

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 mostof 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).

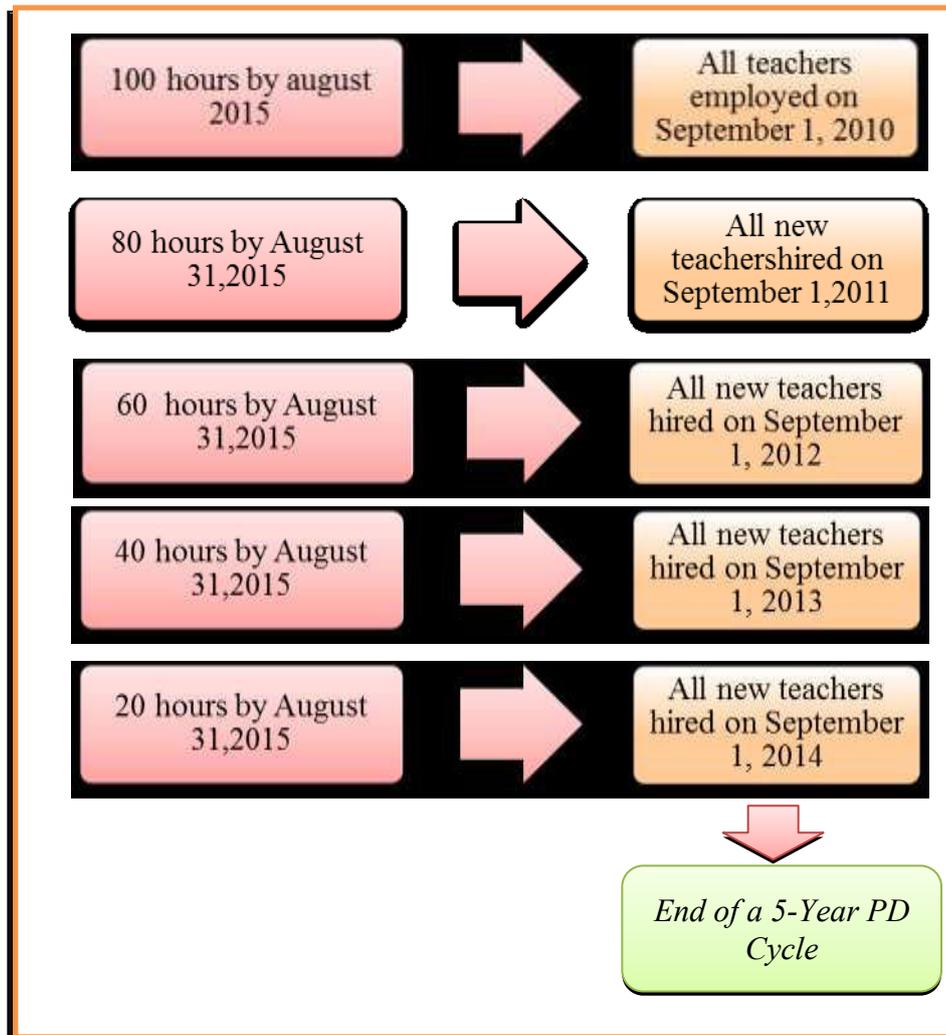


Figure 4.1 Moving into the Same Five Year Professional Development Cycle
Source: New Jersey Department of Education

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

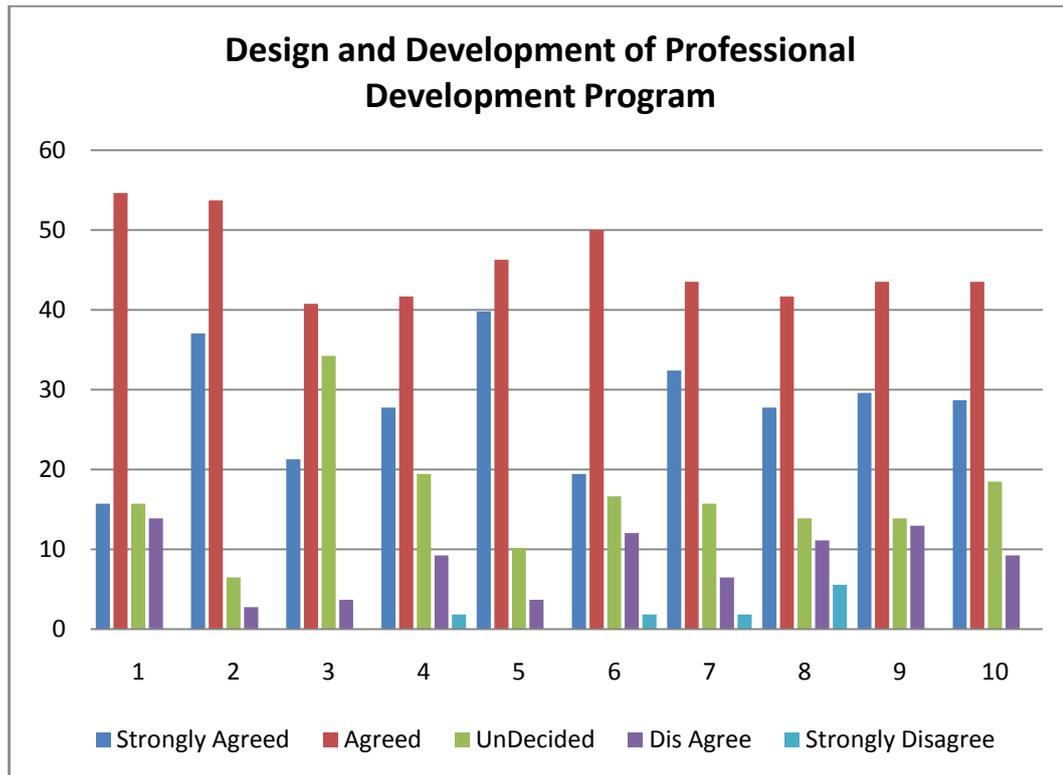


Chart 4.1 Design and Development of Professional Development Programs (In Percentage)

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

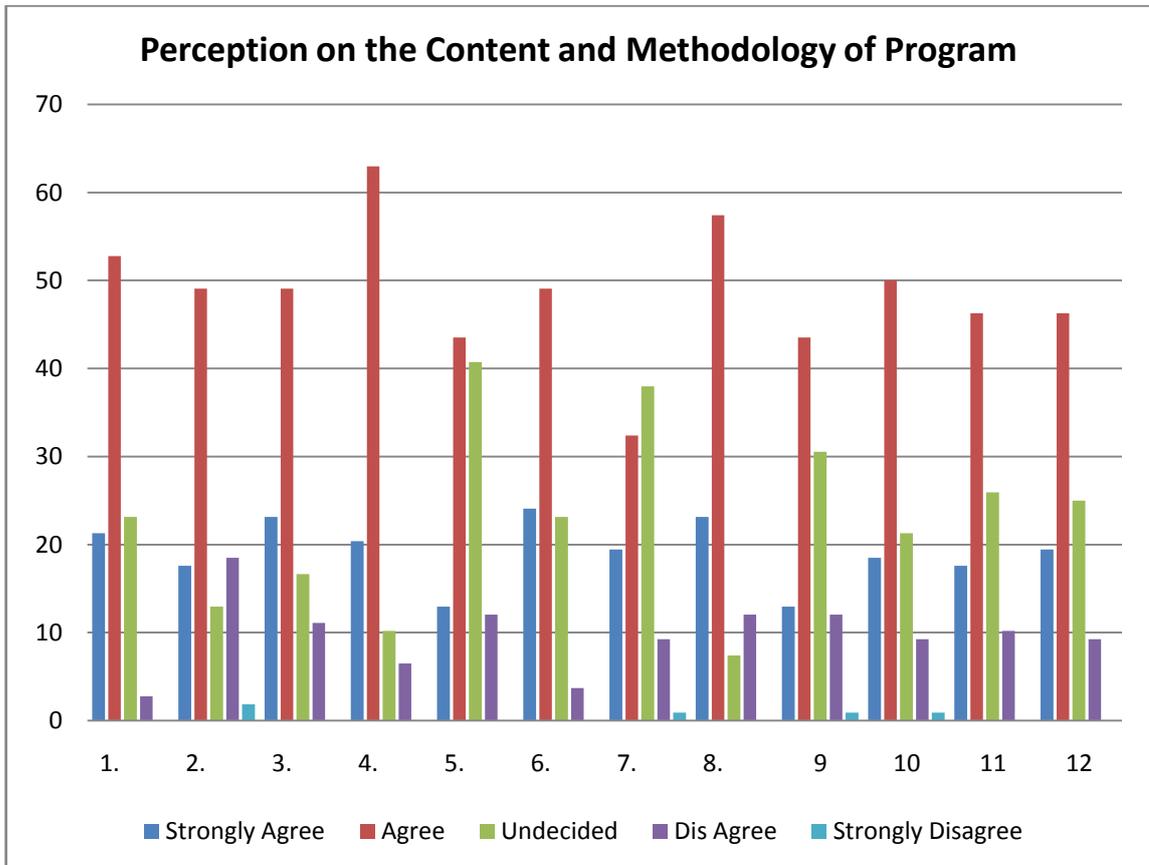


Chart 4.2 Content and Methodology of Professional Development Programs (In Percentage)

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

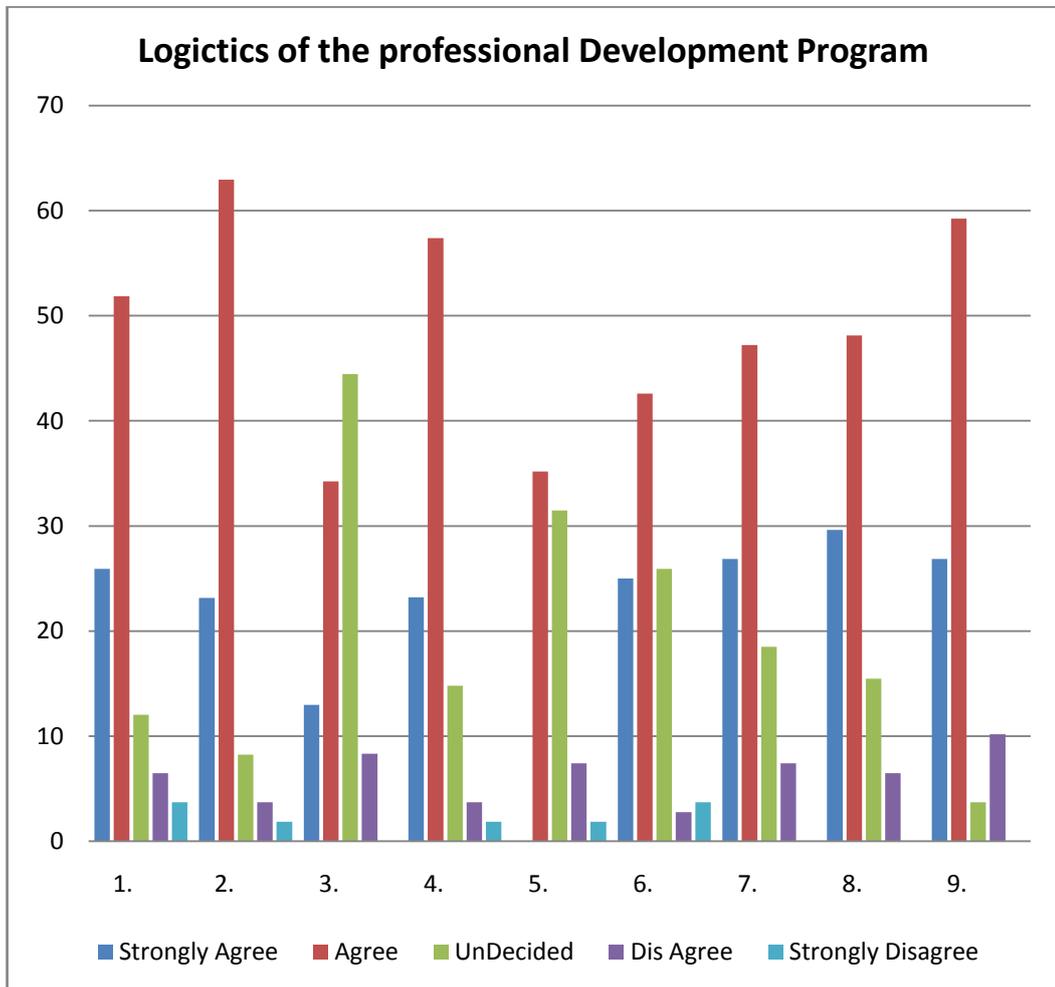


Chart 4.3 Execution of Logistics of Professional Development Programs (In Percentage)

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

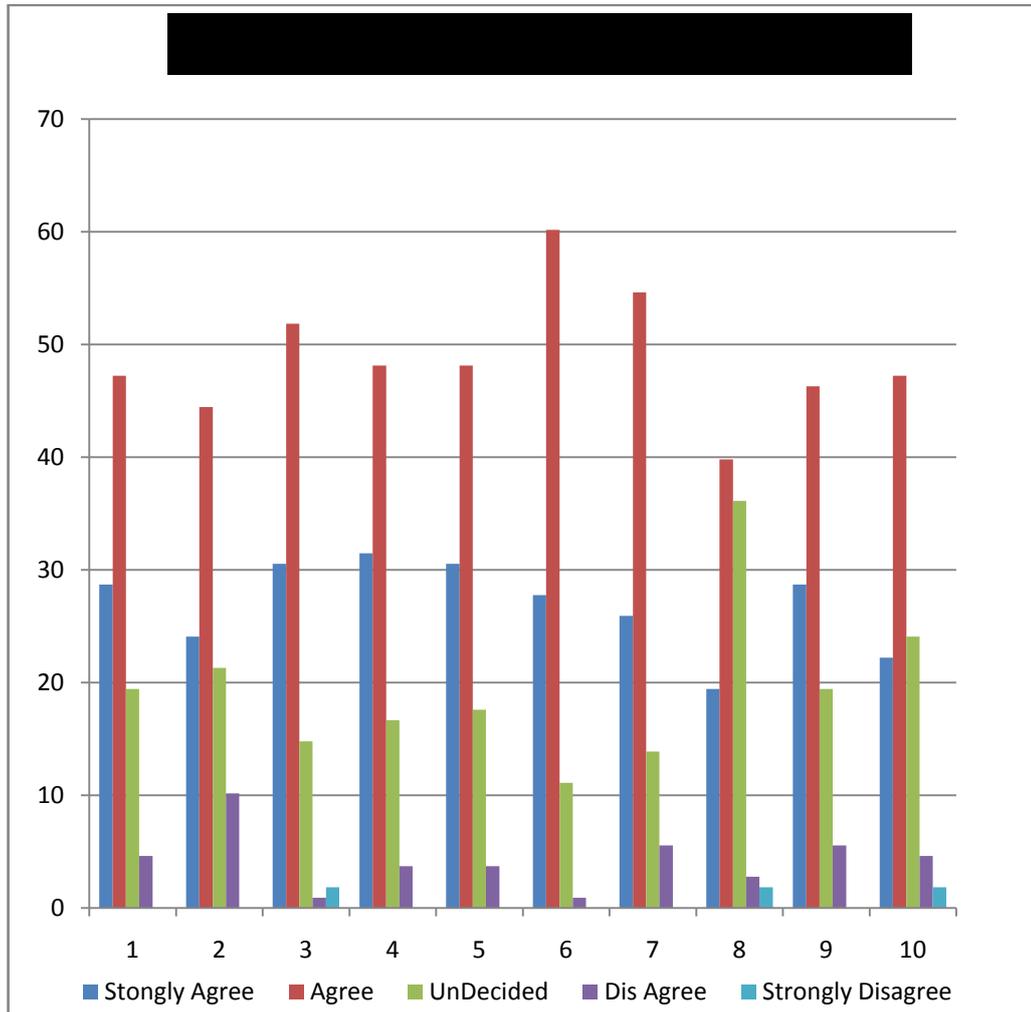


Chart 4.4 Impacts of Professional Development Programs

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

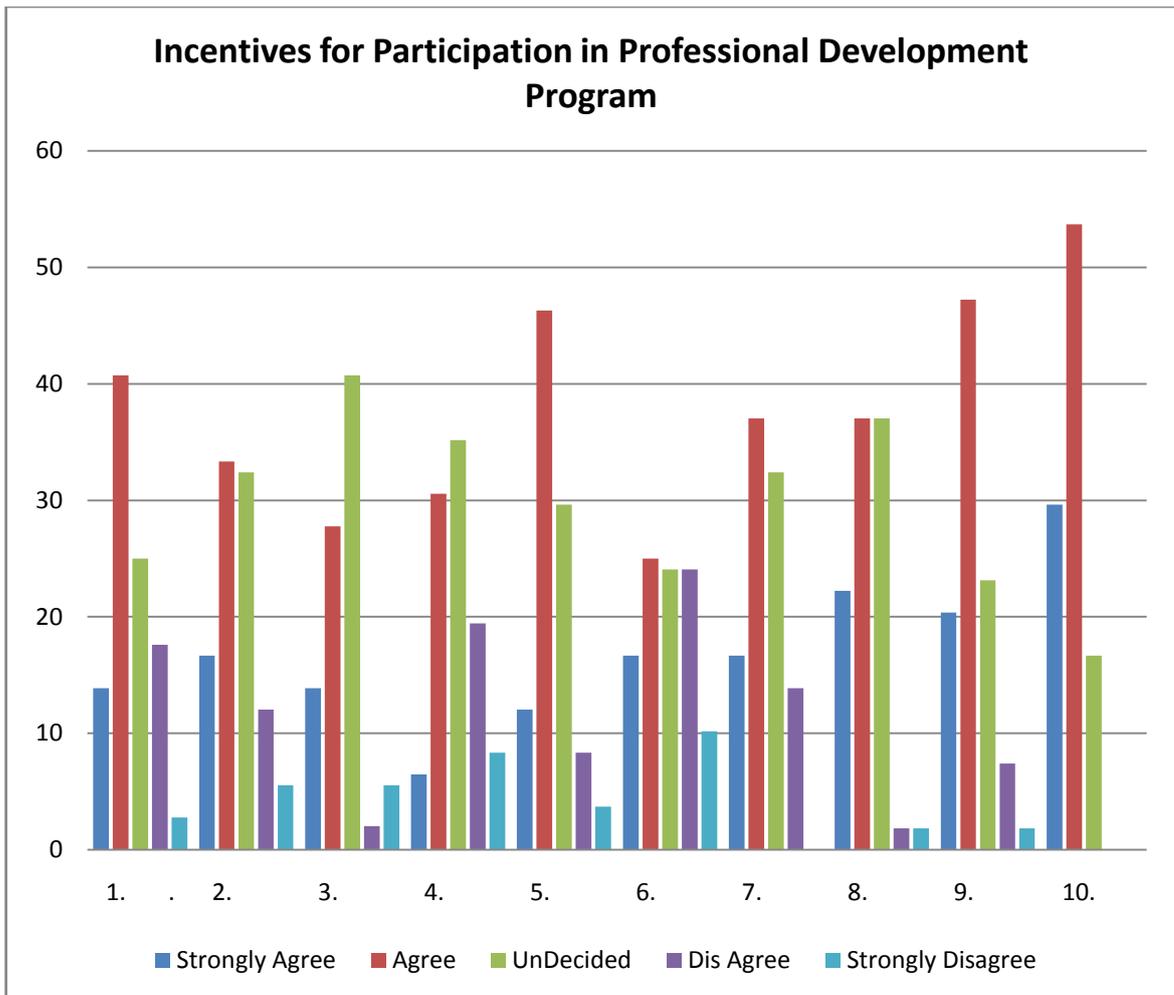


Chart 4.5 Incentives for Participation in Professional Development Programs

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

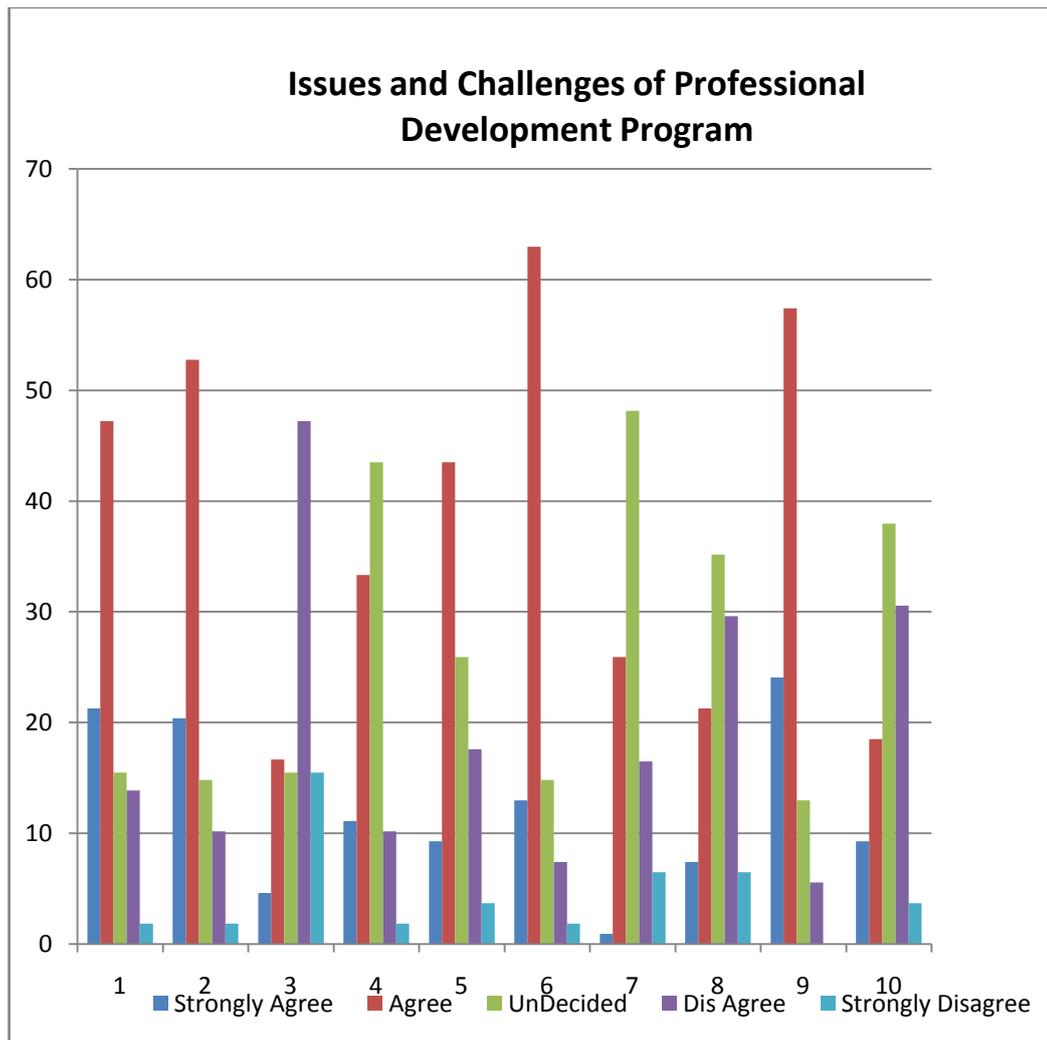


Chart 4.6 Issues and Challenges

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.