-profit organisations also support the federal government in its policy decisions. The NSDC the largest non-profit organisation in the country is associated with the Federal Government for teacher professional development and school improvement. The professional development goals of NSDC are in close proximity with the standards of the NCLBA guidelines. It has also specified certain standards for staff development on context, process and content standards.

States are mostly concentrating on teacher licensure. They maintain the database of the teachers. The states inform and guide the teachers on how to plan their professional development activities, for renewing their licensure.

4.3.3.2 Quality of Professional Development Program

It was found that the NCLBA (2001) created a noteworthy change in the federal government's role with regard to teachers. The federal government funds many programs and provides loans to the teachers for upgrading themselves through quality professional development programs. The NCLBA requires the states to ensure the availability of 'high quality' professional development for all teachers. Most state policies have directed the school districts to pay attention to purpose, content, form and quality of professional development.

The state policies invested in establishing regional centres through which state-wide regional professional learning network is being carried out (RPDC in Missouri, PTSB in New Jersey). The regional centres established local mentoring and induction policies. The legislation requires that an emphasis be placed on academic content knowledge acquisition in teacher preparation programs, comprehensive teacher induction programs, and on-going, job embedded, as well as sustained professional development opportunities for teachers. It also indicated the importance of teacher learning needs and directs the schools to invest in their own professional learning.

4.3.3.3 Guidelines for Teachers

The states maintain the data base system of teachers and provide policy guidelines on the renewal of licensure. The states provide guidelines on the type of programs, the credit hours associated with the programs and the organisations or the universities providing such programs for the renewal of licensure. These guidelines provide directions for the teachers to plan their required programs to renew and maintain their licensure.

4.3.3.4 Professional Learning Communities

It was found that the states to transmit effective professional development programs established regional professional development centres. The regional centres established accountability mechanisms for its local school districts. As the content-based pedagogical knowledge is positively associated with student learning, the school districts, the regional centres have wide-ranging responsibilities to design and facilitate programs that

improve and enhance teachers' skills and knowledge. They also started professional learning communities in the school districts and schools. Participants in the activities of PLCs were assessed before and after the experience in order to measure the value added to the individual teacher which is the part of an accountability system maintained by the PLCs.

4.3.3.5 National Professional Development Providers

It was observed from the analysis that National Organisations also set standards for teacher professional development. The standards are derived from three basic goals, 1.It depends on the potentials of students; 2. What must teachers know and do in order to ensure student success and 3. Where must staff development focus to meet both the goals? Based on these goals staff development standards provide direction for designing a professional development experience that ensures educators to acquire the necessary knowledge and skills.

The organisation such as Mathematics Association, science teachers association, NCES, provides quality professional development.

4.4 SECTION III

In this section the researcher has presented the different professional development programs conducted by the federal government, state government, school districts and the schools.

4.4.1 Professional Development Programs Organised by the Federal Government, State Government, School Districts and Schools

The U.S. Department of Education encourages states, school districts and school to use funds in a way that best suits the professional development needs. In accordance with the NCLBA guidelines and other policies, professional development programs were designed.

4.4.1.1 Programs Conducted by the Federal Government for the Year 2011-2012

The federal government does not offer many professional development programs directly. However it supports a wide range of programs to improve the quality of teachers in K-12 classrooms and make the teaching profession more attractive to both current and potential new teachers.

Details of the professional development programs being organised by the federal government are presented in Table 4.10

It was found that the federal government emphasises on science improvement and the PISA exam (Programs for Reading, writing and Mathematics). The school principals expressed that these programs were conducted across different parts of the states for the teachers to participate. Though there were no formal evaluations the programs seemed to be effective as perceived by the beneficiaries. The federal government also takes up longitudinal research studies for the implementation and effectiveness of the programs.

Table 4.10 Programs Organised by the Federal Government (2011-2012)

S.no	Program	Objective	Modes of operation	Target group	Evaluation	Impact
1.	Math professional-development initiative	To enhance teachers instructional practice	Experts from national mathematical Association	Teachers of Grade 7 to 12	Research study after the implementation	Significant changes in teachers instructional practice in classroom Teachers feedback forms provided that the programs were very effective
2.	Teacher-to-Teacher	To improve the content knowledge and teaching in skills Reading, Math and Science	Online program	Open to all High school teachers teaching Reading, Math and Science	No formal Evaluation	Programs seemed to be effective as perceived by the beneficiaries.
3.	Science Professional development	Update teachers with the latest content and concepts	National Association of Science Teachers (NAS)	All Science teachers	Observation by the experts from NAS	Programs seemed to be effective as perceived by the beneficiaries.

Federal government supports many programs and funds for these following programs are distributed by the U.S. Department of Education to states, LEAs, Institutions of Higher Education (IHEs), and to individual teachers directly.

The grants provided for different programs are as listed below.

4.4.1.1 Grants Provided to States, LEAs, Schools, and Partnerships

- **Improving Teacher Quality State Grants:** It is largest federal program devoted to K-12 teachers. The program provides states with grants to implement activities that increase the number of highly qualified teachers, principals, and assistant principals in high-need classrooms and schools. Grants are also used to improve the effectiveness of teachers and principals by holding local education agencies (LEAs) and schools accountable for improving student academic achievement.
- **Teacher Incentive Fund:** It provides competitive grants to LEAs, states, or partnerships with non-profit organizations to implement financial incentive programs for teachers and principals that increase their effectiveness and help improve student outcomes in hard-to-staff schools and subjects.
- **Teacher Quality Partnership Grants:** The grants are competitive matching grants available to partnerships between a high-need LEA, a high-need school or early childhood education program, an institution of higher education (IHE), an education program within that IHE, and an arts and sciences program within that IHE. These grants aim to improve the quality of current and future teachers through better preparation, recruitment, and professional development.
- **Advanced Certification or Advanced Credentialing:** It is a competitive grant program that provides grants to develop and implement activities that encourage and support teachers seeking additional training through the National Board for Professional Teaching Standards, the National Council on Teacher Quality, and other authorized non-profits. Grants are available to State Educational Agencies (SEAs), LEAs, or nationally recognized certification and credentialing organizations in partnership with LEAs or SEAs.

- **Teachers for a Competitive Tomorrow:** This program is a relatively new program established under the America Competes Act of 2007. It provides two funding streams for competitive grants to institutions of higher education that wish to develop either baccalaureate or master's degree programs in the areas of science, technology, engineering, mathematics (STEM), or critical foreign languages (CFL), that allow students to concurrently enrol in a teacher certification program. Graduates from these programs earn both a degree in STEM or CFL and a teaching certificate. The grants aim to improve teachers' content knowledge in these high-need subject areas.
- **Subject Area-Specific Teacher Programs:** The federal government supports a number of programs that make grants to states, LEAs, IHEs, and partnerships between these entities and non-profit organizations to improve the quality of teaching in certain subject areas. Recipients generally use funds under these grants to support teacher training and professional development programs that ultimately improve student outcomes in specific subjects. These programs include
 - a. Mathematics and Science Partnerships
 - b. Teaching American History
 - c. Academies for American History and Civics
 - d. National Writing Project
 - e. Special Education Personnel Development Grants

4.4.1.1.2 Grants and Loan Programs Available to Teachers

- **Federal Stafford Loan Forgiveness for Teachers:** The loan provides up to \$17,500 in student loan forgiveness for teachers who are highly qualified to teach mathematics and science in secondary schools or special education in elementary schools. Recipients must teach full-time for five consecutive academic years in certain low-income elementary and secondary schools. Teachers who work in high-poverty schools in other subjects are eligible for \$5,000 in loan forgiveness. Only federal Stafford loans qualify for forgiveness.
- **TEACH Grants:** Teacher Education Assistance for College and Higher Education (TEACH) grants provide aid directly to postsecondary students

who are training to become teachers. The program provides grants for bachelor's studies or for master's studies for tuition, fees, and other housing costs to students who commit to teaching high-need subjects in low-income schools after completing their postsecondary education.

- **Federal Perkins Loan Forgiveness for Teachers and Head Start Instructors:** The program provides loan forgiveness to teachers in certain schools or subject areas. It also provides loan forgiveness to Head Start Instructors. Each year a teacher or instructor is enrolled in the program and to qualify, Perkins loan holders must teach in certain low-income schools or Head Start centres designated each year by the Department of Education, or teach special education, mathematics, science, bilingual education, foreign languages, or another teacher shortage field as determined by the state.
- **Teacher Transition and Alternative Certification Programs:** The program aims to bring highly qualified midcareer professionals into the field of teaching. The program provides competitive grants to SEAs, LEAs, and partnerships between for-profit or non-profit organizations. SEAs and LEAs to recruit, train, and place teacher candidates with substantial career experience or recent college graduates to teach in high-need schools. Programs that provide alternative routes to certification must meet state certification or licensing requirements.

4.4.2 Programs Organised by the States for the Year 2011-2012

Supporting teachers in their continual efforts to improve instruction the State Department of Education conducts programs at the state level and at school districts level. The guidelines given in the NCLBA pertaining to professional development are clearly focused on the programs organised for the teachers. This mission has on-going implications for sustained training in effective classroom practices, authentic instruction, instructional leadership, technology and assessment.

In researchers has elaborated the programs conducted by the department of education in the four states under study below.

4.4.2.1. Programs Organised by the Department of Education in the State of Missouri for the Year 2011-2012

The Department organises effective professional development meetings, workshops, and conferences while supporting state wide school efforts for improving and implementing professional development. Educators derive benefits from pursuing the programs.

Table 4.11 summarises the programs organised by the department of education in the state of Missouri. The programs were organised for the academic year 2011-2012. The programs were for math content knowledge improvement which would also help teachers to improve their teaching skills. Though the teachers had undergone the training, the evaluation and the impact of the programs had not been reported by them.

Table 4.11 Programs Conducted by the Department of Education in the State of Missouri (2011-2012)

S.no	Program	Objective	Modes of operation	Target group	Evaluation	Impact
1.	Improving Mathematics Education in Missouri	To improve content knowledge of the teachers and connect classroom teachers to demonstrate real-world applications with standards-based lessons	Workshops by Mathematicians engineers, and industry partners	Mathematics teachers of high school	Research based evaluation after the implementation	Students' interest in the subject knowledge increased.
2.	Language Assistance Program	To provide tools for teachers to better meet the academic needs of students	Pre-service and in-service training by colleges	Language teachers	Principals and Department heads Observation and feedback	Improvement in students test scores.
3.	Improvement in pedagogical skill	To improve the teaching skills	National Board for Professional Teaching Standards conducted workshops for Teachers demonstrate their knowledge and skills through a series of performance-based notes	All teachers	Assessments included teaching portfolios, student work samples, videotapes and a rigorous analysis of their classroom teaching and student learning.	The teachers' classroom teaching improved.

4.4.2.2. Programs Organised by the Department of Education in the State of New Jersey for the Year 2011-2012

The New Jersey Department of Education, in alignment with professional standard guidelines, use multiple sources student data, educators' data to organise programs for teachers. Research- based strategies and practices govern the planning of such programs.

Table 4.12 indicates that the state has organised a six week program for the science teachers. Teachers' presentation during the program and their active involvement was evaluated. These programs helped the teachers' to use museum as a resource.

Table 4.12 Programs Conducted By the Department of Education in The State of New Jersey (2011- 2012)

S.no	Programs	Objective	Modes of Operation	Target Group	Evaluation
1.	Program for Science teachers	To use the resource of Museum for science teaching	Six-week program offered by scientists and educators of American Museum of Natural History	High School Science teachers	Teachers understanding was evaluated through presentations and group discussion of teachers

4.4.2.3. Programs Organised by the Department of Education in the State of Pennsylvania for the Year 2011-2012

The department of education in the State of Pennsylvania, in accordance with Act 48 regarding continuing education, designed professional development programs for teachers. Professional development programs were based on sound research and promising practices.

Table 4.13 summarises the programs conducted by the department of education during the academic year 2011-2012. The evaluation process and the impact was reported by the school principals.

**Table 4.13 Programs Organised by the Department of Education in
The State of Pennsylvania (2011-2012)**

S.NO	PROGRAMS	OBJECTIVE	MODES OF OPERATION	TARGET GROUP	EVALUATION	IMPACT
1.	Master of Education Program in Teaching and Curriculum	To enhance the pedagogical skill levels of classroom teachers	Experienced faculty using face-to-face and online instruction	All Teachers	After the course work, observation of classroom by the experts	Significant improvement was reported through student achievement scores
2.	Adventures in Economics and U.S. History	To make economics more interesting to students	Department of Economics, Penn State University	All economic teachers of high school	Principals Observation of classroom	Students' interests in economics were very high.
3.	Making Sense of Money and Banking:	Equipping K-12 teachers to better teach about economics and personal finance in their own classrooms	The Federal Reserve Bank of Philadelphia's economic teachers	All teachers	No formal evaluation	Students' interests in Economics were very high.

4.4.2.4 Programs Organised by the Department of Education in the District of Columbia for the Year 2011-2012

In the District of Columbia not many programs were organised by the department. The department has given guidelines for the school districts to conduct the programs.

Table 4.14 indicated the program organised by the department. To equip the teachers in handling diverse students only English enrichment program was conducted. Peer coaching and peer evaluation were emphasised. The impact of the implementation of the programs was effective as reported by the beneficiaries.

Table 4.14 Programs Organised by the Department of Education in The District of Columbia (2011-2012)

S.no	Program	Objective	Modes of operation	Target group	Evaluation
1	Professional Development for Teachers of English Language Learners	To address specific knowledge and attitudes that are relevant to teaching English language learners	Peer coaching	All teachers	Peer Evaluation and discussion

4.4.3 Programs Organised by School Districts for the Academic Year 2011-2012

The school districts aligned local professional development efforts with state guidelines and organised professional development programs for teachers. The professional development plan directly relate to the district Comprehensive School Improvement Plan (CSIP). Each professional development activity was consistent with the vision and the goals of the district's professional development program.

4.4.3.1. Programs Organised by St.Louis Public School Districts for the Year 2011-12

The professional development programs enhanced the participants' repertoire of skills and content knowledge. Each professional development program was designed to improve the teaching practice of teachers.

**Table 4.15 Programs Organised by St.Louis
Public School Districts (2011-2012)**

S.No	PROGRAM	OBJECTIVE	MODES OF OPERATION	TARGET GROUP	EVALUATION	IMPACT
1	Subject specific programs	To enhance teachers knowledge in their subject areas	College courses for 3 months. Teachers can take it either daily or at weekends	All subject teachers of Grade level 9 to 12	Evaluation by the course organisers	Student achievement test
2	Methodology	To improve teachers skills	One week of course work in the beginning of the academic year by the educators of SPLS	All teachers of grade 9 to 12	Evaluation by the Educators through formal and informal inspection of classroom teaching learning process.	Program was effective as perceived by the beneficiaries
3	Evaluation	Formative assessment through traditional test	Continuous programs by the SLPS	All Teachers	Observation of assessment results	Student achievement

Table 4.12 summarised the professional development programs conducted by the St. Louis Public School District for the year 2011-2012. Emphasis was given to subject specific programs, methodology and evaluation pattern. The success of the programs was assessed via effective evaluation and feedback given to the teachers either personally or in groups.

4.4.3.2. Programs Organised by School District of Hoboken for the Year 2011-2012

The educators in Hoboken school district focused on, the learning needs (based on the performance data of the students) of teachers. The programs were organised in such a way that the teachers take greater responsibility for student learning. It also caused teachers to learn from each other's success and collaboratively learn from experts.

Table 4.16 Programs Organised by School District of Hoboken (2011-2012)

S.NO	PROGRAM	OBJECTIVE	MODES OF OPERATION	TARGET GROUP	EVALUATION	IMPACT
1.	Subject specific Programs	To enrich teachers knowledge in their subject areas	College courses in collaboration with the school district	All teachers	Observation of classroom teaching learning Process	Program was effective as perceived by the beneficiaries
2.	Evaluation	Formative assessment through traditional test	Continuous programs by the School district	All Teachers	Observation of assessment results	Student achievement
3.	Technology improvement program	Use of smart boards in the classroom	Week long program in the beginning of the school year by the school district and whenever the teachers feel the need	All teachers	Observation by supervisors and experts	Program was effective as perceived by the beneficiaries

Table 4.16 indicates the different programs, the objective of the program, mode of operation, the evaluation pattern and the impact of the programs. Subject specific programs were organised in collaboration with colleges to improve the content knowledge of the subjects. More emphasis was given to use of smart boards, as all the public schools have been provided with smart boards in each of their classroom.

4.4.3.3. Programs Organised by School District of Philadelphia for the Year 2011-2012

The School District of Philadelphia expends significant resources to provide professional development, not only because they are obligated to do so by law, but also because they hoped it will help them meet their student achievement goals. And so research based professional development programs have been organised to improve the quality of teaching.

Table 4.17 indicates the programs conducted by the school district. The emphasis was on formative evaluation, classroom management, and inclusive education. Experts from the office of the school district of Philadelphia conducted and evaluated the implementation of the programs.

Table 4.17 Programs Conducted by School District of Philadelphia (2011-2012)

S.NO	PROGRAM	OBJECTIVE	MODES OF OPERATION	TARGET GROUP	EVALUATION	IMPACT
1	Formative Assessments	Participants will also explore how to use traditional tests to improve instruction and increase student comprehension	Workshop conducted by the Facilitator from the Office of Empowerment School Support for 2 days. Teachers also create formative assessments to determine what students know and need to know.	All Teachers of grade 9-12	The assessment reports of students are evaluated by the Facilitator	Students assessment
2.	Classroom Management	To understand the causes, challenging behaviors and learn how to engage students fully in the learning environment.	Workshop conducted by Facilitator from Early Childhood Education. Through demonstration and problem solving, teachers' learn how trauma (abuse, neglect, or witnessing violence) can be addressed in the classroom	All teachers	Principals Observation	Improved students behaviour
3..	Classroom Management	Teachers examine research-based instructional strategies that affect student achievement and select the best strategy	Workshop conducted by the Facilitator from the Office of Empowerment School Support for 7 days. Teachers identify various methods for teaching strategies and determine which strategies to incorporate into classroom practice	All teachers of grade 9-12	Classroom Observation by the Facilitator	Program was effective as perceived by the beneficiaries
4.	Inclusive Practices	Participants will examine components of inclusive practices and application in the school environment. Participants will learn concepts of awareness, differentiated instruction, and co-teaching	Office of Specialised Instructional Services	Administrators and all teachers	School district administrator will observe the classroom teaching for implementation	Program was effective as perceived by the beneficiaries

4.4.3.4 Programs Organised by the Public School District of the District of Columbia for the Year 2011-2012

As indicated in the Table 4.18, the school district of Columbia in collaboration with its colleges conducted courses on different subjects to enrich teachers with a particular subject's knowledge

Table 4.18 Programs Conducted by the Public School District of the District of Columbia (2011-2012)

S.NO	PROGRAM	OBJECTIVE	MODES OF OPERATION	TARGET GROUP	EVALUATION
1	Subject specific Programs	To enrich teachers knowledge in their subject areas	College courses in collaboration with the school district	All teachers	Observation of classroom teaching learning

4.4.4. School Based Programs and their Mode of Organisation, Target Group, Evaluation Pattern and Impact

Although different in form and focus, the following professional development programs were conducted by different schools under study. The programs were on-going that promoted school-based inquiry and continual improvement of teachers.

4.4.4.1 Professional Development Programs Organised by School A for the Year 2011-2012

Table 4.19 indicates the professional development programs conducted by School A, which focused on differential instruction and technology inclusion in science teaching. The principal informed that the programs were effective because of the evaluation of the implementation and feedback of the teachers.

Table 4.19 Professional Development Programs Organised by School A (2011-2012)

S.NO	PROGRAMS	OBJECTIVE	MODES OF OPERATION	TARGET GROUP	EVALUATION	IMPACT
1	Differential Instruction	To cater to the needs of variety of students in the classroom	Experts from the field of education. 3 day workshop in the beginning of the year and weekly once for two hours	All the High School teachers. Weekly workshops were for one subject group teachers	Observation of classroom teaching by Principals and supervisors. Beginning teachers were observed by the mentors.	There was an improvement in the classroom teaching
2	Technology infusion in science teaching methods. Use of webinars	To improve the teaching of science and creating interest in students	Experts from National Science association and the School Districts. Weekly once	All the High school science teachers	The experts observed the classroom teaching once in a week in the beginning and advised teachers individually	Improvement was seen in the classroom teaching gradually.

4.4.4.2 Professional Development Programs Organised by School B for the Year 2011-2012

As indicated by table 4.20 School B focused on differential instruction and evaluation strategy. Experts from the field conducted the program. It is evident from the table that more individual programs are required as very little improvement was seen in the classroom teaching.

Table 4.20 Professional Development Programs Organised by School B (2011-2012)

S.NO	PROGRAM	OBJECTIVE	MODES OF OPERATION	TARGET GROUP	EVALUATION	IMPACT
1 4 .	Differentiated Instruction	To cater to the needs of the variety of students	Experts from the field of education. Conducted a 3 day workshop in the beginning of the year and weekly once for two hours	All the High School teachers. Weekly workshops were in smaller groups.	Observation of classroom teaching by Principals and supervisors. Beginning teachers were observed by the mentors.	There was an improvement in the classroom teaching but needs more individual programs to be conducted.
4 . 4 2 . 3 .	Evaluation Strategy	To enhance teachers knowledge on evaluation pattern	Faculty from College of Education	All High School Teachers. Workshops for 2 hours for four weeks	No evaluation	Program was effective as perceived by the beneficiaries

4.4.4.3 Professional Development Programs Organised by School C for the Year 2011-2012

Table 4.21 indicate the professional development programs conducted by School C, which focused on Math teaching, use of smart boards and methodology. Teachers informed that the classes were more interactive. Teachers' classroom teaching learning process was enhanced by the new methodologies.

**Table 4.21 Professional Development Programs Organised
By School C (2011-2012)**

S.NO	PROGRAM	OBJECTIVE	MODES OF OPERATION	TARGET GROUP	EVALUATION	IMPACT
1.	Mathematics Education	To enrich teachers with new concepts and improve PISA scores	During weekly subject meetings, college faculty were invited to take workshops	High School Mathematics teachers	Observation of lesson by the head of the department and discussions with all teachers	Teachers subject knowledge was enhanced. Improvement in PISA scores yet to be seen.
2.	New Methodology	To enhance the learning process	Workshop by experts from colleges of Education in the beginning of the Academic year for a week.	All High School Teachers.	Formal and informal observation by Principal and the supervisors. Beginning teachers' were also observed by the Mentors. Feedback was emailed and also one to one interaction.	Teachers use new methodologies for teaching Art subjects which increased the interest of the students in the subject.
3.	Use of Smart Board	To improve the knowledge of technology	Orientation was given by Experts during the beginning of the academic session	All the High School teachers	Beginning daily observation of the implementation by Experts. Feedback was given. After the first month, monthly observation	Very useful. Classroom interaction with students improved. Students' understanding of the topic was easier.

4.4.4.4. Professional Development Programs Organised by School D for the Year 2011-2012

Table 4.22 indicates the professional development programs conducted by School D, which focused on higher order methodology, to improve the teaching learning process for improvement in the AYP. The other unique program of school D was the leadership program for teachers.

Table 4.22 Professional Development Programs Organised by School D (2011-2012)

S.NO	PROGRAM	OBJECTIVE	MODES OF OPERATION	TARGET GROUP	EVALUATION	IMPACT
1.	School Improvement	To maintain the target of AYP and to maintain the EPIC Award	Principal and Supervisors take this program once in two weeks.	All High School Teachers	Observe the progress through the reports	The school is maintaining the target of the AYP
2.	Higher order Methodology	ESL Programs to improve the students with English as second language	Faculty from University conducts workshops for the teachers once a month.	High School English Teachers	Classroom observation and observation of students by the Head of the Department	Progress seen in the students
3.	Leadership Programs	To prepare Teacher's as administrators and group leaders	Principal takes workshops for the teachers in the beginning of the academic year	All High School Teachers	No formal observation	It was effective as perceived by the beneficiaries

4.4.4.5. Professional Development Programs Organised by School E for the Year 2011-2012

Table 4.23 indicates the professional development programs conducted by School E, which focused on preparation of English teachers to teach students for the Pennsylvania System of School Assessment Exam (PSSA) and to teach diverse students. Technology development programs were also conducted. The programs were conducted by and evaluated in collaboration with the university faculty and the National Association of Teachers.

**Table 4.23 Professional Development Programs Organised By School E
(2011-2012)**

S.NO	PROGRAM	OBJECTIVE	MODES OF OPERATION	TARGET GROUP	EVALUATION	IMPACT
1.	To prepare students for PSSA Exam	To improve the PSSA* ranking.	Discussions with teachers by the supervisors and principal	All High School Teachers	No formal evaluation	PISA ranking has been improved
2.	ESL Programs	ESL Programs to improve the students with English as second language	Faculty from University conducts workshops for the teachers once a month.	High School English Teachers	Classroom observation and observation of students by the Head of the Department	Very slow progress seen in the students
3.	Infusing Technology	To improve the teaching methodology using latest technology	Experts from National Association of Teachers and the School Districts. Weekly once	All the High school teachers	The experts observe their classroom teaching once in a week in the beginning and advise individually	Improvement was seen in the classroom teaching gradually

**The Pennsylvania System of School Assessments or "PSSA" is a series of tests given to students in grades three through eight and grade 11. The assessments are in math, reading, writing, and science. The PSSA assessments are designed to determine what students know and are able to do compared to the grade-level standards. The tests are standardized and criterion referenced with the criteria set at the "proficient" level of the performance standards. In other words, the tests are supposed to find out whether a child is at, above, or below the proficient standard for that grade level.*

4.4.4.6. Professional Development Programs Organised by School F for the Year 2011-2012

Table 4.24 indicates the professional development programs conducted by School F, which focused on preparing students for the PISA Exam, School Improvement and Mathematics Education.

**Table 4.24 Professional Development Programs Organised by School F
(2011-2012)**

S.NO	PROGRAM	OBJECTIVE	MODES OF OPERATION	TARGET GROUP	EVALUATION	IMPACT
1.	To prepare students for PISA Exam	To improve the PISA ranking.	Discussions with teachers by the supervisors and principal	All High School Teachers	No formal evaluation	PISA ranking has been improved
2.	School Improvement	To maintain the target of Adequate Yearly Program	Principal and Supervisors take this program once in two weeks	All High School Teachers	Observe the progress through the reports	The school is maintaining the target of the AYP
3.	Mathematics Education	To enrich teachers with new methodology and improve PISA scores	During weekly subject meetings. College faculty were invited to take workshops	High School Mathematics teachers	Observation of lesson by the head of the department and discussions with teachers	Teacher's subject knowledge was enhanced and methodologies helped students understand the concepts easily.

4.4.4.7 Professional Development Programs Organised by School G for the Year 2011-2012

Table 4.25 indicates the professional development programs conducted by School G, which focused on content enrichment programs for different subjects. The programs were conducted by the dean of academics and college faculty.

**Table 4.25 Professional Development Programs Organised By School G
(2011-2012)**

S.NO	PROGRAM	OBJECTIVE	MODES OF OPERATION	TARGET GROUP	EVALUATION
1	Content enrichment programs for different subjects	To enrich teachers with new concepts and content improvement	Dean of Academics of the school and college faculty	All high school teachers	No formal evaluation

4.4.5 Summary of Section III

Section III reveals the various types of programs organised by the Federal, State Government, School Districts and Schools for the professional development of

the teachers. The professional development activities address topics that enable teachers to expand their expertise in subject content, teaching methodology, evaluation and use of technologies.

It was observed from the analysis of the data that professional development programs are being planned and organised by various organisation at different levels. The following key dimensions emerged from this section.

4.4.5.1 Special Grants for Teachers

The analysis of the study revealed that the federal government plays a significant role in providing funds for teachers and school districts as it realises the vital role played by the teachers in teaching learning process. Teachers can utilise these grants and upgrade themselves. Special funding is provided to schools which encourage teachers for action research. The federal government also provides grants to authorized non-profit organisations, universities and other national organisations to develop and implement activities that encourage and support teachers seeking additional training. The government encourages prospective post-secondary students who take teaching as a profession by providing special loans. One of the significant funds provided by the federal government is for high quality teachers to teach in low income rural schools for five years.

4.4.5.2 Focus of the Program

The findings from section III revealed that the focuses of the professional development programs were to improve the content knowledge and the pedagogical skills of teachers. The focus of the programs was also to help teachers to teach the diverse and ethnic group of students. The aim of the programs is to improve the learning of all teachers and organise the adults into learning communities. The learning resources focus to support adult learning collaboratively. It prepares teachers to understand and appreciate all students, create safe, orderly learning environments and holds high expectation for their high academic achievement.

4.4.5.3 Consistent Encouragement from Schools

It was observed from the study that the school principals played a crucial role in teacher professional development and growth. The schools involved the teachers

in the activities of the schools. The decision making on professional development and other school improvement policies were shared among the teaching community. The student learning outcomes and teachers' professional needs were analysed at school level and principals encouraged the teachers' to attend professional development programs to improve their professional competencies. The school principals build a culture of commitment, collegiality, mutual respect and stability in the school among the teachers. The schools created professional norms which included peer support, collaboration, shared responsibility and continuous learning of the teachers. The skilful school leadership provided guidance for continuous instructional improvement of teachers.

4.4.5.4 Access and Opportunities

It was observed from the study that plenty of opportunities are being provided for teacher professional development in USA. It was found that through a transformative approach regional networks are supporting the schools in professional development and classroom management programs. The states have encouraged the professional development networks that controls and connects the professional learning groups and organisations with the schools. The teachers had the access to information on professional development through academic meetings, in the school and in the school districts. It was also observed that professional bulletins and teachers' handbooks provided information about professional development programs. Additionally the states and the school districts provide information on their websites.

4.5 SECTION IV

Section IV, delineates the responses to a survey administered to the teachers and principals which was designed to assess the perception of teachers and principals on the design and development, content and methodology, impact, logistics and the incentives of professional development program. Section IV also describes the triangulation of the data collected through focus group discussion with teachers, a detailed analysis of the data acquired through interviews of the principals and the professional development directors is also presented.

4.5.1 Teachers' Perception of the Professional Development Programs Designed for them

High school teachers of the four states who were the respondents of the survey questions were asked to express their perception of the planning, focus, execution, evaluation, impact, challenges and issues of the professional development programs. They were also asked to report their own level of participation in professional development programs in the two year (2009-2011) periods, the nature of the programs and factors affecting their participation in professional development programs. The responses to the questionnaire were recorded on an answer sheet using a five-point scale. The number at one end of the scale represents least agreement, or "*strongly disagree*", and the number at the other end of the scale represents the most agreement, or "*strongly agree*" (Gall, Borg, & Gall, 2003). Only percentage value was calculated from the responses. The open- forms of the questions were constructed to generate greater depth of response and provide freedom to the respondent to reveal his/her opinions and to clarify his/her responses. The following section focus on the analysis of the answers under different subthemes.

4.5.1.1 Perception of Teachers on the Design and Development of Professional Development Programs (PDP)

This section provides the responses to the questions on the design and development of professional development programs through a survey questions for the teachers of the sample schools in the different states of USA which were taken for the study.

Table 4.26 Design and Development of Professional Development Programs

S.NO	COMPONENTS	SA	A	UD	DA	SD
1	PDPs are designed with the consultation of teachers, administrators of my school district.	15.74 (17)	54.62 (59)	15.74 (17)	13.88 (15)	---
2	PDPs are an integral part of the broad school-wide educational improvement plan.	37.03 (40)	53.70 (58)	06.48 (07)	02.77 (03)	---
3	PDP standards set by the districts are relevant.	21.29 (23)	40.74 (44)	34.25 (37)	03.70 (04)	---
4	PDPs are well planned to meet the professional requirements of the teachers.	27.77 (30)	41.66 (45)	19.44 (21)	09.25 (10)	01.85 (02)
5	PDPs are relevant for teaching learning process.	39.81 (43)	46.29 (50)	10.18 (11)	03.70 (04)	--
6	PDPs are need based.	19.44 (21)	50 (54)	16.66 (18)	12.03 (13)	01.85 (02)
7	PDPs are designed to increase the efficiency of teachers	32.40(3 5)	43.51 (47)	15.74 (17)	06.48 (07)	01.85 (02)
8	PDPs provide opportunities for sharing best practices among teachers from various schools in the district	27.77 (30)	41.66 (45)	13.88 (15)	11.11 (12)	05.55 (06)
9	PDPs provide opportunity for collaborative learning.	29.62 (32)	43.51 (47)	13.88 (15)	12.96 (14)	--
10.	PDPs provide opportunity for reflective teaching and creative problem solving	28.70 (31)	43.51 (47)	18.5 (20)	09.25 (10)	--

*Figures in parenthesis is the No. of Teachers' who responded

*SA – Strongly Agree; A- Agree; UN – Undecided; DA- Disagree; SDA- Strongly Disagree

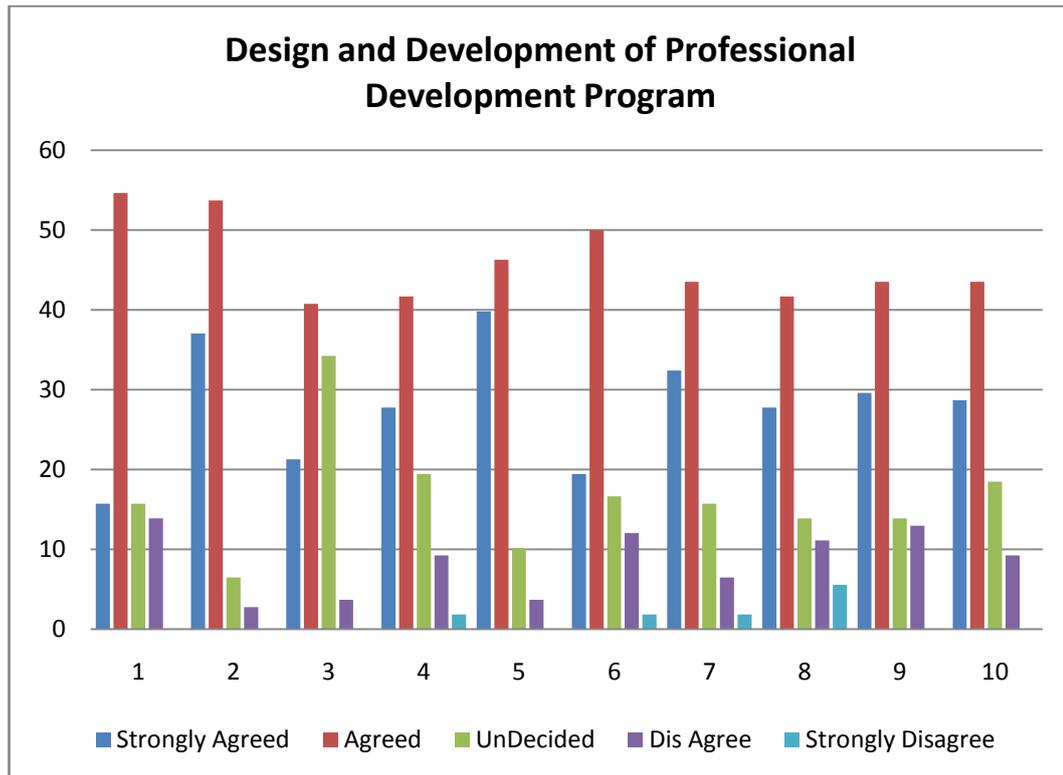


Chart 4.1 Design and Development of Professional Development Programs (In Percentage)

It was observed from table 4.26 and chart 4.1 that the teachers in the sample schools perceived that the professional development programs were designed in consultation with teachers and administrators and were part of the broad school-wide educational improvement plan. It was noted that the planning of the professional development programs were research and need based. It was also observed that some of the teachers perceived that the district professional development programs have not met the professional requirement of all the teachers. The teachers in the private schools do not attend programs conducted by the districts and so they were unable to decide and respond to the questions.

4.5.1.2 Perception on the Content and Methodology of Professional Development Program

The perception of the teachers on the content and methodology of the professional development programs are presented in the following table.

Table 4.27 Perceptions on the Content and Methodology of Professional Development Programs

S.No	COMPONENTS	SA	A	UN	DA	SD
1.	PDPs focused on research based content	21.29 (23)	52.77 (57)	23.14 (25)	02.77 (03)	--
2.	PDPs improved my knowledge of the academic subjects	17.59 (19)	49.09 (53)	12.96 (14)	18.5 (20)	01.85 (02)
3.	PDPs provided specific training in using teacher selected, district approved, educational materials	(25) 23.14	49.09 (53)	16.66 (18)	11.11 (12)	--
4.	PDPs provided opportunities to know research based teaching methodology	20.37 (22)	62.96 (68)	10.18 (11)	06.48 (07)	--
5.	PDPs provided methods for effective use of ICT in the teaching learning process	12.96 (14)	43.51 (47)	40.74 (44)	12.03 (13)	--
6.	PDPs resource persons were excellent in the subject matter	24.07 (26)	49.09(5 3)	23.14 (25)	03.70 (04)	--
7.	PDPs prepared teachers to administer to use formative and summative evaluation pattern	19.44 (21)	32.40 (35)	37.96 (41)	09.25 (10)	0.91 (01)
8.	PDPs prepared teachers to effectively deliver instruction to students at all skill levels.	23.14 (25)	57.40 (62)	07.40 (08)	12.03 (13)	---
9.	PDPs helped in familiarizing with other subjects	12.96 (14)	43.51 (47)	30.55 (33)	12.03 (13)	0.91 (01)
10.	PDP prepared teachers to effectively interpret learning outcomes of students.	18.5 (20)	50 (54)	21.29 (23)	09.25 (10)	0.91 (01)
11.	PDP helped in developing skills to support students from diverse groups	17.59 (19)	46.29 (50)	25.92 (28)	10.18 (11)	--
12.	PDP provided opportunities to guide students for hands on experience	19.44 (21)	46.29 (50)	25 (27)	09.25 (10)	--

*Figures in parenthesis is the No. of Teachers' who responded *SA – Strongly Agree; A- Agree; UN – Undecided; DA- Disagree; SDA- Strongly Disagree

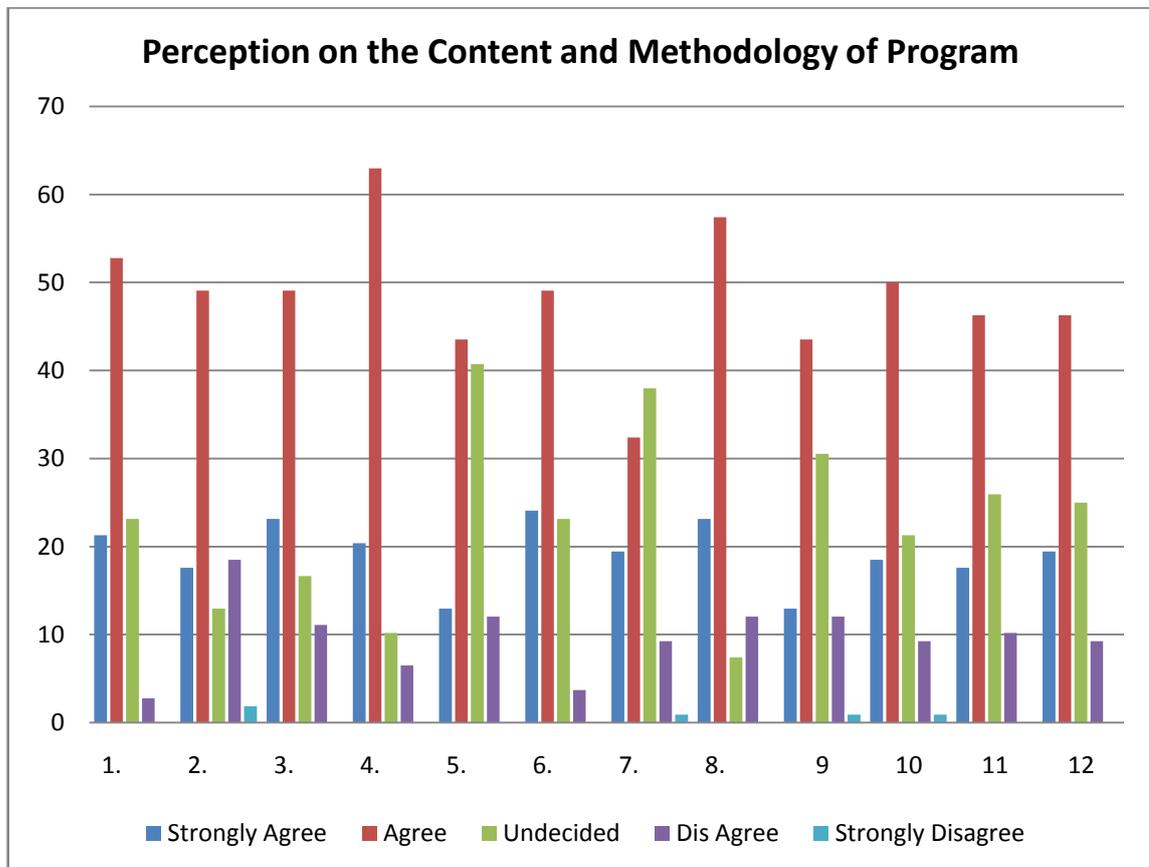


Chart 4.2 Content and Methodology of Professional Development Programs (In Percentage)

It was observed from the table 4.27 and Chart 4.2 that 85% of the teachers’ perceived professional development programs to be focused on research based content which improved their subject knowledge and familiarised them with other subjects. It was also observed that the programs included research based teaching methodology and the use of ICT in the teaching learning process. The programs were helpful to teachers to develop skills to support students of diverse ethnic group and effectively interpret learning outcomes of the students. It was noted that 10% of the teachers perceived that the professional development programs were not effective in preparing teachers to administer formative and summative evaluation pattern in the classroom.

4.5.1.3 Perception on the Logistics of the Professional Development Programs

Teachers' perceptions to the survey questions are presented in the following table

Table 4.28 Perception on the Logistics of Professional Development Programs

S.No	COMPONENTS	SA	A	UN	DA	SD
1	School faculties have administrative support to arrange appropriate PDP that address their identified needs.	25.92 (28)	51.85 (56)	12.03 (13)	06.48 (07)	03.70 (04)
2	Information about PDP was provided well on time	23.14 (25)	62.96 (68)	08.23 (09)	03.70 (04)	01.85 (02)
3	Alternate route classes/phases are offered throughout the school year.	12.96 (14)	34.25 (37)	44.44 (48)	08.33 (09)	--
4	Accessibility to PDP sites was not a problem for the participants.	23.22 (24)	57.40 (62)	14.81 (16)	03.70 (04)	01.85 (02)
5	Pick up and drop facilities were carefully planned for the participants to attend the PDP.	24.50 (26)	35.18 (38)	31.48 (34)	07.40 (08)	01.85 (02)
6	The accommodation provided was admirable and conducive	25 (27)	42.59 (46)	25.92 (28)	02.77 (03)	03.70 (04)
7	Location chosen for the PDP was easily accessible and conducive for maximum impact.	26.85 (29)	47.22 (51)	18.50 (20)	07.40 (08)	--
8	Student free days are available for participating in PDP	29.62 (32)	48.14 (52)	15.47 (17)	06.48 (07)	--
9	PDP days/times are convenient for its participants	26.85 (29)	59.25 (64)	03.70 (04)	10.18 (11)	--

*Figures in parenthesis is the No. of Teachers' who responded *SA – Strongly Agree; A- Agree; UN – Undecided; DA- Disagree; SDA- Strongly Disagree

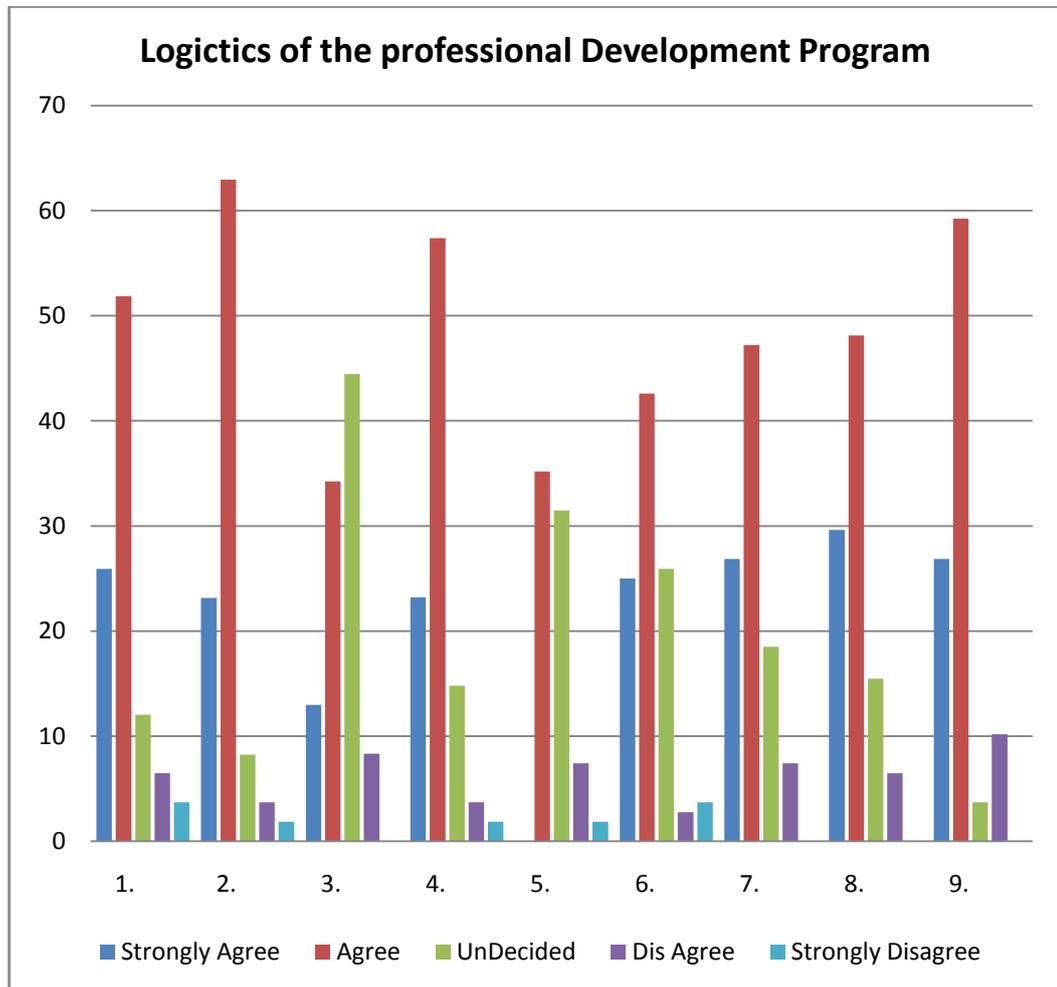


Chart 4.3 Execution of Logistics of Professional Development Programs (In Percentage)

From Chart 4.3 and table 4.28 above it was observed that 70% of the teachers perceived that the school faculties had administrative support to organise professional development programs. The information about the professional development programs were provided was well on time and the teachers were able to plan for the participation in the programs. It was also observed (65% of teachers) that the professional development days were convenient to teachers and student free days were provided on some occasions for attending the professional development program. The teachers from charter school and private school perceived that their professional development programs were organised in the school itself at their own convenient time. However it was observed that

the private school teachers attended the federal and the state organised programs.

4.5.1.4 Perception on the Impact of Professional Development Programs (PDP)

The teachers' perception on the impact of the programs is presented below.

Table 4.29 Perception on the Impact of Professional Development Programs

S.No	COMPONENTS	SA	A	UN	DA	SD
1.	PDP has a lasting and positive impact on my classroom instruction	28.70 (31)	47.22 (51)	19.44 (21)	04.62 (05)	--
2	PDP improved my classroom management	24.07 (26)	44.44 (48)	21.29 (23)	10.18 (11)	--
3	PDP improved my classroom organization and resources	30.53 (33)	51.85 (56)	14.80 (16)	0.91 (01)	01.85 (02)
4	PDP helped in improving my pedagogical skills	31.48 (34)	48.14 (52)	16.66 (18)	03.70 (04)	--
5	PDP changes me as a teacher and my teaching capacity	30.55 (33)	48.14 (52)	17.59 (19)	03.70 (04)	--
6	PDP provides strategies to improve student learning outcomes	27.77 (30)	60.18 (65)	11.11 (12)	0.91 (01)	--
7	PDP helped in academic networking	25.92 (28)	54.62 (59)	13.88 (15)	05.55 (06)	---
8	PDP helps me to effectively deal with different ethnic groups of students	19.44 (21)	39.81 (43)	36.11 (39)	02.77 (03)	01.85 (02)
9	PDP connects with teacher growth and development and student learning	28.70 (31)	46.29 (50)	19.44 (21)	05.55 (06)	--
10	Participation in PDP impacts on my personal appraisal.	22.22 (24)	47.22 (51)	24.07 (26)	04.62 (05)	01.85 (02)

*Figures in parenthesis is the No. of Teachers' who responded*SA – Strongly Agree; A- Agree; UN – Undecided; DA- Disagree; SDA- Strongly Disagree

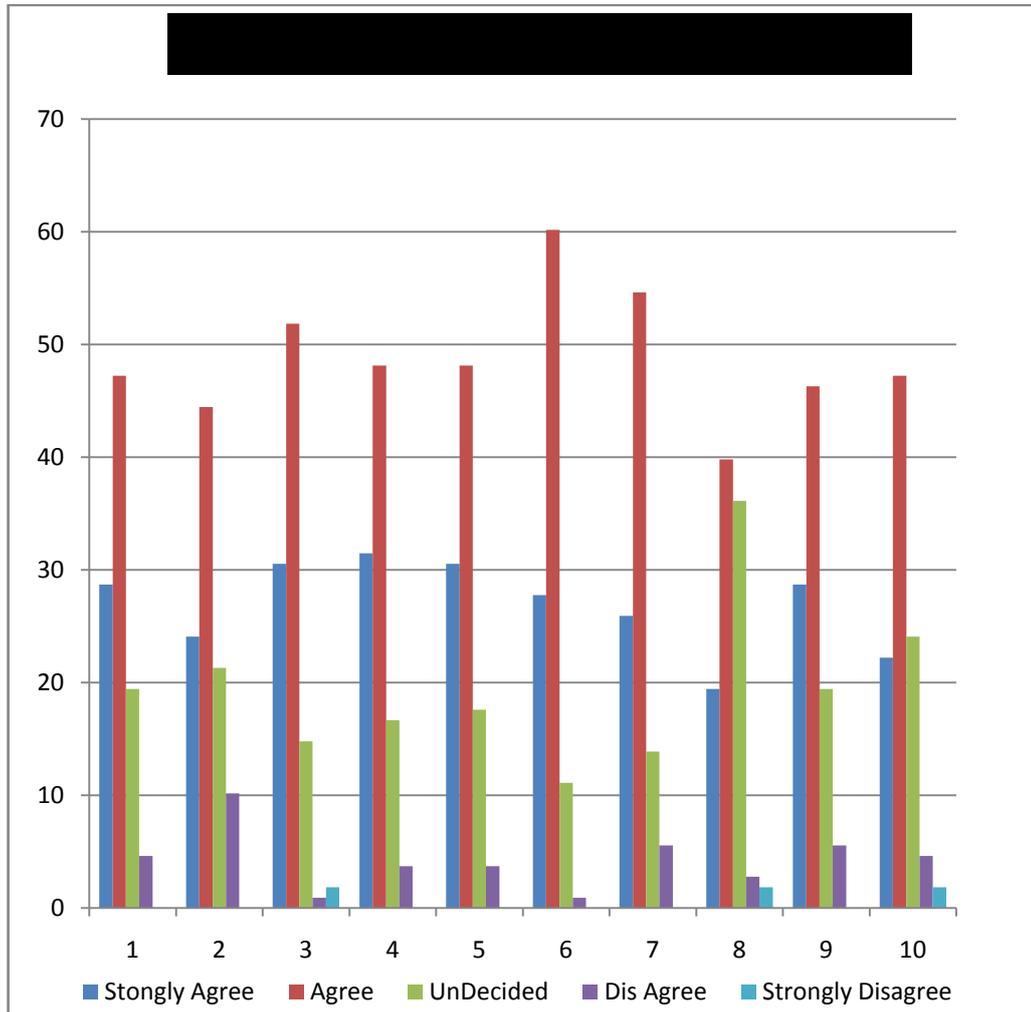


Chart 4.4 Impacts of Professional Development Programs

From chart 4.4 and table 4.29 above it was observed that 85% of the teachers perceived that the professional development programs had a lasting impact on the classroom instruction, management and organisation. It was noted that the professional development programs had improved the teachers in the (90% teachers) the infusion of ICT in teaching learning process. It was observed that 75% of the teachers perceived that participation in professional development had an impact on the personal appraisal system. However for teachers in the private schools personal appraisal depends on the performance of the teachers and not the participation in professional development programs alone.

4.5.1.5 Perception on Incentives for Participation in Professional Development Programs (PDP)

Teachers' perception on the incentives for participation is presented below.

Table 4.30 Incentives for Participation in Professional Development Programs (PDP)

S.No	COMPONENTS	SA	A	UN	DA	SD
1.	Participation in PDP helped me in career advancement	13.88 (15)	40.74 (44)	25 (27)	17.59 (19)	02.77 (03)
2.	Tuition reimbursement facility is available for participation in PDP	16.66 (18)	33.33 (36)	32.40 (35)	12.03 (13)	05.55 (06)
3.	Paid sabbatical leave for participation in PDP are available	13.88 (15)	27.77 (30)	40.74 (44)	12.03 (13)	05.55 (06)
4.	Participation in PDP provided job security	(07) 06.48	(33) 30.55	35.18 (38)	19.44 (21)	08.33 (09)
5.	Participation in PDP provided professional growth credit	12.03 (13)	46.29 (50)	29.62 (32)	08.33 (09)	03.70 (04)
6.	Payment of Stipends are given for participating in PDP	16.66 (18)	25 (27)	24.07 (26)	24.07 (26)	10.18 (11)
7.	Conference fee are subsidized for participation in PDP	16.66 (18)	37.03 (40)	32.40 (35)	13.88 (15)	--
8.	PDP are accredited by the school district	22.22 (24)	37.03 (40)	37.03 (40)	01.85 (02)	01.85 (02)
9.	PDP helps in recertification and personal evaluation	20.37 (22)	47.22 (51)	23.14 (25)	07.40 (08)	01.85 (02)
10.	School/Districts supports participation in PDP	29.62 (32)	53.70 (58)	16.66 (18)	--	--

*Figures in parenthesis is the No. of Teachers' who responded*SA – Strongly Agree; A- Agree; UN – Undecided; DA- Disagree; SDA- Strongly Disagree

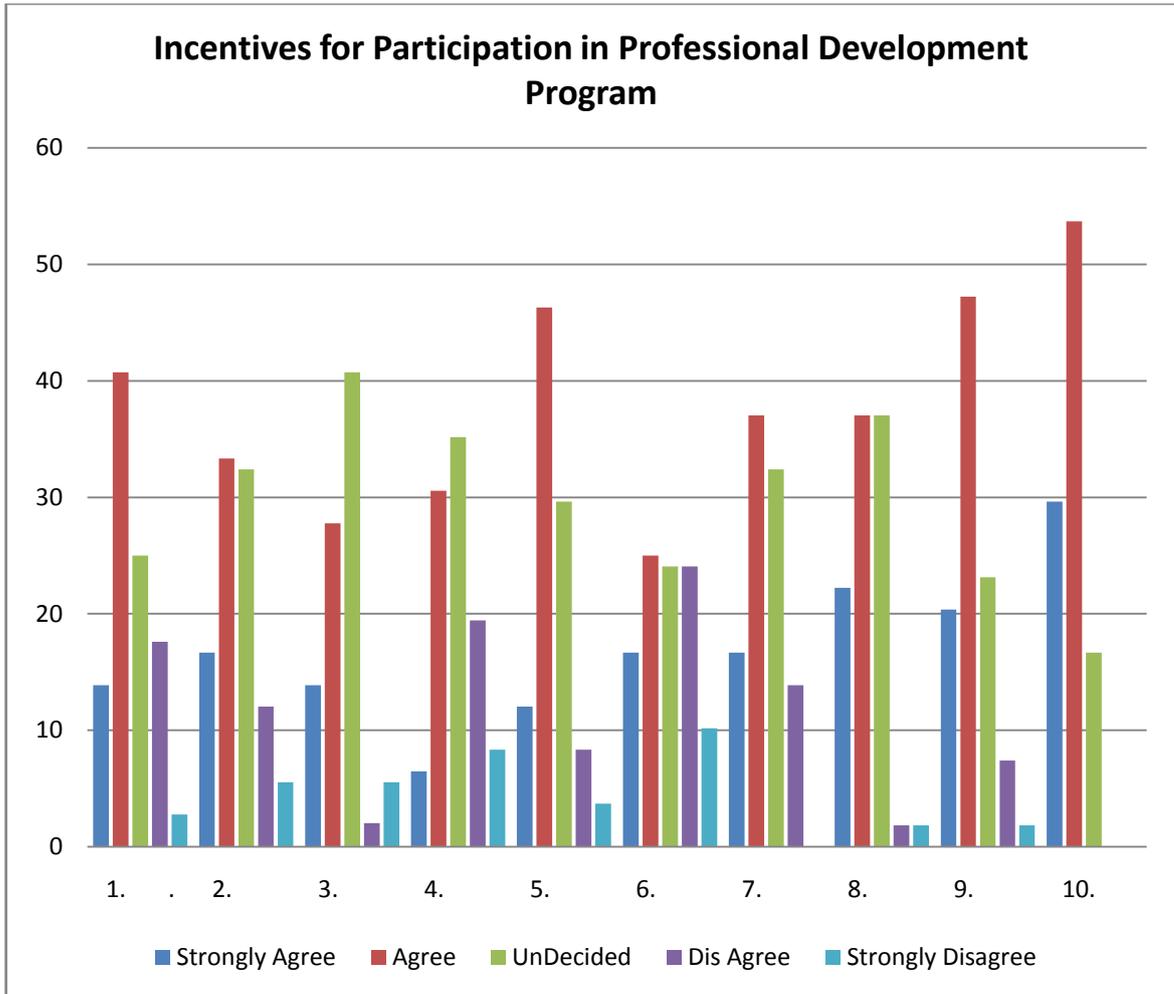


Chart 4.5 Incentives for Participation in Professional Development Programs

From the Chart 4.5 and table 4.30 above it was observed that 85% of the teachers professed that the participation in professional development programs helped in career advancement, accreditation and recertification. However it was observed that 50% of the teachers’ perceived that paid sabbatical leave, payment of stipends provided was not sufficient for teachers to participate in professional development programs. It was observed that in the private schools, the teachers’ subject and pedagogical knowledge, the teaching learning helped in their professional growth credit and in their personal appraisal.

4.5.1.6 Perception on the Issues and Challenges of the Professional Development Program

The responses of the teachers' perception on issues and challenges are presented below.

Table 4.31 Issues and Challenges

S.No	COMPONENTS	SA	A	UN	DA	SD
1	Time off from work for participation in PDP	21.29 (23)	47.22 (51)	15.47 (17)	13.88 (15)	01.85 (02)
2	Pupil free day for participation in PDP	20.37 (22)	52.77 (57)	14.81 (16)	10.18 (11)	01.85 (02)
3	There are difficulties in implementing what is learnt in PDP	04.62 (05)	16.66 (18)	15.47 (17)	47.22 (51)	15.47 (17)
4	Support was given to overcome the difficulties in implementation	11.11 (12)	33.33 (36)	43.51 (47)	10.18 (11)	01.85 (02)
5	Participation in PDPs increases the responsibility and loss in instructional time.	09.29 (10)	43.51 (47)	25.92 (28)	17.59 (19)	03.70 (04)
6	Duration of the PDPs are convenient	12.96 (14)	62.96 (68)	14.81 (16)	07.40 (08)	01.85 (02)
7	Desired level of active participation of teachers is not forthcoming.	0.91 (01)	25.92 (28)	48.14 (52)	16.5 (20)	06.48 (07)
8	Financial assistance for participation in PDPs are not sufficient	07.40 (08)	21.29 (23)	35.18 (38)	29.62 (32)	06.48 (07)
9	Opportunities were given to participate in PDP	24.07 (26)	57.40 (62)	12.96 (14)	05.55 (06)	--
10	Prior family commitments sometimes pose a problem.	09.29 (10)	18.51 (20)	37.96 (41)	30.55 (33)	03.70 (04)

*Figures in parenthesis is the No. of Teachers' who responded*SA – Strongly Agree; A- Agree; UN – Undecided; DA- Disagree; SDA- Strongly Disagree

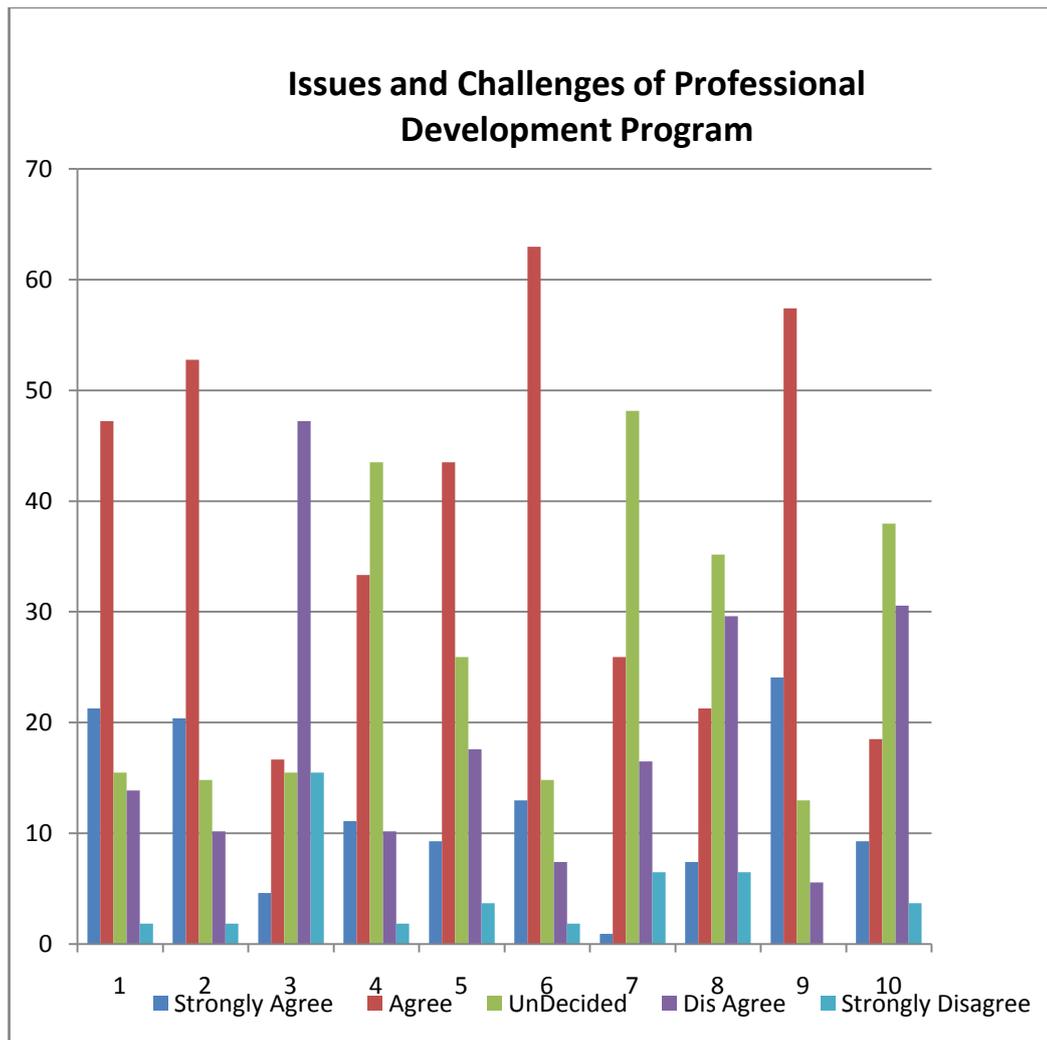


Chart 4.6 Issues and Challenges

From table 4.31 and chart 4.6 it was observed that 70% of the teachers in the sample schools perceived that though time off from work and pupil free days were given for participation in professional development activities, it was challenging to manage total school working days. From the table it was also noted (50% of the teachers) that desired level of participation in professional development program of teachers' was not there. It was found that financial support given to teachers was not sufficient to attend the federal programs and conferences. The teachers professed that prior family commitments posed problems for teachers in the sample schools to participate in professional development programs..

4.6. Perception of School Principal's on Professional Development Programs for Teachers.

The principals of the seven schools in the four districts responded to a survey questions and also responded to the one to one interview. They were asked to offer their perception on the different dimensions of the existing professional development programs, in the planning, focus, execution, impact, evaluation and issues and challenges.

4.6.1 Perception of the Principals' on the Planning of the Professional Development Program by the School District

From table 4.32 below, it was observed that majority of the principals of the sample schools perceived that the districts have adopted a set of standards for the professional development programs. The principals opined that the district goals were in alignment with the state and school based strategic plans. The principals opined that the districts had formal committee which is comprised of administrators, educators, principals and teachers. The principals expressed that the professional development programs were research based and need based vis-à-vis of the teachers.

Table 4.32 Principals' Perception on the Planning of the Professional Development Programs

S.NO	COMPONENTS	SA	A	UD	DA	SD	NA
1	The district has adopted a set of standards for PDP	--	71.42 (5)	--	14.28 (1)	--	14.28 (1)
2	The district's PD goals are aligned with the district's strategic plan.	--	85.71 (6)	--	--	--	14.28 (1)
3	There are explicit expectations that teachers participate frequently in PDP each year.	42.85 (3)	42.85 (3)	--	--	--	14.28 (1)
4	There are formal committees and procedures for planning PDP.	28.56 (2)	71.42 (5)	--	--	--	--
5	The planning committee is comprised of representatives of all groups that participate in PDP	14.28 (1)	57.16 (4)	14.28 (1)	14.28 (1)	--	---
6	PDP planning incorporates research and best practices on teacher development.	28.56 (2)	71.42 (5)	--	--	--	--

*Figures in parenthesis is the No. of Principals' who responded *SA – Strongly Agree; A- Agree; UN – Undecided; DA- Disagree; SDA- Strongly Disagree; NA – Not applicable

4.6.2 Perception of the Principals' on the Focus of the Professional Development Program by the School District

The table 4.33 below the reveals the perception of the principals regarding the focus of the professional development programs for the teachers, 70% of the principal opined that all the teachers had access to professional development programs appropriate to their responsibilities. All the principals perceived that the novice teachers were given specific and appropriate training. The principals opined that they had regular professional development programs which focussed on the ways the principals can support teacher learning and improvement.

Table 4.33 Focus of the Professional Development Program

S.NO	COMPONENTS	SA	A	UD	DA	SD
1	Teachers in all schools have access to PDP appropriate to their responsibilities.	42.85 (3)	28.57 (2)	14.28 (1)	14.28 (1)	--
2	PDP provides specific and appropriate training for teachers who are new to teaching.	28.56 (2)	71.42 (5)	--	--	--
3	Principals have regular PDPs that focus on ways they can support teacher learning and effective instruction.	42.85 (3)	42.85 (3)	14.28 (1)	--	--

*Figures in parenthesis is the No. of Principals' who responded*SA – Strongly Agree; A- Agree; UN – Undecided; DA- Disagree; SDA- Strongly Disagree

4.6.3. Execution of Professional Development Programs

It was found from the survey questionnaire for the principals of the sample schools that professional programs were designed, developed and conducted by the state and the school districts for the teachers. It was also observed that the schools conducted professional development programs regularly (3-4 times in a year).

4.6.4 Evaluation/Feedback of Professional Development Programs

All principals expressed that the mechanism of evaluation and feedback was noteworthy in their schools. As the programs conducted by the schools were need based, the principals expressed that they were aware of the programs

and the outcome of the implementation of the programs were evaluated in a systematic manner.

Table 4.34 Evaluation/ Feedback of Professional Development Programs

S.NO	COMPONENTS	SA	A	UD	DA	SD
1	PDP is evaluated in relation to changes in teaching and learning that were expected as a result of PDP	42.85 (3)	57.15 (4)	--	---	--
2	The district provides schools with the necessary/appropriate data to evaluate the impact of PDP	85.71 (6)	---	---	--	14.29 (1)
3	Professional development in my school district has positively impacted student Achievement	---	100 (7)	--	--	--
4	Teachers/staff are recognized at school board meetings for professional growth and achievements.	--	71.42 (5)	14.29 (1)	14.29 (1)	--
5	Teachers are regularly evaluated and feedback given to them after participation in PDP	14.29 (1)	85.71 (6)	--	--	--

***Figures in parenthesis is the No. of Principals' who responded *SA – Strongly Agree; A- Agree; UN – Undecided; DA- Disagree; SDA- Strongly Disagree**

It was observed from the principal questionnaire (table 4.34) that professional development programs were evaluated in relation to changes in teaching and learning that were expected as a result of the programs. The principals opined that the district provided appropriate guidelines and data to evaluate the impact of the program.

All principals opined that professional development has a positive impact on student achievement. All of them expressed that the implementation of the professional development programs were regularly evaluated by them and that feedback was given to teachers. The principals responded that there are different types of evaluation pattern after the teachers implemented the professional development programs.

The principals also expressed that their schools had an appraisal system and feedback was given to them. Credit hours were awarded to the teachers according to the appraisal. There was a comprehensive mechanism for the appraisal system. The appraisal consisted of the self- appraisal of teachers, peer

appraisal, supervisor's appraisal, and in few schools the head of the department's appraisal and the principals' appraisal. The private school principal stated that the teachers in their school were highly qualified and professional. So the question of observing and informing does not arise.

4.6.5 Nature of Professional Development Programs

The principals conveyed that different programs were conducted for different target group when responding to the question on the nature of professional development programs conducted.

Most common programs in all the public schools are on differential instruction, methodology, infusing technology into curriculum, leadership programs for the teachers and evaluation patterns.

The private school principal stated that since most of the programs were internal they were all need based. The teachers in their school also attend different programs and college courses to improve their subject knowledge and methodology.

All principals voiced that they review the programs conducted by the districts and schools before implementation.

4.6.6 Impact of Professional Development Programs

The principals expressed that one of the important impacts of the professional development programs was, that the teachers had the opportunities to share the best practices among other staff across the district and also the improvement in students' achievement rate.

The Principals opined that participation in Professional Development Programs also had impacted the teachers' career advancement. The participation in professional development programs were considered in the teacher's appraisal.

The principals, with respect to the implementation of the programs opined that, since most of the programs were researched and need based the student achievement had increased. There was improvement in the teachers' outlook and evaluation of the students.

4.6.7 Challenges of Professional Development Programs

Principals opined that there was no special challenge. Each day poses a challenge and that was what motivates one to work more effectively. The opinion of the principals' on the issues of professional development programs were as follows:

- The task of conducting the differentiated programs for individual teachers was difficult. But the schools are trying to achieve the task through mentors, supervisors and departmental heads.
- Finding professional development programs relevant to all teachers was a challenge but the schools were working on individual teachers.
- The accountability and evaluation of the implementation of the programs possess great challenges when teachers attend a program on their own.
- Time was a challenge as teachers were very busy improving themselves and the students; so setting aside a time for professional development posed a challenge.

4.7 The Perception of the Directors' of Professional Development on Existing Professional Development Programs for Teachers

The researcher interviewed director of the School District of Philadelphia (SDP), Pennsylvania State and the director of the Saint Louis Public Schools (SLPS) of the state of Missouri. The interview questions were based on policies for teacher professional development, focus of the programs, execution of the programs, evaluation and feedback system of the implementation of programs and the issues and challenges faced by them which threw light on the objectives of the study. The follow up interviews were conducted over the phone and through emails. The analysis of the perception of the directors has been articulated under the following headings.

4.7.1. Planning of the Professional Development Programs

The directors opined that the passion to work towards the professional improvement of the teachers motivated them to plan an effective professional development program.

The director of professional development and the other committee members along with the Superintendent of School Education keeping the school test

scores and the research data from the different of research studies, decided for the type of professional development program needed for the teachers. The planning committee comprised of the director, educators from the office of the professional development, school principals and teachers. The planning for the forthcoming year starts from the beginning of the present year. The school districts conduct action researches for the effectiveness of the programs being conducted. The findings of the researches and the evaluation the implementation of the programs provided the school districts an idea for the planning of the other programs. Many universities and national organisations also conduct researches and the findings are presented to the school districts, as the proposal of the researches are approved by the review committee of the district. The feedback given by the school principals, mentor teachers, provided an understanding for planning.

4.7.2. Focus of the Professional Development Programs

The findings from the interview of the director and the researcher's understanding of the documents revealed that the focuses of the professional development programs were to improve the content knowledge and the pedagogy of the teachers. The programs focused on the use of digital technology. The focus of the programs was also to help teachers to teach the diverse and ethnic group of students. The focus of professional development programs for the beginning teachers were for classroom management and evaluation practices. The directors of SLPS opined that the focus of the programs was varied as the programs are need based.

4.7.3 Execution of the Professional Development Programs

The directors opined that the planning and execution of the programs takes about one year. Most of the programs were executed from the central office of the school districts. Few programs were conducted in the school itself. The subject improvement programs were conducted online by the school districts and professional agencies. The professional communities, study group and the C&I Portal also take up the programs. Content and subject improvement programs which were either of short duration or long term courses were conducted in collaboration with the universities. For the school based programs,

the school principals and the mentor teachers were given training, separately for the evaluation of the implementation of the professional development programs.

4.7.4 Evaluation/Feedback of the Professional Development Programs

The professional directors opined that evaluation is very important for any program implementation or educational reforms and effective evaluation has seven components. Figure 4.2 shows the components of evaluation as expressed by the director.



Figure 4.2: Effective EvaluationSource: Performance based evaluation in SLPS

It was opined by the director that the SLPS follows the performance based evaluation. The supervisor, principal and the head of the department of the schools under SLPS district were provided with a manual which contains a Pre observation form, an Evaluation form, Lesson reflection sheet, Teacher evaluation criteria with descriptors, performance improvement plan of teachers and Teacher evaluation report for the evaluation of the teachers. Evaluation

forms states that the supervisor has to take notes regarding student and teacher behaviour. They also must record the evidence of teacher performance to support the standards. The comments must be supported through artifact collection. The evaluators were also given training.

The beginning teachers were observed by the mentors and feedback was sent to the school district directly and confidentiality is maintained.

4.7.5 Challenges/Issues of the Professional Development Programs

The directors opined that everything, planning, organising, executing, evaluating all are challenges. The teachers needed more time for development, planning. So substitute teachers were required. The state policies and the incentives helped them to undertake Professional Development activities. The teachers union (American Federation of Teachers) was a big challenge to the administrators. Any small issues were also taken up by the union. Principals did not have time to spare their teachers for the PDP. So coordinating and arranging the program, catering to the needs of the individual teacher was a challenge. New creative methods were thought of and implemented to improve the quality of professional development programs.

4.8 Triangulation of Data

Triangulation of the data collected from the teachers, directors and principals regarding the professional development programs are presented below;

The data collected through focused group discussion, interviews with the respondents and participant observation were analysed by keeping the analysis of data obtained through the questionnaire. This enabled the researcher to cross validate the information and confirm the responses provided by the sample group. The perception of the professional development directors, principals and teachers in terms of the Design and development of the programs, planning and implementation of the program, Focus of the program, evaluation and feedback, impact of the programs, and issues and challenges in the implementation of the program is presented below.

Table 4. 35 Perception of the Directors, Principals and Teachers on the various dimensions of the Professional Development Programs

S.No	PERCEPTION/ DIMENSION	DIRECTORS (2)	PRINCIPALS (7)	TEACHERS(109)
1.	Design and Development of the professional development program	<ul style="list-style-type: none"> • The schools standards and policies are in alignment with the state boards. • School districts design programs based on the research outcomes, student achievement and teachers' satisfaction level. • The schools are given autonomy to conduct programs. • The school districts are trying to develop differential programs for teachers. • The programs are designed by the committee comprising of the state superintendent, director of professional development, principals and teachers. 	<ul style="list-style-type: none"> • The district goals were in alignment with the state and school based strategic plans.. • The districts had formal committee which is comprised of administrators, educators, principals and teachers. • Programs were designed, developed and conducted by the state and the school districts for the teachers. • The programs conducted by the schools are on-going • Different programs were conducted for different target group. • Most common programs are on differential instruction, methodology, infusing technology into curriculum, leadership programs for the teachers and evaluation patterns. • In the private and charter schools programs were designed and conducted by the schools which were on-going • The private school principal stated that since most of the programs were internal they were all need based. The teachers in their school also attend different programs and college courses to improve their subject knowledge and methodology. 	<ul style="list-style-type: none"> • The professional development programs were designed in consultation with teachers and administrators • The programs were part of the broad school-wide educational improvement plan. • Professional development programs are being designed to school connectedness and school improvement. • The programs are need based and research based.

Continuation of Table 4.35

S.No	PERCEPTION/ DIMENSION	DIRECTORS (2)	PRINCIPALS (7)	TEACHERS (109)
2.	Planning and Implementation	<ul style="list-style-type: none"> • The committee decide and plan the type of professional development program needed for the teachers. • The school districts conduct action researches for the effectiveness of the programs being conducted. • Many universities and national organisations also conduct researches and the findings are presented to the school districts. • Teachers profile and portfolio are considered for planning of the program. • Based on these findings the planning of the programs starts a year ahead. • Most of the programs were executed from the central office of the school districts. • The subject improvement programs were conducted online by the school districts and professional agencies. • The professional communities, study group also conducts programs. • Content and subject improvement programs which were either of short duration or long term courses were conducted in collaboration with the universities. 	<ul style="list-style-type: none"> • Supervisors and teachers are consulted for planning of school based programs. • The principals expressed that the professional development programs were research based and need based vis-à-vis of the teachers. • The Principals and the district authorities review the programs conducted by the districts and schools before implementation. 	<ul style="list-style-type: none"> • All the stakeholders are included in the planning of the programs. • Planning of the professional development programs were research and need based • The learning strategies based on the intended outcomes are selected by the teachers. • Programs mirrored the methods the teachers are expected to use with their students. • Use of demonstration, supervised practice, feedback and on-going assistance and support are part of the professional development programs. • Teachers' presents a portfolio of their professional learning to the committee and the teachers' judgments about what supports their learning are focused while planning the programs.

Continuation of Table 4.35

S.No	PERCEPTION/ DIMENSION	DIRECTORS (2)	PRINCIPALS (7)	TEACHERS (109)
3.	Focus of the program	<ul style="list-style-type: none"> • To improve the content knowledge and the pedagogy of the teachers. • To help teachers to teach the diverse and ethnic group of students. • The focus for the beginning teachers were for classroom management and evaluation practices. • The programs focused on the use of digital technology • The focus of the programs was varied as the programs are need based. 	<ul style="list-style-type: none"> • The programs appropriate to the responsibilities of the teachers is the focus • The novice teachers were given specific and appropriate training for classroom management. • The programs focused on the specific needs of the individual teachers. • The principals' professional development programs focussed on the ways the principals can support teacher learning and improvement. 	<ul style="list-style-type: none"> • Programs focused on research based content which improved their subject knowledge and familiarised them with other subjects. • It was also found that the programs included research based teaching methodology and the use of ICT in the teaching learning process. • The programs were helpful to teachers to develop skills to support students of diverse group and effectively interpret learning outcomes of the students. • Novice teachers have high quality induction program • More formative and summative evaluation pattern in the classroom were needed.

Continuation of Table 4.35

S.No	PERCEPTION/ DIMENSION	DIRECTORS (2)	PRINCIPALS (7)	TEACHERS (109)
4.	Evaluation and Feedback	<ul style="list-style-type: none"> • The performance based evaluation is followed in the school districts. • The supervisor, principal and the head of the department of the schools were provided with a manual which contains a Pre observation form, an Evaluation form, Lesson reflection sheet, Teacher evaluation criteria with descriptors, performance improvement plan of teachers and Teacher evaluation report for the evaluation of the teachers. • The evaluation record must have the evidence of teacher performance and artefact collection to support the standards. • The beginning teachers were observed by the mentors and feedback was sent to the school district directly and confidentiality is maintained. • The feedback given by the school principals, mentor teachers, provided an understanding for planning. 	<ul style="list-style-type: none"> • The mechanism of evaluation and feedback was noteworthy in the schools. • As the programs conducted by the schools were need based, the principals expressed that they were aware of the programs and the outcome of the implementation of the programs were evaluated in a systematic manner. • The professional development programs were evaluated in relation to changes in teaching and learning that were expected as a result of the programs. • The district provided appropriate guidelines and data to evaluate the impact of the program. • Schools had an appraisal system and feedback was given to them. Credit hours were awarded to the teachers according to the appraisal. • There was a comprehensive 	<ul style="list-style-type: none"> • The federal and state education reform guidelines stipulate that school districts must select suitable evaluation model most likely to encourage fairness of classroom evaluations. • The objective of evaluation was to accurately and objectively reflect teacher’s pedagogical strengths and weaknesses over time. • The professional development programs are consistently evaluated based on its impact of student achievement and personal satisfaction of the teachers. • Multiple sources of data concerning knowledge gained by the participants, level of implementation and changes in students learning are consistently observed and collected and the results are used to implement change. • Monitoring Quality Assurance • It was found from the study that the states have established mechanisms for monitoring the professional

Continuation of Table 4.35

		<ul style="list-style-type: none"> • For the school based programs, the school principals and the mentor teachers were given training, separately for the evaluation of the implementation of the professional development programs. • The regional centres monitor the programs and assess the teachers before and after participation in the program. 	<p>mechanism for the appraisal system.</p> <ul style="list-style-type: none"> • The appraisal consisted of the self- appraisal of teachers, peer appraisal, supervisor’s appraisal, and in few schools the head of the department’s appraisal and the principals’ appraisal. • The private school principal stated that the teachers in their school were highly qualified and professional. So the question of observing and informing does not arise. 	<p>development programs at all levels.</p> <ul style="list-style-type: none"> • The states also conducts professional development audit using student achievement as one indicator of quality. • The regional centres review district professional development plans, and monitor the progress of schools by administering the NSDC’s Standards Assessment Inventory • The local professional development committees develop plans and examine the strategies and outcomes of professional development for individual teachers and schools. • Teachers’ presents a portfolio of their professional learning to the committee and the teachers’ judgments about what supports their learning are focused while planning the programs. • The quality assurance system for professional development adopts a district focus on literacy across the curriculum; provides standard-based instruction and assessment that ensures academic success; .
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Continuation of Table 4.35

S.No	PERCEPTION/ DIMENSION	DIRECTORS (2)	PRINCIPALS (7)	TEACHERS(109)
5.	Impact	<ul style="list-style-type: none"> • Increase in schools AYP scores • Students performed well in PASSA test. 	<ul style="list-style-type: none"> • Professional development has a positive impact on student achievement. 	<ul style="list-style-type: none"> • Had a lasting impact on the classroom instruction, management and organisation • Participation in professional development program had an impact on the personal appraisal system. • Teachers in the private schools there is no impact of participation in professional development program as the personal appraisal depends on the performance of the teachers

Continuation of Table 4.35

S.No	PERCEPTION/ DIMENSION	DIRECTORS (2)	PRINCIPALS (7)	TEACHERS(109)
6.	Issues and Challenges	<ul style="list-style-type: none"> • The directors opined that everything, planning, organising, executing, evaluating all are challenges. • The teachers needed more time for development, planning. So substitute teachers were required. • The state policies and the incentives helped them to undertake professional development activities. The teachers union was a big challenge to the administrators. Any small issues were also taken up by the union. • Principals did not have time to spare their teachers for the PDP. So coordinating and arranging the program, Catering to the needs of the individual teacher was a challenge. New creative methods were to be thought of and implemented to improve the quality of professional development programs. • It is challenging for the districts to use the data management system in linking teacher's performance and student achievement. 	<ul style="list-style-type: none"> •The task of conducting the differentiated programs for individual teachers was difficult. But the schools are trying to achieve the task through mentors, supervisors and departmental heads. •Finding professional development programs relevant to all teachers was a challenge but the schools were working on individual teachers. •The accountability and evaluation of the implementation of the programs possess great challenges when teachers attend a program on their own. • Time was a challenge as teachers were very busy improving themselves and the students; so setting aside a time for professional development posed a challenge. 	<ul style="list-style-type: none"> • Time constraints teachers were not able to participate in more professional development programs. • Though paid sabbaticals and funding were provided the funds were not enough to attend conferences and professional development programs. • The challenge of preparing individualised need based program was a major challenge for the principals. • The supervisors and the principals give coaching to the teacher in his/her block free time over the year. The principals and the directors of the schools are working to overcome the task of differential programs through mentors and supervisors.

From the table it was observed that there are some commonalities in the perception of the directors, principals and teachers on the design and development of the professional development programs. The commonalities are; 1. Schools professional development standards are in alignment with the standards set by the states. 2. The programs are designed and developed by a committee comprising of all stakeholders using the research based data. 3. The schools are also given autonomy to organise school based programs. 4. Professional development programs are being designed to school connectedness and school improvement. However the private school principal opined that most of the programs were internal they were all need based. The teachers in their school also attend different programs and college courses to improve their subject knowledge and methodology. The principals of the private and charter schools opined that the school based programs are on-going.

The shared aims of the directors, the principals and the teachers on the planning and implementation of professional development programs are;

1. All the stake holders are included in the committee for planning of the programs
2. The planning of the programs starts a year ahead based on the researches conducted by the school districts, universities and the action research by the teachers.
3. The programs are implemented in the central office of the school districts and the courses are conducted through university collaboration.
4. The programs are reviewed before implementation by the principal and the supervisors. However the teachers perceived that the formative and summative evaluation programs needed more planning as it was not very effective.

With regard to the focus of the professional development programsthere are some commonalities and differences in the perception of the directors, principals and teachers. The commonalities are 1. The programs focused on the improvement of content knowledge and the pedagogical skills of the teachers. 2. To help teachers to teach the diverse and ethnic group of students; 3. The focus for the beginning teachers were for classroom management and evaluation practices; 4. The programs focused on the specific needs of the individual teachers. However the teachers differed in

their perception on evaluation programs. They opined that formative and summative evaluation programs need more focus and which can also be used in the classroom was needed.

The common perception of the directors, the principals and the teachers on evaluation and feedback on the implementation of the professional development programs are; 1. The evaluations were performance based; 2. The beginning teachers were observed by the mentors and feedback was sent to the school district directly and confidentiality is maintained; 3. School principals and the mentor teachers were given training, separately for the evaluation of the implementation of the professional development programs. 4. The regional centres monitor the programs and assess the teachers before and after participation in the program; 5. Timely feedback was given to the teachers. However the private school principal stated that the teachers in their school were highly qualified professional from the university faculty and so the question of observing and evaluating does not arise.

The commonalities and differences in the perception of the directors, principals and teachers on the impact of the professional development programs are 1. Participation in professional development programs has a positive impact on student achievement; 2. Participation in professional development program had an impact on the personal appraisal system. However teachers in the private schools perceived that there is no impact of participation in professional development program as the personal appraisal depends on the performance of the teachers.

The common perception of the directors, the principals and the teachers on the issues and challenges of the professional development programs revealed from the table are; 1. Time was a challenge as teachers were very busy improving themselves and the students; 2. The task of conducting the differentiated programs for individual teachers was difficult; 3. It is challenging for the districts to use the data management system in linking teacher's performance and student achievement as the teachers participate in different programs. The teachers differed in their perception on the incentives and funds provided for participation in professional development programs.

4.9 Summary of Section IV

It was observed from the analysis of the data from section IV that teachers, principals and the professional development directors had clear expectations of the professional development programs. The key dimensions of their perceptions are presented below.

4.9.1 Professional Development Plans and Logs

It was observed from the teachers' perception that the professional development programs are being designed to school connectedness and school improvement. The programs are need based and research based. All the stakeholders are included in the planning of the programs. The learning strategies based on the intended outcomes are selected by the teachers. Programs mirrored the methods the teachers are expected to use with their students. Use of demonstration, supervised practice, feedback and on-going assistance and support are part of the professional development programs.

4.9.2 Rigorous Evaluation of the Teaching Learning

It was observed from the analysis that federal and state education reform guidelines stipulate that school districts must select suitable evaluation model most likely to encourage fairness of classroom evaluations. It was noted that the objective of evaluation was to accurately and objectively reflect teacher's pedagogical strengths and weaknesses over time.

The professional development programs are consistently evaluated based on its impact of student achievement and personal satisfaction of the teachers. Multiple sources of data concerning knowledge gained by the participants, level of implementation and changes in students learning are consistently observed and collected and the results are used to implement change.

4.9.3 Monitoring Quality Assurance

It was found from the study that the states have established mechanisms for monitoring the professional development programs at all levels. The states also conducts professional development audit using student achievement as one indicator of quality. The regional centres review district professional development plans, and monitor the progress of schools by administering the NSDC's Standards Assessment Inventory (a teacher survey). The local

professional development committees develop plans and examine the strategies and outcomes of professional development for individual teachers and schools. Teachers' presents a portfolio of their professional learning to the committee and the teachers' judgments about what supports their learning are focused while planning the programs. The quality assurance system for professional development adopts a district focus on literacy across the curriculum; provides standard-based instruction and assessment that ensures academic success; ensure intensive professional development for all teachers and principals in core academic subjects; develops a positive school climate and ensures that novice teachers have high quality induction program.

4.9.4 Rewards of Excellence

The teachers opined that effective professional development itself is rewarding to the participants, and they believed that learning will help them become more effective teachers. The reward as presumed by the teachers is the development of human activities to set a climate of warmth, trust and enhanced self-esteem, which will improve their students learning. Teachers also opined that the best reward given to them is the additional credit hours for school-based professional development programs. The paid sabbaticals, career advancement were all rewards for the teachers.

4.9.5 Challenges

Teachers opined that due to time constraints they were not able to participate in more professional development programs. Though paid sabbatical and funding were provided, it was opined by the teachers that the funds were not enough to attend conferences and professional development programs. The challenge of preparing individualised need based program was a major challenge for the principals. The issue is being addressed by appointing individual mentors to the teachers. The supervisors and the principals give coaching to the teacher in his/her block free time over the year. Finding professional development programs relevant to all teachers poses problems. However, it was opined by the principals and the directors that the schools are working to overcome the task of differential programs through mentors and supervisors.

4.10 Conclusion

This chapter presented the detailed analysis and interpretation of the data collected from the respondents through various sources for the purpose of the study. The data collected through documents, survey questionnaire, focused group interviews and participant observation was triangulated to study the policies and programs for the professional development of school teachers in USA. The summary of the analysis is presented according to objectives of the study.

Section I of the chapter presented the profile of the teachers and principals collected through a survey. It was found from the study that the teachers fulfilled the educational and professional qualification and standards set by the government (Standards set through NCLB). They had rich professional experience. Teacher attrition was found to be less. Many teachers reported that participation in professional development programs enhanced their knowledge and skills and improvement in classroom teaching practices.

Section II of the chapter revealed the policies set by the federal and state government for professional development of teachers in terms of guidelines for teachers, professional standards and requirements and career advancement.

The federal government, over the past several years, primarily through the U.S. Department of Education (ED), has provided substantial resources to strengthen teacher quality and quantity. They fund many programs of teacher training for supporting the teachers. The NCLBA of 2001, created a significant shift in the federal government role with regard to teachers. The NCLBA required that states ensure the availability of 'high quality' professional development for all teachers.

Guidelines by the Federal Government: It was found from the documents that teachers were given guidance for professional development plan. NCLBA policies have set standards for high quality professional development and specified the activities. NCLBA policies mandated that teachers have not only subject proficiency but also proficiency in teaching the content. Teachers must possess college degrees, the teaching certificate, the licensure and subject competency certificate to be highly qualified teachers.

The schools and the institutions of higher learning must provide courses or activities for training of paraprofessional staff leading to their certification and licensure as teachers.

From the data procured it was found that apart from the Department of Education, several non-profit organisations also support federal government in its policy decisions. NSDC has been associated with the Federal Government for teacher professional development and school improvement. NSDC also guides and assist educators in achieving the professional development goals which are in close proximity with the standards of the NCLB guidelines for teachers. It has also specified certain standards for staff development on context standards, process standards and content standards

State Policy guidelines for the professional development of teachers: It was found from the documents that States which are under study, are mostly concentrating on teacher licensure. All the states have now abandoned the “life time” credentials. To maintain the certification, teachers are required to take course work and obtain credits. The state policies have directed the school districts to pay attention to purpose, content, form or quality of professional development as the quality of teachers is the prime concern of all the policies in education.

The states have established regional professional development centres (RPDC in Missouri, PTSB in New Jersey) and school based Professional Development Committees (PDCs), made up of teachers as the decision-making body. Regional centres establishes local mentoring and induction policies and the legislation indicated the importance of teacher learning needs and for schools to invest in their own professional learning.

New Jerseys’ state policies stipulate standards for preparing, training, and recruiting of highly qualified teachers. The legislation emphasised on academic content knowledge acquired through teacher training programs, comprehensive teacher induction programs, and on-going, job embedded, as well as sustained professional development opportunities.

The concern of the community for teaching and the quality professional development of teachers are seen by their active participation in New Jersey's Professional Teaching Standards Board (PTSB), comprising of teachers,

school administrators, the local board of education members, a higher education community, as well as state residents (community representation).

Pennsylvania State's law indicated that teachers have to regularly improve and increase their knowledge of the academic subjects they teach, and become 'highly qualified'; they must improve their knowledge and skills to provide students with the opportunity to meet challenging state academic content standards and student academic achievement standards and improve classroom management skills. States have advised the school districts to utilise its High Objective Uniform State Evaluation (HOUSE) Matrix for evaluation of teachers except the veteran teachers to become highly qualified.

Licensure of teachers: It was found that it is compulsory for the teachers to have teaching licensure. State policy emphasis that all certified educators must complete certain number of hours(100 in New Jersey, 180 in Pennsylvania) of professional development that complies with their school district's plan every five years in order to maintain their active licensure. School districts are responsible for monitoring this requirement and to assist teachers in maintaining compliance by providing professional development opportunities. Paid professional development release time will be offered to teachers for professional development which includes any professional learning activity (group or individual) that advances teachers towards achieving the goals outlined in their professional development plans. It was found from the study that the school do not have special policies as they follow the policies of the school districts and states. The school policies indicated that the principals must support the teachers' in their professional development plans. Reward points to be awarded to teachers for the programs conducted by the schools. Release time as a policy exists for teachers attending course work in the university and sabbaticals.

Monitoring and appraisal system: It was found from the study that the states under study in USA have established mechanisms for monitoring both the level of participation in professional development as well as the quality of professional development programs. The states through their regional centres administer surveys to understand the satisfaction levels of teachers who have participated in selected professional development programs. The states also

conducts professional development audit using student achievement as one indicator of quality. The regional centres review district professional development plans, and monitors the progress by administering the NSDC's Standards Assessment Inventory (a teacher survey). This survey assesses the degree to which the NSDC Professional Development Standards were evident in school practice. Teachers present a portfolio of their professional learning to the committee and the teachers' judgments about what supports their learning were factored into school and district wide planning. Pennsylvania monitors teaching conditions survey that queries teachers about the quality of their professional development opportunities.

Section III of the chapter revealed the on-going professional development programs organised by the Federal, State Government, School Districts and Schools. This section also addressed the third objective of the study; to study the on-going professional development programs in terms of content, methodology and feedback system. Teachers expressed that an in-depth knowledge of content in their teaching field, and their teaching methods improved after participation in the professional development program.

The states, school districts and the schools conducts need based programs for the teachers. It was revealed from the study that content knowledge programs and technology infusion programs were conducted for the experienced teachers; evaluation and for pedagogical skills programs for the mid-career teachers and classroom management programs for the novice teachers.

Teachers' and principals' opinion on the issues and challenges in managing the programs were analysed and presented in Section IV of the chapter. This section also addresses the fourth objective of the study.

Perceptions on the Design and development of the programs: It was found from the study that the teachers in the sample schools perceived that the professional development programs were designed in consultation with teachers and administrators and were part of the broad school-wide educational improvement plan. It was noted that the planning of the professional development programs were research and need based. From the interviews it was found that the school teachers conducted action research, the school districts and the colleges of education affiliated to the school

districts also conducts researches. The research proposals were reviewed by a committee and only the researches which were beneficial to the school districts for planning the professional development programs were permitted to conduct research. The results of the researches were made available to the schools. It was found from the study that this also helped the schools in planning quality professional development programs. The principals of the sample schools expressed that professional development programs provided specific and appropriate training to new teachers.

It was found from the study that the director of professional development of the school districts and the other committee members along with the Superintendent of School Education keeping the school test scores and the research data from the different of research studies, decided for the type of professional development program needed for the teachers. The planning committee was comprised of the director, educators from the office of the professional development, school principals and teachers. The planning for the forthcoming year starts from the beginning of the present year.

Perception on the content and Methodology of the Program: The findings of the study revealed that teachers' perceived professional development programs were focused on research based content which improved their subject knowledge and familiarised them with other subjects. It was also found that the programs included research based teaching methodology and the use of ICT in the teaching learning process. The programs were helpful to teachers to develop skills to support students of diverse group and effectively interpret learning outcomes of the students. It was found that a few teachers opined that more programs for formative and summative evaluation pattern in the classroom were needed.

Perception on the Logistics of the Professional Development Program: It was found from the study that the school faculties had administrative support to organise professional development programs. The teachers were informed well on time. The study also revealed that the professional development days were convenient to teachers and student free days were provided for attending the professional development program.

Perception on the Impact of Professional Development Program: It was found from the study that the professional development programs had a lasting impact on the classroom instruction, management and organisation. It was revealed from the study that the professional development programs had improved the teachers' infusion of ICT in teaching learning process and to support different ethnic groups of students. It was also found that the professional development program had an impact on the personal appraisal system. However for teachers in the private schools personal appraisal depends not only on the participation in professional development programs alone but also on the performance of the teachers in their classroom.

Perception on Incentives for Participation in Professional Development Programs (PDP): It was found from the study that the participation in professional development programs helped in career advancement accreditation and recertification of teachers. It was also found that paid sabbatical leave, payment of stipends were provided to teachers for participation in professional development programs, exchange programs and college courses. However the teachers opined that the funding was not enough for them. Teachers in the sample schools opined that though pupil free days for professional development activities were given it was very difficult to manage the total number of working days of the school. The teachers and the principals' opined that the most rewarding incentive was awarding of credit points for participation in professional development programs by the schools.

Perception on the Issues and Challenges of Professional Development Program: It was found from the study that the desired level of participation in professional development program of teachers' was not there due to time constraints and prior family commitments. It was found that the major challenge was time, as individual teachers' needs were catered to. It was found that financial support has been given to teachers for participation in professional development programs but was insufficient.

Implementation, Evaluation and Feedback of The Professional Development Program: It was found from the study that teachers were able to implement the programs in their classroom. The teachers during the

program were provided with activity-based resources and reference books which furnished step-by-step process of concepts and activities for implementation.

It was found from the study that the evaluation was very systematic and effective. Both formal and informal observations were conducted by the school district administrators and the school committee. Feedbacks were given to teachers through emails, and one to one discussions. Districts provided manuals to schools for observations which contains a Pre observation form, an Evaluation form, Lesson reflection sheet, Teacher evaluation criteria with descriptors, performance improvement plan of teachers and Teacher evaluation report for the evaluation of the teachers. Evaluation forms states that the supervisor has to take notes regarding student and teacher behaviour. They also must record the evidence of teacher performance to support the standards. The comments must be supported through artefact collection. The evaluators were also given training for effective evaluation.

The feedback given to the teacher helped in improving their understanding of what was discussed in the professional development programs. The resource persons were available to guide them whenever needed. The beginning teachers were observed continuously by the mentors. If basic proficiency was lacking after 2 years, a warning was given and they were asked to follow the rubrics given at the beginning of their carrier. The school districts did not retain teachers who do not achieve the required mandates. It was also found from the study that the implementation of programs was reviewed on a weekly basis.

This chapter has reported the results of the data analysis that were performed to answer each of the research objectives. The next chapter provides a discussion of the key research findings in relation to the research objectives of the study.

CHAPTER V
FINDINGS AND DISCUSSION

FINDINGS AND DISCUSSION

5.0 Introduction

The previous chapter elaborated the analysis of the data collected from various sources. The study focused on the policies for professional development of teachers in terms of guidelines for teachers, professional standards and requirements, monitoring and appraisal system. Researcher studied the professional development programs in USA in terms of content, methodology, the perceptions of teachers and principals and the issues and challenges in managing the professional development programs.

5.1 Major Findings of the Study

The major finding of the study are drawn by analysing the national reports and documents pertaining to the policies on teacher professional development in USA collected by the researcher from the respective authorities of the school districts, school principals and from the websites of the US Department of Education; Data was also collected through the survey questionnaires administered to the teachers and principals, focused group discussions with the teachers, participant observation and the interviews that were conducted to understand the perceptions of teachers and principals on the various professional development programs.

5.1.1 Management of Professional Development of Teachers in USA

The management structures and functions with respect to professional development of teachers were studied by the researcher with a view to understand the relationship between the federal, state and the local government in USA. The structure and role of the federal government, state government, school district and schools are given in figure 5.1 as found from the study.

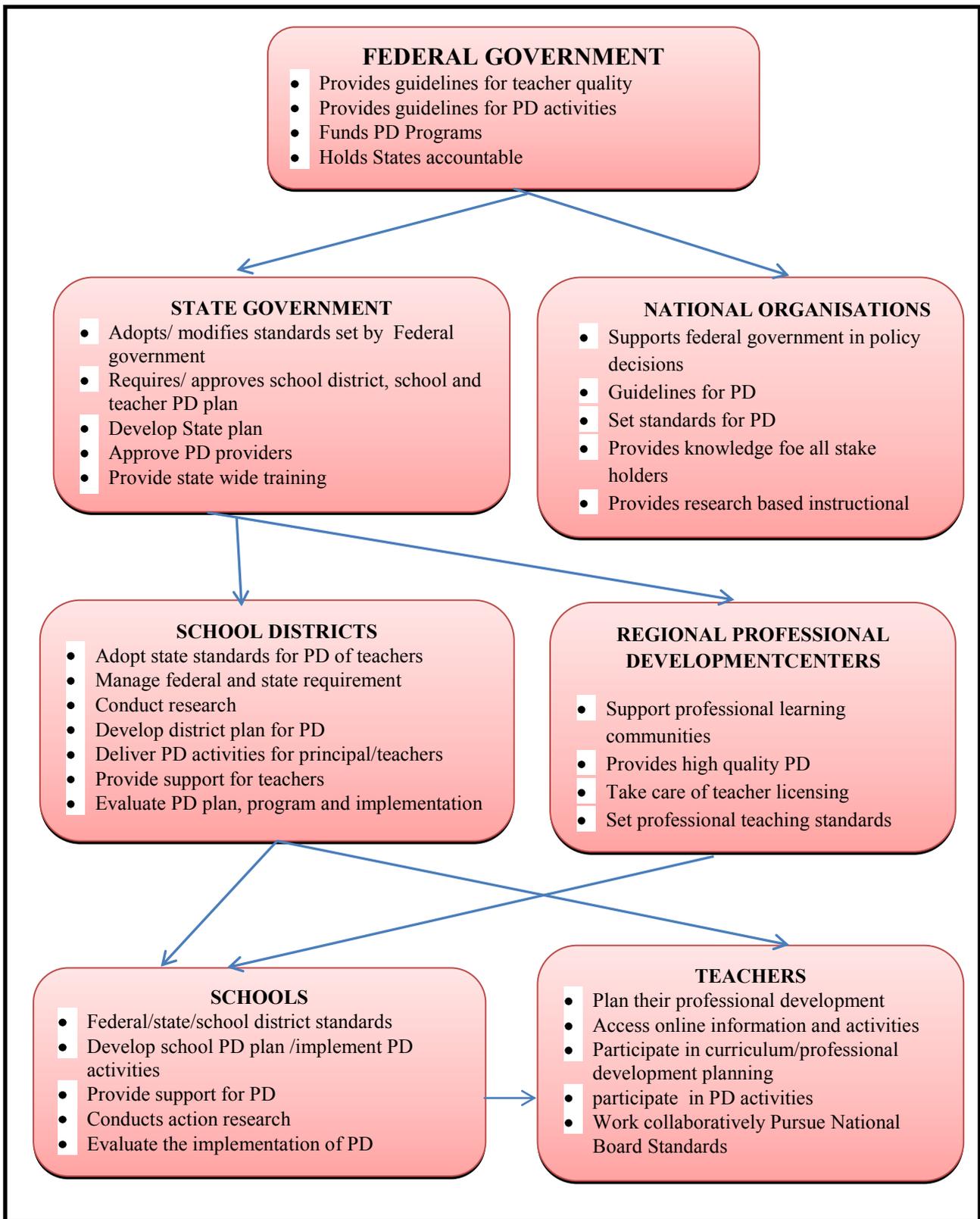


Figure 5.1 Management of Professional Development in USA

The relationship between the Federal, State and the local government pertaining to education may be described as the partnership in which each of the three

levels of government, at one time or another participate in varying ways and degrees in the establishment and support of education. The states work in partnership with the local school systems through its regional centers. The RPDC in Missouri, PTSB in New Jersey and PAILI in Pennsylvania support the professional learning communities and also provide professional development for the teachers. The states and school districts through their professional development committees under the supervision of director of professional development carry the activities effectively. Figure 5.2 shows the management system of professional development in the school districts.

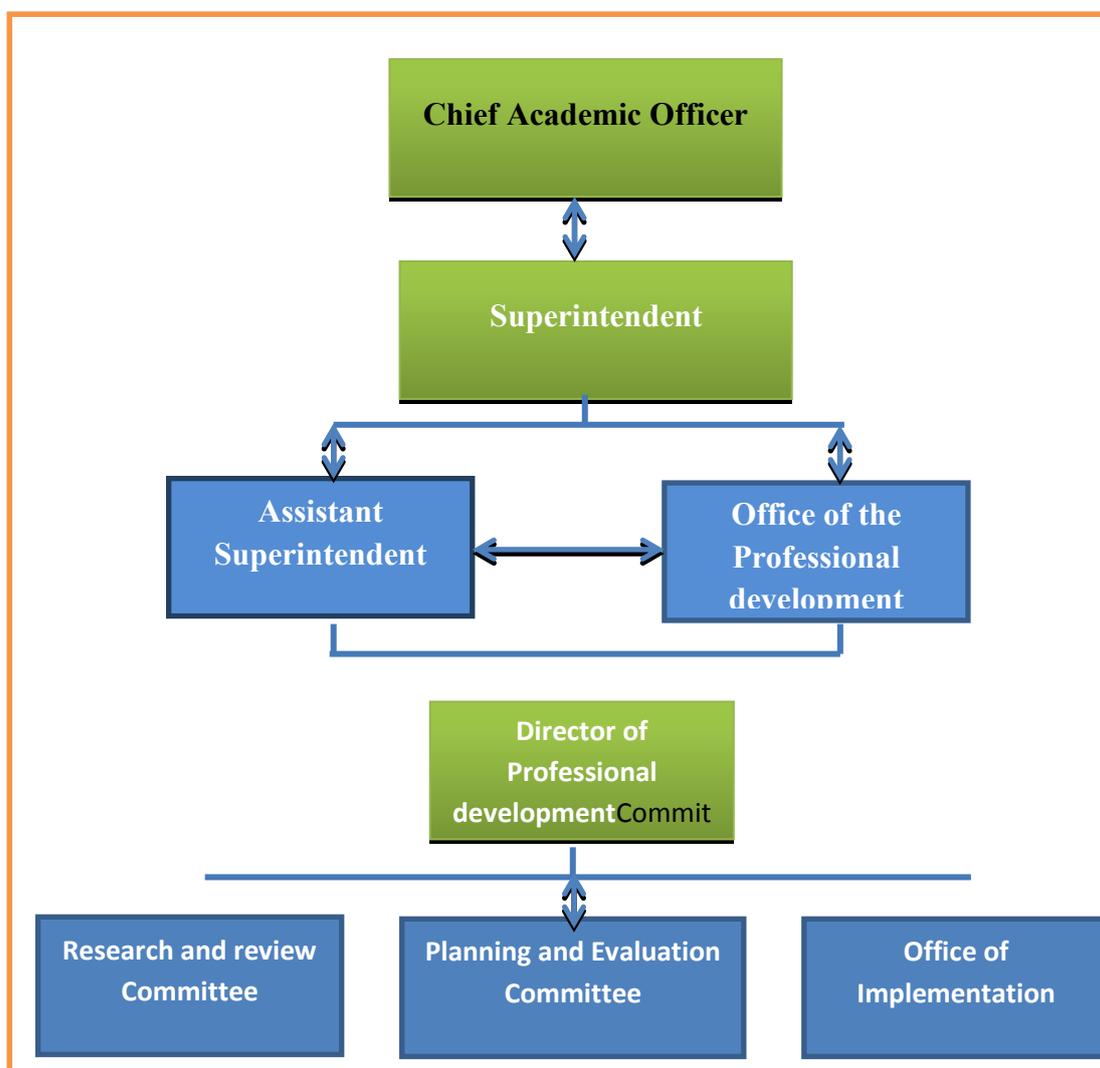


Figure 5.2 Local Management System of Professional Development

The management of the local school system is a two way linear hierarchy. The office of the professional development in the school districts has a director and

under the director research review committee, evaluation committee and the implementation committee works. The research proposals are reviewed, professional development planned, implemented and again reviewed by the local school system. They also work in collaboration with the schools.

The states and the school districts set policies for high quality professional development in alignment with the federal policies. The policies which were procured through different sources were analysed and the major findings of the study are presented as under the policy frame workfor professional development of teachers, professional development: opportunities and utilization below.

5.1.2 Policy Framework for Professional Development of Teachers

The findings of the study pertaining to the policies for professional development of teachers in USA are presented in four categories such as the relevance of the policies, standard for professional development mandated in the policies, implementation of the policies and the challenges in implementing the policies.

5.1.2.1 Relevance of the Policies

1. It was observed that the federal government, except funding for schools have limited involvement with local schools and leave the responsibility of public education to the individual states. States create academic standards and assessed student progress but do not held accountable by the federal government. It was also found that the NCLBA (2001), brought a significant shift in the federal role with regard to teachers.Federal government now is demanding the student achievement records and also the teacher professional development for student achievement. Federal government will decide the funding for the states depending upon the AYP of the schools.
2. It was found that NCLBA requires that all states to ensure 'high quality' professional development that are sustained, intensive and classroom-focused and have positive and lasting impact on classroom instruction and teachers' performance in the classroom for all teachers.
3. It was found that NCLBA policies mandated that professional development programs must increase teachers' knowledge of core

academic subjects; are standards-aligned; classroom-focused and improve classroom management skills.

4. It was found that professional development workshops/or conferences have to be at least for a minimum of three full days programs for its acceptance as professional development activity and one-day or short-term workshops and/or conferences were not accepted as professional development programs.
5. It was observed that the teachers have the liberty to choose the programs conducted by the state, school districts and other agencies.

5.1.2.2 Standards Set for Programs

1. It was found that the federal government through NCLBA has set standards and requirements for teacher qualification and professional development.
2. It was observed that organisations such as the NSDC have been associated with the federal government for teachers' professional development. NSDC also specified standards for teacher professional development on context, process and content.
3. It was found that the NCLBA mandates teachers to be proficient in their subject knowledge and they also understand how much of that to be taught to their students.
4. The study revealed that in New Jersey, the State has established a Professional Teaching Standard Board (PTSB) comprising of teachers, school administrators, local board education members, higher education community as well as state residents for managing and monitoring the standards of the professional development programs of teachers. Researcher could not find such an organisation in other states under study.
5. It was found that the teachers fulfilled the educational and professional qualification and standards set by the government (Standards set through NCLBA). They had rich professional experience.

5.1.2.3 Standards set for Licensure of Teachers

From the documents procured by the researcher it was found that the teaching licensure system exists in USA.

1. It was observed that in all the States and the federal districts of USA, the teachers, teaching in the public school possess licensure to teach. A majority of the teachers in the charter schools and private schools fulfilled the essential qualifications of being highly qualified teachers laid down by the government for charter schools and private schools, but had no teaching licensure.
2. It was found that states were concentrating on teacher licensure and the requirement for licensure varies by state.
3. It was found that with respect to NCLBA that teachers have to demonstrate satisfactory teaching performance over an extended period (one year in case of New Jersey) in order to obtain a provisional license, in addition to passing an examination in their subject area, apart from the professional qualification.
4. All the states under study have now abandoned the “life time” credentials of licensure and the licence needs to be renewed, once in three to five years (Missouri 4 years, New Jersey and the District of Columbia 3 years, Pennsylvania 5 years) depending on the states.
5. It was observed that the teachers need certain number of credit hours (100 hours in New Jersey; 180 hours in Pennsylvania) to renew their license from the professional development programs or college courses.
6. It was found that a performance-based system for licensure is being followed in the State of Missouri.
7. It was observed that the universities have to establish school-based teacher training programs for paraprofessional staff leading to their certification and licensure.
8. The study revealed that the states offer alternative licensure programs for teachers who change their career to teaching from other careers.
9. It was found from the study that states have reciprocity agreements that make it easier for teachers licensed in one state to become licensed in another state.

10. It was found from the study that for teachers who migrate to USA, and join the teaching profession from different countries, the number of years of teaching experience in their country was taken into considerations. However these teachers have to procure a teaching license within a specified time (3 years in Pennsylvania and New Jersey) or their contracts were cancelled.

5.1.2.4 Implementation of Policies

1. It was found that the state of Missouri has established Regional Professional Development Centres through which the professional developments of teachers pertaining to licensure and needs based programs are carried out. The state policies of Missouri focus on the lowest performing schools.
2. It was found that in the state of New Jersey PTSB also conducts the professional development programs for the teachers.

5.1.2.5 Issues and Challenges

1. It was found that according to the NCLBA the teachers were striving to achieve the new federal requirements of being ‘highly qualified’ by demonstrating high quality learning opportunities in the classroom. This increasing teachers’ role poses challenges to the schools.
2. It was found that the school districts use data analysis of teachers’ survey to evaluate which professional development program works best for specific teachers and design the programs accordingly. However it is challenging for the districts to use the data management system in linking teacher’s performance and student achievement.
3. It was found that the administrators in the school districts, through the multiple accountability system, are able to achieve in finding how effective professional development is in helping teachers to improve classroom practice and the degree to which professional development content strategies were integrated into classroom practices, though it is challenging.

5. It was found that at all levels (federal, state, school districts, schools and teachers) each personnel have an opportunity to design, participate in professional development program. However each faces the challenge of aligning professional practice in the classroom with policy and research.

5.1.3 Professional Development of Teachers: Opportunities and Utilization

The findings from the questionnaires for teachers and principals, the interviews of the principals and the directors of professional development of school districts and focused group discussions with teachers, revealed the perception of the teachers, principals and the professional development directors. The findings of the analysis are presented in six categories such as the nature of the program, the program implementation, the evaluation of the program, impact of the program, incentives for participation in the programs and the issues and challenges in implementing the professional development programs.

5.1.3.1 Nature of Professional Development Programs

1. It was found that the professional development programs were basically needs based and were planned on the basis of the continuous reviews from multiple sources.
2. The study revealed that the focus of the professional development programs were to update the content knowledge and pedagogy of the teachers in the subjects of mathematics and science, the evaluation patterns for assessing students and also to help teachers to teach diverse and ethnic group of students.
3. It was found that the professional development programs organised by the school districts focused on the use of digital technology and use of webinars.
4. It was observed that the focus of professional development programs for the beginning teachers were for classroom management and evaluation practices.
5. It was found that the professional development programs organised by the schools were for differential instruction, leadership programs.

6. It was found that the federal government funds many professional development programs through the policy mandated in NCLBA for teacher training to support the teachers in their professional development plan and do not conduct many professional development programs.

5.1.3.2 The Execution of the Programs

The findings of the execution of the program have been presented under planning of the program and implementation of the program.

5.1.3.2.1 Planning of the Programs

1. It was observed that the professional development programs were planned by a committee comprising of the Superintendent of School Education, professional development directors of the school districts, educators from the office of the professional development, school principals, teachers, parents and civic administrators.
2. It was revealed from the study that the districts have researched and the policies and programs were set for professional development. The districts have given autonomy to school based professional development. The schools and districts professional development committees permit opportunities for teachers to participate in the planning of professional development.
3. It was found that the professional development programs were planned a year ahead from the results of the action research conducted by school teachers; the needs assessment surveys administered to the teachers by the school districts; the research conducted by the universities to find the effectiveness of the programs; the findings from the evaluation of the implementation of the programs; the feedback by the school principals and the mentor teachers and the data from the school test scores.
5. From the study it was found that school principals plan professional development programs based primarily on their teachers' needs and student test scores; the schools' plan provide adequate time for professional development on school sites, year round.

6. It was found that the teachers' self-directed plan for the type of professional development programs needed for them helped them in their personal growth.
7. The study also revealed that the subject teachers met once in a week to discuss student achievement and also discuss the areas in which the teachers need improvement to increase student achievement. The training for which is given in the school by the principal, supervisor or the head of the department.
8. It was found from the study that the colleges of teacher education in the respective states also design and conduct short term courses for teachers in content, pedagogic and managerial competencies.
9. It was opined by the director of professional development of the SDP, thatPAILI supports mentoring and a train-the-trainer component designed to create education leaders at all levels to improve student achievement across the state. The programs are delivered through regular, expert-facilitated convening / workshops in the region.

5.1.3.2.2 Implementation of the Programs

1. It was observed that the programs were conducted by the school districts in the beginning of the year and on the specified professional development days.
2. It was observed that the state programs were conducted in the vacation time. The school based programs were on going.
3. It was found that the content of the program was discussed with the principal and the head of the departments before implementation of the programs.
4. The implementation of the program was routinely observed by principal, supervisors, mentors and the school district officials.
5. It was found from the teachers' perception that they also undergo training programs conducted by the state government through the National Association of School Teachers, during the school vacations and also by other professional development providers.

5.1.3.3 Evaluation of the programs

It was found from the study that a comprehensive system of evaluation exists in USA.

1. It was opined by the teachers that, the principal, the coordinators and the mentor teachers observe the teachers in their classroom for the implementation and impact to learners. The feedback was given to teachers on a regular basis either personally or through electronic mails. Teachers' performances were also discussed in the staff meetings and during one to one discussions.
2. It was observed that the supervisors and the mentors observe the beginning teachers in the schools and send their reports of observation directly to the school district officials.
3. It was revealed from the study that the school districts evaluate the effectiveness of the program by visiting and observing the teachers classroom practices.
4. It was found that the officials of the school districts in collaboration with the school principals provided feedback and helped the teachers to improve on their performance. After a gap of 3 months they were again evaluated.
5. It was found that the school principals and the mentor teachers were given training, separately for the evaluation and implementation of the professional development programs.

5.1.3.4 Impact/ Effect of the Programs

The perceptions of the teachers regarding the implementation and the impact of the programs for teaching-learning were collected and the findings are presented here.

1. Teachers opined that professional development programs conducted by the districts and by the schools were effective and improved their content knowledge as they were needs based.

2. Teachers opined that the programs also provided opportunities to learn research based teaching methodology and effective use of technology in the classrooms.
3. Teachers opined that the programs provided opportunities to teach ethnic group of students and had a lasting impact on classroom teaching.
4. Teachers opined that the programs facilitated in teacher growth and development. It was also opined that the professional development programs had an impact on their personal appraisal.
5. It was found from the study that the professional development activities were regularly evaluated for their impact on increased teacher effectiveness as measured from the improved student academic achievement.
6. Teachers opined that participation in the programs helped them in the career advancement as supervisors and in administrative positions.

Teachers opined that the effectiveness of the professional development programs depends on the content taught which can be connected to the classroom and which can support teachers in bringing the best from the students, and also on the resource person. A few of the effective programs are presented here.

1. The teachers opined that the resource person who steered subject specific content program on US History was the most successful teacher with years of experience and was very focused and targeted. The methodology was role model and it was very supportive for teaching learning in the classroom.
2. The study revealed that the teaching and curriculum program organised by the state was highly regarded by the teachers. The process included performance-based assessment of teaching portfolios, student achievement as well as analysis of classroom observations. Teachers opined that though it was a lengthy and intense process, the professional development experience deepened their content knowledge and improved their classroom instruction and the process made them better teachers.

3. It was observed from the study that teachers who attended the technology development programs opined that they had a wonderful experience. The resource persons used the train- the trainer model which helped the participating teachers to train their peers in the school. Teachers opined that the collaborative learning and group working also provided them opportunities to learn more.
4. It was opined by the teachers who attended the Mathematics program organised by the federal government that their skills in posing complex problems to the students improved. They were able to encourage the students to use different methods of solving problems better than teachers who were not present in the workshop who used the traditional methods. It was opined by the teachers that the student achievement was considerably higher.

5.1.3.5 Incentives for Participation in Professional Development Programs

Researcher has studied from the survey for teachers and discussions with principals and professional development directors the incentives offered to teachers for participation in professional development programs.

1. Teachers opined that credit hours were given for participation in the professional development program conducted by the schools was beneficial.
2. Teachers opined that reimbursement facilities and payment of stipends were available for teachers for participation in professional development program but it was not sufficient for them in participating professional development activities. Teachers were given sabbatical leave to attend college courses and for exchange programs.
3. Teachers opined that participation in the professional development programs facilitated in their growth credit and also the school districts accredited the programs.

5.1.3.6 Issues/Challenges

1. The teachers opined that they needed more programs to update the latest technology. The experienced teachers opined that they need more content knowledge programs.

2. Teachers opined that they require more assistance and coaching in action research projects.
3. It was found that the major challenge for the teachers was adequate time and managing the school days to attend more programs though student free days and time off from work were given.
4. It was opined by the beginning teachers that they had difficulties in implementing what was learnt in the professional development programs, as the mentors were not aware of what was taught in the programs.
5. Teachers opined that plentiful opportunities were given to participate in professional development programs however prior family commitments pose problems to attend the programs.
6. The principals opined that time and teacher mobility was the biggest challenge.
7. The principals opined that finding professional development programs relevant to all teachers was a challenge but the schools were able to achieve the task of differentiated programs for individual teachers through mentors, supervisors and departmental heads.

5.1.4 Key Components Emerging from the Study

It was observed from the above major findings of the study that the effectiveness of the professional development programs was due to certain key components. The following key components emerged from the study and are discussed below:

5.1.4.1. Leadership and Management of Professional Development

The study revealed that the leadership role played by the principals of the school have greater impact on teacher professional development. The school principals were focused on school improvement and student achievement. The decentralized management system has helped in improving the student achievement rates drastically in the past 10 years in two (New Jersey and Missouri) of the four states under study. It was found that the decision making on professional development and other school improvement policies are shared among the teaching community. In these states the leadership by state agencies

in guidance and oversight also played a crucial role in high levels of professional activity. The student learning outcomes and teachers' professional needs are analysed at school level and principals encourage the teachers' to attend professional development programs to meet the school goal. It was observed that the principals do participate in professional development programs to exercise their leadership in curriculum, instruction and related areas. The principals opined that if professional development has to make a difference it must be embedded within a comprehensive system which reports teachers learning and work and must be connected to content standards and supported by reflective inquiry. Principals opined that to deliver their specific roles and responsibilities, they also need professional development. It was found that principals are also directed by his/her supervisor for principals' professional development. The school principals build a culture of commitment, collegiality, mutual respect and stability in the school. They create professional norms which include peer support, collaboration, shared responsibility and continuous learning of the teachers.

5.1.4.2. Multiple Accountability System

It was found from the study that NCLBA has mandated schools and school districts and states to set standards of accountability of teachers and the school improvement and send the same to the federal government. Depending upon student achievement the allocation of funds for schools by the federal government will be released. This has made states to create multiple accountability system for professional development at local level to ensure changes in teacher practices and student achievement. The school committees through surveys, teacher satisfaction levels ensure the accountability of teachers. The different policies together made a system and mechanisms for enforcing, monitoring and enabling links between teacher professional development and student achievement. The administrators of the school districts hold all stake holders in the system accountable for student learning. The superintendent expects excellence by all, monitors professional development programs, and teachers' performances and provides feedback to the staff in the districts office and school principals. The school districts have clear

expectations for instruction and apply pressure on schools for improved student learning. This expectation makes school districts and schools to address issues such as ineffective teachers.

The districts pay close attention to classroom practice, monitor instruction, curriculum and changes in instructional practices. The districts provide guidance for improving teaching and learning and this effort require actions such as system wide approval, interventions and corrective instructions and tutoring.

5.1.4.3. Monitoring and Supervision

It was found that three of the four states under study have established system for monitoring both participation in professional development and the quality of professional development. Missouri monitors both district usage of funds for professional development and the quality of professional development offered to teachers. Teachers' satisfaction levels for participating in selected professional development programs and the relationship between professional development initiatives and student achievement rates are taken as indicators of quality. New Jersey's PTSB review district professional development plans by administering NSDC's Standards Assessment Inventory which assesses the school professional development practices in comparison with NSDC professional development standards. In Pennsylvania, the local professional development committees (School District) plan development of individual teachers and examine the strategies and outcomes of professional development.

By defining standards, conditions and contexts for the professional learning, the regional professional centres govern the planning, development and delivery of professional development.

5.1.4.4. Academic Net Working with Private Partners

It was revealed from the study that the states have partnered with professional development providers to support on specific subject areas to foster innovative professional development since districts and schools have limited resources.

It was found that through a transformative approach regional networks are supporting the school in professional development and classroom management. New Jersey has created structures and standards for reflective and

collaborative professional development work through the PTSB which is comprised mainly of teachers /educators and local personnel. The schools in New Jersey have created school level committees to follow the state professional development content standards. RPDC in Missouri provides and supports high quality teaching through professional development. It was found that two of the four states under study have encouraged innovative professional development networks that controls and connect the professional learning groups and organisations with the schools. Educational Information and Resource Centre(EIRC) in New Jersey, also provide assistance to schools.

5.1.4.5. Adopting Alternative Professional Learning Community Models

The study revealed that states have evolved a school-based Professional Learning Communities (PLC) and teams which focus on professional development and school improvement. The states do not compel all the schools to have the PLCs. It was found that Missouri DESE offers on-going training to support for the PLCs through RPDC.

The professional development communities' in New Jersey plans for professional development plans aligned with state standards and individuals teacher needs. They also evaluate the quality of continuing education.

It was found that educators from universities work with a knowledgeable teacher from the school or from another school with an expert from education service centre or with education consultants forms professional learning teams (PLTs). PLTs work with teachers' and school leader's to understand the instructional gaps in students' learning. Then the PLTs determine what type of professional development is needed to help close those gaps. The teams work as long as the members have a mutual learning. The school leaders and the school districts observe the teachers and if their observation indicates teachers need to learn more another round of professional development is conducted.

5.2 Discussion

Professional development of teachers is very important in student achievement. Knowing the content, understanding how students learn and practising effective teaching methods leads to student achievement. The teacher needs to be well

prepared from the beginning of their career and continue to impart their skills throughout their career. Over the past thirty years, professional development has evolved from individual initiative in which teachers took college courses or attended seminars by organisations, to a state and district effort. States and districts strategically link professional development of teachers to goals for teaching and learning. It is evident from the study that the four states, the school districts and schools carry out research over professional development and this has influenced their policies, planning and programs.

The professional development has been pushed more towards school-based autonomy by the policies. District wise committees permit opportunities for teachers to participate in the planning of staff development activities. Pupil free days and late start days provide teachers with blocks of time during the school year for planning and participation in professional development programs. Thus it is evident from the study that professional development is considered vital for teacher development in the USA. The researcher has tried to integrate and discuss the information gathered through, document analysis; survey administered to teachers and principals, interviews with the principals and the professional development directors of the school districts and the focus group discussions with the teachers.

Researcher analysed the policies for teacher professional development in terms of relevance, standards, implementation and challenges from the documents procured through different sources and the major findings are discussed below.

It was found that the standards set by NCLBA of the Federal government for teachers to be highly qualified to provide roadmap for quality professional development. The NCLBA and the NSDC's staff development standards provide a strong foundation upon which a district's professional development programs are built. The standards set by the state and school districts provide vision and guidance in developing professional development programs. Professional development director of the school districts, the school principals and the teachers reflected that the teachers in all schools have access to professional development appropriate to their need and responsibilities. This illustrates that teachers require professional development programs for

their professional growth and so they plan their activity. The state education department and the school districts provide guidelines for the policies, the professional standards and requirements and credit hours required by individuals for the renewal of licensure. The NSDC's goals for context, content and process standards of professional development are aligned with those of the states and school districts are of great support to the districts. The NSDC's Context Standard professional development programs not only improved the learning of all students but also organised the adults into lifelong learning communities. These data supports in understanding the relevance of policy integration in quality professional development.

The study revealed that the states have directed the school districts to focus their attention to purpose, content, form and quality of professional development. This was evident from the content specific need based programs offered by the school districts. The study found that the federal government through NCLBA and the NSDC has set standards and requirements for the teachers' educational qualifications and the professional development requirements. The NCLBA mandated that the teachers be proficient in their content knowledge of the subjects they teach and also understand how much to teach their students. The AYP of the students indicated the teachers' proficiency which is linked to teachers' educational and professional standards.

The results of the study indicated that licensure is compulsory for teachers in all states. According to the NCLBA mandates, the teachers have to demonstrate satisfactory teaching performance over an extended period in order to obtain a provisional license, in addition to passing a subject competency exam. This is in addition to their professional qualifications. The federal government observed that the 'life- long licensure' halts the teachers' continuous learning and so the life- long licensure procedure is removed in the states.

The NCLBA mandates all certified teachers to acquire a certain number of credit hours (e.g. 180 hours in a five year period in Pennsylvania) and be 'highly qualified'. It has also specified that the teachers should participate in quality professional development programs. The states and the school districts provide guidelines to the teachers for the type of professional development programs the

individual teachers need to take for maintaining and renewing the licensure. The states data system maintains the licensure procedures and informs the individual teachers' about the status of licensure. The teachers who change their career to teaching from other careers have alternative licensure programs. These teachers' need to take special course work and test conducted by the universities and schools to procure their licensure. The development of the teachers helps the districts to overcome the shortage of teachers in the particular subjects. Teachers are given guidance and provided support in developing individual professional development plans, so teachers can no longer function as independent contractors within a school district. The requirement of licensure has set the teachers in the lifelong learning process and also quality professional development programs.

U.S government acknowledges the vital role that teachers have in imparting knowledge and skills to young people and that in terms of student achievement, the teacher is a more significant factor than any other kind of school resources.

The federal government through its funds provide facilities for enhancing the teaching learning process in the classrooms, as the teachers are expected to demonstrate high quality learning opportunities in the classroom to be "highly qualified" teachers. Accordingly, the programs are developed jointly by the administrators, principals, teachers and parents. The focus of the programs is to improve the content knowledge and pedagogy of the teachers. The thrust areas of the programs are content knowledge in the subjects of mathematics and science methodology and evaluation programs.

At each stage, teachers need different types of programs. The novice teachers require classroom management and evaluation patterns; the middle year teachers requires technology integration and the experienced teachers requires content specific programs. Each individual teachers needs are fulfilled by the different types of programs organised by the school districts and schools.

In two states under study, the types of professional development programs are planned by a committee comprising of all the stakeholders of the school and the local community.

It was found that the planning of the programs is a long process. Planning for the forthcoming year (2013-14) starts from the present (2012- 13) year. The planning is based on the results of the action research conducted by the teachers, the needs assessments surveys administered by the school districts; the data from other researches are collected and analysed and the teachers' individual needs are identified; the school districts through their data analysis also are able to find out which professional development program best works for specific teachers and help them to design the program. Based on this multiple source of information, the professional development programs are planned. The elaborate system of planning and execution of the professional development programs ensures the development teachers as professionals and in their personal growth. The principals, supervisors, head of the departments and the teachers plan for the school based professional development programs. The schools have student free days, daily block times, and once a week subject teacher meetings for professional development programs.

The study results indicated that emphasis has been placed on providing professional development which is research-based. For the professional development programs the districts and schools use multiple sources of data such as student performance data, teacher surveys, observation of teaching learning. These findings confirm the previous studies which address the importance of student data to focus for professional development (Fisherman et al., 2003; Guskey, 2003). This relates to the National Staff Development Council's process standards which state that professional development that improves learning of all students uses disaggregated data to determine adult learning and "uses multiple sources of information to guide improvement and demonstrate its impact".

According to the study results, the teachers opined that school faculties have administrative support to arrange appropriate professional development activities that address their individual needs. This finding is consistent with the national study (Garet et al., 2001) which revealed that nearly 70% of the teachers across the nation choose their own professional development activities.

The professional development programs are not only conducted by the schools and school districts the colleges of education are also responsible in preparing subject specific content knowledge course work and pedagogical programs for the teachers. The national organisation such as NSDC, NCES, NBPTE, NAST, NAMT, AMNS and NJSPDS are also identified as professional development providers and they organise quality professional development programs for teachers.

It was found from the study that a comprehensive, systematic monitoring and evaluation system prevails in USA. At the beginning of the year the teachers were informed about the process of evaluation and the official days of classroom observation were given to the teachers. The school principals, supervisors and the mentor teachers are given training for evaluating the implementation of the program. It was found from the interviews with the principals, the focused group discussions with the teachers and the participant observation of professional development programs that either the supervisors, head of the departments or the principal participate in the same program and observe the teachers in their classroom for the implementation of the program and the impact on the learners. The observations are conducted both formally and informally. The schedule of the observations were; minimum of 10 observations per week by the principal and the Asst. Principal; more than 10 observations by the Teacher Learner Facilitator. The principal, supervisor and the head of the departments meet once in a week and discusses about the evaluation. Feedbacks were given to teachers through emails, and one to one discussions. The school districts officials also observe the teachers both formally and informally. Feed backs are given to the teachers immediately. The feedback given helped the teachers to improve themselves. The resource persons are available to facilitate the teachers whenever needed.

The beginning teachers are observed continuously by the mentors. The mentor teachers send their observation of the beginning teachers directly to the school districts. The school districts administrators also observe the beginning teachers. If basic proficiency was lacking after 2 years, a warning is given and they are asked to follow the rubrics given at the beginning of their career. The school

districts did not retain teachers who do not achieve the required proficiency after 3 years.

The teachers opined that the professional development programs conducted by the school districts and the schools were effective and improved their content knowledge, research based pedagogy and effective use of technology. The programs provided opportunities for sharing good practices with their peers. The programs helped them in their growth and personal appraisal. A significant majority of the respondents believe specific and appropriate support is available to teachers who are new to teaching or new to their positions and support is available to teachers experiencing difficulties. High percentage of survey respondents believed that professional development activities focus on acquisition of new knowledge and skills about subject content that students are expected to learn. These findings relate to the content standard set by NSDC which states that “staff development that improves the learning of all students deepens educators’ content knowledge, provides them with research-based instructional strategies to assist students in meeting the academic standards, and prepare them to use various types of classroom assessments appropriately.”

The participation in the programs helped teachers in career advancement as supervisors and administrators. Reimbursement facilities for participation in conferences and workshops helped in improving their personal and professional growth. The sabbatical leave provided them opportunities to undertake college courses and exchange programs. Financial incentives encourage and support schools to participate in action research projects. The findings of the action researches are communicated to other schools and exchange of good practices takes place.

Teachers require professional development programs not only for procuring credits for renewal of licensure but also for improving the learners. Teachers needed more programs in technology to upgrade their knowledge. Teachers needed more financial assistance to participate in professional development programs. Though the teachers are given freedom to choose the type of professional development programs and plentiful opportunities are provided family commitments pose problems for the teachers in participation. The

principals opined that time and teacher mobility poses problems for the schools. Finding professional development programs relevant to individual teachers is challenging for the principals and the school administrators.

However the schools are trying to overcome this by appointing mentors, supervisors and departmental heads to cater to the individual needs of the teachers. The other challenge is that the involvement of teachers in the teachers' union possesses problems for the administrators to take any action. Teachers require technical assistance in developing action research project. Federal government in the recent years have started funding for schools for action research programs. It is necessary to provide assistance in capacity building at the state, school districts and school level. The schools and districts professional development committees permit opportunities for teacher to participate in the planning of professional development.

From the above discussion it is obvious that in the global era, professional development of teachers has been given prime importance in USA. The factors responsible for this development are the community needs and accountability of the schools to the stake holders. The educators and the administrators of the US government believe that developing a teacher is more important than training a teacher for the national growth. The educational administration is both centralised and decentralized. The professional development of teachers is both governmental and school based on content, pedagogy and psychological based. The professional development programs offered to teachers are need based and involve input from the teachers. The programs are evaluated for their quality and for its effectiveness. The professional development programs help teachers to grow as individuals and as professionals.

The findings of the study are relevant to draw implications for the professional development of school teachers in India

5.3 Implications of the Study to the Indian context

The findings of the study are relevant to draw implications for the professional development of school teachers in India. Professional development or in-service training of teachers is not a new concept in India. Professional development or the in-service of teachers is not a new concept in India. There have been many

commissions set up for the in-service training of teachers and recommendations have been given by them from before India became a democratic republic. The Sargent report of 1944, University Education commission of 1949, Secondary Education Commission of 1953, Program of Action 1992, National curriculum framework 2005, National curriculum Framework for Teacher Education 2009 has given recommendations for the in-service training of teachers. Some of the recommendations have been implemented. Nevertheless the present education system of India is still not adequate for the needs of the people of an emerging and developing country. It needs to develop the students of the present for the future globalised world. This requires the development of the teachers. Teacher performance is the most crucial input in the field of education. India is on the threshold of the development of new technologies likely to revolutionize teaching in classrooms. There are great reform expectations for students to meet the global challenges. Consequently these reforms efforts expect the teachers to master new skills and responsibilities. Teachers need to play many roles in the schools; teachers need to expand and deepen their content knowledge and new teaching methodologies; teachers need time and opportunities to develop new approaches to working with students. All these activities need a well-designed and organized professional development. Educators and policy makers have felt the importance of in-service education for improving the quality of classroom instruction as well as the professional growth of teachers in the secondary schools of India. However the periodic orientation of the teachers does not seem to have been examined and evaluation of the program conducted has been very few. The accountability of teachers, their professional conduct and functioning would also increase if policy implementations, the professional development programs were evaluated. The policy makers and the educators need to review the policies and the programs in developed countries and a training policy needs to be worked out, defining parameters such as the periodicity, context and methodology of programs. The present study was conducted to understand the policies and programs for teacher professional development in USA and draw implications to India, keeping in view the present scenario of professional development in India. The key implications drawn from the study and are discussed below.

The federal government of USA through NCLBA has recommended policy guidelines for the professional development of teachers in USA. All the state governments, the school districts (similar to the District Education Office in India) and schools set their own policies in accordance with NCLBA for high quality professional development. In India MHRD, NCTE has laid down norms, standards and guidelines for programs of continuing education and professional development of teachers.

The different committees set up by the government of India, have given recommendations for teaching license.

The Committee on NPE reported that the teacher is also a professional like any other professional such as doctor, engineer or lawyer. One has to update the knowledge and skills to qualify and remain as professionals. It recommended the licensure system and also that it is essential for teachers to undergo in-service training once in five years. In the event of refusal to upgrade the knowledge the teaching license had to be withdrawn.

The committee also recommended the 'Internship Model' of training, because the conventional model of pre/in-service training is not adequate for the present globalized requirement of teachers. The present model only trains the teacher and does not develop the teacher.

The trainee teachers should be attach to schools and under the supervision of the experienced and skilled teachers the trainees should be developed, Only after 3-5 years a trainee will be certified on the basis of the continuous evaluation by the supervisors and senior teachers of the schools.

From the study it was noted that all the states in USA and the federal district licensure is compulsory and renewal of the licensure is through the credit hours procured from professional development activities. Life-long teaching licensure has been withdrawn in most of the states in USA. The researcher could draw relevance from the study for policy framework for India and are discussed below:

1. Government funding for education in India need to target on the training and development of teachers. The allocation of funds by the central

government for the professional development programs has to be based on student achievement.

2. States and districts to ensure 'high quality' programs which are classroom focused and have positive and lasting impact on classroom instruction; performance of teachers in the classroom and increase teachers' knowledge of the core academic subject.
3. The workshops/conferences duration have to be more than a day and need time for reflection and feedback.
4. Emphasis has to be given to NCF 2005, which states that, the curriculum renewal efforts to be supported by well thought –out and systematic professional development programs and school based teacher support.
5. Teacher education institutions need to be held accountable for the quality of their graduates; these institutions need to take steps to strengthen both their pre-service and in-service programs.
6. National Council for Teacher Education needs to think of setting National Board for Professional Teaching Standards or National Council on Teacher Quality, to ensure that all teachers are highly qualified and continuously developed throughout their teaching career.
7. Teacher licensure system to be formulated as recommended by NPE in India, so that the accountability of teachers can be maintained.
8. The present study underlined the scope for improving the Teacher Eligibility test conducted by the The Central Board of Secondary Education of India and some of the State Boards of Education. Now the school boards require teachers to have a bachelor's degree and to have completed an approved teacher training program as well as supervised practice teaching. The policy makers need to emphasize this by providing a registered license number to the eligible teachers.
9. The License also needs to be renewed after 3 years or a certain number of years. For renewing the license, the teacher needs to obtain certain credits through professional development programs.

10. The teacher certification, tenure and renewal of license need to be the province of states and teacher professional development and evaluation of classroom teaching must be the domain of schools and school districts, in an effort to increase the likelihood that the teachers will be effective with their students.
11. Performance-based system for licensure has to be followed.
12. NCTE can use data management system to start the licensure system from the current year and allocate registered numbers to the candidates passing from the colleges of education.

The implications drawn from the study for professional development programs are discussed under:

1. The study emphasizes on the need for School district boards (District Education Offices) to organise research based teacher professional development programs for school teachers.
2. The focus of the professional development programs must be to update the content knowledge and pedagogy of the teachers in the subjects they teach, the evaluation patterns for assessing students and also to help teachers to teach diverse group of students.
3. The programs for beginning teachers must focus on classroom management and the present evaluation system. Mentor teachers to be assigned and given training along with the beginning teachers.
4. The programs must be based on specific pedagogical strategies related to curriculum which will be more beneficial for teachers in changing instructional practices.
5. The study revealed that programs that were based on specific pedagogical strategies related to curriculum were more beneficial for teachers in changing instructional practices.
6. The planning committee for managing and monitoring professional development must be comprised of teachers, school administrators, local educators, university educators as well as parents.

7. The school based programs must focus on the action research conducted by the teachers, student's achievement record and individual teacher needs. The schools' plans must provide adequate time for professional development on school sites, year round
8. The planning of the professional development programs for the coming year must be based on the data from the needs assessment surveys administered to the teachers by the district education office; the research conducted by the universities to find the effectiveness of the programs; the findings from the evaluation of the implementation of the programs; the feedback by the school principals and the mentor teachers and the data from the school test scores.
9. Time for staff meeting: According to the working hours of the school and the different roles the teachers are expected to play, time is a precious resource that is in high demand, but short in supply. The study revealed that in USA full time teachers have 5 periods a day and 2 preparation period. The schools can plan for block free periods during which time meeting of the teachers teaching the same subjects; the departmental meetings; the staff meeting, subject and curriculum meetings can take place. If parents were involved the meetings can be held in the evenings.
10. The colleges of teacher education in the respective states can also design and conduct short term courses for teachers in content, pedagogic and managerial competencies.
11. The district education offices can conduct the programs either in the beginning or the end of the academic year on specified professional days.
12. State and the Universities can organise programs during the vacation time.
13. The school programs must be on-going the year round.
14. Pupil free days: The study revealed that five to eight student-free days were given each year for professional development activities in USA. . The "pupil-free day" is a major devise for organising blocks of time for school-wide professional development activities.
15. In the Indian context the last working day of the month (half day for students) can be utilised for professional development activities.

16. Release time for (and substitute teacher coverage) for small teams of two can be given for attending seminar and conferences.

The present study underlined the scope for improving the evaluation and feedback of the professional development programs for the teachers:

1. The evaluation need to be the domain of the schools and the school district boards. Together they must give feedback to teachers.
2. Teachers to be observed in the classroom for the implementation of the professional development program by the principal, supervisors, and the authorities from the school district boards regularly and proper feedback to be given to them. The parameters on the observation can be given to the teachers.
3. The districts and boards should develop an evaluation model to determine the impact of professional development programs on student achievement.
4. A data based system must be maintained for the effects of the implementation and the evaluation of the programs.
5. The policies should focus on both formative and summative methods for evaluation. The feedback should be given to all the stake holders
6. Some Design Principles for Effective Teacher Evaluation Systems
 - All teachers should be evaluated annually.
 - Evaluations should be based on clear standards of instructional excellence that prioritize student learning.
 - Evaluations should consider multiple measures, with emphasis on a teacher's impact on student academic growth.
 - Evaluations should employ four to five rating levels.
 - Evaluations should encourage frequent observations and constructive critical feedback.
 - Evaluation outcomes must matter; evaluation data should be a major factor in key employment decisions.
7. Performance based pay for teachers which need to reward participation and implementation of the program and also student learning from that.

8. Credits for participation in professional development programs, college courses, attending workshops/conferences, exchange programs and sabbatical must be thought of.

Guiding principles for effective professional development programs which are drawn from the study are presented below:

1. If professional developments are closely linked to school initiatives it will have greater effect on practice. Site-based initiatives have to be stimulated and supported. These initiatives may be cost-effective ways to engage more teachers in serious PD activities and could promote the professionalization of teaching.
2. Good professional development programs should include child-development theory, curriculum content and design, instructional and assessment strategies for instilling higher-order competencies to meet the expectations educators hold for students.
3. Teachers need opportunities to explore, question and debate in order to integrate new ideas into their repertoires and their classroom practice. They must be intellectually engaged in their disciplines and work regularly with others in their field.
4. Teachers should be respected as professionals and as adult learners. Professional development should draw on the expertise of teachers varying degree of experience and cater to their needs.
5. Follow up support should be provided by resource persons and. PD should be viewed as an integral part of teachers work
6. Many models for the program planning and evaluation have been developed by educators. A professional development model can assists the program developers. Guskey and Sparks developed a model which illustrates the relationship between professional development and student achievement (Guskey, 2000). The model reflects the content, context and the process variables. The content in this model represents the knowledge and skills the teachers will gain. The process is the implementation of the program. Context talks about the trainees, and the time, place of training and why it is being done (Guskey, 2000).

7. NCLBA in USA allows states to create a High, Objective, Uniform State Standard of Evaluation (HOUSSE). The HOUSSE system is designed by each state. It can take into account teachers' experience, their participation in professional development, their leadership/service activities related to the academic subjects, or state evaluations of their performance. States can set up HOUSSE and one of the three approaches can be adopted for HOUSSE:
 - Professional development-teacher must complete a specific number of state-approved "continuing learning units" (CLUs).
 - Performance evaluation-States must use new system of evaluation which must observe the teacher in the classroom; and measure student achievement.
 - Point system/portfolio-Teacher can earn a specific number of points/credits for meeting the required criteria in several categories by submitting documentation that is reviewed by a trained evaluator or administrator. The categories can be years of successful classroom experience, participation in high-quality professional development, service on curriculum development teams, service as a mentor teacher, and other activities that are specifically related to knowledge in an academic area.
8. State Department of Education and the schools must have multiple accountability system for professional development to ensure changes in teacher practices and student achievement.
9. The school committees through surveys and teacher satisfaction levels must ensure the accountability of teachers.
10. A comprehensive mechanism must be developed for enforcing, monitoring and enabling links between teacher professional development and student achievement.
11. District education office must hold all the stake holders in the system accountable for student achievement.

12. Teacher education institutions need to be held accountable for the quality of their graduates; these institutions need to take steps to strengthen both their pre-service and in-service programs.
13. States to partner with private professional development providers to support for specific subject areas and innovative professional development.
14. Regional network of professional learning communities can be set up to support the schools and district offices,
15. The review of literature revealed that many researches have been conducted on evaluation of professional development program. A comprehensive evaluation of the long term impact of the programs on classroom instruction and student achievement exists in USA. This type of evaluation has provided professional development planners with information and guided them in development of future programs (Arter,2001; Fretchling,2001; Gordon,1991; Guskey,1994,1999,2000; Guskey& Sparks,1996; Killion,2002; Marks & Manniates,2003; Mollaer,1999; Murphy,2000; NCES,2001; NCREL, 1997; National Center on Secondary Education and Transition, NCSET,2005; Porter et al., 2000; Shaha et al.,2004).
16. A national study (Garet et al., 2001) revealed that teachers across the nation choose their own professional development activities. District staff primarily plans the professional development opportunities. The school district employ outside experts to conduct workshops and provide content-specific professional development for staff (Firestone, et al., 2005; Payne & Wolfson, 2000). A professional development committee or leadership team can be arranged in the school to plan activities and monitor the results of the professional development training. The committee may conduct a needs assessment to determine the needs of the individual teachers.
17. Workshops which were the most common type of professional development design which is defined as “a structural approach to professional development that occurs outside the teacher’s own

classroom” (Garet, et al., 2001, p920) and were opposed. Instead, more emphasis has to be placed for reform-oriented professional development programs such as mentoring and coaching.

5.4 Conclusion

A highly skilled and professional teaching force does, and will continue to make a difference. Quality education in schools in developed countries especially in United States of America is achieved by a comprehensive mechanism to update the knowledge and skills for teacher continuous professional development.

Teacher education and professional development in the USA has been influenced by the implementation of the No Child Left behind (NCLB) Act of 2001. NCLB contains a “teacher quality” component that mandates, that each teacher be “highly qualified” to teach the subjects they teach and recommended for continuous training and professional development of teachers.

The in-service education and continuous professional development of teachers has been given prime importance in the USA over the last two decades. The specific factors responsible for this development are: the certification laws, professional organizations, community needs, size of schools, nature of job opportunities and skills.

This chapter provided a summary of major findings of the study on the policies and programs for teacher professional development in USA. The perception of teachers, principals; and administrators on the policies, programs conducted by different agencies, impact of the programs and the issues and challenges are discussed in detail.

The study throws light on the teacher development, the policies for teacher professional development, the designing of the program and evaluation of the implementation of the professional development programs in United States of America. The present study contributed to the recommendations of NCF, 2005 which has recommended different strategies for the professional development of the teachers. Teachers, administrators, policy makers and researchers can take

some specific steps from this study to improve professional development in our schools.

The next Chapter provides the summary of the study and recommendations for further research.

CHAPTER VI
SUMMARY AND CONCLUSION

SUMMARY AND CONCLUSION

6.0 Introduction

Education reform efforts, teacher quality and the challenges of a constantly changing world require professional development practices that enable teachers to master new skills, assume new responsibilities, deepen and extend knowledge, and create lasting changes (Corcoran, 1995; Darling-Hammond, 1999; Fullan, 2001; Sparks 2002). For professional development to bring about these changes, it is important to know the characteristics of effective professional development (Cohen & Hill, 1998; Sparks, 2002), to understand how adults learn (Danielson, 2002) and to use that knowledge to design professional development activities (Speck, 1996). Professional development that has been “thoughtfully conceived, well-designed and well-supported” is believed to be the key to every successful school improvement effort (Guskey, 2000, p.4). In the past few years, there have been significant changes in the context, within which professional development is delivered as school reform efforts evolve based on the requirements of the No child Left Behind Act of 2001 (U.S. Department of Education, 2002). Policy makers and educators recognise that effective professional development is the vehicle for improving classroom teaching practices (Cohen & Hill, 1998; Danielson, 2002; Darling-Hammond & Ball, 1997; Guskey, 2003a; Sparks, 2002). Research confirms the common sense view that high quality teachers are the foundation of highly effective schools and the teacher effectiveness is the key to educational outcomes. Globalization, regional integration, and the ever-increasing mobility of students and scholars have made the need for internationally recognized standards among and between nations. There is a need for the developing nations to understand the importance of quality education that can prepare the human resources not only for their countries but also for global needs.

6.1 Purpose of the Study

India is a developing democratic republic. She is presently engaged in developing quality education for her citizens. There is, therefore a great need

for the well-prepared and trained teachers, principals, supervisors and inspecting officers. It also calls for adequate preparation for programs in the teacher training institutions. National Council for Teacher Education has been working in this direction to establish quality standards in school education in general and Teacher Education in specific. However, India, like other developing countries, needs a clear and transparent policy and regulatory framework for the professional development of teachers.

In the global era, USA is acknowledged as a high knowledge based society. Achievements in scientific, technological and medical sciences have made USA the model for many countries. USA has also developed a system of civic education that is among the very finest in the world. A review of the related literature of the researches conducted in the USA provided the researcher with the idea that these achievements were possible due to the continuous Professional Development programs for teachers, which are both Governmental and school based and are on content, pedagogy and psychology based.

A systematic examination of other systems of education will help to plan effective policies and professional development programs for one's own country. In a world where International relations and connections are getting more and more important and complex, it is of crucial importance to make it possible for researchers to broaden their outlook and learn more about other countries through research. Therefore, it would be helpful to compare and contrast different approaches to better understand the relative merits of professional development strategies in other countries. This information could help providers of professional development choose between different strategies and plan more effective professional development. Keeping these specific features of system for teacher development, in mind the researcher has chosen USA for a detailed study. The study is aimed at knowing the educational policies and the programs of professional development and their implementation in the schools of the USA, the specific factors responsible for this noteworthy development, the certification laws, professional organizations, community needs, size of schools, nature of job opportunities

and skills. The researcher has made an attempt, to understand the policies and the programs for the continuous professional development of teachers in the USA, in order to draw implications for the Indian context.

6.2 Professional Development of Teachers: Meaning and Importance

Professional Development refers to the continuous education a teacher receives after he/she has had the teacher education and entered the teaching profession. It includes all the programs, educational, social, or others, in which the teacher takes a vital part; all the extra education which the teacher receives at different institutions by way of refresher and other professional courses, and all the travel and visits which he/she undertakes. All these expand a professional teacher's experience and vision.

Professional development has traditionally been provided to teachers through schools in-service workshops. The term in-service is self-explanatory. In the classic conception of that model, the district or school brings in an outside consultant or curriculum expert on a staff-development day to give teachers a one-time training, seminar on a variety of pedagogic or subject-area topics. Such an approach has been routinely lamented in professional literature.

The Commission on Teacher Education in the United States America (1996) explained Professional Development clearly as: "The continued education of teachers' means much more than making up defects in preparation. It means continuous growth in the capacity to teach. It means broadened understanding of human development and human living. And now, more than any period at school history, it means growth in one's capacity to work with others".

It is critical to pay close attention to how training and support for both new and experienced teachers are being given. It is critical for veteran teachers to have on-going and regular opportunities to learn from each other. On-going Professional Development keeps teachers up-to-date on new researches on how children learn, emerging technology tools for the classroom, new curriculum resources, which would develop them holistically to meet world-class standards in the given context. The best professional development is on-going, experiential, collaborative, and connected to and derived from working with students and understanding their culture.

Professional Development is taken by the teachers to keep oneself up to date with current thinking in their subject area and in pedagogy. The new media of learning, technology based teaching, knowledge system and raising one's own qualifications requires continuous learning. It also refreshes and revitalizes teachers and gives them a chance to share ideas with colleagues and experts in their field. Professional Development is crucial to the long term development of teachers as well as for the long term success of the programs. A different type of development is needed at different levels. Professional development would help to deepen and broaden content knowledge and enable teachers to anticipate and prepare for changes in the teaching-learning processes. It also empowers teachers to identify problems and make complex decisions to solve them. It improves the job performance skills of an individual teacher and to extend the experience of an individual teacher for career development or promotion purposes. What teachers know and help students to improve and achieve higher level of success is what matters in schools today. The knowledge and skills of teachers' are impacted by on-going professional and staff development.

6.3 Educational Policies and Programs

In the field of education, educational policies are important issues to be studied because of their contribution to the development of education. In India, the National Policy on Education 1986 (NPE) (revised 1990) and Program of Action 1992 are significant in addressing various challenges of Education. With respect to teachers' professional development, these policies have highlighted that the emphasis should be on developing a teacher rather than on training one. The NPE (1986) also lays emphasis on the continuing education of teachers and the need for teachers to meet the thrusts envisaged in this policy.

However, in developed countries training is an essential part of teacher professionalism and policies and programs focus on the training and development of teachers. In USA, the No Child Left Behind (NCLB) Act, initially authorized in 1965 as the Elementary and Secondary Education Act (ESEA), was signed into law on January 8, 2002 as a means of holding states,

school districts and schools more accountable for improving the academic performance of each student regardless of economic status, race, ethnicity, proficiency in English or physical disability. For this the NCLB has given guidelines and recommendations for teacher development programs. Under NCLB, high school teachers must major in the 2 subject areas they teach and pass a licensing exam in those subjects to be considered highly qualified. Practicing teachers, who do not meet this standard, must either complete additional coursework to earn the equivalent of a bachelor's degree, or pass state content area exams in each subject they teach. At the class level, a majority of 9th- through 12th-grade classes were taught by teachers with an in-field major, an in-field certification, or both.

According to the policies all 50 States and the 2 federal districts in USA require public school teachers to be licensed. Licensure is not required for teachers in most private schools. Usually a teaching license is granted by the State Board of Education or a licensure advisory committee. Requirements for regular licenses to teach kindergarten through grade 12 vary from state to state. Almost all the states require applicants for a teacher's license to be tested for competency in basic skills, such as reading and writing, and in teaching and also require teachers to exhibit proficiency in their subject areas. Most states require teachers to complete a minimum number of hours of continuing education to renew their license. Many states have reciprocity agreements that make it easier for teachers licensed in one state to become licensed in another state.

6.4 Review of the Related Literature

Educational reforms in the USA and around the world are setting ambitious goals for student learning and there is a great recognition and importance for professional development. Professional development has been identified as an integral part of educational reforms (Gusky, 2000; Hawley and Valli, 1999; Lewis, Parsad, Carey, Barfai, Farris and Smerdon, 1999) and has been included in documents like educational excellence for All Children Act of 1999 (U.S Department of Education 1999) and No child Left Behind (Bush 2001). Lewis et al., (1999) writes "The inclusions of a national goal for

teach Professional Development represents an increased focus on professional development as an important vehicle for school reforms and education excellence” (p-21). Various educational reforms papers and documents claim that professional development is the key to (1) raising student achievement, (2) implementing high academic standards, (3) transforming schools, (4) improving instructions and (5) creating authentic professional learning communities. (Guskey, 1995; Libermann 1995; Sparks and Hirsh, 2000).

The researcher has reviewed a total of 85 research studies. This comprises of 59 studies from USA, 11 studies from other countries and 15 studies from the Indian context. A summary of the reviewed literature on professional development of teachers is categorised and presented under the following sub headings: studies on policies (9), programs (22), perception of teachers and principals (16), effect of the programs (31) and evaluation (7) of the programs.

From the review of literature it was found that professional development programs are important for teachers to enhance their teaching competencies. Studies also revealed that the effectiveness of the programs is largely depending on the expertise of the resource persons and the relevant design based on the needs of the teachers (Desimone, Porter, Garet, Yoon, and Birman, 2002; Nonyelum, 2010;Srivatsava, 1966).The state policies focused exclusively on the time required and the types of opportunities that can be used for renewal of licensure but the quality and the relevance of the professional development was not regulated by states (Grossman, Tabitha, Hirsch and Eric , 2009). The study revealed how the policies are meeting the needs of beginning teachers and found that a gap between the policies for certification and the implementation exists (Allison Ashley, and Christa, 2007).

The novice teachers experienced the professional development to be high quality than the experienced teachers(Spicer, 2008; Sefrit, 2008). From the review it was found that the professional development programs need to be effectively planned, implemented, and evaluated. Teachers found the programs to be ineffective (Yiasemina and Loizos, 2008; Meera, 2009).

From the review of literature it was found that the right efforts to improve teacher effectiveness can lead to higher and more equitable student

achievement (Hammond and Rothman, 2011; Wenglinksy, 2000; Pradere, 2007; Rosemary, 2010). Teacher developed professional development programs which included independent exploration, collaborative time with peers and on-site coaching enables teachers to utilize technology for lessons and classroom management were very successful and also facilitated the students in using technology tools (Miller, 2009; Cynthia, 2010; .Hoque, Alam and Abdullah, 2011). The studies also revealed that effective evaluation and feed-back systems are essential for professional development programs to be effective (Murphy, 2008; Furman, 2005).

Reviewing the methodologies, tools and techniques employed by various studies, the researcher could gather insight for the present study. Studies on policies were all qualitative studies which used, questionnaires for teachers, interviews with district authorities and document analysis (Sylvia, 2005; Kyle, 2006; Grossman, Tabitha, Hirsch and Eric, 2009). There were 2 case studies conducted on programs (Frank, 2003; Hall, 2007). A few quantitative studies were conducted (Duygu, 2006; Spicer, 2008; Robinson, 2009, Suski, 2009). Surveys were conducted and the data was analysed by mixed methodology (Sefrit, 2008; Teague, 2010). There were 32 studies conducted on the impact of the professional development programs. There were five studies which used mixed methodology (Steinback, 2008; Rosemary, 2010; Meade, 2006; Pradere, 2007; Kelly, 2006). Quantitative studies were seven in number (Murphy, 2008; Miller, 2009), the rest of the studies were qualitative which were descriptive studies and case studies (Ralph, 2010; Kelley, 2009; Susan, 2010). Most of the studies triangulated the data received from the interviews, questionnaires and the observations to find the impact of the program.

After reviewing the studies, the researcher have not come across any study pertaining to the specific policies related to professional development of teachers in India. Further, most of the studies conducted in this area are data based and interpreted quantitatively rather than qualitatively. The studies that were reviewed, especially studies in USA, it was found that most of the studies were conducted on the evaluation of the programs in terms of content,

logistics, methodology and impact of specific programs and were qualitative in nature. Very few international comparative educational studies are conducted in India and therefore, the researcher strongly feels that the present study is extremely relevant in this context to study the policies and programs of professional development of USA and draw some implications to India.

6.5 Rationale of the Study

Quality in education is the key concept of nations across the globe. Teachers occupy an important place in the educational scenario. The success of the institutions and the quality of education ultimately depends upon the teachers in those institutions. They are the ‘critical link’ between the nation and the nation builders of tomorrow – students. Teachers need to be seen as creators of knowledge and thinking professionals. They need to be empowered to recognize that there is a need for shift, from the behaviourist to a constructive domain. One important way to provide teacher support is through Professional Development.

The primary way in which teachers are supported in their personal and professional growth is through professional development programs. The policies and programs of the government must provide education and high quality professional development to the teachers.

The in-service education and continuous professional development of teachers has been given prime importance in the USA over the last two decades. The specific factors responsible for this development are: certification laws, professional organizations, community needs, size of schools, nature of job opportunities and skills.

Review of the related literature of the researches conducted in the USA provided an idea that this achievement is possible due continuous PD programs for teachers, which are conducted by both the Governmental and schools and are based on content, pedagogy and psychology. Keeping the specific features of the system for teacher development, the researcher has taken the USA for the study. The study is aimed at knowing the educational policies and the programs of professional development and their implementation in the schools

of the USA. Therefore the present study is planned with the following questions in mind and to explore the answers.

6.6 Research Questions

During the development of this present research study, several research questions have emerged and they are:

1. What are the different policies formulated by the Federal and the State Government for the professional development of teachers in the USA?
2. What are the on-going professional developments Programs being conducted for teachers in the USA?
3. Do the teachers have the freedom to choose the type of professional development programs to participate in the USA?
4. To what extent do teachers believe that such professional development programs improve their teaching and classroom practice in the USA?
5. What is the impact of the professional development programs on teacher development in the USA?
6. How is the study of the professional development policies and programs of USA relevant to the Indian context?

By keeping the above research questions in mind, the researcher has formulated the research problems as follows:

6.7 Statement of the Problem

A Study of the Policies and Programmes for the Professional Development of School Teachers in the United States of America

6.8 Objectives of the Study

1. To study the Federal and State Policies related to Professional Development Programs for the School teachers in the USA, in terms of:
 - Guidelines for Teachers
 - Professional standards and requirements
 - Monitoring and appraisal system
 - Career advancement if any

2. To study the on-going Professional Development Programs in USA, in terms of content, methodology and feedback system.
3. To study the opinions of Teachers and the Principals regarding the Professional Development programs.
4. To study the issues and challenges in managing the Professional Development Programs.
5. To study the relevance and to draw implications to the Indian context.

6.9 Explanation of the Terms Used

1. Policies: Refers the broad guidelines that direct the plan of actions. Policies describe the federal and State Government guidelines for the PD of teachers in the USA.
2. Programs: Refers to the activities evolved from the relevant policies at the Federal and State level.
3. Professional Development Programs: Refers to in-service teacher development programs conducted by federal, state governments and school based for enhancing the teacher competencies.

6.10 Delimitation of the Study

This study is delimited to a few states of the USA and selected school districts.

6.11 Methodology

The present study is of a descriptive kind of study. A descriptive study includes survey method of all kinds and fact-finding enquiries carried out through interviews and focused group discussions. Descriptive survey studies are conducted to collect detailed descriptions of existing phenomena, current conditions and practices or to make more intelligent plans for improving them. Survey studies take different forms depending upon the scope, nature and purpose of the problems under investigation. This particular study sought to reveal the nature of Professional Development policies, programs and the perceptions of the District Educational officers, principals and teachers of a sample of secondary schools in USA. For this qualitative and quantitative method were used. For the quantitative method, survey questions were developed for the teachers to answer the research based questions. For the

qualitative method, four qualitative components of data collection were incorporated into the study. One-to-one interviews, focus group discussions, document analysis and participant observation; afforded the opportunity to develop a more comprehensive understanding of the policies and programs for the professional development of school teachers in USA.

6.11.1 Population of the Study

USA is a federal republic with fifty States and two Federal Districts. Each State has many school districts which comprises of Private Schools, Public Schools and the Charter Schools. The present study is in the context of all the schools at the secondary school level.

6.11.2 Sample of the Study

A purposive sampling technique was used for selecting the states for the study. The states were selected purposively on the basis of the following criteria:

1. States where the academic excellence is comparatively higher in the last three years as per the American Legislative Exchange Council Report (ALEC) were selected. This ALEC report is published every year by the Federal Government in USA and places the states according to their educational attainment.
2. Under each selected state one school district was selected where the research study was accepted.
3. Under each school district, schools, where permission was granted for research were chosen.
4. The principals and the secondary school teachers of the selected schools constituted the sample for the present study.

6.11.3 Research Tools and Techniques

In order to collect relevant and authentic data, researcher used the following research tools.

6.11.3.1 Document Analysis

The researcher personally collected the reports of the policies of the federal and state governments from the District School Education Boards of the selected school districts for the present study. The relevant documents were analysed to study and understand the nature of policies pertaining to the Professional development of teachers, guidelines for implementation and specific rules and regulations for the teacher development in school education.

6.11.3.2 Participant Observation

The researcher personally visited the centres where professional development programs were taking place and observed the on-going Professional development programs to understand the actual transaction of the programs in terms of content, methodology and feedback system. This gave the researcher the first hand information about the actual implementation of the program, perception of the teachers regarding the nature of the program, the need for the program, the logistics of the programs, the impact of the programs on the teachers, adaptability of the programs in the classroom practice and in their teaching learning process. This also gave information about the resource persons. The researcher attended the Math teachers' content knowledge workshop conducted by the St.Louis Public School District. The school district's goal was that all students improve in math curriculum. There were 10 beginning teachers, 8 teachers in their 4th and 5th year of teaching and 8 tenured teachers, teaching grade 8 to 10, the researcher and the program's instructor in attendance.

6.11.3.3.1 Interview of the Professional Development Directors of the School Districts

The researcher interviewed the Director of professional development of the school districts to understand the policies for the professional development of teachers and to understand how the programs were conducted, implemented and evaluated.

6.11.3.3.2 Interview of the Principals of the Schools under Study

The researcher interviewed the Principals to understand the policies of the federal and state governments for the professional development of teachers, the on-going Professional development programs and the issues and challenges associated with the planning and implementation of the professional development programs.

6.11.3.3.3 Focus Group Discussion with Teachers

One goal of the focus group was to highlight the understandings and meanings that may be revealed by participants and the several explanations articulated by the participants. In order to encourage active involvement by all members, participants were given a copy of the topics of discussion in advance. This would offer more opportunities for participants to be actively involved since they had time to reflect prior to the focus group session. It was recognized by the researcher that there will be less control over the data as the participants may ask questions and express opinions, but the researcher kept participants focused on the open-ended pre-determined questions. For the focus group discussion the teachers who had responded to the questionnaires were chosen based on their interest and availability.

6.11.3.4 Questionnaires

A questionnaire as a tool for a particular study depends upon the objectives of the study, the amount of time at the disposal of the investigator, the availability of time of the participants and the competency of the researcher. Based on these criteria, the researcher developed questionnaires for teachers and principals to meet the demands of the objectives. Questionnaire consisting of both open and closed ended questions were developed by the researcher, based on a thorough review of the literature. The questionnaires were validated. These questionnaires helped to understand the teachers' perception of the professional development programs, need of the programs, their freedom to choose the programs, impact of the programs, issues and challenges thereof.

6.11.3.4.1 Questionnaires for Teachers

Going by the objective of this study the final questionnaire were designed consisting of ten (X) sections of questions in a closed-ended or open-ended format. For the closed-ended questions a Five point Scale was used. The respondents indicated how closely their feelings matched the question or statement on a rating scale. The number at one end of the scale represented least agreement or *strongly disagree*, and the number at the other end of the scale represented most agreement or *strongly agree*. The open-ended forms of the questions were constructed to provide greater depth of the response and freedom to the respondents so that they could reveal their opinions and clarify their responses. From the responses, the researcher could make a generalization of the opinions. These questionnaires helped to understand the teachers' perception of the professional development programs, need of the programs, their freedom to choose the programs, the impact of the programs, issues and challenges.

6.11.3.4.2 Questionnaires for Principals

The questionnaires for the principals were directed towards the principals' perception on the teachers' professional development. The questionnaires were designed to study the Principal's perception on the on-going programs, the need for the programs, the impact of these programs on the school's development, teachers' professional growth and the issues and challenges faced in the implementation of the programs. Going by the objective of this study, the final questionnaire was designed consisting of ten (X) sections of questions in closed ended or open ended format to study the principal's perceptions on the various aspects of the current programs and on the issues and challenges faced when implementing them.

6.11.3.5 Procedure for Data Collection

From The American Legislative Exchange Council Report (ALEC) which is published every year by the Federal Government in USA and places the states according to their educational attainment, four states were selected by the researcher and in each state one city were selected randomly. The researcher

applied to the Research Review committee of the school districts for permission to conduct research in their school districts. After receiving permission from the Research Review Committee, the researcher contacted the school principals for permission to conduct research in their schools. After receiving the permission, the researcher personally went to the schools, and collected the requisite data through interviews and questionnaires to the principals and teachers. The researcher made extensive field notes. The Directors of professional development programs of the School Districts were interviewed and documents on professional development were collected by the researcher personally.

6.11.3.6 Procedure for Data Analysis

The data collected from the multiple sources was put to content analysis. This process enabled the researcher to check the facts and evidences collected and thereby validity was built in. A detailed analysis was done state wise by analysing the information gathered from different sources which is presented in Chapter IV of the thesis. At the end, an attempt was made to derive conclusions in the form of major findings of the study logically in the following areas; the policies and programs pertaining to professional development of teachers, the process of implementation, evaluation and feedback. The perception of the teachers and the principals was also considered.

6.12 Major Findings of the Study

The findings of the study are discussed in terms of the policy framework for professional development and programs for the professional development of teachers.

6.12.1 Policy Framework for the Professional Development of Teachers

From the national reports and documents procured from the respective school authorities pertaining to the teacher professional development in United States of America by the researcher, a detailed analysis was conducted by keeping the objectives in mind.

1. It was found that in all the States and the federal district of USA, teaching licensure is required for teachers to teach in public schools however the licensure is not compulsory requirement for the teachers in most private schools.
2. It was revealed from the study that with respect to NCLBA (2001), a teacher is expected to be qualified in the examination conducted by the state to obtain the teaching licence. The licence need to be renewed, once in three to five years depending on the states. Teachers need certain number of credits to renew their license from the professional development programs or college courses as well.
3. It was found from the discussions that a performance-based system for licensure is being followed in some school districts. This performance-based system for licensure usually require teachers to demonstrate satisfactory teaching performance over an extended period in order to obtain a provisional license, in addition to passing an examination in their subject.
4. The study revealed that states offer alternative licensure programs for teachers who change their carrier to teaching from other carriers. It was found that States have reciprocity agreements that make it easier for teachers licensed in one State to become licensed in another state
5. From the discussions with the directors of professional development, it was found the many teachers join the teaching profession coming from other countries, especially India. Their number of years of service in their respective country is taken into consideration. But these teachers have to complete the licensure programs within a specified time or their contracts are cancelled.
6. It was found that the federal government through NCLBA has set standards and requirements for teacher qualification and professional development.
7. It was observed that organisations such as the NSDC have been associated with the federal government for teachers' professional

development. It has also specified standards for teacher professional development on context, process and content.

8. It was found that the NCLBA mandates teachers to be proficient in their subject knowledge and they also understand how much of that to be taught to their students.

6.12.2 Professional Development programs for Teachers

The programs for professional development are presented in six categories such as the nature of the program, the program implementation, the evaluation of the program, impact of the program, incentives for participation in the programs and the issues and challenges in implementing the professional development programs.

6.12.3 Nature of Professional development Programs

The study revealed that professional development programs conducted for the teachers by different agencies are with relevance to content knowledge, pedagogy, evaluation, and use of technology and for personal growth.

1. Through the questionnaires and discussions with the teachers the researcher found that, the professional development programs conducted by the state are mainly for content knowledge in different subjects and personal growth.
2. The school district professional development directors revealed that the school districts conducted programs for Technology based pedagogy, and evaluation patterns. It was also found that workshops were conducted for content knowledge and classroom management.
3. It was found from the discussions with the principals that the school based programs were varied. Beginning teachers had classroom management and evaluation programs. Experienced teachers had techno-pedagogy programs.
4. The professional development programs are basically needs based and are planned on the basis of the continuous reviews and researches conducted by the school districts and the colleges of teacher education affiliated to the school districts.

5. It was found from the questionnaires and the discussions with the teachers that, the teachers attend professional development programs conducted by the State Government such as National seminars and workshops for different subjects. The teachers also undergo training programs conducted by the state government through the National Association of School Teachers during the school vacations.
6. The study revealed that the focus of the professional development programs were to update the content knowledge and pedagogy of the teachers in the subjects of mathematics and science, the evaluation patterns for assessing students and also to help teachers to teach diverse and ethnic group of students.
7. It was found that the professional development programs organised by the school districts focused on the use of digital technology and use of webinars.
8. It was observed that the focus of professional development programs for the beginning teachers were for classroom management and evaluation practices.

6.12.4. Implementation and Evaluation of the Professional Development Programs

- **Planning and Implementation**

1. The professional development programs are basically needs based and are planned on the basis of the continuous reviews and researches conducted by the school districts and the colleges of teacher education affiliated to the school districts.
2. Professional development programs for teachers have been offered by the government as well as by individual schools.
3. It was found from the questionnaires and the discussions with the teachers that, the teachers attend professional development programs conducted by the State Government such as National seminars and workshops for different subjects. The teachers also undergo training

programs conducted by the state government through the National Association of School Teachers during the school vacations.

4. The study also revealed that the School Districts administer needs assessment surveys to the teachers near the end of the school year for the following year to determine the professional needs. And the programs are conducted in the beginning of the year and on the specified professional development days.
5. From the study it was found that the school Principals plan professional development activities based primarily on teacher needs and student test scores; the schools' plans provide adequate time for professional development on school sites and year round. It was also found from the discussions with the principals that the subject teachers meet once in a week to discuss the student achievement and also discuss the areas in which the teachers need improvement to increase student achievement
6. It was found that the teachers' self-directed plan for the type of professional development programs needed for them helped them in their personal growth.
7. The study also revealed that the subject teachers met once in a week to discuss student achievement and also discuss the areas in which the teachers need improvement to increase student achievement. The training for which is given in the school by the principal, supervisor or the head of the department.
8. It was found from the study that the colleges of teacher education in the respective states also design and conduct short term courses for teachers in content, pedagogic and managerial competencies.

- **Evaluation**

1. It was found from the discussions with the directors of professional development of the school districts and the school principals that, once the teachers undergo training, it is implemented in the class rooms. The implementation and the impact of the programs for teaching-learning are evaluated through a comprehensive system of evaluation. The school

districts evaluate the effectiveness of the program by visiting and observing the teachers classroom practices. The mentors of the beginning teachers send their observation of the teachers in the classroom directly to the school district officials.

2. It was found that the officials of the school districts in collaboration *with* the principal gives feedback and helps the teachers to improve on their performance.
3. The teachers revealed that, the principal, the coordinators and the mentor teachers observe the teachers in their classroom for the implementation and impact to learners and feedback given to teachers personally. They are again evaluated after a gap.
4. It was found that the school principals and the mentor teachers were given training, separately for the evaluation and implementation of the professional development programs

6.12.5 Impact of the Professional Development Programs

1. The study revealed that the teachers have the liberty to choose the programs conducted by the state, school and other agencies.
2. It was found that the programs conducted by the school districts for the evaluation and technology based pedagogy are compulsory.
3. The teachers' opined that the programs conducted by both the districts and the schools are effective as it was need based.
4. The principals opined that they have a performance appraisal system in the schools and a good feedback system.
5. It was found from the study that the professional development activities were regularly evaluated for their impact on increased teacher effectiveness as measured from the improved student academic achievement.
6. Teachers opined that participation in the programs helped them in the career advancement as supervisors and in administrative positions

6.12.6. Issues and challenges

1. The study revealed that the teachers' need more programs to update the latest technology.

2. It was found that the major challenge for the teachers is time, to attend more programs.
3. Teachers opined that plentiful opportunities were given to participate in professional development programs however prior family commitments pose problems to attend the programs.
4. The principals opined that time and teacher mobility was the biggest challenge.
5. The principals opined that finding professional development programs relevant to all teachers was a challenge but the schools were able to achieve the task of differentiated programs for individual teachers through mentors, supervisors and departmental heads.
6. The principals expressed that time and teacher mobility are the biggest challenges for the principals though student free days are allocated for Professional development activities.

6.13 Implications of the Study

The findings of the study are relevant to draw implications to the professional development of school teachers in India. The study also throws light on the teacher development, the policies for teacher professional development, the designing of the program and evaluation of the implementation of the Professional Development Programs in United States of America. Teachers, administrators, policy makers and researchers can take some specific steps from this study to improve professional development in our schools.

1. The present study underlined the scope for improving the Teacher Eligibility test conducted by the The Central Board of Secondary Education of India and some of the State Boards of Education. Now the school boards require teachers to have a bachelor's degree and to have completed an approved teacher training program as well as supervised practice teaching. The policy makers need to emphasize this by providing a registered license number to the eligible teachers. The License also needs to be renewed after 3 years or a certain number of years. For renewing the license, the teacher needs to obtain certain credits through professional development programs. Teacher

certification, tenure and renewal of license need to be the province of states and teacher professional development and evaluation of classroom teaching must be the domain of schools and school districts, in an effort to increase the likelihood that the teachers will be effective with their students. Government funding for education in India need to target on the training and development of teachers.

- The study emphasizes on the need for School district boards (District Education Offices) to organise research based teacher professional development programs for school teachers.
 - Teacher education institutions need to be held accountable for the quality of their graduates; these institutions need to take steps to strengthen both their pre-service and in-service programs.
2. The study emphasizes on the need for the nature of content and methodology to be used in professional development programs.
- Efforts to improve professional development need be undertaken with the goal of remedying the academic and pedagogic deficiencies of current teachers, a daunting task given the magnitude of the teaching force.
 - The institutions need to focus on the relevancy of the programs for teacher development. Teacher Professional development programs need to focus particularly on subject matter knowledge, evaluation pattern and classroom management. Techno-pedagogical skills of teachers must be developed.
3. The present study the researcher could draw implications for improving the implementation and evaluation of the professional development programs for the teachers:
- Implementation of teacher professional development programs and evaluation need to be the domain of the schools and the school district boards.
 - Teachers to be observed in the classroom for the implementation of the professional development program by the principal, supervisors,

and the authorities from the school district boards regularly and proper feedback to be given to them.

4. The study emphasizes on the following need to have effective professional development for school teachers:
 - Performance based pay for teachers which need to reward quality should be thought of.
 - “High Objective Uniform State Standard of Evaluation” (HOUSSE) should be set up. HOUSSE needs to provide objective information about teachers’ content knowledge in all subjects taught, be aligned with challenging state academic and student achievement standards; be applied uniformly state-wide to all teachers in the same subjects and grade levels.
 - National Council for Teacher Education needs to think of setting National Board for Professional Teaching Standards or National Council on Teacher Quality, to ensure that all teachers are highly qualified and continuously developed throughout their teaching carrier.

6.14 Recommendations for Further Research

From the present study entitled “A study of the policies and programs for the professional development of school teachers in the United States of America” the researcher had some limitations and therefore the study has been confined to the seven selected schools in the four states in USA. Based on the findings from the study and the other similar studies and from the review of literature the following recommendations are made for further research.

1. A major study could be undertaken to study the training needs of teachers.
2. The training needs of teachers in higher secondary school under Central Board of Secondary Education could be studied.
3. The training needs of teachers in different subject areas could be identified.

4. Development of professional enrichment Programs for teachers at various levels can be an important area for further research
5. The colleges of teacher training can prepare modules for in service training on regular basis.
6. Development of professional enrichment programs for teachers by the University can be a very important area for further research.
7. The in service programs by the DEO can be an area of research and new modules can be prepared.
8. Research studies examining the link between professional development and student achievement are rare, research in this area can be conducted.
9. Further research can be conducted to study if the school level programs are in alignment with the policies provided in NCF 2005 and NCTE 2009 for teacher professional development programs.
10. Comparative research on policies and programs of professional development of teachers with other countries.

6.15 Conclusion

Professional development is the bridge that allows teachers to enhance their knowledge and practice. The influence of professional development should be understood if one believes that it makes a difference in the lives of teachers and students (Guskey,1997). The purpose of this descriptive study was to study the policies and programs for the professional development of teachers in USA and to present the findings of the study that are relevant to draw implications to the professional development of school teachers in India.

The results of the study may be used to better understand the policies and programs which have made professional development of teachers to be highly qualified in USA, and to improve the design and delivery of professional development programs in India. In addition the results of this study can be used to look into aspects like knowledge, skills, practices and attitude of teachers with the goal to improving student achievement. Evaluation and feedback are critical components in the implementation of professional development programs. As teachers are continually changing their practice to

meet the challenges of educating students in the 21st century, it is necessary for teachers to learn accountability and how to document everyday work.

This is a small step towards educating about professional development of teachers. By contextualizing information from this study, administrators and teachers will be required to critically question the present professional development programs and bring in betterment in the teaching learning process.

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APPENDICES

APPENDIX -A
DOCUMENTS SUBMITTED FOR RESEARCH
REVIEW COMMITTEE

**APPLICATION TO CONDUCT RESEARCH
SCHOOL DISTRICTS OF PHILADELPHIA**

Name: (Principal Investigator/Researcher):
Primary Telephone: _____ **Alternate Telephone** _____
Mailing Address : _____

Primary Email address: _____
Alternate Email address: _____
Title of Study _____

Duration of Study _____

Identify all District schools, divisions, and offices involved in this research project (Attach one extra sheet if necessary) : As per the guidelines of the Chief Superintendent

Structured Abstract (limit: 300 words) the term structured abstract should be a link (Attached)

Signature of Principal Investigator/Researcher: _____

Date Submitted: 07- 23-2011- _____

For SDP use only
Date received: _____ **RRC Proposal Number:** _____

Date Reviewed: _____

Type of Submission:

- New
- Amended
- Continuation
- Resubmitted
- Other _____

Action Taken:

- Approved as Submitted
- Conditional Approval
- Declined/Rejected

SCHOOL DISTRICT OF PHILADELPHIA
OFFICE OF RESEARCH AND EVALUATION
RESEARCH PROPOSAL DATA FORM

Name: Mrs. Meera Subramanian

Organisation: The Maharaja Sayajirao University of Baroda. Vadodara, Gujarat.India

Title: A Study of the Policies and Programs for the Professional Development of School Teachers' in the United States of America.

Email: subra.meera@gmail.com

Phone: +91-0265-2252564; +919974668570

Fax: Nil

Is there a School District sponsor for your research project? Yes No

Sponsor's Name: Nil

Describe your data request in detail

- a. The reports of the policies of the federal, state government and the school district from the Chief Education Superintendent of the selected school district.
- b. The researcher would like to visit the centers where PD programs are taking place and observe the ongoing PD programs
- c. The researcher would like to interview the Chief Education Superintendents of the school districts, Principals and teachers.
- d. Questionnaire for teachers:
- e. Questionnaire for Principals:

Explain why you require the information and how it relates to your proposal

1. The relevant documents will be analysed for the purpose of the nature of policies pertaining to the PD of teachers, guidelines for implementation and specific rules and regulations for the teacher development in school education. The relevance will help in drawing implications for the Indian context.

2. Observing the PD programs will help to understand the actual transaction of the programs in terms of content, methodology and feedback system. This will give the researcher the first hand information about the actual implementation of the program, perception of the teachers regarding the nature of the program, need of the program, the logistics of the programs, impact of the programs on the teachers, adoptability of the programs in the classroom practice and in their teaching learning process. This will also give the information of the resource persons.
3. To understand the policies of the federal and state government for the PD of teachers, the ongoing PD programs, the issues and challenges associated with the planning and implementation of the PD programs
4. This questionnaire will help to understand the teachers' perception of the PD programs, need of the programs, their freedom to choose the programs, impact of the programs, issues and challenges.
5. Questionnaire will help to understand Principal's perception on the ongoing programs, the need of the programs, does the program have an impact on the school development, teachers' professional growth and the issues and challenges faced in the implementation of the programs.

When is the data needed?

Data is needed by 15th September 2011.

Has this data been previously provided?

Yes No

Provider's Name; Nil



Requestor/researcher signature

III. Supporting Documents

B. Protocols and Instruments

Interview Protocol for the Chief Education Superintendent

Date and time of Interview:

Place:

Interviewer:

Interviewee: (Name, School, years of Teaching)

(Briefly the purpose of the study will be described, making sure that the interview will be treated confidentially)

To following questions seek responses as to how the policies of the federal, state government and the school districts for the PD of teachers in the high schools, the ongoing PD programs, the issues and challenges associated with the planning and implementation of the PD programs.

1. Tell me about the policies of the school districts of Philadelphia for Professional development of High school teachers.
2. Who are all consulted in the policy decisions?
3. How often the polices are reviewed?
4. What is the implementation process? (Time duration, how often?)
5. To what extent the policies reflect on the multiple criteria of high quality professional development?
6. Which of the areas of high quality professional development is the strongest or weakest aspect of Philadelphia's school districts' professional development policies and programs?(Program Planning, Program design, Program Resources, or Program evaluation)
7. What is your experience of professional development activities in the last two years?
8. In what ways, if any did the experience stimulate you to experiment with new ideas, methods or practices?
9. What are the challenges encountered by you in implementing these programs?

Interview Protocol for the School Principal

Date and time of Interview:

Place:

Interviewer:

Interviewee: (Name, School, years of Teaching)

(Briefly the purpose of the study will be described, making sure that the interview will be treated confidentially)

To following questions seek responses as to how the policies of the federal, state government and the school districts for the PD of teachers in the high schools, the ongoing PD programs, the issues and challenges associated with the planning and implementation of the PD programs.

1. In your opinion which of the policies of the Philadelphia School District is most effective for high quality teachers/
2. Is there any policy by your school for professional development of teachers?
3. How are the professional development programs implemented in your school?
4. How often you review the implementation of these programs?
5. What is your experience of professional development activities of the school districts in the last two years?
6. Tell me about the process of the feed-back system in your school?
7. What are the challenges faced by you in the implementation of professional development programs?

**APPLICATION TO PERFORM RESEARCH
ST. LOUIS PUBLIC SCHOOLS**

Chairman, Research Review Committee
Division of Evaluation and Research
801 North 11th Street
St. Louis, Missouri 63101
(314) 345-2428

The completed application should be returned with the following items:

- a short statement of the purpose of your research and how the study will be used,
- (b) a brief list of sources providing direction to your study, and
- (c) an explanation of the methodology, which should include copies of questions, surveys, or data collection instruments to be administered to St. Louis Public School students, parents, or staff, if you are using surveys or questionnaires.

St. Louis School Board Policy requires that research be well designed, adhere to child protection laws, not place unreasonable demands on students, staff, or parents nor interfere with regular system operations, and it must be in the interests of the school system to participate. If student contact or access to student records is requested, you will need to provide a letter of approval from the Human Subjects Board or its equivalent from your home institution before you can begin research.

Note that all approved research projects must update their application at the beginning of each school year.

I. Name of Investigator _____ **Position** _____

Affiliation(s) _____ Date _____

Office Address _____

Home Address _____

Office Phone (_____) _____ Home Phone (_____) _____

II. Project

Project Title _____

Project Description _____

Funding Source(s) for this Project

III. Participant Involvement:

Number of Subjects

Time Requirements

Pupils _____

_____ per _____

Teachers _____

_____ per _____

Administrators _____

_____ per _____

Parents _____

_____ per _____

Number of persons visiting sites in connection with project _____

What involvement is required of the subjects? _____

IV. Requirements:

Number and

Type of School: Elementary (K-5) _____ Middle (6-8) _____
Elementary (K-8) _____ Secondary _____

Total Number of Schools _____ Total Number of Classrooms _____

Grades Required _____ Other School Characteristics _____

Do you require any specific schools? Names _____

Starting Date of the Research _____

Ending Date of the Research (Note that applications must be updated annually)

Frequency of Contact _____

Names of persons entering the school(s) for research

V. Results:

What is the anticipated value of the research?

In general? _____

To the St. Louis Public Schools? _____

Do you plan to publish the results of this research? If so, list target journals?

VI. IF YOU HAVE EXTENDED CONFIDENTIALITY, NAMES MAY BE OMITTED FROM THIS ITEM.

Are other school systems involved in this research? _____

Please name _____

Have you conducted research in other school systems? _____

Please name _____

Guidelines Regarding Research in SLPS Schools

Allowing research in SLPS schools is a service to the larger education community. There are, nevertheless, legal requirements that must be met prior to allowing such projects and academic standards that must be met in order to make our involvement worthwhile to our students today as well as to our students generations into the future. Our guidelines seek to balance the need for advancement through research with our overriding priority of uninterrupted instructional activities that maximize student learning. There are both legal and ethical reasons behind the District's efforts to control and monitor research in the schools. Failure to adhere to the laws and regulations regarding research exposes the District to legal sanctions. The legal background stems from provisions of The Family Educational Rights and Privacy Act (FEPA) that affords parents and students certain rights regarding student records, the administration of surveys, and the collection and use of personal information. (Statute: 20 U.S.C. 1232g. Regulations: 34 CFR, Part 99) District mirrors this Federal law in Board of Education Regulation (R1340) which states: "The principal shall not permit any person not employed by the Board of Education to gather statistics or research information in the schools without authority from the superintendent of schools or designee." (R1340 Community Relations / Public Activities Involving Staff, Students or School Facilities, approved 1990/revised 1999.)

Summary of Key Components of SLPS Guidelines Research Research is access to any records containing privileged or confidential information about staff or pupils or the act of gathering statistics, interviewing, observing or administering survey or other data-collection instruments in the schools. Who needs to apply to do research? Any person not employed by the Board of Education must apply before doing any research in the schools (this includes university researchers and program evaluators). In addition, Board of Education employees collecting student or staff data for projects that are submitted for University credit or advanced degrees must also apply for permission to do research. (The collection of such data for in-district/school dissemination only to further instructional or school improvement purposes is exempt.)

The application process is available on-line on this page. Not all research will necessarily be approved. Our responsibility is to balance the need for research with the need for uninterrupted instructional activities that maximize student learning. Potential researchers should be aware that permission to do research is a multistep process, and permission to conduct research in the district does not guarantee any individual school's willingness to participate. Although initial permission may only be granted through Research, Assessment and Evaluation, the principal of a school will have the final decision in regards to her or his school's participation. Research Applications should be sent to Dr. C. L. Shannon, Senior Evaluator / Chairman, Research Request Review Committee. Email: c.shannon@slps.org Phone: (314) 345-2428

Application

Link <http://www.slps.org/19621084161617990/lib/19621084161617990/ Files/ApplicationtoPerformResearch.docx>

A Consent and Assent Forms

Meera Subramanian
Research Scholar,

Department of Educational Administration
Faculty of Education and Psychology
The Maharaja Sayajirao University of Baroda
Vadodara - 390002. Gujarat, India.
Website: www.msubaroda.ac.in

Dear Sir/Madam,

I am a Ph.D student in the Faculty of Education and Psychology, The Maharaja Sayajirao University of Baroda, Vadodara, India, conducting a study entitled, “**A Study of the Policies and Programs for the Professional Development of School Teachers in the United States of America**”, under the supervision of Assoc. Prof. Dr.PushpanadhamKaranam.

The objectives of my study are as follows:

1. To study the Federal and State Policies related to Professional Development (PD) Programs for the School teachers in the USA, in terms of;
 - Guidelines for Teachers
 - Professional standards and requirements
 - Monitoring and appraisal system
 - Career advancement if any
2. To study the on-going PD Programs in USA, in terms of content, methodology and feedback system.
3. To study the opinions of Teachers and the Principals regarding the PD programs.
4. To study the issues and challenges in managing the PD Programs.
5. To study the relevance and to draw implications to the Indian context.

Data collected in this project will be used for published reports of the research in professional journals.

The risks and discomforts are minimal. Strictly the use of your time in responding to the questionnaires is required. No physical risk is involved, and your responses will not be manipulated in any way.

The information you provide may be helpful to draw implications for the on-going PD programs in India.

Your participation is completely voluntary. All the data generated during this study will remain confidential. Neither your name nor the name of your workplace will be used in the published study, and only Dr. K. Pushpanadham and I will have access to the primary data

I am inviting you to assist me by agreeing to participate and respond to the questionnaire prepared for this study. I earnestly request to provide necessary support for successfully conducting my research study. An early response in this regard is highly appreciated. Thank you in advance for assistance and cooperation

Signed Consent Portion – to be retained by respondent

I understand the study entitled: “A Study of the Policies and Programs for the Professional Development of School Teachers in the United States of America” as explained to me and I consent to participate in the study. My participation is completely voluntary, I understand that all research information will be handled in the strictest confidence and my participation will not be individually identifiable in any reports. I understand that there is no penalty or prejudice of any kind for withdrawing or not participating in the study.

(Respondent Signature)

(Date)

(Researcher Signature)

(Date)

Signed Consent Portion – to be retained by researcher

I understand the study entitled: “A Study of the Policies and Programs for the Professional Development of School Teachers in the United States of America” as explained to me and I consent to participate in the study. My participation is completely voluntary, I understand that all research information will be handled in the strictest confidence and my participation will not be individually identifiable in any reports. I understand that there is no penalty or prejudice of any kind for withdrawing or not participating in the study.

(Respondent Signature)

(Date)

PARTICIPANT INFORMATION LETTER
DEPARTMENT OF EDUCATIONAL ADMINISTRATION
FACULTY OF EDUCATION AND PSYCHOLOGY
THE MAHARAJA SAYAJIRAO UNIVERSITY OF BARODA
VADODARA - 390002. GUJARAT, INDIA.

Website: www.msubaroda.ac.in

September 21, 2011

Dear Sir/Madam,

I am a Ph.D student in the Faculty of Education and Psychology, The Maharaja Sayajirao University of Baroda, Vadodara, India, conducting a study entitled, “**A Study of the Policies and Programmes for the Professional Development of School Teachers in the United States of America**”, under the supervision of Assoc. Prof. Dr.PushpanadhamKaranam.

The objectives of my study are as follows:

1. To study the Federal and State Policies related to Professional Development(PD) Programs for the School teachers in the USA, in terms of;
 - Guidelines for Teachers
 - Professional standards and requirements
 - Monitoring and appraisal system
 - Career advancement if any
2. To study the ongoing PD Programs in USA, in terms of content, methodology and feed back system.
3. To study the opinions of Teachers and the Principals regarding the PD programs.
4. To study the issues and challenges in managing the PD Programs.
5. To study the relevance and to draw implications to the Indian context.

I am inviting you to assist me by agreeing to participate and respond to the questionnaire prepared for this study. All the data generated during this study will remain confidential. Neither your name nor the name of your workplace will be used in the published study, and only Dr. K. Pushpanadham and I will have access to the primary data.

I earnestly request to provide necessary support for successfully conducting my research study. An early response in this regard is highly appreciated. Thank you in advance for assistance and cooperation.

Sincerely,

Meera Subramanian,
Research Scholar,
Faculty of Education and Psychology,
The M.S. University of Baroda.
Vadodara.India.

Email: subra.meera@gmail.com

Phone: 215-563-2578

PARTICIPANT INFORMATION LETTER -MEERA SUBRAMANIAN
DEPARTMENT OF EDUCATIONAL ADMINISTRATION

July 1, 2011

The Principal,

Dear Sir/Madam,

I am registered as a PhD student in the Faculty of Education and Psychology, The Maharaja Sayajirao University of Baroda, Vadodara, **India**, conducting a study entitled, “A Study of the Policies and Programs for the Professional Development School Teachers in the United States of America”, under the supervision of Assoc. Prof. Dr. Pushpanadham Karanam.

The objectives of my study are as follows -

1. To study the Federal and State Policies related to PD (professional development) Programs for the School teachers in the USA, in terms of;
 - Guidelines for Teachers.
 - Professional standards and requirements.
 - Monitoring and appraisal system.
 - Career advancement, if any.
2. To study the ongoing PD Programs in USA, in terms of content, methodology and feed back system.
3. To study the opinions of Teachers and the Principals regarding the PD programs.
4. To study the issues and challenges in managing the PD Programs.
5. To study the relevant policies pertaining to the PD Programs and to draw implications to the Indian context.

In order to realise the objectives of my study, I request you to assist my research endeavour. I would be obliged if you agree to participate and respond to the questionnaire prepared for this study. Further, I would also be interested in a face to face interaction at a time and place convenient to you.

The recorded interview will focus on the policies, implementation and evaluation of professional development of school teachers. All the data generated during this study will remain confidential. Neither your name nor the name of your workplace will be used in the published study, and only Dr. K. Pushpanadham and I will have access to the primary data.

I sincerely request you to provide the necessary support for successfully conducting my research study. An early response in this regard is highly appreciated.

Thank you in advance for assistance and cooperation.

Yours sincerely,

Meera Subramanian,
Research Scholar,
Faculty of Education and Psychology,
The M.S. University of Baroda.
Vadodara.

India.

Email: subra.meera@gmail.com

Mobile: +91 9974668570

Mrs.Meera Subramanian
Research Scholar
Centre of Advanced Study in Education (CASE)
Faculty of Education and Psychology
The Maharaja Sayajirao University of Baroda
Baroda-390002, Gujarat, India.

ABSTRACT

Teachers are very important assets in schools. Countries across the globe have been focusing on the teacher's professional development and most of the developed countries have developed strategic plans and holistic programs for the teacher development. The United States of America is one of the countries which have developed an effective system for teacher development. Though India has made some policies and programs recently envisaging the teachers' need for Professional development, there is no specific policy related to this.

So the researcher has selected the United States of America to study the policies and programs for professional development of teachers.

The study aims in exploring the answers for the research questions, like the policies of the Federal, State Government and the school districts for Professional development of teachers; teachers freedom in the choice of programs; the perceptions of teachers and impact of the programs on teacher development and the relevancy of the policies to Indian context.

OBJECTIVES OF THE STUDY

1. To study the Federal and State Policies related to Professional Development Programs (PDP) for the School teachers in the USA

2. To study the PDP in USA, in terms of content, methodology and feedback system.
3. To study the opinions of Teachers and the Principals regarding the PDP
4. To study the issues and challenges in managing the PDP.
5. To study the relevance and to draw implications to the Indian context.

Population

Population of the study comprises of Private Schools, Public Schools and the Charter Schools the Philadelphia School districts and Superintendent of the school district, the Teachers and Principals of ten High schools.

Data Collection and Analysis

The data collected through interviews, participant observation and questionnaires will be analysed by qualitative methodology.



DEPARTMENT OF EDUCATIONAL ADMINISTRATION
FACULTY OF EDUCATION AND PSYCHOLOGY
THE MAHARAJA SAYAJIRAO UNIVERSITY OF BARODA
LOKMANYA TILAK ROAD,
VADODARA -390002, INDIA.
PHONE (+91-265)2792631.FAX: 0091-265 2795516

Date: 22-07-2011

TO WHOM IT MAY CONCERN

Mrs. Meera Subramanian is a bonafied research scholar at the Centre of Advanced Study in Education, Faculty of Education and Psychology, The Maharaja Sajirao University of Baroda, Vadodara, Gujarat, India. Her research proposal entitled "A Study of the Policies and Programs For the Professional Development of School Teachers in the United States of America" has been approved for Doctoral Studies in our faculty.

Her study is of importance in the area of education in general and comparative education in specific. The study does not compromise privacy of participants and it does not cause any emotional, physical and psychological harm to the subjects as it requires only data collection through questionnaires, interviews and participant observation.

The data collected will be exclusively used for this research work. The researcher will take all the ethical considerations while collecting the data. You are requested to grant her permission and provide the necessary academic support.


Dr. K. Pushpanadham
Research Guide




Prof N. Pradhan
Head


Prof. D.R. Goel
Dean
DEAN
FACULTY OF EDUCATION & PSYCHOLOGY
M. S. UNIVERSITY OF BARODA,
BARODA.

**APPLICATION TO PERFORM RESEARCH
ST. LOUIS PUBLIC SCHOOLS**

Chairman, Research Review Committee
Division of Evaluation and Research
801 North 11th Street
St. Louis, Missouri 63101
(314) 345-2428

The completed application should be returned with the following items:

- a short statement of the purpose of your research and how the study will be used,
- (b) a brief list of sources providing direction to your study, and
- (c) an explanation of the methodology, which should include copies of questions, surveys, or data collection instruments to be administered to St. Louis Public School students, parents, or staff, if you are using surveys or questionnaires.

St. Louis School Board Policy requires that research be well designed, adhere to child protection laws, not place unreasonable demands on students, staff, or parents nor interfere with regular system operations, and it must be in the interests of the school system to participate. If student contact or access to student records is requested, you will need to provide a letter of approval from the Human Subjects Board or its equivalent from your home institution before you can begin research.

Note that all approved research projects must update their application at the beginning of each school year.

I. Name of Investigator _____ **Position** _____

Affiliation(s) _____ Date _____

Office Address _____

Home Address _____

Office Phone (_____) _____ Home Phone (_____) _____

II. Project

Project Title _____

Project Description _____

Funding Source(s) for this Project

III. Participant Involvement:

Number of Subjects

Time Requirements

Pupils _____

_____ per _____

Teachers _____

_____ per _____

Administrators _____

_____ per _____

Parents _____

_____ per _____

Number of persons visiting sites in connection with project _____

What involvement is required of the subjects? _____

IV. Requirements:

Number and

Type of School: Elementary (K-5) _____ Middle (6-8) _____
Elementary (K-8) _____ Secondary _____

Total Number of Schools _____ Total Number of Classrooms _____

Grades Required _____ Other School Characteristics _____

Do you require any specific schools? Names _____

Starting Date of the Research _____

Ending Date of the Research (Note that applications must be updated annually)

Frequency of Contact _____

Names of persons entering the school(s) for research

V. Results:

What is the anticipated value of the research?

In general? _____

To the St. Louis Public Schools? _____

Do you plan to publish the results of this research? If so, list target journals?

VI. IF YOU HAVE EXTENDED CONFIDENTIALITY, NAMES MAY BE OMITTED FROM THIS ITEM.

Are other school systems involved in this research? _____

Please name _____

Have you conducted research in other school systems? _____

Please name _____

Guidelines Regarding Research in SLPS Schools

Allowing research in SLPS schools is a service to the larger education community. There are, nevertheless, legal requirements that must be met prior to allowing such projects and academic standards that must be met in order to make our involvement worthwhile to our students today as well as to our students generations into the future. Our guidelines seek to balance the need for advancement through research with our overriding priority of uninterrupted instructional activities that maximize student learning. There are both legal and ethical reasons behind the District's efforts to control and monitor research in the schools. Failure to adhere to the laws and regulations regarding research exposes the District to legal sanctions. The legal background stems from provisions of The Family Educational Rights and Privacy Act (FEPA) that affords parents and students certain rights regarding student records, the administration of surveys, and the collection and use of personal information. (Statute: 20 U.S.C. 1232g. Regulations: 34 CFR, Part 99) District mirrors this Federal law in Board of Education Regulation (R1340) which states: "The principal shall not permit any person not employed by the Board of Education to gather statistics or research information in the schools without authority from the superintendent of schools or designee." (R1340 Community Relations / Public Activities Involving Staff, Students or School Facilities, approved 1990/revised 1999.)

Summary of Key Components of SLPS Guidelines Research Research is access to any records containing privileged or confidential information about staff or pupils or the act of gathering statistics, interviewing, observing or administering survey or other data-collection instruments in the schools. Who needs to apply to do research? Any person not employed by the Board of Education must apply before doing any research in the schools (this includes university researchers and program evaluators). In addition, Board of Education employees collecting student or staff data for projects that are submitted for University credit or advanced degrees must also apply for permission to do research. (The collection of such data for in-district/school dissemination only to further instructional or school improvement purposes is exempt.)

The application process is available on-line on this page. Not all research will necessarily be approved. Our responsibility is to balance the need for research with the need for uninterrupted instructional activities that maximize student learning. Potential researchers should be aware that permission to do research is a multistep process, and permission to conduct research in the district does not guarantee any individual school's willingness to participate. Although initial permission may only be granted through Research, Assessment and Evaluation, the principal of a school will have the final decision in regards to her or his school's participation. Research Applications should be sent to Dr. C. L. Shannon, Senior Evaluator / Chairman, Research Request Review Committee. Email: c.shannon@slps.org Phone: (314) 345-2428

Application

Link [http://www.slps.org/19621084161617990/lib/19621084161617990/ Files/ApplicationtoPerformResearch.docx](http://www.slps.org/19621084161617990/lib/19621084161617990/Files/ApplicationtoPerformResearch.docx)

APPENDIX –B
SCHOOL DISTRICT APPROVAL LETTER

**THE SCHOOL DISTRICT OF PHILADELPHIA
RESEARCH REVIEW COMMITTEE**

Office of Accountability
440 North Broad Street
2nd Floor, Portal A
Philadelphia, PA 19130

OFFICE OF RESEARCH AND EVALUATION

Phone: 215-400-4260
Fax: 215-400-4252

September 15, 2011

Mrs. Meera Subramanian
C/O Deepa Subramanian
266 South 23rd Street
Apt: 5A
Philadelphia, PA – 19103, U.S.A

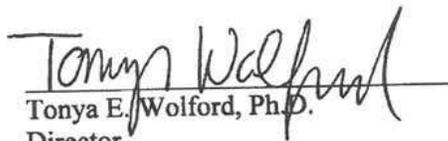
Dear Mrs. Subramanian:

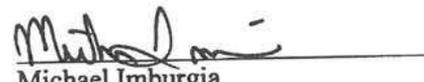
Please allow this letter to serve as notice that The School District of Philadelphia, through its Office of Research and Evaluation's Research Review Committee process, has granted you approval to conduct study #2011-08-009, entitled "A Study of the Policies and Programs for the Professional Development of School Teachers in the United States of America."

Any researcher interacting directly with children in the school(s) must have both child abuse and criminal checks completed. As with all research in the District, all student data must remain strictly confidential, and entry into a school is contingent on the principal's approval. Principals are under no obligation to participate in your study.

You are required to provide a copy of the final report to the Office of Research and Evaluation. Abstracts or Executive Summaries must be furnished to the Program Office and each cooperative school.

Please contact the Office of Research and Evaluation if you have any questions or concerns related to this decision.


Tonya E. Wolford, Ph.D.
Director
Office of Research & Evaluation


Michael Imburgia
Research Associate
Office of Research & Evaluation

THE SCHOOL DISTRICT OF PHILADELPHIA
Academic Division Seven
Leeds Middle School, Room Eight
1100 Mt. Pleasant Avenue
Philadelphia, PA 19150

Karen Kolsky, Ed.D.
Assistant Superintendent

Voice: 215.248.6685
Facsimile: 215-248.6687

September 22, 2011

Subject: Research Study of Professional Development; The School District of Philadelphia

Meera Subramanian, Researcher, from India has submitted a Research Proposal to the Research Review committee (RRC), The School District of Philadelphia. The Research Proposal is titled *A Study of the Policies and Programs for the Professional Development of School Teachers in the United States of America.*

I support the research study.

Karen Kolsky; former Deputy, Office of Professional Development

APPENDIX – C

SCHOOL PERMISSION LETTER

APPENDIX - D
INTERVIEW SCHEDULE OF PRINCIPALS

APPENDIXD

Principals' Interview Schedule

S. No	STATE	NAME OF THE SCHOOL DISTRICT	NAME OF THE SCHOOL	DATE	TIME OF INTERVIEW
1.	Missouri	St.Louis Public Schools	School A	07-11-2011	8.45 A.M TO 10.00 A.M
			School B	10-11-2011	8.45 A.M TO 11.30 A.M
2.	New jersey	Hoboken School District	School C	14-10.2011	9.00A.M TO 10.30 A.M
3	Pennsylvania	School District of Philadelphia	School D	12- 10-2011	10.00 A.M TO 12.00P.M
			School E	26-11-2011	10.30A.M TO 12.00 P.M
			School F	22-09-2011	10.30 A.M TO 2.00 P.M
4	District of Columbia	Washington DC	School G	14-10-2011	9.00 A.M TO 11.00A.M

APPENDIX – E
SCHEDULE OF FOCUS GROUP DISCUSSION
WITH TEACHERS

APPENDIX -E

Details of Focus Group Discussion with Teachers

S. No	STATE	NAME OF THE SCHOOL DISTRICT	NAME OF THE SCHOOL	NO. OF TEACHERS	DATE
1.	Missouri	St.Louis Public Schools	School A	12	10-11-2011 12 P.M.
			School B	10	07-11-2011 11.30 A.M
2.	New Jersey	Hoboken School District	School C	11	17-10.2011 2.30 P.M.
3	Pennsylvania	School District of Philadelphia	School D	09	20 10-2011 8.00 A.M
			School E	06	26-11-2011 1.00 P.M.
			School F	14	22-09-2011 2.30 P.M.
4	District of Columbia	Washington DC	School G	14	14-10-2011 3.00 P.M

APPENDIX - F
EXPERTS FOR TOOL VALIDATION

LIST OF EXPERTS CONSULTED

Prof. S. Kumar	Former Dean, Faculty of Education and Psychology, M.S. University of Baroda, Vadodara, India
Prof.K.Sujatha	Professor & Head, Department of Educational Administration, National University of Educational Planning and Administration, New Delhi, India
Prof.R.C.Saravanabhavan	Profeseor, Department of Educational Administration, Howard University,School of Education. Washington DC. USA
Prof.Harbans Bola	Retd. Professor of Education, Indiana University USA
Prof. Carolyn J, Riehl	Associate Professor, Sociology and Educational Policy, Teachers College, Columbia University, New York. USA
Prof.Drago Severson	Associate Professor of Education, Teachers College, Columbia University, New York. USA
Prof.SrikalaNarain	Assistant Professor of Education,Teachers College, Columbia University, New York. USA
Dr.Schuttloffel, Merylann J	Professor, Institute for policy Research and Catholic Studies, The Catholic University of America
Dr.SenthilVeerarghavan	Associate Professor, Operations & Information management department, Wharton School of Business management, University of Pennsylvania

Dr. Reza Arjmand

Visiting Professor, Department of
International & Transculture, Teachers
College, Columbia University, New
York. USA

Ms. Shruti Mukkamala

Doctoral student in clinical
Psychology. University of
Massachusetts, Boston. USA

Ms Radhika Iyengar

doctoral Student, Economic of
Education, Teachers College, Columbia
University, New York, USA

To

Prof

Date: 29-4-2011

Dear Sir,

Sub: Validation of Research Tools

Meera Subramanian,
Doctoral Student,
Faculty of Education and Psychology,
Centre of Advanced Studies in Education
Maharaja Sayajirao University of Baroda.

I am a doctoral student working under the supervision of Dr.Pushpanadham, Associate Professor Faculty of Education and Psychology, Maharaja Sayajirao University of Baroda.

The title of the study is “A STUDY OF THE POLICIES AND PROGRAMS FOR THE PROFESSIONAL DEVELOPMENT OF SCHOOL TEACHERS IN THE UNITED STATES OF AMERICA”.

In this regard, I have developed research tools to aid in the data collection for the proposed study. The research tools are in the form of Questionnaires, for High School Principals and Teachers of the United States of America.

Dr.Pushpanadham has referred your name as one of the eminent scholars in this area. You are kindly requested to go through this draft questionnaire and provide your feedback and specific suggestions to improve.

The outline of the research proposal and questionnaires for teachers and principals are enclosed.

An early response in this regard is highly appreciated.

Looking forward to interacting with you.

Thanking you.

Meera Subramanian

\

Title:

“A STUDY OF THE POLICIES AND PROGRAMS FOR THE PROFESSIONAL DEVELOPMENT OF SCHOOL TEACHERS IN THE UNITED STATES OF AMERICA”.

The outline of the research proposal

The in-service education and continuous professional development of teachers has been given prime importance in the USA over the last two decades. Professional Development programs for teachers which are school based on content, pedagogy and psychology are continuously being administered to the teachers which have a great impact on student learning. So the researcher has taken this study to understand the policies and programs for the PD of high school teachers and draw implications to India.

Objectives of the study:

1. To study the Federal and State Policies related to Professional Development (PD) Programs for the School teachers in the USA, in terms of;
 - Guidelines for Teachers
 - Professional standards and requirements
 - Monitoring and appraisal system
 - Career advancement if any
2. To study the ongoing PD Programs in USA, in terms of content, methodology and feedback system.
3. To study the opinions of Teachers and the Principals regarding the PD programs.
4. To study the issues and challenges in managing the PD Programs.
5. To study the relevance and to draw implications to the Indian context.

Sample of the study

Two States of the USA and selected School Districts and the Teachers and Principals of the secondary school from these two States only

Research tools:

Document analysis, Participant observation, questionnaire for teachers of high school and questionnaire for principals of high school.

APPENDIX – G
QUESTIONNIRE FOR TEACHERS

- Organisation: School based District based State based
any other (specify)
-
-

- Focus: Subject Generic Methodology Evaluation
Behavior Personality

L. The sources you use for your professional continuous learning. (Please tick)

1. Academic meetings.
 2. Professional journals
 3. Reference books
 4. Professional bulletins
 5. University short term courses
 6. Any other (Specify)
-

M. Indicate below the types of PD Programs in which you participated during 2009-2011 school year. (Please tick whatever applicable)

- Coaching or mentoring by Senior teacher Specialist
Administrator
 - Completed a college course related to your teaching subject through
regular mode online distance learning
 - Others (Specify) -----
-

III. PERCEPTION ON THE DESIGN AND DEVELOPMENT OF PROFESSIONAL DEVELOPMENT PROGRAMS (PDP)

Strongly Agree Agree Undecided Disagree Strongly Disagree
 SA A UD DA SD

S.NO	COMPONENTS	SA	A	UD	DA	SD
1.	PDPs are designed with the consultation of teachers, administrators of my school district.					
2.	PDPs are an integral part of the broad school-wide educational improvement plan.					
3.	PDP standards set by the districts are relevant.					
4.	PDPs are well planned to meet the professional requirements of the teachers.					
5.	PDPs are relevant for teaching learning process.					
6.	PDPs are need based.					
7.	PDPs are designed to increase the efficiency of teachers					
8.	PDPs provide opportunities for sharing best practices among teachers from various schools in the district					
9.	PDPs provide opportunity for collaborative learning.					
10.	PDPs provide opportunity for reflective teaching and creative problem solving					

Please use this space for any additional comments with regard to the design and development of PDP

IV. PEERCEPTION ON THE CONTENT AND METHODOLOGY OF PROFESSIONAL DEVELOPMENT PROGRAM (PDP)

Strongly Agree Agree Undecided Disagree Strongly Disagree

SA A UD DA SD

S.NO	COMPONENTS	SA	A	UD	DA	SD
1.	PDPs focused on research based content					
2.	PDPs improved my knowledge of the academic subjects					
3.	PDPs provided specific training in using teacher selected, district approved, educational materials					
4.	PDPs provided opportunities to know research based teaching methodology					
5.	PDPs provided methods for effective use of ICT in the teaching learning process					
6.	PDPs resource persons were excellent in the subject matter					
7.	PDPs prepared teachers to administer to use formative and summative evaluation pattern					
8.	PDPs prepared teachers to effectively deliver instruction to students at all skill levels.					
9.	PDPs helped in familiarizing with other subjects					
10.	PDP prepared teachers to effectively interpret learning outcomes of students.					
11.	PDP helped in developing skills to support students from diverse groups					
12.	PDP provided opportunities to guide students for hands on experience					

Please use this space for any additional comments on content and methodology of PDP

V. PEERCEPTION ON THE LOGISTICS OF THE PROFESSIONAL DEVELOPMENT PROGRAM (PDP)

Strongly Agree Agree Undecided Disagree Strongly Disagree
 SA A UD DA SD

S.NO	COMPONENTS	SA	A	UD	DA	SD
1.	School faculties have administrative support to arrange appropriate PDP that address their identified needs.					
2.	Information about PDP was provided well on time					
3.	Alternate route classes/phases are offered throughout the school year.					
4.	Accessibility to PDP sites was not a problem for the participants.					
5.	Pick up and drop facilities were carefully planned for the participants to attend the PDP.					
6.	The accommodation provided was admirable and conducive					
7.	Location chosen for the PDP was easily accessible and conducive for maximum impact.					
8.	Student free days are available for participating in PDP					
9.	PDP days/times are convenient for its participants					

Please use this space for any information you want to share about the logistics of the PDP

VI. PEERCEPTION ON THE IMPACT OF PROFESSIONAL DEVELOPMENT PROGRAM (PDP)

Strongly Agree Agree Undecided Disagree Strongly Disagree
 SA A UD DA SD

S.NO	COMPONENTS	SA	A	UD	DA	SD
1.	PDP has a lasting and positive impact on my classroom instruction					
2.	PDP improved my classroom management					
3.	PDP improved my classroom organization and resources					
4.	PDP helped in improving my pedagogical skills					
5.	PDP changes me as a teacher and my teaching capacity					
6.	PDP provides strategies to improve student learning outcomes					
7.	PDP helped in academic networking					
8.	PDP helps me to effectively deal with different ethnic groups of students					
9.	PDP connects with teacher growth and development and student learning					
10.	Participation in PDP impacts on my personal appraisal.					

Please use this space for providing information on any other impact of PDP

VII. PERCEPTION ON INCENTIVES FOR PARTICIPATION IN PROFESSIONAL DEVELOPMENT PROGRAMS (PDP)

Strongly Agree Agree Undecided Disagree Strongly Disagree
 SA A UD DA SD

S.NO	COMPONENTS	SA	A	UD	DA	SD
1.	Participation in PDP helped me in career advancement					
2.	Tuition reimbursement facility is available for participation in PDP					
3.	Paid sabbatical leave for participation in PDP are available					
4.	Participation in PDP provided job security					
5.	Participation in PDP provided professional growth credit					
6.	Payment of Stipends are given for participating in PDP					
7.	Conference fee are subsidized for participation in PDP					
8.	PDP are accredited by the school district					
9.	PDP helps in recertification and personal evaluation					
10.	School/Districts supports participation in PDP					

Please use this space for any additional comments with regard to incentives for participating in PDP

VIII. PEERCEPTION ON THE ISSUES AND CHALLENGES OF PROFESSIONAL DEVELOPMENT PROGRAM (PDP)

Strongly Agree Agree Undecided Disagree Strongly Disagree

SA A UD DA SD

S.NO	COMPONENTS	SA	A	UD	DA	SD
1	Time off from work for participation in PDP					
2	Pupil free day for participation in PDP					
3	There are difficulties in implementing what is learnt in PDP					
4	Support was given to overcome the difficulties in implementation					
5	Participation in PDPs increases the responsibility and loss in instructional time.					
6	Duration of the PDPs are convenient					
7	Desired level of active participation of teachers is not forthcoming.					
8	Financial assistance for participation in PDPs are not sufficient					
9	Opportunities were given to participate in PDP					

10	Prior family commitments sometimes pose a problem.					
----	----------------------------------------------------	--	--	--	--	--

Any other issues you wish to provide

What are the challenges you face in participating high quality professional development program?

IX. SUGGESTIONS FOR THE IMPROVEMENT OF PROFESSIONAL DEVELOPMENT PROGRAM (PDP)

Please provide suggestion on the quality of PDPs in terms of

- Content

- Methodology

- Implementation

- Evaluation

- Incentives to the teachers

- Opportunities for continuous learning

- Integrated teaching methodology

- Resource person

- Logistics

- Please use this space for any other suggestion you want to share for the improvement Professional development programs

X. MISSELENEOUS

Please use this space for any other issue you want to share other than the information given above.

APPENDIX – H
QUESTIONNAIRE FOR PRINCIPAL

**A STUDY OF THE POLICIES AND PROGRAMS FOR THE
PROFESSIONAL DEVELOPMENT OF SCHOOL TEACHERS IN THE
UNITED STATES OF AMERICA.
QUESTIONNAIRE FOR PRINCIPALS**

I. Personal Details

a. Name: -----

b. Age -----

c. Sex: Male Female

d. Educational Qualification: Academic i. ii. Professional

II. Professional Experience:

a. Total years of experience : Principal Teacher

b. Name of the School -----

c. Name of the School district -----

d. Responsibility : Academic Administrative

III. What kind of Management structure does your school consists of?

Public Private Charter

IV. Furnish the following information about your school.

a. Date of establishment of the school -----

b. Total teachers in the your School as on date:

Secondary		Higher Secondary	
Male	Female	Male	Female

V. What kind of curriculum does your school follow?

Federal State IB

VI. POLICIES FOR THE PROFESSIONAL DEVELOPMENT (PD) OF TEACHERS

Furnish details of the following mentioning YES or NO.

S.NO	PARTICULARS	YES	NO
1.	Does your school follow the District policies for the PD?		
2.	Does your school follow federal policies for the PD?		
3.	Does your school follows school based policies for the PD?		
4.	Has the district adopted a set of standards for PD?		
5	Are the teachers aware of these policies of PD?		

VII. DESIGN AND DEVELOPMENT OF PROFESIONAL DEVELOPMENT PROGRAMS (PDP) FOR TEACHERS

a. The PDPs are designed and developed by

Federal State School districts Schools

b. Mention the frequency of the PDPs in your school.

In a year 1-2 times 3-4 times more

Once a year once in 2 years once in 3 years

c. Who conducts the PD programs?

School District School Outside agency (Specify)

- d. Furnish your opinion for the following by mentioning Strongly Agree, Agree, Undecided, Disagree and Strongly Disagree

S.NO	COMPONENTS	SA	A	UD	DA	SDA
1.	The district has adopted a set of standards for PDP					
2.	The district's PD goals are aligned with the district's strategic plan.					
3.	There are explicit expectations that teachers participate in frequent in PDP each year.					
4.	Teachers in all schools have access to PDP appropriate to their responsibilities.					
5.	PDP provides specific and appropriate training for teachers who are new to teaching.					
6.	Principals have regular PDPs that focus on ways they can support teacher learning and effective instruction.					
7.	There are formal committees and procedures for planning PDP.					
8.	The planning committee is comprised of representatives of all groups that participate in PDP					
9.	PDP planning incorporates research and best practices on teacher development.					
10.	PDP provides opportunities for sharing best practices among staff across the district.					

VIII. EVALUATION OF THE PDPs FOR TEACHERS

Furnish your opinion on the evaluation of the PDPs by mentioning Strongly Agree, Agree, Undecided, Disagree and Strongly Disagree

S.NO	COMPONENTS	SA	A	DA	SDA
1.	PDP is evaluated in relation to changes in teaching and learning that were expected as a result of PDP				
2.	The district provides schools with the necessary/appropriate data to evaluate the impact of PDP				
3.	Professional development in my school district has positively impacted student achievement				
4.	Teachers/staff are recognized at school board meetings for professional growth and achievements.				
5.	Teachers are regularly evaluated and feed back given to them after participation in PDP				

e. Mention the nature of the PDPs conducted

f. Do you review the programs before implementation? Yes No

g. Mention the mechanism of evaluation after the teachers implement the PDP

h. Is there career advancement once teachers attend PDPs? Yes No

- i. Do you have an appraisal system in your school for teachers? Yes No
Mention the mechanism through which teachers are appraised.

- j. What is your opinion with respect to implementation of the program?

- k. Are the credits been given to teachers for taking PDP? Yes No
Mention the type of credit

- l. Do you have a feedback system to inform the teachers? Yes No

IX. ISSUES AND CHALLENGES ON THE IMPLEMENTATION OF PROFESSIONAL DEVELOPMENT PROGRAMS FOR TEACHERS

- A, Mention the Issues you face in conducting the PD programs?

- B. What is the greatest challenge you face in providing high quality PDPs in your school?

X. Key achievements of the school in the last 2 years (2009-2011)
