EFFECTS OF THE MENTORING PROCESS ON THE PROFESSIONAL DEVELOPMENT OF TEACHERS AT ELEMENTARY LEVEL IN PUNJAB

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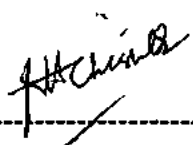## INTERNATIONAL ISLAMIC UNIVERSITY, ISLAMABAD
2015

DEDICATED

TO

THIS DISSERTATION IS DEDICATED TO MY BELOVED MOTHER AND

FATHER (LATE) WHOSE UNLIMITED PRAYERS AND HARDSHIPS MADE MY

LIFE SUCCESSFUL AND PERFECT. THEY HAVE BEEN THE FOUNDATIONS

THAT I COULD ALWAYS RELY UPON.

FORWARDING SHEET

The thesis entitled **"Effects of the Mentoring Process on the Professional Development of Teachers at Elementary Level in Punjab"** submitted by Mr. Muhammad Akhlaq, Reg. No. 63-FSS/PHDEDU/F10, in partial fulfillment of Ph.D degree in Education has been completed under my guidance and supervision. I am satisfied with the quality of student's research work and allow him to submit this thesis to the Department of Education for further process as per IIU rules and regulations.

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Dated: 17-06-2015

STATEMENT OF UNDERSTANDING

I, Muhammad Akhlaq Reg. No. 63-FSS/PHDEDU/F10, student of Ph.D Education, International Islamic University Islamabad, do hereby solemnly declare that the thesis entitled **"Effects of the Mentoring Process on the Professional Development of Teachers at Elementary Level in Punjab"** submitted by me in partial fulfillment for the requirement of Ph.D degree in Education with specialization in Teacher Education is my original work. The material I have consulted is acknowledged in text. This thesis has not been submitted or published earlier and nor will be submitted in future for any degree from any university or institution.

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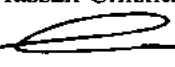Reg. No. 63-FSS/PHDEDU/F10

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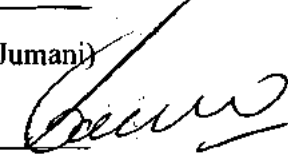
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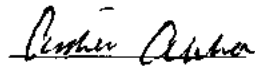
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LIST OF ABBREVIATIONS

ACR	Annual Confidential Report
AEO	Assistant Education Officer
AKF	Aga Khan Foundation
BISE	Board of Intermediate and Secondary Education
BPS	Basic Pay Scale
CPD	Continuous Professional Development
CTSC	Cluster Training and Support Center
DED	District Education Department
DEO	District Education Officer
DMO	District Monitoring Officer
DSD	Directorate of Staff Development
DTE	District Teacher Educator
DTSC	District Training and Support Center
DyDEO	Deputy District Education Officer
EDO	Executive District Officer
GCET	Government College of Elementary Teachers
GOP	Government of Punjab
INSET	In-Service Training of Teachers
KPI	Key Performance Indicator
LQT	Least Qualified Teacher
NEP	National Education Policy

NTS	National Teaching Standards
PD	Professional Development
PEC	Punjab Examination Commission
PER	Performance Evaluation Report
PST	Primary School Teacher
PT	Physical Training
RPM	Regional Programme Manager
SLOs	Student Learning Outcomes
SPSS	Special Package for Social Sciences
SST	Secondary School Teacher
TASLs	Tennessee Academy for School Leaders
TE	Teacher Educator
TNA	Training Needs Assessment
UK	United Kingdom
UPE	Universal Primary Education
USA	United States of America

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ABSTRACT

The study was conducted to analyze the effects of the mentoring process on the professional development of teachers at elementary level in Punjab. The objectives of the study were: (i) to study the mentoring system of District Teacher Educators at Primary level in the Punjab province, (ii) to identify the problems involved in District Teacher Educators system of Punjab, (iii) to analyze the effects of mentoring process on the professional development of Primary School Teachers, and (iv) to determine the effectiveness of mentoring process under District Teacher Educators at Primary level in Punjab. All the Primary School Teachers (PSTs), all the District Teachers Educators (DTEs), all the Cluster Training and Support Centers (CTSCs) heads and all the District Training and Support Centers (DTSCs) heads of Punjab province formed the population of the study. The sample comprised of 381 Primary School Teachers (PSTs), 302 District Teacher Educators (DTEs), 186 District Training and Support Centers (CTSCs) heads & 12 District Training and Support Centers (DTSCs) heads from the 12 districts of Punjab province.

Quantitative data were collected through a set of specifically designed questionnaires. The collected data were analyzed by calculating percentages, mean score, chi-square and t-test. Qualitative data collected through interviews and observation were thoroughly checked and transcribed into textual data. NVIVO version 10 was used to analyze the qualitative data. Pilot testing was done in Rawalpindi, Sahiwal and Bahawalpur districts and validity of the research instruments was checked by the experts of same area of the study.

The major findings established that: (i) mentoring process helped the mentees to cover the backlogs of unseen days in an educational year, (ii) the DTE respondents agreed that mentoring helped in separating learning activities into components while pacing the activities appropriately, and (iii) the DTE respondents agreed that mentoring helped in developing support material for classroom instructions. Major conclusions of the study were: (i) The respondents comprising Primary School Teachers, District Teacher Educators, Cluster Training and Support Centers heads & District Training and Support Centers heads agreed that mentoring process helped in managing the teaching activities according to Taleemi Calendar, using Taleemi Calendar rigorously which covers the backlogs of unseen days and achieves the pre-set targets and (ii) Majority of Primary School Teachers and District Teacher Educators agreed that mentoring process helped in separating the content into parts and in carrying out all the teaching activities in the classroom.

Major recommendations of the study were: (i) The Directorate of Staff Development may evolve an inter-linkage system of monitoring model and inter-institutional arrangement be made with overseas institutions for developing teacher enrichment programmes viz-a-viz faculty development and (ii) Keeping in the view societal, cultural, religious barriers and gender sensitization, female District Teacher Educators may be appointed to provide mentoring to the female Primary School Teachers to make this programme more effective.

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CHAPTER 1

1.1 INTRODUCTION

Mentoring has emerged as a critical area of professional socialization in applied fields of study: medicine, engineering, management, agriculture and recently in education. A nation is known by the quality of teachers deployed in the system. The rationale is that education is a nation building process. It modernized the society and empowered the individuals to meet the challenges of the tomorrow. Ensher, et. al. (2004) maintains that education caters for overall development of an individual to enable him to participate actively and effectively in the society. In the progress of a nation, the role of education is to make constructive development.

The quality of education at all levels depends upon the competencies and skills of the teachers. There is a need of driving force to enhance performance of existing teachers. The most suitable way to enhance capacity is teachers training as a continuous process which enables teachers to perform their duties efficiently. Competencies and standards of teachers focused on improving classroom practices and increasing student learning outcomes (Murphy et,al. 2005). It is linked to the real needs of teachers that are identified through research and achieved through regular mentoring under the umbrella of professional development programmes. Mentoring is a part of continuous professional development to enhance the professional skills of teachers (Johnson, 2007).

Mentoring is an interaction between a more experienced person and a less experienced person; it provides guidance that motivates the mentored person to take action. It is also

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known as a help by one person to another in making significant transitions in professional knowledge. Mentoring is a continuous process by which a more experienced teacher facilitates, guides and encourages less experienced teachers through counseling and coaching. Mentoring is a part of continuous professional development for all levels of teachers to fulfill the professional needs (Johnson, 2007). Mentoring is a term generally used to describe a relationship between a less experienced individual, called a mentee and a more experienced individual known as a mentor. Mentoring is a relationship between an individual with potential and an individual with expertise. In this modern era, mentoring is considered as a cost-effective programme to enhance professional skills of teachers. The process of mentoring helps the new employees to learn about organizational culture and to function effectively within the context of the organizational systems. It is an easy way to expand opportunities for those teachers who were traditionally hampered by organizational barriers to improve their professional skills and personal networks (Huwe, 2003).

Mentoring relationships may be informal or formal, long-term or short-term, electronically convened or face-to- face (Kasprisin, et.al 2003). Traditionally, mentoring is viewed as a dyadic, face-to-face, long-term relationship between a supervisory adult and a student teacher that fosters the mentee's professional, academic, or personal development (Donaldson, et.al 2005). It is a supportive learning relationship between a caring individual who shares knowledge, experience, and wisdom with another individual who is ready and willing to develop professional qualities and partnership skills, as well as to realize a vision benefit from this exchange. The benefits of mentoring include; professional career path growth and enrichment (Darwin, 2000).

In the context of Punjab, the important functions that the District Teacher Educators are performing in their respective areas cover: (1) ensuring universal primary education

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campaign through 100% enrollment at primary and elementary levels, (2) ensuring zero drops-out at primary, elementary and secondary levels, (3) ensuring 100% attendance of the teachers and report daily absenteeism through e-mail to district and provincial authorities, (4) ranking of schools, head teachers and teachers on the basis of results, (5) ensuring implementation of English medium scheme in 100% schools, (6) ensuring monthly and periodic tests of students on prescribed formats for preparation and Board examinations, (7) conducting census of schools, staff and facilities, and (8) working jointly with head teachers and teachers for achievement of national targets (DSD, 2011).

As envisaged by the Government of Punjab (2010), the most important objective of mentoring programme was to indentify and meet the professional needs of Primary School Teachers and to accelerate child learning at primary level in the province. It should focus on changing the classroom practices, especially on changing how teachers teach and how children learn. Changing these practices requires a long term relationship with the individual teacher, understanding of the learner and classroom context, joint planning and collective work with the teacher, and continuous support to the teacher. The teacher mentoring and support cannot be separated from students learning.

Mentoring programme was initiated in 2007 under the umbrella of Directorate of Staff Development (DSD) to fulfill the professional development needs of Primary School Teachers (PSTs) through District Teacher Educators (DTEs). In Punjab, professional development of Primary School Teachers remained ignored for the past few decades. To bridge up the gaps, the Government of Punjab initiated mentoring programmes for the professional development of Primary School Teachers (PSTs). The District Teacher Educators (DTEs) mentored the Primary School Teachers (PSTs) in the eight identified areas as under.

Sr. No.	NAME OF MENTORING AREA	AREA NO
1.	Taleemi Calendar	Area 1
2.	Lesson Planning	Area 2
3.	Activities Based Teaching and Learning	Area 3
4.	Use of Support Material	Area 4
5.	Interaction with Students	Area 5
6.	Classroom Management	Area 6
7.	Students Assessment	Area 7
8.	Home Work	Area 8

(DTEs Guide, 2011)

These areas include: pedagogical skills in Taleemi Calendar, Lesson Planning, Activities Based Teaching and Learning, Use of Support Material, Interaction with Students, Classroom Management and Home Work. The present study focused on these eight mentoring areas.

1.2 STATEMENT OF THE PROBLEM

Mentoring process was introduced in the Punjab in 2007 for Continuous Professional Development (CPD) of Primary School Teachers (PSTs) with an objective to motivate the Primary School Teachers and provides them the opportunities to enhance their professional skills. It was imperative to study the effectiveness of the mentoring process. Thus, the researcher undertook this exercise to measure the effectiveness of mentoring process provided through District Teacher Educators (DTEs) on the professional development of Primary School Teachers (PSTs) in Punjab province.

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1.3 OBJECTIVES OF THE STUDY

The study was conducted to achieve the following objectives:-

1. To study the mentoring system of District Teacher Educators at primary level in the Punjab Province.

2. To analyze the effects of mentoring process on the professional development of Primary School Teachers.

3. To indentify the problems involved in District Teacher Educators system of Punjab.

4. To determine the effectiveness of mentoring process under District Teacher Educators at Primary level in Punjab.

1.4 RESEARCH QUESTIONS

Following were the research questions of the study:-

1. How much is the Taleemi Calendar effective in mentoring process of the Primary School Teachers?

2. To what extent is the mentoring process effective for lesson planning of the Primary School Teachers?

3. In what ways the mentoring system of District Teacher Educators enables the PSTs to opt for activity based teaching and learning?

4. How does the mentoring processes enable the Primary School Teachers to search and use support material during the instructional process?

5. To what extent is mentoring process helpful in creating interaction with students during teaching?

6. To what extent the mentoring process helped the Primary School Teachers in gaining classroom management skills?

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7. In what ways is the mentoring process helpful to Primary School Teachers in assessing the student performance?

8. To what extent did mentoring process help the PSTs regarding the home work of the students?

9. What are the overall effects of mentoring process on the professional development of the primary school teachers?

1.5 HYPOTHESES OF THE STUDY

Following were the hypotheses of the study:-

H_1 Frequency of the opinions of the PSTs on the mentoring process diverges significantly from those expected on supposition of equal probability.

H_2 Frequency of the opinions of the DTEs on the mentoring process diverges significantly from those expected on supposition of equal probability.

H_3 Frequency of the opinions of the CTSCs on the mentoring process diverges significantly from those expected on supposition of equal probability.

H_4 Frequency of the opinions of the DTSCs on the mentoring process diverges significantly from those expected on supposition of equal probability.

H_5 The mean opinion scores of "PSTs & DTEs" differ significantly on the mentoring process.

H_6 The mean opinion scores of "CTSCs & DTSCs" differ significantly on the mentoring process.

These research hypotheses were tested through the following null hypotheses.

H_{o1} Frequency of the opinions of the PSTs on the mentoring process does not diverge significantly from those expected on supposition of equal probability.

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H_{o2} Frequency of the opinions of the DTEs on the mentoring process does not diverge significantly from those expected on supposition of equal probability.

H_{o3} Frequency of the opinions of the CTSCs on the mentoring process does not diverge significantly from those expected on supposition of equal probability.

H_{o4} Frequency of the opinions of the DTSCs on the mentoring process does not diverge significantly from those expected on supposition of equal probability.

H_{o5} The mean opinion scores of "PSTs & DTEs" do not differ significantly on the mentoring process.

H_{o6} The mean opinion scores of "CTSCs & DTSCs" do not differ significantly on the mentoring process.

1.6 SIGNIFICANCE OF THE STUDY

Several benefits would accrue from this study. Firstly, policy makers and senior administrative tears would have empirical findings to initiate plausible and powerful policy intervention to affect in qualitative change in PSTs, by launching mentoring chain of change. Secondly, at the professional level, DSD's would have empirical evidence for planning, implementing and evaluating the innovative interventions. Thirdly, at operational level, the district level professional group would gain more insight into streamlining the programme. Fourthly, at the bottom level, the head teachers, working teachers and students at large would receive more refined methods to bring about qualitative productivity of the institutions of mentoring system. Lastly, as the whole, the province of Punjab and Pakistan at large would obtain the benefits of such innovations.

1.7 DELIMITATIONS OF THE STUDY

Following were the delimitations of the study:-

1. There are thirty-six districts of Punjab province and the mentoring system is functioning in all districts. Initially, in phase-1 the mentoring programme was launched in twelve districts of Punjab Province. Therefore; the study was delimited to the DTEs, CTSCs and DTSCs working in the following twelve districts: i) District Attock, ii) District Gujarat, iii) District Sargodha, iv) District M.B. Din, v) District Faisalabad, vi) District Mainwali, vii) District Muzffaarghar, viii) District Kasure, ix) Okara District, x) District Sheikhupura, xi) District Rajanpur, and xii) District R.Y. Khan.

2. The study was delimited to the Primary School Teachers working in these twelve districts.

1.8 METHODOLOGY OF THE STUDY

The study was use of mixed methods of research, both quantitative and qualitative in nature. The following procedure was adopted for the conducting of the study.

1.8.1 Population

All working 1370 District Teacher Educators (DTEs), 47988 Primary School Teachers (PSTs), 12 District Training and Support Centers (DTSCs) heads and 980 Cluster Training and Support Centers (CTSCs) heads in the Punjab Province was the population of the study. The detail is given in table No.1 below:-

Table 1: Population of the Study

No	Target group	Population
1.	Primary School Teachers (PSTs)	47988
2.	District Teacher Educators (DTEs)	1370
3.	Cluster Training and Support Centers (CTSCs) Heads	350
4.	District Training and Support Centre (DTSCs) Heads	12
	Total=	49720

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1.8.2 Sample

Simple random sampling technique was applied for selection of the sample. Computer generated list was used for randomization. The sample of the study comprised 302 District Teacher Educators (DTEs), 381 Primary School Teachers (PSTs), 12 District Training and Support Centers (DTSCs) Heads and 186 Cluster Training and Support Centers (CTSCs) Heads from the 12 districts of the Punjab province. The sample table was as under:-

Table 2: Sample of the Study

No	Target group	Population	Sample size
1	Primary School Teachers (PSTs)	47988	381
2	District Teacher Educators (DTEs)	1370	302
3	Cluster Training and Support Centers (CTSCs) Heads	350	186
4	District Training and Support Centre (DTSCs) Heads	12	12
	Total=	49720	881

1.9 TOOLS OF RESEARCH

Following instruments were used in this study. The detail is as under:

3.9.1 Questionnaires

Following were the key variables of the study: Taleemi Calendar, Lesson Planning, Activity Based Teaching and Learning, Use of Support Material, Integration with students, Classroom Management, Student Assessment and Home Work. Keeping in view above mentioned variables four sets of questionnaires were developed on Likert's five point scale. The detail about questionnaires is as under:-

    a. Questionnaire for Primary School Teachers (PSTs).

    b. Questionnaire for District Teacher Educators (DTEs).

    c. Questionnaire for Cluster Training and Support Centers (CTSCs) heads.

    d. Questionnaire for District Training and Support Centers (DTSCs) heads.

1.9.2 Interviews

Researcher conducted interviews with all the four categories of respondents. 10% of the sample No, 1, 2, 3 and 100% of sample No. 4 was selected for interview.

1.9.3 Observation

Model lessons of the mentors were observed in the light of eight areas of mentoring on the Professional Development Day at mentoring centers.

The data were collected through questionnaires in person. Similarly, interviews were conducted personally with respondents by taking prior permissions and observations were made on PD Day.

1.10 VALIDITY & RELIABILITY OF INSTRUMENTS

Content validity of the instruments was checked in consultation with experts and with the help of SPSS. Cronbach alpha was applied to measure the reliability of the questionnaires. The questionnaires were pilot tested on the basis of data and the Cronbach Alpha was calculated to assure the reliability. The reliability coefficients were 0.795, 0.946, 0.864 & 0.959 respectively.

1.11 ANALYSIS OF DATA

Data collected through questionnaires were tabulated and analyzed by calculating Percentages and Mean Score and data collected through observation were shown in Percentages. Moreover, Chi-square was used to compare the group frequencies and t-test was used to see if there was significant difference between the means of groups. The data collected through interviews were analyzed by using NVIVO software, version 10. On the basis of data analysis findings, conclusions and recommendations were made.

CHAPTER 2

REVIEW OF RELATED LITERATURE

2.1 INTRODUCTION

The term mentoring has its roots in the ancient Greek history. The concept of mentoring evolved when the renowned king "Ulysses" entrusted to an old friend for the education and training of his son "Telemachus" (Fitzgerald, 1961). In this mentoring relationship entrusted, friend "mentor" became a counselor, guide, teacher, coach, sponsor, confident advisor and protector to Telemachus i.e. "Mentee" (Yoder, 2001). The traditional notion of a mentor is a trusted, older, experienced and wise person who keenly guides a younger individual in many aspects of his/ her life (Yoder, 2001 & Carden, 2010).

The mentoring of teachers is an empowering concept characterized by availability and approachability on the part of an experienced educator and receptivity by the neophytes. Through the process of mentoring, a beginning teacher receives technical assistance, career advice and psychological support from an experienced teacher. This assistance and support is transmitted through observation, discussion, questioning and planning. During this process, experienced educator acts as a role model, for novice teachers. The influence of the experienced person is pervasive and enduring, while still honoring the autonomy of the neophyte teacher.

Ragins (2009) says that mentor is an experienced person with a high degree of competence to assist other teachers. According to Allen and Poteet (2009), mentor is an individual who guides and leads the other individuals to influence their professional career of the mentees presented a traditional definition of mentor consisted of a veteran teacher who is charged with guiding the professional development of a beginning teacher. A conventional approach to mentoring consisted of emotional support, socialization and short-term assistance (Ragins, 2009, Zuckerman, 2003, Feimanand Parker .2009).

The mentoring process transmits necessary professional knowledge and skills with nothing in return. Generally, it is often considered that mentoring process is limited to the professional development of novice teachers (Carr, Heman 2004, & Harris 2005). The mentoring process moved towards transforming school cultures and it promotes opportunities for the professional development of new teachers (Gless, 2006). Most of the mentoring programme compromised support sessions by more experienced teacher to reform the teaching and teacher education and to retain talented teachers (Little, 2010). Odell and Huling (2010) abridged that mentoring process helps novice teachers to learn how to teach in accordance with professional standards.

In-service mentoring is an emerging trend to train entire teaching community (Jhonson et. al 2004). According to Little (2010) & Harris (2006), successful mentoring programme should have a set of composite elements; (i) mentor should be given effective training in communication and peer coaching techniques (ii) Focus should be given to the professional problems of the teachers (iii) Special consideration should be given at the beginning of the academic year, and (iv) Regular meetings between mentors and mentees should be planned throughout the year. American National Commission on Future

Teaching formulated (1996) that ideally mentoring programme should be well organized and well supported. It must be planned with low levels of teacher effectiveness and high rates of erosion. Results of different studies revealed that teachers are more likely to continue teaching in the schools in which they originally receive mentoring in their subject areas. According to Jhonson et. al. (2004), mentors and mentees should have mutual interactions so that meaningful conversation should occur about teaching.

For the purpose of this study, mentoring is defined as educational reform designed to provide support and training to in-service teachers as part of their professional development. Smith and Ensher (2004) say that in an effective mentoring programme, the mentors and mentees should be paired from the same subject and grade level. The mentors and mentees classrooms should be in close vicinity to each other. Mentor provides valuable support to mentee to answer the questions, sharing lesson plans, class observations and provides a valuable encouragement. Tourigny (2005) found that consultants who professionally train mentors stated that it was better for a school to have no mentoring programme at all than to have a bad mentoring programme.

2.2 HISTORICAL PERSPECTIVES OF MENTORING

Mentoring is a contemporary term but during the history of mankind the word "Mentor" was initially used by Socrates and Plato, Hayden and Beethoven, Freud and Jung (2010) as quoted Butcher (1890) said that the roots of the concept of mentoring were linked with the "mythology story" of Ancient Greece. The word "mentor' refers to a trusted friend, advisor, teacher, wise person or an experienced person. The renowned poem titled "The Odyssey" by Homers illustrated the concept of mentoring which was at least

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3,000 years old. This poem is frequently quoted in the literature of mentoring. Homer was the first man in the entire history of mankind who presented the idea of mentoring (CNA, 1994).

This story revealed that king "Odyssey", hero of the story, deputed Homer's Epic as a mentor to have a watch over his son "Telemachus" in his absence. In this literary description, "Mentor" was moralized as the guide and counselor who groomed the young prince for leadership. Gibson (2004) further clarified that old Greece used mentoring in fields of medical and teacher education. Athens sought a dominant concept of mentoring as instructional and hierarchical, based on hypotheses of paternalism and models of male development, even in all-female dyads. Athens credited the mentor for role modeling, counseling and increasing the self- esteem of employees.

The term mentoring was firstly used in the United States during 19th century (Clutterbuck, 2001& 2004) as cited by Stodgill (2010) who had sought the mentor as an ambiguous authority figure. Initially, the mentoring programmes were used for the professional development of teachers from 1960 to 1980 in the Northern States of America (Hargreaves 2000). The early phases of mentoring included: (i) pre-professional stage, (ii) autonomous professional stage, (iii) collegial professionalism stage, and (iv) professional stage (Hargreaves and Fullan, 2000). Teachers learnt through these stages to be good teachers largely through trial and error method. These early mentoring programmes improved the quality of teaching in the United States schools (Odell, 1990). During 1980s, many states started district mentoring programmes focusing on teacher's preparation and their professional development.

By this time, mentoring was spreading in the U.K. and other European countries, during 1970, a study entitled "a study on mentoring" was conducted in Holland, Ireland, Germany, Spain France, United Kingdom, the United States and Australia". The findings of the study showed that mentoring programmes helped out novice teachers in achieving the set professional targets. Clutterbuck, (1991a).Clutterbuck (1995b) cited the Agnes Missirian (1970) who argues for the development of mentoring practices. During this period, there emerged some recognition that the most successful mentoring relationships were blossoming into friendships.

Clutterbuck (1991a) wrote that in African countries, different practices of mentoring were used by the National Health Department to improve the health services. During 1980s, a number of organizations used mentoring programmes to develop their young graduate recruits, junior members and middle managers in Japan. Similarly, in the subcontinent, the term of *Guru and Chilla* refers to the concept of mentoring as quoted by the different religious scholars (Feeney, 2007). Popularity of the concept of mentoring was introduced by different scholars in educational areas through research of Levinson et.al. (1978) whose longitudinal study established the importance of mentoring relationships in young men's adulthood. The important function of mentoring is to support and facilitate the mentee to fulfill his/her emerging professional needs (Levinson et.al., 1978). Generally mentoring includes following objectives:

    i. To enhance the skills, knowledge and professional development of mentees.

    ii. To facilitate the mentees towards professional advancement.

    iii. To help and guide the mentees to acquire professional knowledge, customs and values.

iv. To provide a role model for the mentees' professional development (Levinson, 1978).

Many authors have attributed that mentoring is a relationship between a senior member of an organization and a junior colleague. Wherein, the senior colleague plays an active and vital role in the career development of the junior colleagues. Many philosophers in the annals of history have viewed mentoring as follows:

1. A process by which professionals of superior rank having special achievement instruct, counsel, guide and facilitate the junior professionals (Blackwell, 1953).

2. The socialization process of faculty members to enable them to learn academic rules.

3. It is a type of socialization to extend and expand the personal efficacy of junior employees (Moore, 1982).

4. In a mentoring programme senior colleagues are deputed who play their role as a model, consultant or adviser for younger colleagues (Wolfe, 2012).

2.3 CONCEPT OF MENTORING

Mentoring is a very complex process and it always varies from one condition to another. Mentoring was interpreted in different ways by different scholars at different times. In a particular context, the purpose and intention of mentoring is explicit. Mentoring is an off line help by one person to another in making significant transitions in professional knowledge (Clutterbuck, 2005). Usually, it is viewed as a face-to-face and long-term relationship to promote the mentees' personal, academic, or professional development

(Donaldson, et.al. 2005). Mentoring is a process in which very experienced person is deputed to teach a less experienced person. Various aspects unfold mentoring professional covering in a manner to strengthen the individual's capacity to further grow as a professional (Foster& Clark 2011). Goodwin (2006) has focused the following dimensions of mentoring process:-

i. **Direct practice:** Practical training through direct purposeful experience in classrooms.

ii. **Indirect practice:** Detached training in practical matters usually conducted in classes or in workshops within the training institutions.

iii. **Practical principles:** Critical learning of the principles of study and their practical implementation.

iv. **Disciplinary theory:** Critical study of the principles and its practices in the framework of fundamental theory and research.

Usually, mentoring involves psychosocial and professional development functions (Lewis, 2004). During the process of mentoring, mentor plays his/her role as a counselor or a friend for the psychosocial development of the mentees while, mentor plays his/her role as coach or sponsor for the professional development functions (Noe, 2008; Ragins, 2009 & McFarlin, 2010). Some educationists have visualized the role modeling as third function of mentoring embedded within psychosocial functions (Donaldson et al., 2005, Williams, 2008). All theorists agree upon multiple roles for the mentees development (Kram, 1985; Ragins, 2009, Miller, 2004).

Mentoring is configured as an aberration ranging from informal buddy system to formal and highly structured mentorship. There is a variety of mentoring programmes being

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implemented by schools. Mentoring and professional development have been used interchangeably throughout literature but a deliberate difference exists between these two terms. Conversely, mentoring is an ongoing professional development programme which is stated in collaboration with a mentor over a specific period or throughout the academic year. The breadth and depth of mentoring and professional development may vary in different contexts due to which many educators and researchers use these terms interchangeably (Little, 2010).

In the context of professional development of teachers, mentoring is an arrangement in which teachers are provided professional support and consultancy by experienced teachers i.e. mentors on different tasks and problems. Odell & Huling (2010) have formulated the following mentoring programme:

i. Mentoring programmes are collaboratively planned, implemented, monitored and evaluated by the key stakeholders of the organization.

ii. Mentoring is receptive to the evolving needs of mentor and mentees.

iii. Mentoring programme has focused on the mentees' desires to become good teacher as a developmental process.

iv. Mentoring programme should contribute to improving the schools culture.

v. Mentor assists the mentees to teach in accordance with professional standards for teaching and learning.

In the context of the professional development, mentoring is a well-known activity which apprehends with the practitioners in a work-based practice for the enhancement of their skills and knowledge. Murray (2007) has highlighted that mentoring is a deliberate pairing

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of a more skilled person with a less experienced professional to develop specific competencies.

Hall (2008) said that mentoring is an intentional relationship which focuses on self-development of less experienced professional through dialogue and reflection. Daresh (2010) wrote that mentoring is an ongoing process in which an experienced professional provides support/guidance to less experienced professionals. The Public Education Network (2004) has identified a set of components of an effective mentoring programme. This is explained in the following diagram:

Diagram No:1

Practices:

It is aligned with professional standard of teaching and learning

Design and Structure:

Mentor's sufficient input in the design and structure

(Public Education Network, 2004)

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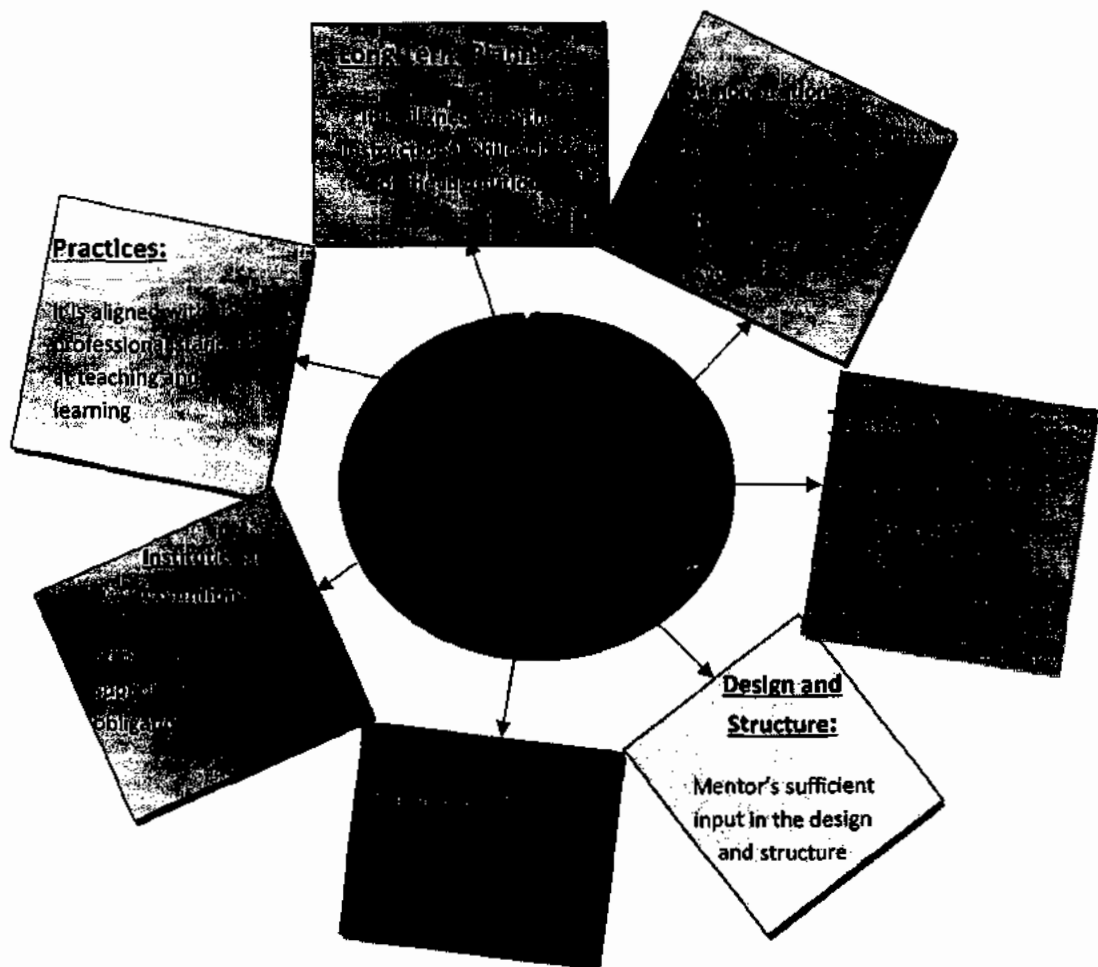
knowledge, experience and shared organizational perspective within the context of mutual respect and trust. Many facets of mentoring are integrated, covering:

- Personal and professional reflection.

- Sharing of expertise to others with common interests.

- Portfolio development.

- Creating learning communities.

- Professional orientation of mentors and training of mentees.

Mentoring relations can be traced back to Greek mythology (i.e., the relationship between Mentor and Telemachus). Organizational mentoring has gained the attention of academicians and practitioners only within the last three decades (Scandura, 2007). The generic meaning of a mentor is a "father figure", which guides and instructs younger individuals. In the last thirty years, much has been written about mentoring and its potential for enhancing the process of learning and developing an organization's human resources (Ehrich, 2010).

According to Kram (1983), mentoring is a relationship between an experienced employee and an understudy where the experienced employee acts as a role model and provides support and direction to the mentees. Conceptually, mentors may take on the role of a teacher, advisor, and a sponsor for their respective mentees. The actual act of mentoring has been known under other names including guild, artisanship, and apprenticeship. In the classical model of mentoring, there is typically a one-on-one interaction of unrelated individuals of different ages who network on a regular basis. The operational definitions of mentoring vary from programme to programme and institution to institution. Merriam (1983) posited that mentoring appears to mean one thing to developmental psychologists,

another thing to business people and a third thing to those in academic settings. However, it is generally considered to be a relationship where a person with greater experience supports a person with less experience (Hall, 2006).

This study focuses on the role of mentoring teacher training for their professional development. Mentoring is a structured and trust relationship that brings young people together with caring individuals who offer guidance, support and encourage developing the competencies and character. Mentor usually acts as a sponsor who provides professional potential to mentees with exposure, coaching, and visibility into the professional development (Egan & Song, 2008). Mentoring includes following three broad components: (a) emotional and psychological support, (b) direct assistance with career and professional development, and (c) role modeling (Ehrich, et al., 2010). Sherman, et. al. (2000) has explained following components of mentoring:

1. The relationship is ongoing, developmental, reciprocal, and non-evaluative. It also motivates individuals to learn and acquire new professional skills.

2. Mentors have strong interpersonal skills including relationship building, team building, and communication skills. In addition, they have a reflective attitude and willingness to improve their own performance.

3. Mentors assume to play a variety of roles including coach, sponsor, nurturer, advocate, learner, leader, and guide.

4. Reflective learning strategies such as observations and feedback conferences, videotaping, journal writing, portfolio development, and role modeling are employed.

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5. The mentoring process changes its nature over time, with the mentee eventually emerging as a competent, self-confident, self-reflective practitioner.

2.5 FUNCTIONS OF MENTORING

Mentoring is important for both newly recruited teachers and already working teachers to meet their academic and professional duties effectively. Mentoring occurs in various settings with different functions to accomplish different objectives. According to Kathy (2001), general functions of mentoring include:

1. **Teaching:** Teaching is first function of mentoring in which the mentor teaches new skills to mentee unconsciously or consciously.

2. **Sponsoring:** Mentor identifies the strengths and weakness of the mentee.

3. **Encouraging:** Encouragement is a key function of mentoring. Mentor helps the mentee to observe the positive side of their teaching practice and building on those reflections.

4. **Counselling:** Counselling is the fourth function of mentoring. Mentor provides counseling and sound advice regarding teaching practice and professional conduct of the mentees.

5. **Befriending:** The fifth function of mentoring is befriending that mentor are always friendly with the mentees so that they can speak freely.

Typically, mentoring programmes pair novice teachers with more experienced teachers who can explain school policies, regulations and procedures; share methods, materials and other resources; solve problems in teaching and learning; provide personal and

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professional support; and guide the growth of the new teacher through reflection, collaboration, and shared inquiry, (Feiman and Parker, 1992, & Little, 2010). In teacher education, mentoring is considered as a complex and multi-dimensional phenomenon. It is planned in such a way that mentors guides and advise the teachers on mutual trust and belief.

This study is based on Kram's (1983) theory of mentoring. This theory explains how mentoring programmes influenced the professional development of teachers. It establishes a professional relationship. Kram (1983) mentoring is a relationship between an experienced teacher and newly recruited teachers where the experienced teacher acts as a role model and provides support and direction to the mentees. Coaching is an operational training. It helps a younger or less experienced person develop skills, knowledge, competence, interest or abilities in a special area (Maughan, 2006). There are other composite terms such as guidance, artisanship and apprenticeship.

Kram conducted a study that looked at the phases of the mentoring programme, and was able to demonstrate that the mentorship relationship has enormous potential to facilitate career advancements. Mentors are generally categorized based on their mentoring functions. Career/ professional functions and psychological functions are the two main mentoring categories that have been supported by the literature (Allen & Day, 2002). For the purpose of this study, the researcher focused on professional functions, which included sponsorship, coaching, interaction and the provision of challenging assignments.

2.6 TYPES OF MENTORING

Generally, mentoring occurs either on informal or formal settings. Following are the important types of mentoring.

1. **Formal Mentoring**

2. **Informal Mentoring**

3. **Co-Mentoring**

4. **Developmental Networks and Mentoring**

2.6.1 Formal Mentoring

Formal mentoring is used throughout the world and it is recognized as a prominent tool for the professional development of teachers in the United States and Australia. History of the formal mentoring dates back to 1931 with "The Jewel Tea Company" (Cameron&Jesser,2010). Formal mentoring is a strategy to provide support to those teachers who are intense for career development (Kram, 1985; Gibson, 2004). Formal mentoring relationships involve systematic assignment of mentors to mentees (Schwiebert, 2000). It is accomplished by a careful pairing of mentee and mentor in order to develop specific skills and competencies. It always exists in a planned way in training organizations or at workplaces where an institute allots the mentors to mentees for professional and career development (Hansman, 2006). Douglas (2013) maintained that in organizations which have formal mentorship, a handful of the senior staff and new or junior staff are involved. The mentors support the mentees to identify their career potential and to work towards achievement of professional goals (Connor and Pokora, 2007). Tannenbaum (2003) supported that when the objectives are career centered, the formal mentoring provides the organization with the greatest chance for success.

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The formal mentoring is a developing process that supports and facilitates learning (Parsloe, 2004). The formal mentoring supports new teacher growth as well as developing mentors' professional practice (Gless, 2006). Formal mentoring programmes vary usually in their methods to match mentors and mentees, and training of individuals involved in mentoring. Formal mentoring programme implores important identical criteria from both parties likely to recruit effective mentorships (Miller, 2004). In formal mentoring, the matching criteria includes proficient interests, demographics i.e. location, human awareness factor, personality, and values.

Major advantage of formal mentorship includes the following points: (i) it ensures that mentorship is extended to individuals who had not been considered previously within the organization; (ii) commitment of mentors; (iii) compatible with mentee training needs; and (iii) competency in technical and interpersonal skills. Thus, formalizing mentoring by making it a compulsory aspect of staff development, will not automatically guarantee its immediate acceptance and adoption. Formal mentoring relationships grow within executive organizational arrangements that are purposely designed to facilitate the specific professionals. Acheson & Gall (2003) have classified six major characteristics of formal mentoring programme which directly affect the programme effectiveness; (i) objectives of programme, (ii) selection procedure of participants, (iii) matching of mentors with mentees, (iv) training criteria of mentors and mentees, (v) procedures for occurrence of meeting and (vi) a goal-setting process.

Summing up the characteristics of formal mentoring, Cluttertbuck (2004) has established the following sequence:

- A sense of direction
- Set of specific goals
- Inclusive training
- Appropriate environment
- On-going review
- Setting of boundaries
- Measureable outcomes
- Open access is open to all
- Mentors and mentees compatibility
- Organization and employee both benefit directly

2.6.2 Informal Mentoring

Informal mentoring is known as natural mentoring relationships. The informal mentoring relationship is different from the formal mentoring. Informal mentoring relationship occurs without planning or management and without any external intervention at organizational level (Egan and Song, 2008). Informal mentoring relationship tends to be more successful than formal mentoring relationship as it results in increased visibility, confidence and achievement of promotions. An informal mentoring relationship continues much longer than a formal mentoring relationship. Informal mentoring process happens in a natural setting throughout the society and workplace (Bell, 2000).

An informal mentoring is an intense relationship, lasting eight-to-ten years, in which a senior person oversees the career and professional development of a junior person. The informal mentoring is distinct from formal mentoring relationships. It is characterized

by logically developing involvement between the mentor and the mentees. The informal mentoring relationship focuses on the accomplishment of psychosocial objectives (Chao et. al., 2002). Informal mentoring relationships develop spontaneously and are not managed within a larger organization. A mentor reaches out to a mentee and a relationship develops which benefits the mentee's career and professional development. Informal mentoring focuses on enhancing the mentee's self-esteem and confidence by providing responsive support and recognition of common interests (Blanchard, 2003). Blanchard (2003) argued that informal mentoring relationship usually happens impulsively. Such relationships are largely psychosocial (Gray & Gray, 1990; Kram, 1985). In occupational context, the relationships are interactive.

Informal mentoring often results in a lasting friendship which benefits both the mentor and the mentees. Due to spontaneous development, these relationships depend somewhat more on the individuals having things in common and feeling comfortable with each other from the beginning. The relationship may develop out of a specific need by the mentee around a task or situation for guidance, support, or advice. The relationship is most likely to be initiated by the mentee as she or he seeks support around a specific task and skill. The task is specific and goal orientated. Characteristics of the informal mentoring programme are discussed below:

Egan and Song (2008) have formulated the following Characteristics of informal mentoring:-

- Relationships develop as "natural" match, not assigned by the third party.

- The relationships are mutual and develop over time.

- These relationships are facilitated by professional colleagues.

- This leads to different networking opportunities i.e. social links.

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- Unlike formal mentoring programmes they are not limited to time agreements.

- Informal mentoring programme provides high level of coaching as the mentor carries a greater professional commitment.

- Informal mentoring helps in managing and strengthening the new culture through one-to-one and direct purposeful interaction.

- Resultantly, relationships lead to long lasting friendship.

Formal and Informal Mentoring are also known as planned mentoring and natural mentoring. Generally, the formal mentoring or planned mentoring occurs through structured programmes in which mentors and mentees are selected through a prescribed process. The formal mentoring programme generally has written goals, strategies and plans from the mentor, the mentee and the organization. They are institutional in character. Informal mentoring or natural mentoring essentially emerges from intrinsic difference between mentor and mentee towards the process of professional commitment of the mentor. A modified table of comparison of the characteristic differences of formal and informal mentoring originally initiated by Egan and Song (2008) and Cluttertbuck (2004) illustrated the distinction between the two treatments.

Comparison of Formal and Informal Mentoring

Sr. No.	Formal Mentoring	Informal Mentoring
1.	Formal mentoring is structured	Informal mentoring is
2.	It is organizational driven	It is mentees' driven
3.	In formal mentoring the involvement of third party ensures its standards	There is no involvement of third party here
4.	Mentors are professionally trained	Mentors are experienced
5.	Formal contract between the mentor and mentees	Verbal or tacit contract between the two
6.	There is written agenda	There is un written agenda

7.	Entail exit goals and expectations	Expected goals and outcomes
8.	well-known boundaries	No-clear boundaries
9.	Measurable outcomes	Demonstrated touch and outcomes
10.	Experts' training and support	Absence of experts' training or support
11.	Direct organizational benefits	Indirect organizational benefits
12.	Strategic pairing of mentors and mentees	Self-selection of mentors and mentees
13.	Mentoring agreement exists	There is no mentoring agreement
14.	Limited time span	Unlimited time span

(Egan & Song, 2008)

The formal mentoring relationships are usually operated within the organization under specific policy and lined administration. The two treatments are at variance in content and form.

2.6.3 Co-Mentoring

The co-mentoring relationship is a recent concept (Huwe, 2003). Co-mentoring relationship is based on reciprocal benefit. In this relationship, the status of each person is equal and the communication pathway is reciprocity with each person. Both persons mutually get benefit from the relationship.

Huwe (2003) defined co-mentoring relationship as synergistic that provides opportunities for sharing purpose and commitment in common projects. Higgins & Kram (2001) documented their personal co-mentoring experiences and discussed how these experiences were mutually beneficial for each other. Their discussions were based on collaboration and shared decision making. The ability to collaborate and share was seen as an opportunity to strengthen personal and professional skills. Rymer (2002) discussed two essential components necessary for a successful co-mentoring relationship. The relationship should be hierarchical relationship rather than personal.

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The co-mentoring relationship serves the individual needs of each person involved in the relationship. Often both individuals act as partners to acquire professional knowledge and skills. The co-mentors may be of different ages and have different expertise, skills and knowledge.

2.6.4 Developmental Networks and Mentoring

In the mentoring process, the mentees often have more experience than one mentor throughout their careers. In this form of mentoring, mentee gets a benefit from different mentors' having variety of professional experiences and backgrounds. Different mentors may be able to address different developmental needs of mentees to facilitate them in career development. Filstad (2004) observed that most organizational newcomers had to play multiple role models that served different needs during the work. Kram (1985) recognized relationship patterns that provide multiple sources to mentees: (a) the diversity of social systems from which mentees to develop relationships, and (b) the strength of these relationships. Consistent with developmental networks, the matrix recognizes that one mentor may not address all of the mentee's developmental needs and additional mentors may be needed to fill the gaps.

2.7 APPROACHES OF MENTORING

Mentoring relationships are the professional relations in which a mentor assists the mentees in developing desired professional knowledge and skills which are necessary for his/ her professional growth. The common approaches used for the professional development of the teachers by the different organizations are: (i) one to one mentoring, (ii) group mentoring, (iii) team mentoring, (iv) peer mentoring, (v) virtual mentoring, (vi) reverse mentoring, (vii) flash mentoring, (viii) cross gender mentoring, (ix) cross

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culture mentoring, (x) cross generation mentoring, and (xi) cross agency mentoring (Egan & Song, 2008). All approaches of mentoring are critically discussed below.

2.7.1 One to One Mentoring

This approach is widely adopted for the professional development of in service and pre-service teachers. In this approach, mentoring by a senior teacher is paired with a junior teacher to provide him/ her guidance, support, and encouragement to enhance the professional development skills. This approach of mentoring is also known as workplace mentoring where a senior teacher helps the beginning teachers for career and professional behavior advancement (Douglas, 2013). Results of the study of Filstad (2004) pointed out that, (i) one to one mentoring approach was effective for the professional development of a teacher at school, (ii) it also provides access to teacher to maintain career and professional development, and (iii) it was helpful in understanding the academic and career plans.

The educational institutions utilizing this mentoring technique always ensured that pairs have extensive matching potential to form strong and long term mentoring relationships (Douglas, 2013). In one to one approach, mentor and mentee work together for one year (Clutterbuck, 2004 & Connor, 2007). According to Hagger (2006), some studies have pointed out that one to one mentoring is the extreme requirement of beginning teachers to do some practice with the experienced teachers. It helps the beginning teachers to shoulder their responsibilities such as adjustment in school environment, routine matters, procedures and policies, classroom management, familiarity with the curriculum and instructional strategies. In this approach, mentor spends time with mentee during school hours or after the school timing. Mentors spend time in classrooms, in the library or at

other available places in the building of the schools (Filstad, 2004 & Daniel, 2006). The benefits of this approach are that it encourages the mentor and mentees personal relationships. It also provides the critical support to mentee and attention of the organization. Major drawback of one to one mentoring is the availability of suitable mentors.

2.7.2 Group Mentoring

Group mentoring refers to professional association between the individuals of an organization to promote the career advancement of its members through a group leader. Group mentoring provides numerous kinds of mentoring supports i.e. sharing, advice, coaching, counseling and empowering individuals to acquire better professional competencies (Gibson, 2004). Usually, one mentor is assigning the mentees to work with several or one group of mentees (Hansman, 2002).

Briefly, this type of mentoring requires less commitment, less resources and a greater number of individuals can get benefit from this approach with the contribution towards their career development (Parsloe, 2004). Group mentoring provides multiple levels of expertise and knowledge because each member of group brings his own competencies to the group leader (Tourigny, 2005).Wills, et.al. (2009) introduced group mentoring strategy called "mentoring ring" which is initiated for different reasons. In the ring mentoring, all employees of the department are organized in different rings which are mentored by the senior executives of the department.

In group mentoring relationships, each mentee shares own professional experiences and it results in deep connection between mentor and the mentee (Herrera, et. al., 2006 & Office of Personal Management of United States of America, 2008). The Corporate Executive

Board of U.S.A. (2005) conducted group mentoring forums of managers twice a year for sharing of experiences of the teachers within the department. The mentees shared and reviewed the experiences of lessons learned of different institutions. The mentees learn from not only the mentor but also from their group members. Young (2006) stated that group mentoring frequently provides experiences of several supports like advice, information sharing, social support, and empowering individuals to greater competency. Major benefit of group mentoring is that it focused on the number of mentors for large groups of mentees. (Donaldson, et.al. 2003). The potential advantages of group mentoring include: (i) cost-effectiveness, (ii) contributes to programme experiences, (iii) reduce the risk factors, (iv) uses the power of peer relationships, and (iv) create history. The limitation of the group mentoring is that it is limited with the intricacy of scheduling of commitments of mentors and the mentees. There is also lack of personal relationships development which most of the mentees prefer to have with the mentors (Ensher, et.al. 2004). The inherent limitations of group mentoring further include: (i) it is not one-to-one and (ii) less result-oriented.

2.7.3 Team Mentoring

Some organizations are utilizing team mentoring approach in which more than one mentors work with the same mentee depending on the conditions. The ratios in team mentoring are similar to as in the group mentoring (Young, 2006). In this approach, a team of mentors works with entire classroom for a specific period of time for the provision of skills and sufficient training (Ralph, 2004). In addition to the mentors, the mentoring team includes a senior teacher, parent, or another person from the community (Darling, et.al. 2006).

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2.7.4 Peer Mentoring

In peer mentoring approach, the peer mentee learns new thoughts and the peer encourages the mentee to move for the practices that are most comfortable. Fullan (2000) described that peer mentoring plays a most important role to develop professional culture in the institutions. This mentoring approach takes place between a person who has lived through a specific experience and a person who is new to that experience. Peer mentor provides support and learning opportunities to the newly appointed teachers (Wanberg, 2006). According to Colvin (2007), peer mentoring is an alternate strategy to enhance the professional development of the new mentees.

The new teachers faced problems in dissolving their academic, personal, vocational and social issues which were based on initiating a peer mentoring relationship. Peer mentoring provides assistance to the newly appointed teachers suffering from a specific experience to learn from experienced teachers (Ensher, et.al. 2006). Peer mentoring programme gives equal chance to the mentors and mentees with exposure to the best practices (Moore 2009). It allows the mentor and mentees to work collectively in sharing and planning, teaching and evaluation of lesson. The mentor and mentees plan mutually and perform different roles in teaching.

In this approach, teacher picks the skills and confidence towards their professional advancement. Peer mentoring programme is designed to match participants who share a great deal in common (Cameron, 2010). The goal of peer mentoring is to use the mentor experience and knowledge in a positive way to persuade the mentee's professional development (Arnaud, 2006).

Lindstrom (2007) found that those are the successful peer mentors who take true interest in the success of their junior teachers or colleagues. McDougal (2007) in a comparative study analysis of peer mentoring found that the teachers who were mentored through this approach were more inhibited as compared to other teachers. He further added that a teacher having a peer mentor was more effective as compared to a teacher having a senior and experienced mentor. The teachers who are mentored by the peer mentors may feel more comfortable in acquiring knowledge, skills, removing their difficulties and asking advice.

The peer mentoring is seen to assist in developing mutual support and sharing a common learning need with mentees. Through this, collaboratively working mentors and mentees gain greater understanding to meet joint teaching needs (McDougal, 2007). A successful mentoring programme always develops this kind of relationship (Corunu, 2005).In general, peer mentoring is seen as another way to give the mentee thorough exposure to mentors professional learning, knowledge and experiences only when there is complete teamwork between mentor and mentee.

2.7.5 Virtual Mentoring

This contemporary approach is used when face to face contact is not possible. Virtual mentoring is suitable for the organizations and departments which are located in diverse geographical places. Virtual mentoring process involves one to one matching and it is generally carried out through distance learning modes (Ragins, et.al, 2012). The mentees communicate each other using electronic correspondence such as e-mail and video conferencing. Virtual mentoring is helpful in developing a positive relationship between the mentors and mentees which is based on face to face contacts (Gibson, 2004). In this

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approach, mentors' primary role is to help teachers connected with campus resources for achieving academic success. It also supports mentees to answer a wide range of students' questions.

2.8 MODELS OF MENTORING

Many mentoring models are in vogue for professional development of the teachers. They include: (i) Apprenticeship Model, (ii) Competency Based Model, (iii) Reflective Model, (iv) Anderson and Shannon Mentoring Model, and (v) The Clinical Mentoring Model. The detail of these models is given below:

2.8.1 Apprenticeship Model

The apprenticeship model has received several considerations within the field of education and training. This model focuses on cognitive development of the novice teachers who are facing many problems in getting professional knowledge and skills (Furlong & Manynard 1995). According to Brooks and Sikes (2006), the mentoring model has made an important contribution to enhancing learning of the teachers. Culllingford (2006) maintained that the mentoring model has vast implications in the professional development of the teachers.

This mentoring model visualizes the mentor as a skilled and expert person possessing all the necessary skills relevant to his/her field (Zeegers, 2002). In context of novice teachers, the mentors have necessary expertise in teaching and learning, focusing on the professional development of the teachers. It can be argued that the task of the mentor is to provide teaching skills, techniques and resources to the mentees. This model also gives advice, suggestion and support to the teachers who are facing in making their teaching more effective (Odell, 2010).

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In-spite of a few concerns, this mentoring model is recognized as useful and valuable strategy for the professional development of teachers. Principally at the preliminary stages of teaching, when teachers faced many problems, specially the beginning teachers can seek benefits from observing and emulating the mentors.

This model is considered a powerful strategy for novice teacher's personal and professional growth. This model enables the novice teachers who had limited pedagogical experience. The apprenticeship model guides the teachers in eliminating their initial difficulties.

2.8.2 Competency Based Model

The Competency Based Model was illustrated by the Brooks and Sikes during 1996. In this mentoring model, the mentor acts as systematic trainer of the mentees. The mentor performs his duties like a craftsperson and processes the essential knowledge and skills in teaching and learning (Cullingford, 2006). The mentor schedules a heavier liability to ensure that the mentoring process is well planned, structured and systematic, which facilitates the mentees in achieving mastery in the competencies for their teaching practices (Brooks and Sikes, 1996).

This mentoring model is based on behavioral outcomes and teaching competencies. This model also lays emphasis on the performance criteria of the mentees related to their professional development. Brooks and Sikes (1996) further maintained that in Competency Based Model, the mentor has to perform his/ her role in true spirit like model-trainer. Despite many benefits, this mentoring model is limited to expected competency parameters. The mentees require flexibility to choose a specific competency from the usual competencies. Cullingford (2006) argued when the teacher learned and attained certain required teaching competencies that may stop after achieving certain level of skills. The

mentors then plan for ensuring that the mentees should be practical and the learning should be ongoing course of action in the professional development of teachers.

This model specifically focuses on planned outcomes and values that provide an inclusive set for the pre-defined competencies. Specific competencies include cooperation and guidance towards achievement of professional development targets.

2.8.3 Reflective Mentoring Model

This mentoring model has been extensively used in teacher training and recognized as very influential in enhancing teaching and learning process particularly for the professional development of novice teachers. Many terms are used e.g. "teacher as problem solver", "teacher as a professional", "inquiry-oriented teacher education" and "teacher as decision maker" and the like. All these terms form the concept of a few reflections that contribute toward the professional development of the teachers (Brooks& Sikes 1996). Generally, there are two approaches of "mentoring reflections"; (i) reflection in action, and (ii) reflection on action (Schon, 1986). The "reflection in action" takes place in a set of routine teaching activities and "reflection on action" always takes place when event is over i.e. reflection during classroom practices through interactive feedback. Ghay (2011) has defined similar two types of reflections; (i) Reflection for action, and (ii) reflection with action.

i) Reflection for Action; this type of reflection is a subsequent reflection to the event, typically designed to improve further action. It is a procedure for building logic for action by using and learning form of experiences. Reflection on practice helps the beginning teachers/ mentees to make principled and judicious decisions for the professional learning. It is a creative process and gains encouragement and intellectual capacity to turn

insight into improved action of learning. It not only focuses on experience based learning but also empowering the teachers to be creative in building their knowledge. It also helps the teachers to imagine and cultivate the difficulty of improved teaching and learning situations (Ghay, 2011).

ii) Reflection with Action; This type of reflection issued in daily classroom practices. This reflection makes an absolute knowledge based on practices and begins with real teaching (Ghay, 2011).

This model visualizes teaching as a craft in getting and gathering of the proficient teaching skills. The mentors are expected to work side by side with the mentees and to reflect upon their own practices. Reflection contributes in developing self-awareness in mentees and promotes the roles in an effective mentoring relationship. Creative thinking is inculcated in mentee through discussions and interaction. Reflective mentoring is useful when mentees have achieved basic competencies and confidence in teaching.

2.8.4 Anderson and Shannon's Mentoring Model

According to this model, mentoring is a nurturing process in which mentor performs various nurturing functions to support the teachers for their career and professional development (Anderson and Shannon, 1995). This definition reveals; (i) the process of nurturing; (ii) act as role model, (iii) mentoring functions i.e. teaching, encouraging, counseling, sponsoring, and befriending. The key functions are outlined below:

i. The first mentoring function "nurturing" refers that teaching is related to teaching behavior' setting role modeling, confirming and questioning.

ii. Protecting, supporting and promoting the mentees. Protecting means that the mentor could help a mentee's discipline problems in the classroom.

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iii. Supporting mentees means providing assistance in teaching activities

iv. Promoting means mentors could introduce their mentees to other teachers and to other working committees in schools.

v. Encouraging refers to insisting, stimulating, and demanding activities which are helping the mentees to enhancing their professional experiences.

vi. Counseling function involves listening, inquiring expounding and advising the mentees towards their classroom issues.

vii. Befriending involves the mentor spending time with the mentees in making them feel accepted (Anderson & Shannon, 1995).

Nurturing means that the nurturer helps the mentees in providing a situation for the professional growth of the mentee. The mentors help and operate in deciding with a belief that the teacher being nurtured has the ability to build up more maturity (Anderson & Shannon, 1995).

Through role model, mentors support the teachers and stimulate their personal and professional development. The role model involves and incorporates an interactive developmental process between an experienced mentor and the mentee through three types of disposition. These dispositions relate: (i) first the mentor's disposition to offer opportunities of observation of self in action. The mentor provides them the reasons and explanation of decisions and outcomes to the mentees of their performance, (ii) second disposition is that the mentor leads their mentees over the time and (iii) the third disposition is the mentor's disposition in which mentor is supportive and imaginative to facilitate the personal and professional development of the mentees (Anderson & Shannon, 1995).

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This model highlights the nurturing as essential for an effective mentoring programme. It supports caring atmosphere where the mentor has to perform defined roles towards carrying out their activities. It emphasizes in establishing good relationship, understanding and emotional support as crucial components which contribute towards the professional development of the mentee (Anderson & Shannon, 1995).

2.8.5 The Clinical Mentoring Model

This model was initiated by the Goldhammer during 1980s for the professional development of teachers. This model focused on the improvement of mentoring practices through face-to-face interaction between mentor and mentees. The purpose of this model was to analyze and improve teacher's behavior for classroom instruction. This mentoring model used the available data from the first hand classroom observations of actual performance of teachers. Machado and Bontanrescue (2006) described that clinical mentoring was put into practice by Cogan during 1950s in the faculty of Arts at Harvard University. It was then adopted by other universities in teacher training programmes and for the professional development of school teachers.

Rebecca (2007) added that this mentoring model is helpful for the improvement of classroom teaching practices by providing more planned and supportive approaches to teachers. Botnarescue suggested that his model focused on direct observation of current classroom teaching performance of teachers. The model is linked with a cyclical process of classroom observations containing following three stages, (i) pre observation, (ii) observation, and (iii) post observation. All these three observations should take place during the classroom teaching. Acheson & Gall (2003) described this model as a distinctive style mentoring process for the professional development of teachers. The

mentoring process under this model is effective as mentor's mind, emotions, and actions work together to achieve the primary goal of professional development.

Symth (1984) stated that the clinical mentoring model involves teachers to carry out more accurate and precise reflective practices in their teaching. The emphasis of this model is on understanding the meaning of teaching and putting predictability in this process for self-evaluation. Acheson and Gall (2003) further illustrated that the cyclical process of clinical mentoring has three major components.

i. Mentor meets with the mentees and plans schedules for the classroom observations.

ii. The mentor observes the lesson systematically and records the information linked with the objectives already set during the planning phase.

iii. The mentor then again meets with the mentees and analyzes the following:

    a) Mentor analyzes the recorded data of mentee teachers.

    b) Interprets the information from the mentees perspective, and

    c) Taking decisions about the next steps.

Essentially, this is ongoing process to provide support to pre-service teachers and those who have many difficulties in their field of teaching. However, the clinical mentoring model is not without problems. According to Acheson and Gall (2003), few teachers tend to be distrustful and do not find it helpful for the eradication of their problems. Anderson and Shannon. (1995)) stated that it appears that this model lacked reciprocity and caused a lot of stress for mentees due to frequent supervision while Yusko (2004) established that this mentoring model has become more mentee centered. It allows the mentor to identify learning goals of mentees focusing on classroom observations. It also helps out in analyzing the observational data and to take part in the selection of learning materials

and teaching resources. This role of the mentor shifts to an active participant by setting mentee's personal learning goals and focuses on their personal and professional growth. The mentor shifts from being a technical evaluator to one who listens to the teachers concerned. Mentors help the mentees in selecting appropriate goals and observe the classroom according to mutually agreed upon goals and helps mentees analyzing their teaching (Acheson & Gall (2003).

2.9 MENTORING PRACTICES IN GLOBAL CONTEXT

In global content the mentoring programmes for the professional development of teachers of USA, Japan, South Africa and Zimbabwe are given below.

2.9.1 Mentoring Programmes in United States of America

Mentoring is used as a prominent tool for the professional development of teachers for personal guidance in the United States of America (Smith and Ingersoll, 2004). The mentoring programmes for professional development of teachers are used widely from last few decades as a necessary to provide expert guidance to teachers in practical classroom settings (Grant, 2004). These mentoring programmes are specifically designed for individuals who have just left the university and transitioning into the real world of schools (Ingersoll and Kralik 2004, Smith & Ingersoll 2004). In such programmes, experienced teachers attempt to improve the instructional skills of their juniors. The experienced teachers keep engaged novice teachers through different mentoring strategies. The University of Tennessee, the University of Miami and the University of California are using different approaches of mentoring to teach new teachers (Sanders, 2004).

i. **The Urban Impact Mentoring Programme:** The University of Tennessee-Chattanooga and University of Knoxville have designed and implemented the urban impact mentoring programme. This programme is school-based to provide support to novice teachers in high-need urban schools of USA (Snodgrass, 2004). Each school identified a team of educators who attended a two-day mentoring workshop sponsored by the Tennessee Academy for School Leaders (TASL) during the summer to learn new teaching strategies. This is followed up with a one-day meeting session during the year to assess the outputs of mentoring. Teams consist of secondary level teachers to provide mentoring to elementary level school teachers (Lemke, et.al, 2004).

ii. **Project School University Community Coalition for Excellence in Education:** Project School University Community Coalition for Excellence in Education (SUCCEED) was initiated at the University of Miami to establish a mentoring network to support novice teachers. This mentoring network encompassing graduates from the University of Miami as well as other new teachers from partner schools. It is managed by experienced high school teachers in collaboration with partners. Teachers are matched with mentors who have already received training in targeted areas. Follow-up days for mentoring activities are held throughout the year (Neild and Spiridakis. 2003).

2.9.2 Mentoring Programme in Japan

In Japan, educational reform has been going on since last twenty years for the professional development of teachers. Similarly, participation in mentoring programmes is obligatory for beginner teachers and in-service teachers (Charles, 2002). Some teachers leave soon who feel overwhelmed by their classroom experiences. To address the professional problems of such teachers, mentoring system includes; usage

of videos, video-based reflections between mentors and mentees. The database created for the beginning teachers enable teachers to learn new practical knowledge through the internet and recorded videos (Darwin & Palmer, 2009). Mentoring system introduced in Japan encourages mentors and mentees to learn reciprocally. This system has helped the beginning teachers to acquire new ways of reflection and other perspectives of teaching based on their own teaching. Major concern of the mentoring programme is how to learn and how to teach by reflecting on their own teaching practices. The main aim of this system is for each beginning teacher to be aware of his/her own problem of teaching and this problem constitutes their research question (Chan, 2008). Results of the study of Jawitz *revealed that Kounai-ken* programme has enabled the mentees to become aware of their own professional problems and come to ask questions from their colleagues. This system prompted the mentee to engage in a reflective teaching cycle (Jawitz, 2009). This system encouraged beginning teachers to engage in systematic reflection consisted of following main components:

i. Teaching practice by beginner teachers.

ii. On-going cognition of the issues of teaching practice.

iii. Making video clips from mentors' cognition,

iv. The conference by mentor, mentee, and university staff (Charles A., 2002).

2.9.3 Mentoring Programme in South Africa

South African school teachers face huge challenges that have an impact in the running of their schools. Jugmohan (2010) argues that there was the need of comprehensive mentoring programme to help the school teachers for their professional development. There have been quite a number of innovations in the South African curriculum in the

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recent years and teachers have had to deal with such innovations brought by educational transformation. The Government of South Africa has started a steered mentoring programme to enable teachers to face the new professional challenges through their senior and experience teachers. According to Ellinger (2010), the process of mentoring enhanced promotions in early career advancement, great job satisfaction and reduced turnover among mentees to meet new innovations.

The Wallace Foundation Report (2007) on mentoring contends that the primary goal of mentoring in South Africa was to provide teachers with the knowledge, skills and courage to become leaders of change who put teaching and learning first, in their schools (Koki 1997). Moreover, formalizing the mentor role for experienced teachers creates another career ladder for teachers and contributes to the professionalism in education (Koki 1997). Furthermore, mentoring is one of the crucial vehicles for creating learning organizations for professional development of the teacher in the country. A large number of South African schools are dysfunctional; especially those situated in historically Black African areas. Cruddas (2005) says that school improvement is more important than raising standards and having no gaps between the highest and lowest achieving learners. There are four types of mentoring programmes that have been initiated for the teachers' professional development in South Africa.

   i. **Highly-structured, short-term mentoring**: Novice teachers are paired with an experienced teacher.

   ii. **Highly-structured, long-term mentoring**. A successor is groomed for a new position.

   iii. **Informal, short-term mentoring**: It is referred as "off-the-cuff mentoring. There

may not be an ongoing relationship.

iv. **Informal, long-term mentoring:** it is sometimes referred to as "friendship mentoring. Mentor is available on a casual basis over a long period of time (Jugmohan 2010; Msila 2011).

2.9.4 Mentoring Programme in Zimbabwe

Zimbabwe has very poor economic environment in most of its schools operating without required resources. Inspite of this, she has initiated effective mentoring programmes for college and school level teachers known as school based mentoring for teachers (Ingersoll, 2004). This school based mentoring comes with its own challenges that may militate against the drive for quality education (Sanders, 2004). It has played a critical role in the professional and personal development of teachers in school and colleges of Zimbabwe. Under these mentoring programmes, a senior teacher plays a leading role in enhancing the pedagogical and professional skills of newly inducted school and college teachers. Formal school based mentoring equipped the mentors with specific mentoring skills by collegues during their training days.

Mentoring programmes have taken a leading role in Govt. Schools of Zimbabwe (Sanders, 2004). The experienced college teachers trained the new teachers in school compounds and supervised their teaching practices throughout the academic year. It has the classroom based theory exposition approach. These mentoring practices provided them the ways to enhance their skills and improve their teaching practices.

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2.10 PROFESSIONAL DEVELOPMENT OF TEACHERS

The rationale of professional development is to create effective and efficient teachers. For the last five decades, educationists, teachers and parents have argued how to develop effective educators for successful transmission of content knowledge to students. Professional development has been a part of teaching for the past five decades. Developing effective professional development programmes for teachers is critical to student achievement and ultimately all of society (Glasser, 2009).

Professional development is a comprehensive, sustained, and intensive approach to improve the professional skills of the teachers and increase the effectiveness in raising student achievement. Professional development is conducted for teachers at institutional level and facilitated by good professional development coaches, mentors and master trainers. American National Commission on teaching (2009) explained that professional development is ongoing learning opportunities available to teachers through their respective organizations. Effective professional development is seen as increasingly vital to school success and teacher satisfaction to meet the complex challenges facing an increasingly diverse population of students and to meet the rigorous academic standards and goal observers which stresses the needs of teachers to enhance their instructional knowledge.

2.10.1 Objectives of Professional Development of Teachers

Professional development has become an integral part of teacher education and training for last few decades. It has been cooperative in all fields of profession throughout the world. Different professions have defined the professional development in different ways; it is a structured approach in learning and certifying

the competencies to practice (Sekwao, 2004). Continuous Professional Development is an academically enhanced process of teacher professionalism pedagogically and ethically (Rogan, 2004 & Mosha, 2006). It focuses on developing the knowledge, skills and applied experiences. The professional development programmes address the matters relating to quality issues in education. Robinson (2006) argued that professional development enhanced the skills and knowledge attained for both personal development and career advancement with specific objectives. Smith (2010) explained six underlying objectives of professional development for school teachers:

 i. Responsiveness towards the student needs.

 ii. Dealing with students' attribution.

 iii. Selection of teaching methods.

 iv. Effective teaching.

 v. Instruction and interaction skills.

 vi. Knowledge about the teaching learning process.

Professional development consists of all educational activities which helps the teachers in increasing the knowledge, problem solving and technical skills. Similarly, Williams (2008) pointed out the following objectives of the professional development which are as under:-

 i. To develop the ability of teachers in developing their technical and scientific knowledge.

 ii. To improve the personal and ethical capabilities of teachers.

 iii. To ensure that teachers should fulfill their responsibilities and duties.

 iv. To improve the performance of teachers in the existing assignments.

v. To allow teachers to perform new roles.

vi. To improve teachers career prospects with current practice.

vii. To support career progression to new teachers.

Wiley (2010) stated that professional development consisted of long-term programmes which are needed to achieve lasting changes in teacher's practical knowledge. In particular, the following strategies are used to achieve any set targets: (i) learning in networks, (ii) peer coaching, (iii) collaborative action research and (iv) mentoring. According to Moore (2009), professional development is a process that focuses on skills and knowledge attained for both personal and career development. Professional development encompasses all types of learning opportunities that end with new knowledge and skills. It collaborates for academic achievement of students' performance as well as standards set by local educational agencies.

Effective professional development focuses on the professional performance standards with the purpose that teachers will serve better for their institutions. The Continued Professional Development (CPD) consists of the formal activities, such as courses, workshops and conferences. The Continued Professional Development is important for teachers as a means to update their skills and knowledge for the benefit of themselves and the learners. The well-structured professional development activities are linked to the school development plan and provide opportunities to teachers to work in collaboration. The main purposes of the professional development are the following:-

1. **Maintaining the knowledge and skills:** Professional development is concerned with maintaining knowledge and skills of the teachers and maintaining their competencies, in other words keeping them up-to-date.

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2. **Improvement of knowledge and skills:** Professional development improves and broadens knowledge and skills of teachers.

3. **To develop personal qualities:** Continued Professional Development develops personal qualities necessary to execute professional and technical duties of teachers (Lindstrom, 2007).

Concurrently, Moore (2007) stated that the purpose of professional development begins with pre-service education and continues throughout a teachers' career and focuses on deepening the understanding of the teachers, teaching-learning process and the students they teach. Lindstrom (2007) has identified the following purposes of professional development programmes.

i. To evaluate students, teachers and school learning needs through a thorough review of data.

ii. To define a clear set of learning goals based on the rigorous analysis of the data.

iii. To provide job embedded assistance to transfer the new knowledge and skills.

iv. To assess the effectiveness in achieving Student Learning Outcomes (SLOs) and assisting the students to meet the challenges.

v. To implement the ongoing improvements in teaching and student learning.

vi. To address the learning goals and objectives established for professional development.

vii. To advance the ongoing school based professional development.

viii. To engage the teachers in concrete tasks of teaching, assessment,

observation and reflection.

ix. To illuminate the process of development and learning.

x. Professional development programme is concerned with many other aspects of school changes.

2.11 PROFESSIONAL DEVELOPMENT OF TEACHERS IN PUNJAB

Since the creation of Pakistan, all education policies were determined in their objectives and critical of past failures (Govt. of Pakistan, 2008). A common feature of all policies, plans, programmes and schemes recommended the professional development for all categories of teachers but pace of implementation remained at variance. Over the years, the basic features of various education policies have remained the same, with every new policy adding to the objectives of the previous ones. In Punjab, the CPD was started in 2003 with the objective to maintain, improve and broaden the professional skills and knowledge of the teachers. It also focuses on the development of personal qualities, necessary for the execution of professional and technical duties throughout working life. In this CPD framework, School Education Department of the province was fully involved. The School Education Department has two wings i.e. administration wing and training wing (DSD). The Secretary School Education is the provincial head of the School Education Department. The detail of wing wise organgrams is given below:

Diagram No:2 **The Organgrams of "admin wing" of School Education Department**
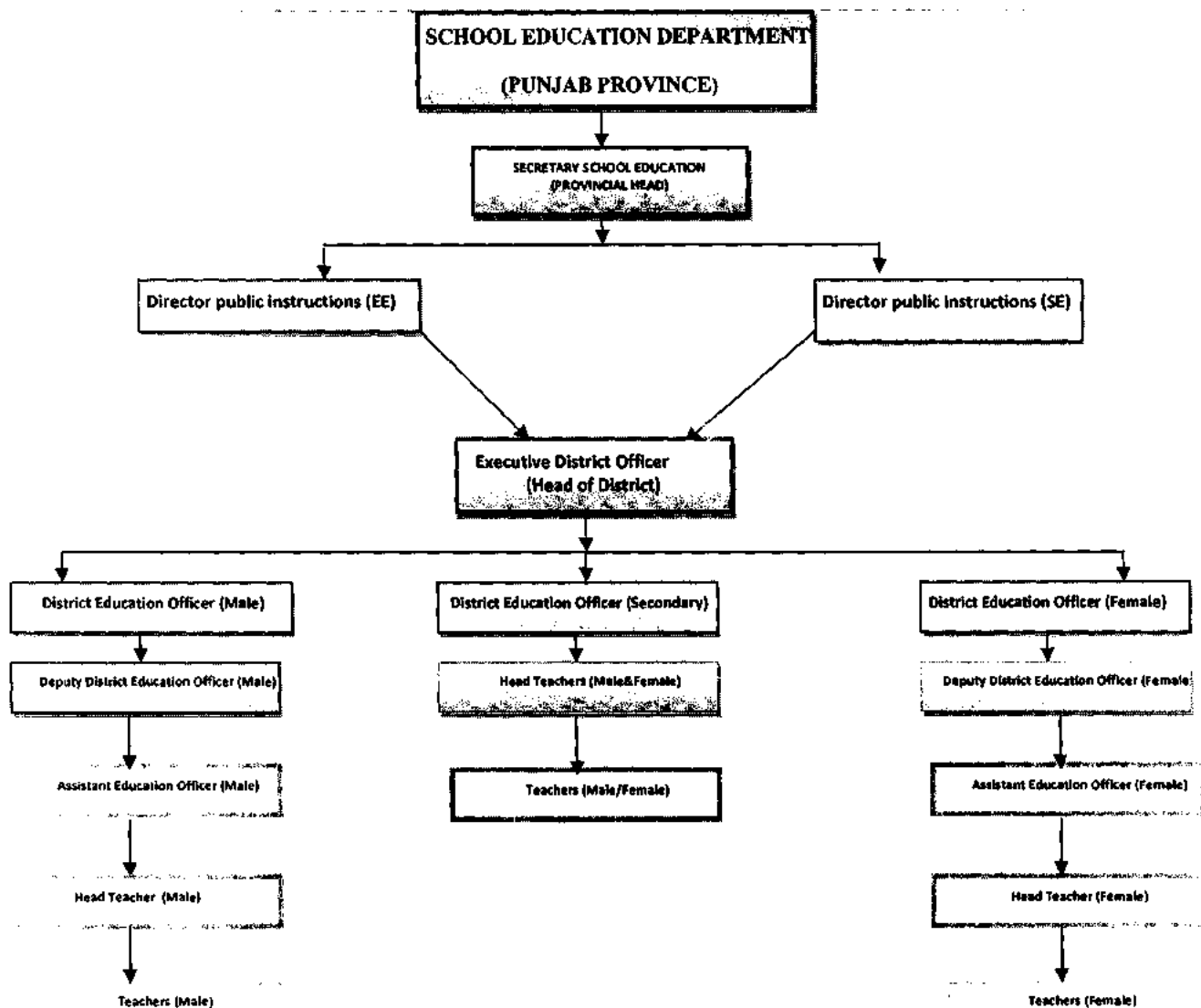
(GoP, 2010)

Diagram No: 3   **The Organgrams of "training wing" i.e. Directorate of Staff Development (DSD)**

Directorate of Staff Development (DSD) Training Wing

Project Director (PD) DSD

Regional Programme Manager (RPMO)

DTSCs

CTSCs

DTEs

Head Teachers

Teachers
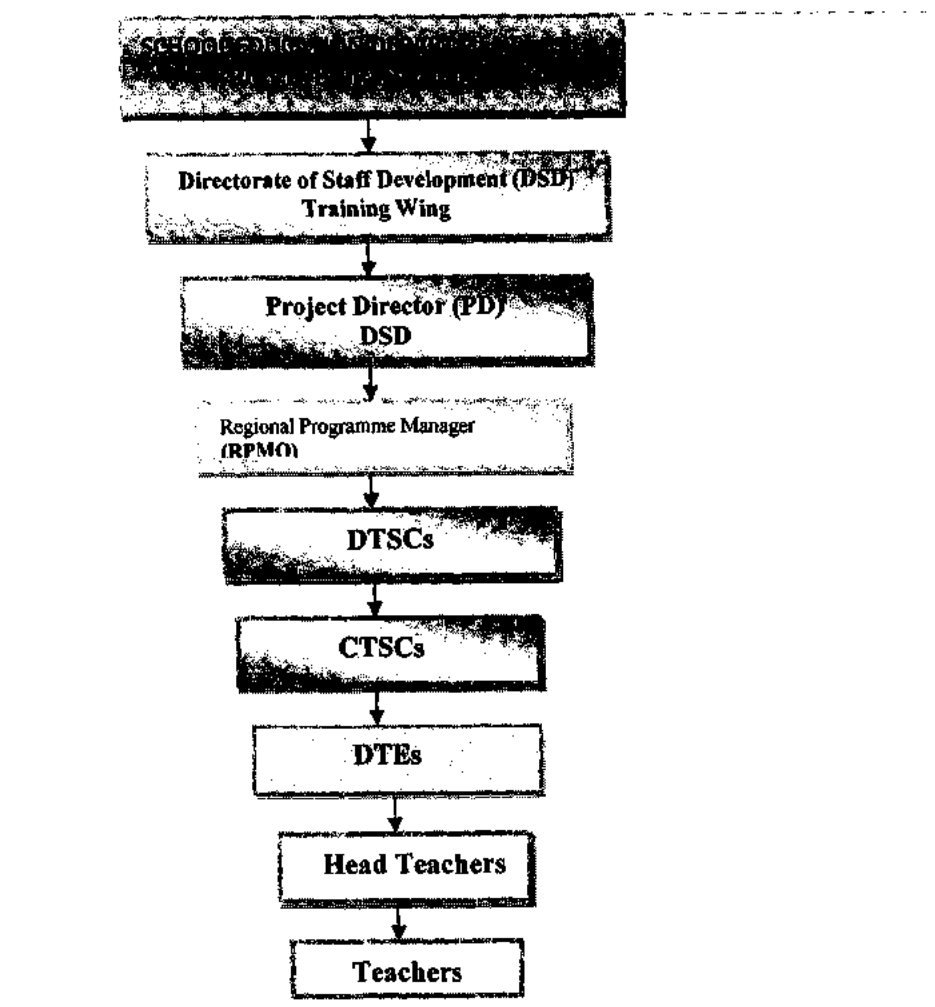
(GoP, 2010)

The objectives of continued professional development are related to improving work performance, enhancing career prospects and increasing the learning capacity of the individuals (GoP, 2010). The Continuous Professional Development focuses on encouraging the participation, commitment to lifelong learning and prepares the individuals for changes in institutions. According to Government of Punjab (2011), Continuous Professional Development contributes to three basic objectives:-

i. Maintenance of professional competencies

ii. Enhancement of existing knowledge and skills

iii. Development of new knowledge and skills

The emphasis of CPD scheme is to carefully ensure the professional development and tailored relevance to the career of Primary School Teachers. The Continuous Professional Development (CPD) has many kind of activities amongst which mentoring is the most important which is being used for the professional development of Primary Schools Teachers of Punjab province functioning throughout the province (GoP, 2011). In Punjab, the Directorate of Staff Development (DSD) is responsible for the professional development of teachers throughout the province. The Directorate of Staff Development was later designated as sole agency for coordinating activities that related to teachers' development both in public and private sectors (GoP, 2007).

The training programmes focused on existing needs and professional deficiencies of teachers. These training programmes include mentoring and other activities (GoP, 2009). Mentoring programme was planned to meet the professional needs of Primary School Teachers and its goal was to prepare the teachers to meet their responsibilities of the profession (DTE Guide, 2011). In addition, mentoring focuses on teachers who are having difficulties with some aspect of their job or on teachers who are transitioning into a new position or programme. The district administrative staff is also a stakeholder to bring systemic reforms in the mentoring process (DSD, 2010). Another key player in the implementation of the Continuous Professional Development programme for primary school teachers has been identified as the District Teacher Educators (GoP, 2009).

A mechanism has been developed for the District Teacher Educators for actively conducting training, supporting and coordinating activities related to mentoring of PSTs. Its contents include the detailed description of the Cluster Training and Support Centers (CTSCs) Heads and District Training and Support Centers (CTSCs) Heads. It has also elaborated the job description, qualification, selection criteria and responsibilities of District Teacher Educators (DTEs). The text provides guidelines and helpful hints to facilitate the process of mentoring and teacher support both at CTSCs and on site in primary schools. The Guide also includes six detailed follow up forms to document the mentoring and support activities undertaken by the District Teacher Educators (DTEs) on a monthly basis. Each DTE is to document a monthly work plan and progress report of PSTs. A monthly report in also to be provided to the head of DTSC regarding the school visits undertaken for mentoring of PSTs by the DTEs (DSD, 2010).

The overall responsibilities of District Teacher Educators include promoting quality of student learning through on-site and on-going professional training and support of Primary School Teachers. The District Teacher Educators collaborate with heads of CTSCs in designing and implementing training activities and coordinate with heads of schools to identify the training needs specific to primary level. The documentation and reporting is required from the District Teacher Educators' monthly activities which need to be simplified. Support staff ought to be provided to District Teacher Educator to provide reliable and accurate data. It can become a daunting task without such support. However, following are the key objectives of the mentoring programme under the District Teacher Educators system of Punjab province (DSD, 2010).

i. To identify professional development needs of Primary School Teachers within the cluster.

ii. To organize in-service training for the Primary School Teachers as per identified needs within the overall CPD frame work.

iii. To prepare Primary School Teachers for their professional development (DTE Guide, 2011).

A chain of administration is functioning at district level to achieve these objectives of mentoring programme functioning under the umbrella of Continuous Professional Development framework. The detail of the personnel involved in the mentoring programme of Primary School Teachers is given below.

2.12 DISTRICT TRAINING AND SUPPORT CENTERS

The Directorate of Staff Development (DSD) has developed a comprehensive programme for the professional development of Primary School Teachers at each district level in Punjab. This Continuous Professional Development is functioning under the inclusive network of District Training and Support Centers (DTSCs) throughout the province (DTE Guide, 2011). The District Training and Support Centers (DTSCs) network has been established at district level to carry out all the professional development activities. The DTSC offices are functioning in all 36 districts of the Punjab province under the administration of DTSC Heads. Twenty two DTSC offices have been housed in the Government College of Elementary Teachers (GCETs) and remaining fourteen are located in the selected High Schools. Each DTSC office has been staffed with four Teacher Educators (TEs) for implementation and monitoring of CPD activities in the district with the coordination of District Education Department (DTEs Coaching Guide, 2013).

The District Education Department (DED) demonstrates key role in the implementation of the CPD programmes. The DED is collaboratively doing cluster mapping with DTSC Head and assigning these programmes to Primary School Teachers. The District Education Department administration including District Education Officers (DEOs), Deputy District Education Officers (DyDEOs) and Assistant Education Officers (AEOs) are the real partners in planning and programming of CPD activities at district level. The Executive District Officers (EDO) and District Monitoring Officer (DMO) work jointly with the DTSC Head for planning and implementation, mentoring and evaluation of the programme (DSD, 2010).

This mentoring programme is based on belief that Primary School Teachers must be supported to enhance their professional knowledge and skills. The Primary School Teachers ultimately gained advanced level of teaching competencies through the mentoring process. This has depicted that DTSC head has to perform multidimensional roles along with different functions and responsibilities. Main responsibilities of the District Training and Support Center (DTSC) Heads are attached at annexure-1.

2.13 CLUSTER TRAINING AND SUPPORT CENTRES

The Cluster Training and Support Centre (CTSC) head has the second position after DTSC in the chain of command of district level CPD activities for the professional development of Primary School Teachers. The Cluster Training and Support Centre (CTSC) head is responsible for the implementation of in-service training and other professional development activities within the cluster. This CTSC clustering vision has been developed by the Directorate of Staff Development (DSD) to implement the CPD activities at ground level. This includes a detailed development of training and activities for actual use at CTSCs.

The features of clustering showed that Cluster Training and Support Centre (CTSC) Head has to play a key role in the imparting and implementing of the CPD activities within the cluster. He/ She has to perform different tasks to implement government policies regarding the professional development of Primary School Teachers. The main responsibilities of Cluster Training and Support Centre (CTSC) heads are mentioned in the report of DSD (2010). The main responsibilities of the District Training and Support Center (CTSC) Heads are attached at annexure-II.

2.14 DISTRICT TEACHER EDUCATORS

In each Cluster Training and Support Center, two District Teacher Educators (DTEs) are engaged to train, mentor and support Primary School Teachers within the CPD framework. The selection of District Teacher Educator (DTEs) is done by the Directorate of Staff Development (DSD) with the supervision of the District Education Department. The number of District Teacher Educators (DTEs) is posted in the cluster on the existing strength of the Primary School Teachers (PSTs). The Directorate of Staff Development (DSD) has a rule that the professional development support system for teachers must be planned as per needs of the Primary School Teachers. It has also maintained that Primary School Teachers (mentees) be best supported by experienced classroom teachers (mentors/DTEs). For this reason, the Directorate of Staff Development (DSD) has decided to recruit the District Teacher Educators (DTEs) from the teachers who are already serving in the public sector schools of Punjab province (DTE Guide, 2011).

2.14.1 Responsibilities of the District Teacher Educators

The primary responsibility of a DTE is to promote the quality of student learning by providing on-site and on-going professional support to his/her fellow primary school teachers and by implementing teacher's development programmes under overall supervision of DSD. The DTEs aim at capacity building of the Primary School Teachers from the feeder schools of the CTSCs. Professional development activities of Primary School Teachers are institutionalized at the individual school level. The Primary School Teachers themselves initiate, plan and implement the professional activities to enhance their learning with explicit support of the District Teacher Educators (DSD, 2007).

On regular basis, the District Teacher Educator collaborates with the CTSC head for the mentoring activities within the cluster. He/ She needs to establish positive rapport with head designate of the feeder school. The head must be informed well about training and mentoring schedules. The heads are adequately informed about the mentoring, follow ups and support that a DTE provides to the teachers at the individual level (DSD, 2010).

On a wider level, the District Teacher Educators coordinate with other governmental, non-governmental and private institutions that may be operating to enhance the quality of education within the cluster area. Since the GoP has notified that all institutions, public or private, to consult and collaborate with the DSD in matters related to teacher training, proper coordination with all the stake-holders at the local level will help minimize duplication of the efforts and wastage of resource and build partnership

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amongst such organizations/institutions. The main responsibilities and selection procedure of DTEs are attached at Annexure-III and Annexure-IV.

2.15 MAIN ROLES OF DISTRICT TEACHER EDUCATORS

Primary task of the District Teacher Educators (DTEs) is to enhance the quality of students learning for the Primary School Teachers under the umbrella of Continuous Professional Development (CPD) programme. The District Teacher Educator coordinates with all stakeholders; primary, elementary, secondary school heads and Cluster Training and Support Center (CTSC) for the implementation of mentoring process. The District Teacher Educators (DTEs) play three main roles: (i) trainer, (ii) mentor and (iii) coordinator. The detail of these three roles is listed below:-

1. To evaluate professional development needs of Primary School Teachers (PSTs) within the cluster.

2. To unify in-service training courses for the Primary School Teachers (PSTs) as per the given in CPD framework.

3. To work with the head teachers of the schools and organize school based in-service training and professional development activities for the Primary School Teachers.

4. To undertake classroom observation of the Primary School Teachers (PSTs) to deliver face-to-face mentoring.

5. To conduct monthly plan for the professional development of Primary School Teachers (PSTs) and exchange it with the head teachers of each school.

6. To identify classroom problems faced by the Primary School Teachers (PSTs) and provide the solutions of these problems.

7. To organize meeting with stakeholders or private providers of teacher development.

8. To maintain records of professional development events of the Primary School Teachers (GOP, 2010, DSD, 2011& DTE Guide 2011).

2.15.1 Functions of District Teacher Educators

i. To ensure Universal Primary Education (UPE) campaign through 100% enrollment at Primary and Elementary levels;

ii. To ensure zero drops-out at primary, elementary and secondary school levels.

iii. To ensure 100% attendance of the staff and report daily absenteeism through e-mail to district and provincial authorities;

iv. Ranking of teachers, head teachers and schools on results and Key Performance Indicators (KPIs) given in the letter of CPD implementations.

v. To ensure maintenance of school facilities like safe drinking water, furniture, toilets, building, cleanliness with the coordination of school council.

vi. To ensure optimum use of library, science labs and computer labs.

vii. To ensure implementation of English medium scheme in 100% schools.

viii. To ensure monthly and periodic tests of students for Punjab Examination Commission (PEC) and Board of Intermediate and Secondary Education (BISE) examinations.

ix. To conduct school census, staff and facilities.

x. According to Academic Calendar, DTEs will arrange systematic co-curricular activities, listed below:

a) Bazm-e-Adab
b) Qiraat and Naat Competitions.
c) Debates
d) Essay Writing
e) Drama and Variety Shows
f) Games
g) Physical Training (PT)
h) Girl Guides and Boy Scouts
i) Plantation

xi. To work jointly with head teachers and teachers for achievement of targets related to:

a) The National Education Policy (NEP) targets.

b) Student Learning Outcomes (SLOs) of each subject as mentioned in the National Curriculum 2006.

c) National Teaching Standards (NTS) adopted by Pakistan.

d) Dastoor-ul-Amal and Academic Calendar.

e) Organize the Professional Development (PD) Day for the Primary School Teachers (GOP, 2010, DSD, 2011& DTE Guide 2011).

2.16 MENTORING AREAS

The primary objective of mentoring is to fulfill the professional development needs and organize training courses for PSTs within the CPD framework. The District Teacher Educator trained the PSTs in such a way that he may be able to perform his duties effectively and efficiently. Professional development of PSTs under the District Teacher Educator system is being executed in the following eight mentoring areas.

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Diagram No: 4   Details of Eight Mentoring Areas   (Ref. DTEs Coaching Guide, 2013)

EIGHT MENTORING

Taleemi Calendar

FOCUSED ON
1. Scheme of studies
2. Build up context
3. Relation of SLOs with Taleemi Calendar
4. Relation of practices with SLOs

DTEs ROLE
1. Explain what constitute good home work
2. Reflecting varied abilities of the students
3. Proper guidelines for written home work
4. How to evaluate the homework

Lesson Planning

FOCUSED ON
1. Executing teaching
2. Promoting learning
3. Adopting strategies
4. Planning activities

DTEs ROLE
1. Explain importance of lesson planning
2. Consult teacher diary
3. Select content for logical treatment
4. Select techniques to adhere the lesson

Activities Based Teaching and Learning

FOCUSED ON
1. Set of activities
2. Learning by doing
3. Sharing learning
4. Enhancing learning

DTEs ROLE
1. assess understanding
2. practical examples
3. Adopt learning activities
4. Utilized resources and time

Use of Support Material

FOCUSED ON
1. Illustrate learning
2. Facilitate learning
3. Cost-effective material
4. Use of teacher guide

DTEs ROLE
1. understanding on support material
2. exemplifying different examples
3. Select tools for teaching
4. Availability of support material

Interaction with Students

FOCUSED ON
1. Promote interaction
2. Skills of engaging students
3. Skills of Question Answers
4. Increase participation

DTEs ROLE
1. Demonstrate and explain benefits of good interaction
2. Tone of talking high and low
3. Present two way process
4. Focus the slow learners

Classroom Management

FOCUSED ON
1. Handling problematic children
2. Involvement of students
3. Art of classroom organization
4. Setting of teaching stages

DTEs ROLE
1. Setting plan of classroom
2. Handling different groups and focus on problematic children
3. Availability of teaching tools at hand.
4. Tactics of learning

Students Assessment

FOCUSED ON
1. Process of authentic learning
2. Assessing written work
3. Developing & evaluating student portfolio
4. Selecting types of assessment

DTEs ROLE
1. Assessing authentic learning
2. Differentiate old and new form of assessment
3. Balance oral and written forms of assessment
4. Using feedback for learning

Home Work

FOCUSED ON
1. Concept of Home Work
2. Written home work
3. Supplement classroom learning
4. Checking homework

DTEs ROLE
1. Explain what constitute good homes work
2. Reflecting varied abilities of the students
3. Proper guidelines for written home work
4. How to evaluate the homework
5. support material

The District Teacher Educators mentored the PSTs on these mentioned eight areas. These mentoring areas are comprehensive for the professional development of PSTs. The area wise detail is discussed below.

1.16.1 Mentoring Area-1 "Taleemi Calendar"

Taleemi Calendar focuses on the Student Learning Outcomes (SLOs) and it is considered as the desired end-goal of a lesson. Student Learning Outcome (SLO) helps the students to understand the purpose of the day's lesson. Under the mentoring process, firstly teachers build up the context and secondly introduce the Student Learning Outcome (SLO) in a broad way. It is important that the SLOs follow the Taleemi calendar in ensuring that the teacher has deeply followed the scheme of study. The best practice is to link the SLOs with the previous lessons (DSD, 2010).

Throughout the whole lesson, teachers keep their thinking about that SLOs have been achieved or not, in constantly checking student learning through questioning. The DTE will talk to teacher and check understanding regarding SLOs. If teacher apparently has no understanding of SLOs, DTE explains him/her what are SLOs and then DTE takes the teachers through a teacher guide to show how to adopt SLOs from it. The DTE emphasizes how the selected SLOs ought to follow Taleemi Calendar. The DTE guides the teachers how the SLOs should be mentioned at the beginning of lesson and write them on the board. The DTE explains to teachers regarding the importance of linkage of SLOs together DTE (Coaching Guide, 2013).

Development plan guidance in the mentoring area-1 "Taleemi Calendar"

Level of teacher	Action plan for the teacher
Basic level (Level 0 to1)	Teacher will make sure Taleemi Calendar before lesson planning and in selecting the related SLOs.
	Teacher will talk about the broad topics at the beginning of each lesson.
Intermediate level (Level 1to 2)	Teacher will prepare Taleemi Calendar before lesson planning and in selecting related SLOs.
	Teacher will talk about the SLOs of the day in a clear and specific manner.
	Teacher will write down the SLOs on the board
Advanced level (level 2 to 3)	Teacher will check the Taleemi Calendar before lesson planning and select the relevant SLOs.
	Teacher will talk about the selected SLOs in a clear and specific manner and will write down the SLOs on the blackboard.
	Teacher will develop linkage of the day's lesson with the previous lessons in relation the prior knowledge of the students.

(DTEs Coaching Guide, 2013)

2.16.2 Mentoring Area-2 "Lesson Planning"

Lesson planning enables the teachers to execute lesson accordingly. If a teacher remains without the lesson plan, then the lesson planning activity becomes useless. Therefore, Primary School Teacher has to adopt the lesson planning strategies to execute the lesson

properly (DSD, 2010). The DTE talks to Primary School Teachers and explains them the importance of lesson planning. The DTE helps the Primary School Teachers in figuring out the hindrance in the lesson plan. The DTE advises the teacher to include only those things in lesson plan which can be logically executed in classroom with the available resources. The DTE provides some techniques to the Primary School Teachers which help him/her to adhere to the lesson plan. The DTE provides instruction to the teachers in making a hand written checklist of the components of lesson plan. The DTE will help out the teachers in writing main components of lesson plan on one side of the black board and ticking them off one by one when they get executed. Thus DTE guides help the Primary School Teacher in consulting teacher diary and teacher guide during the execution of lesson (DTE Guide, 2013).

Development plan guidance in the mentoring area-2 "Lesson Planning"

Level of PSTs	Action plan for the PSTs
Basic level (level 0 to1)	The teacher will make sure that lesson plan can be carried out within the available resources and time.
	During the lesson planning, the teacher will consult teacher diary and teacher guide to ensure that the lesson plan is on track.
Intermediate level (Level 1 to 2)	During lesson planning, teacher will ensure that lesson can be carried out in the available resources and time.
	DTE will ensure that teacher has consulted lesson planning, teacher diary and teacher guide to keep lesson on track.
	The teacher will prepare a checklist on a page to ensure that he/ she has held onto the plan.

Level of PSTs	Action plan for the PSTs
Advanced level (Level 2 to 3)	The DTE will make sure that the lesson plan being made by teacher can be executed in classroom in the available resources and time.
	The DTE will make sure that teacher will consult teacher diary and teacher guide during lesson to keep it on track.
	Teacher will make a checklist on a page or on board to ensure that he or she has adhered to the plan.

(DTEs Coaching Guide, 2013)

1.16.3 Mentoring area-3 "Activity Based Teaching and Learning"

The Activity Based Teaching and Learning is a set of activities in which students learn by doing. It is sum of those activities which involves students in practical learning i.e. group work, student led exercise solving and role playing activities. The Activity Based Teaching and Learning grasp the things significantly by involving students in the lesson rather than being passive recipients. The activity based teaching and learning is an inclusion of activities that can improve the learning process.

Teacher guides have series of planned activities which help the teachers during lesson planning. The DTE talks to Primary School Teachers and assess their understanding regarding the Activity Based Teaching and Learning. The DTE gives practical examples to Primary School Teachers, if they do not have a clear concept of Activity Based Teaching and Learning. The DTE talks to the Primary School Teachers how to adopt learning activities from the teacher guide. The DTE will guide the teacher how to select the activities which relate to the context of students and facilitate student learning in the available resources and time. The DTE motivates the Primary School

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Teachers how to include these activities in the lesson plan from the teacher guide (DTE Coaching Guide, 2013).

Development plan guidance in the mentoring area-3 "Activity Based Teaching and Learning"

Level of PSTs	Action plan for the PSTs
Basic level (level 0 to 1)	Teacher will think about an activity for the students and will reflect it in the teacher diary and lesson plan.
	The teacher will ensure that he has all the resources and time to perform this activity in classroom.
Intermediate level (level 1 to 2)	The teacher will plan an activity and will reflect in the lesson plan and teacher diary.
	The teacher will ensure that he/she has all the resources to conduct this activity in the classroom.
Advanced level (level 2 to 3)	The teacher will plan a variety of activities from the teacher guide and reflect it in the lesson plan and write it in teacher diary.
	The teacher will select diverse activities to engage the maximum number of students in the available resources and time.

(DTEs Coaching Guide, 2013)

1.16.4 Mentoring Area-4 "Use of Support Material"

Support material consists of all kinds of visual aids i.e. photos, posters, charts, objects used to illustrate and facilitate students learning. The DTE helps the PSTs in selecting the cost-effective and easily available visual aids. The DTE also helps the PSTs in consulting the teacher guide and planning the visual aids according to subject matter of the lesson plan. The DTE talks to Primary School Teachers and assesses their

understanding regarding "Use of Support Material" and by exemplifying different examples, if they do not have clear concept about the use of support material. The DTE develops the concept of teachers in using the teacher guide while selecting the support material for lesson planning. The DTE guides how to select the instructive support material for classroom instructions and support material is available at hand before starting the lesson (DTE Coaching Guide, 2013).

Development plan guidance in the mentoring area-4 "Use of Support Material"

Level of PSTs	Action plan for the PSTs
Basic level (level 0 to 1)	During the lesson planning, teacher will think about the relevant support material and write it in the diary.
	The DTE will guide the teacher to ensure that the support material is in hand before starting the lesson.
Intermediate level (level 1 to 2)	During the lesson planning, teacher will select relevant and instructive support materials by using teacher guide and write it in the teacher diary.
	The DTE will advise the teacher to ensure that support material was available in hand before the lesson.
Advanced level (level 2 to 3)	Teacher will select relevant and instructive support material from the teacher guide while planning the lesson and list them in the teacher diary properly.
	The teacher will advise the teacher that the planned support materials are available at hand before starting the lesson.

(DTEs Coaching Guide, 2013)

2.16.5 Mentoring Area-5 "Interaction with Students"

Student interaction is a skill of engaging students in class by involving them in the learning process. The DTEs helps the Primary School Teachers how to engage the students in discussions and posing questions during class. Through interaction, teachers provide chance to all the students to participate in the classroom activities. The DTE talks to Primary School Teacher and explicates the importance of good interaction in the classroom. The DTE also guides the teacher to speak up clearly and loudly, if the teacher does not speak loud enough during the lesson and explains to the teacher about the benefits of good interaction. The DTE talks how to pose the questions to students in the class while teaching and making eye contact with students and asks them to present the lesson a two-way rather than one way teaching. The DTE also guides the teacher how to focus on students who do not participate in the lesson (DTE Coaching Guide, 2013).

Development plan guidance in the mentoring area-5 "Interaction with Students"

Level of PSTs	Action plan for the PSTs
Basic level (level 0 to 1)	In the beginning, the Primary School Teacher will check with student if he is capable of being heard to the students at the back.
Intermediate level (level 1 to 2)	The teacher will plan the ways to interact with all students through questioning and activities and he/ she will include these activities in the lesson plan.
	The teacher will pose questions to the maximum number of students rather than a few students.
	The teacher will continually encourage the students to speak in the class.

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Level of PSTs	Action plan for the PSTs
Advanced level (level 2 to 3)	The teacher will think different ways to involve those students of class who do not participate in class. The teacher will plan the lesson in such a way that all students be involved especially the slow learners.
	The teacher will arrange the class in such a way that all students can get maximum chance to participate in classroom activities.
	The teacher will encourage all the students to speak and participate in the class activities.

(DTEs Coaching Guide, 2013)

2.16.6 Mentoring Area-6 "Classroom Management"

Classroom management is a process of effective handling the disturbing students that involves proper organization, setting and conduct of classroom routines. The DTE guides the Primary School Teachers to think about arrangement and seating plan of classroom. The seating plan helps the teacher to conduct the classroom activities in an effective way. The classroom management permits the teachers to interact with the maximum number of students, especially the weak students. The DTE guides the Primary School Teachers ensure that all teaching aids are at hand before starting the lesson and establish tactics of learning. The DTE guides the teachers to establish norms i.e. getting permission before entering the class, raising hand to ask or answer a question, etc. for classroom conduct. The DTE guides the teacher how to handle the disruptive students i.e. writing names of disruptive students on board, keeping a few seated at the front desk. The DTE advises the teacher that how to handle poor student behavior in the lesson planning and reflection (DTE Coaching Guide (2013).

Development plan guidance in the mentoring area-6 "Classroom Management"

Level of PSTs	Action plan for the PSTs
Basic level (level 0 to 1)	The teacher will think about the proper seating plan for the students keeping in view activities of the lesson plan. The teacher will also think about the weak and disruptive students of the class.
	The teacher will ensure that students are seated in a planned way before starting the lesson.
	The teacher will ensure the teaching resources are present before starting the lesson.
Intermediate level (level 1 to 2)	The teacher will arrange the seating plan according to the planned activities for weak students and disruptive
	The teacher will ensure that teaching resources are present before every lesson.
	The teacher will establish the norms of the classroom conduct and enforce these norms all over the lesson.
Advanced level (level 2 to 3)	While planning the lesson, teachers will think about the arrangement of seating plan keeping in mind the planned activities, disruptive students and weak students.
	During the lesson execution, teachers will establish norms for the conduct of classroom and enforce these norms throughout the lesson.
	The teachers will identify regularly disruptive students and work out a strategy for better management of class.

(DTEs Coaching Guide, 2013)

2.16.7 Mentoring Area-7 "Student Assessment"

In mentoring process, assessment is a process of checking the understanding level of students by posing oral questions and assigning written work. The teacher conducts oral or written assessment or both at the same time. The teachers assess that which type of work is suitable to test the students learning. However, a lesson having both types of assessment is followed by the teachers for classroom activities. The DTE assesses the understanding of assessment of students and explains the difference between oral and written assessment. The teachers have to decide whether the oral assessment or written assessment or both are applicable for the lesson. The DTE takes assessment questions from teacher guide and exhibits how to implement it during the teaching. The DTE also explains how to get feedback while conducting assessment during class (DTE Coaching Guide, 2013).

Development plan guidance in the mentoring area-7 "Student Assessment"

Level of PSTs	Action plan for the PSTs
Basic level (level 0 to 1)	The Primary School Teacher has to decide whether oral or written assessment or both will be useful for the lesson.
	The Primary School Teacher will select important questions from the teacher guide to conduct assessment during the lesson.
	While planning the lesson, teacher will decide whether oral or written assessment or both will be useful for the lesson.

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Level of PSTs	Action plan for the PSTs
Intermediate level (level 1to 2)	The Primary School Teacher will pick up related questions from the teacher guide and will conduct assessment during the lesson.
	Teacher will categorize the correct and incorrect answers given by the students.
	While planning the lesson, teacher will decide whether oral or written assessment or both will be useful for the lesson.
Advanced level (level 2 to 3)	Teacher will select relevant questions from teacher guide and conduct assessment during the lesson.
	Teacher will categorize the correct and incorrect answers given by students and will give them proper feedback.
	The teacher will reply completely, on the correct answers. The teacher will appreciate the students on good responses and proper solutions will be given for incorrect responses.

(DTEs Coaching Guide, 2013)

2.16.8 Mentoring Area-8 "Home Work"

Homework refers to all written activities done by students inside or outside the class. Normally, homework is done by the students in their notebooks regarding the subject matter. Written work is assigned in such a way that it must develop student learning. Assessing homework means properly checking the students learning and provides them proper feedback for further improvement.DTE explains what constitutes good homework, tells them how to assign written work on daily basis. Homework should be part of class work which might be suitable to the abilities of the students. The DTE explains how to adopt exercises for written work from the teacher guide and how to

assess the written work and give them appropriate feedback. The DTE also guides how to appreciate good homework and explains how to rectify the mistakes in homework (DTE Coaching Guide, 2013).

Development plan guidance in the mentoring area-8 "Home Work"

Level of PSTs	Action plan for the PSTs
Basic level (level 0 to 1)	The teacher will ensure that all students have correctly maintained the written work on the notebooks.
	The teachers plan and conduct some written work as class work.
	Teacher will assess the homework of weak students regularly.
Intermediate level (level 1 to 2)	The teacher will ensure that all students have correctly maintained the written work on the notebooks.
	The teachers will ensure how to plan relevant and engaging written work for the students using teacher guide or textbooks on regular basis.
	Teacher will assess the written work of all students regularly.
Advanced level (level 2 to 3)	The teacher will ensure that all students have properly maintained written work notebooks.
	The teachers will plan relevant and engaging written work for the students using teacher guides or textbooks and will conduct class work or homework at least daily.
	Teacher will assess written work of all students regularly and will give them proper feedback regularly on their work. The teacher will appreciate the good homework while follow-up work would be assigned on sub-standard.

(DTEs Coaching Guide, 2013)

2.17 WORKING DAYS OF THE DISTRICT TEACHER EDUCATORS

In the present CPD programme, all mentoring activities are carried out under the guidance of District Teacher Educators. The District Teacher Educators have tight schedule of their working. The detail of working is given below:-

1. In the daily working, a DTE arrives at school early in the morning on the school timing announced by School Education Department.

2. The DTE starts his/her working according to work plan by marking the attendance on staff register of first target school.

3. The DTE spends 2 hours in one school for the assessment process.

4. The DTE spends 4 hours 30 minutes in one school for mentoring process.

5. The DTE marks the attendance at CTSC after 5 hours and 30 minutes from school starting time.

In this routine, the District Teacher Educators complete the full cycle of months. The detailed assessment schedule and mentoring schedule is given below:

Schedule of DTEs Working in Assessment Days   8

(Two schools per day)

Schedule of DTEs Working in Mentoring Days   15

(One school per day)

PD Day at CTSC   1 (One day for each PST)

PD Days at DTSC   3 (One day for each DTE)

The detail of assessment days, mentoring days, Professional Development (PD) Day at CTSC and Professional Development (PD) Day at DTSC are explained one by one (DTE Guide, 2011).

2.17.1 Schedule of DTEs Working in Assessment Days

During the assessment days, the District Teacher Educators conduct the assessment of students to check whether the students have achieved the SLOs or not. The DTE assesses that which type of work is suitable to test the students learning. The DTE also conducts oral or written assessment or both types of assessment to evaluate the students' performance level against the specific SLOs. The evaluation of Student Learning Outcome (SLOs) helps the DTEs to decide the mentoring process of the teachers. The best practice is to link the SLOs with the previous lessons. Under the mentoring process, firstly, teachers build up the context and secondly introduce the Student Learning Outcome (SLO) in a board way. The SLOs go behind the Taleemi calendar in ensuring that the teacher has removed their teaching difficulties. Complete detail of the schedule of District Teacher Educators working for one assessment day is given below:

Working at first target school	2 hours
Meeting with head of target school	½ hour
Duration of paper	1+ ½ hours
Time for travelling to 2nd school	½ hour
Working at 2nd target school	2 hours
Meeting with head of 2nd target school	½ hour
Duration of paper	1+ ½ hours
Travelling time towards CTSC	1 hour
Meeting with head of CTSC	½ hour
Working at CTSC	Last 2 hours

(DTEs Coaching Guide, 2013)

There are 8 assessment days included in the schedule of the DTEs for a month. The complete detail of the schedule of DTEs working of assessment days throughout the month is given below:

Sr. No.	Schools	Dates of Visit	First School	Second School
1.	School-1,2	First working day	8:00 -10:00	10:30-12:30
2.	School-3,4	Second working day	8:00 -10:00	10:30-12:30
3.	School-5,6	Third working day	8:00 -10:00	10:30-12:30
4.	School-7,8	Fourth working day	8:00 -10:00	10:30-12:30
5.	School-9,10	Fifth working day	8:00 -10:00	10:30-12:30
6.	School-11,12	Sixth working day	8:00 -10:00	10:30-12:30
7.	School- 13,14	Seventh working day	8:00 -10:00	10:30-12:30
8.	School-15	Eighth working day	8:00 -10:00	Friday

(DTEs Coaching Guide, (2013)

2.17.2 Schedule of DTEs Working in Mentoring Days

The schedule of mentoring days of DTEs working starts soon after the completion of assessment days. In mentoring days, DTEs mentored the Primary School Teachers on the basis of students assessment data obtained during the assessment days. The DTEs evaluate the weak areas left by the Primary School Teachers during teaching. The DTEs mentored those selected Primary School Teachers on eight mentoring areas as per the procedure given by the DSD. The selection procedure of teacher for mentoring activities is listed below:

Case-1: (when a school having teachers 1-4)
1. Selection of teachers = All teachers
2. Level of teachers = PSTs

Case-2: (when a school has more than 4 teachers)

1. Selection of teachers = 4 Least Qualified Teachers (LQT)

2. Level of teachers = PSTs

3. Selection by = Head Teacher and DTE

On the given procedure the DTEs conduct the mentoring of PSTs on eight areas of the mentoring process. There are 15 days allocated for the mentoring of PSTs for a

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month. The schedule of the working of District Teacher Educators for one mentoring day is given below:

Meeting with head of target school	½ hour
Working at target school	First four hours
Maximum time for one mentoring area	½ hour
Mentoring areas to be discussed	8 mentoring areas
Discussion with teachers	2 Mentoring areas per teacher per visit
Maximum Teachers to be covered	4
Travelling Time	1 hour
Meeting with Head of CTSC	½ hour
Working at CTSC	Last 2 hours

DTE Coaching Guide (2013)

The complete schedule of DTEs working during the mentoring days for a month is mentioned is given below.

Sr. No.	Teachers	Visit 1 Mentoring Areas	Visit 2 Mentoring Areas	Visit 3 Mentoring Areas	Visit 4 Mentoring Areas
1.	Teacher-1	1-2	7-8	5-6	3-4
2.	Teacher-2	3-4	1-2	7-8	5-6
3.	Teacher-3	5-6	3-4	1-2	7-8
4.	Teacher-4	7-8	5-6	3-4	1-2
5.	Round-1	April	May	September	October
6.	Round-2	November	December	January	February

(DTEs Coaching Guide, 2013)

2.17.3 Professional Development Day

In the present CPD framework all mentoring activities at CTSCs level are carried out under the guidance of District Teacher Educators. The District Teacher Educator coordinates with all stakeholders; primary, elementary, secondary school heads and Cluster Training and Support Center (CTSC) for the implementation of mentoring process. The Professional Development Day is one of the important activities of mentoring process at CTSC level. The details of Professional Development Day are as under:-

i. At CTSC the PD Day will be on the last working day of the month.

ii. One day workshop which will take place at selected CTSC and DTSC.

iii. All the Primary School Teachers of concerned CTSC schools i.e. Primary Schools, Elementary Schools and High Schools participants in the PD Day.

iv. The DTEs of the concerned CTSCs will be the participants at the DTSC.

v. The all DTEs and PSTs share of ideas and experiences to enhance the professional skills.

vi. Communicate field related problems with DTSC Head, Teacher Educators and DTEs.

vii. At Tehsil Level the PD Day is celebrated is per the following sequence.

Sr. No.	Month	CTSC No.	Remarks
1.	January, April, October.	1,4,7,10,13,16 ...	
2.	February, May, November.	2,5,8,11,14,17 ...	
3.	March, September, December.	3,6,9,12,15,18 ...	

viii. All DTEs present Model Lesson of important topics on PD Day as per the given schedule of DSD which is given below:-

Sr. No.	Sessions	DET No.	Subject	Timings
1.	Session=1	PT + Tilawat + Naat + Message		08:00-08:30
2.	Session=2	DTE-1	English	08:30-09:15
3.	Session=3	DTE-2	Maths	09:15-10:00
4.	Session=4	DTE-3	Science	10:00-10:45
5.		Tea Break		10:45-11:15
6.	Session=5	DTE-4	Urdu	11:15-12:00
7.	Session=6	DTE-5	Social Studies	12:00-12:45
8.	Session=7	DTE-6	Islamiyat	12:45-01:30
9.		Prayer Break		01:30-02:30
10.	Session=8	(TE / CTSC Head) Problem		02:30-4:00

(DTEs Coaching Guide, 2013)

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2.18 SUMMARY OF THE RELATED STUDIES

Author/Research	Title of work/studies	Methodology	Major Focus	Major results
Sheri, A. (2012)	Mentoring Functions Within the ACE Leadership Development Programme.	Mixed Method Approach	This study addressed the functions of mentoring and its applications on ACE Programme.	i. Participants collectively perceived an additional support through the mentoring programme. ii. Mentoring programme created leadership qualities among the participants and filled the gaps in their organizational talent. iii. Mentoring has bridged the professional development gaps in the specific area to which the mentoring was conducted. iv. Mentoring process significantly contributed towards the professional development of the beginning teachers.
Bresnahan, L.(2011)	Mentoring as an Educative Function: Professional Development Experiences That Influence Mentor Teachers' Beliefs.	Mixed Method Approach	This study investigated the self-reported frequency of professional development experiences.	i. Mentoring has improved teaching practice as well as the professional skills. ii. The management skills of mentees improved to a great extent. iii. Mentoring had positive effect on professional development of the teachers and enhanced the communication skills of the mentees.
Farrell, L.(2007)	Personal Experiences of Mentoring among Doctoral Students in Counselor Education.	Mixed method Approach	The purpose of this study was to examine the mentoring structural components and potential impact.	i. Psychosocial and career of male and female mentors was significantly improved. ii. Female mentors were groomed more as compared to male mentors. iii. Mentoring process contradicted with the philosophy of counseling. iv. Mentoring process helped to lighten the anxiety, stress and pressure of the mentees.

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Author/Research	Title of work/studies	Methodology	Major Focus	Major results
Culpepper, W. (2008)	Determining the Quality and Impact of an E-Mentoring Model on at-Risk Youth.	Mixed Method Approach	The study examined the impact of mentoring on academic and psychological performance.	i. There were no significant differences between the opinions of the respondents related to the self-esteem, career indecision. ii. There was high difference in the opinion of the respondents on attendance and academic
Jaja,B. (2010)	Evaluation of the Impact of Effective Mentoring on Professional Development.	Mixed Method Approach	The study determined effectiveness of the mentoring programme between the mentors and the mentees beneficial.	i. Mentoring improved the retention. ii. The results showed that new teachers significantly enhanced their professional growth. iii. Majority of the teachers were dissatisfied with their mentors as mentoring process lacked trust.
Gardiner, C.E.(2008)	Mentoring: Towards An Improved Professional Friendship.	Mixed Method Approach	This study was designed to examine the core components of professional mentoring.	i. Results showed that professional friendship was successful component of mentoring relationships. ii. It also showed that mentoring programme was beneficial to the new mentors. iii. Mentoring process increased interaction among mentors. iv. Mentoring programme benefited the junior teachers but the senior teachers were not positively influenced by mentoring activities.
Maria, C (2009)	Mentoring for Leadership in Pacific Education.	Mixed Method Approach	This study explored mentoring effects on leadership development.	i. Leadership development starts today not tomorrow. ii. Mentoring helped and facilitated in leadership development. iii. The right leadership development has far-reaching effects through the mentoring process.

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Author/Research	Title of work/studies	Methodology	Major Focus	Major results
Fircke, N.I. (2008)	Effect of Mentoring Programme Targeting Secondary School Science and Mathematics Teachers In a Development Context.	Mixed Method Approach	This study was designed to evaluate the impact of mentoring programme on science& mathematics teachers.	i. Mentoring programme has impact on personal, social and professional development of teachers. ii. The female teacher groomed more as compared to male teachers.
Hundson, P. (2004)	Mentoring for Effective Primary School Teachers.	Mixed Methods Approach	This study investigated mentoring for the development of the primary school teachers for science in	i. Mentoring results new more significant as compared to the experiences teachers. ii. Mentoring has provided opportunities to mentors and mentees in the science teaching practices.
Liagdu, P.C. (2008)	Developing an Alternative Programme for Teacher Trainee Mentoring: A Case Study of Malaysian University.	Mixed Method Approach	This study evaluated the impact of mentoring on the Malaysian schools.	i. Results showed that impact of mentoring programme varied in rural and urban areas. ii. Both personal and professional development of teachers improved. iii. Results provided guidelines for the modification and revision of mentoring programme.

2.19 SUMMARY

Chapter 2 commenced to review the literature on mentoring under the umbrella of CPD programme for the Profession Development of Primary School Teachers. The literature highlighted some selected topics on mentoring, history of mentoring, approaches of mentoring, mentoring models and existing practices of CPD in Punjab province. Selected mentoring models and approaches were discussed related to the objectives of the study. Main purpose of the study was to determine the effects of mentoring process on the professional development of the Primary School Teachers at elementary level in Punjab. The present mentoring programme focused on teaching knowledge, skills and practices towards professional development of the teachers in gaining mentoring experiences. This integrated racially appropriated mentoring programme was then detailed along with specific reference to sources and concluding particular areas of focus for inclusion in the pre-practicum mentoring process. The mentoring approaches derived from the literature are targeted racially appropriate mentoring programme. During the review of literature researcher recognized that no study was carried out on eight mentoring areas together. Similarly, researcher realized that many quantitative or qualitative studies were conducted on mentoring in international context but no study was carried out by focusing on mixed method approach. The following Chapters 3 and 4 presents research design, methodology data analysis and interpretations while findings, conclusions, discussion and recommendations has been discussed in Chapter 5.

CHAPTER 3

RESEARCH METHODOLOGY

3.1 INTRODUCTION

This chapter deals with the description of the research design and procedures followed in the study. The study aimed at investigating the effects of the mentoring process on the professional development of teachers at elementary level in Punjab. The objectives of the present study includes: (i) to study the mentoring system of District Teacher Educators at Primary level in the Punjab province, (ii) to identify the problems involved in District Teacher Educators system of Punjab, (iii) to analyze the effects of mentoring process on the professional development of Primary School Teachers, and (iv) to determine the effectiveness of mentoring process under District Teacher Educators at Primary level in Punjab. This chapter is divided into five sections: design of the study, population & sample, instrumentation, data collection, and data analysis procedures. In addition this Chapter also describes ethical considerations of the study and pilot testing. Briefly Chapter three deals with the methods and procedures adopted in the study. Details are described below.

3.2 DESIGN OF THE STUDY

This study based on mixed method approach i.e. quantitative supported by qualitative evidences. Mixed method research approach facilitates the researcher to

study the phenomena in-depth. According to Creswell (2011) mixed method approach is fairly straightforward as the data is collected in different phases. Mixed Method research is an intentional use of more than one methods in the same research (Creswell 2011 &Clark, & Greene 2007). According to Johnson & Gray (2010) in the mixed method research design researcher may face three possible issues i.e. priority, implementation, and integration. The priority issue means which data will be given more weight-age quantitative or qualitative. The second issue is implementation, which refers to the sequence of the data collection. The last one is the integration which occurs when the mixing of quantitative and qualitative data takes place (Creswell & Clark, 2007).

This study focused more on quantitative data supported by qualitative data. In this study, quantitative and qualitative components were included logically to achieve the objectives of the study and to evaluate the effects of the mentoring programme on the professional development of Primary School Teachers. The combination of both approaches adds richness of the data and to generalize the results meaningfully.

Following designs of mixed method approach are used in the mixed method studies:-

   i.   The Convergent Parallel Design
   ii.   The Explanatory Sequential Design
   iii.   The Exploratory Sequential Design
   iv.   The Embedded Design
   v.   The Transformative Design and
   vi.   The Multiphase Design

The researcher has utilized convergent parallel design in this study. The design is illustrated in proceeding heading.

3.2.1 The Convergent Parallel Design

In the Convergent Parallel Design quantitative & qualitative data are collected parallels and then both types of data are merged to draw the findings and conclusions. The critical rationale of the Convergent Parallel Design is that qualitative data strengths the weaknesses of quantitative data. Similarly, quantitative data provide strengths to the diffuseness of qualitative data. This design allows researchers to collect quantitative and qualitative data and make separate analyzes of both type of data.

According to Cresswell (2011) researcher may treat quantitative or qualitative data equally or give priority to any set of data while making interpretations. Researcher may ensure, whether the results obtained through both types of data are similar or contradictory with each-other. Researchers present quantitative statistics and then illuminate qualitative quotes to confirm or disconfirm the statistical results (Cresswell, 2011). Graphic illustration of the adopted research design is given below:

The convergent parallel design
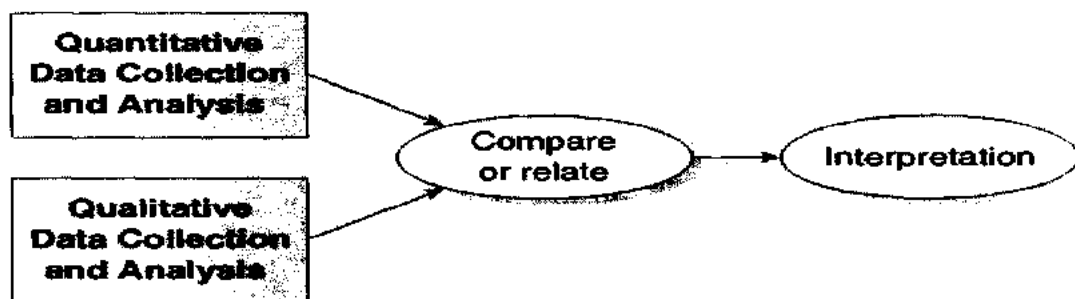
The major strength of this design includes that it combines the advantages of every type of data (Cresswell, 2013). Therefore, the convergent parallel design was followed in the study.

Diagram No:5 Detailed Graphic representation of the design
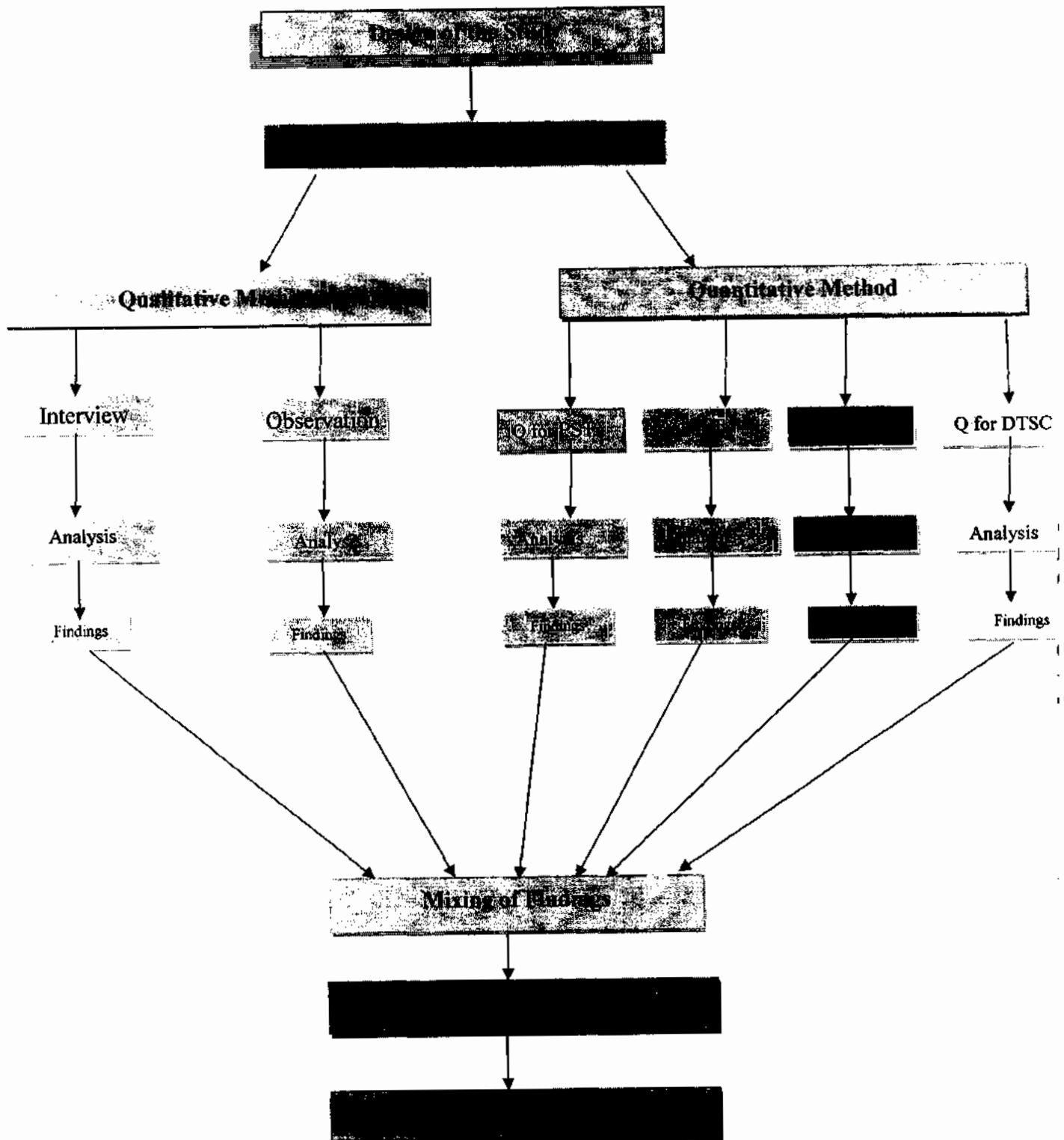
3.3 POPULATION OF THE STUDY

Population of the study comprised of Primary School Teachers (PSTs), District Teachers Educators (DTEs), Cluster Training and Support Centers (CTSCs) heads and District Training and Support Centers (DTSCs) heads presently working in the Punjab Province. Table 3 below presents different strata of the population.

Table 3: Population of the Study

Sr. No.	Groups	Numbers
1.	Primary School Teachers (PSTs)	47988
2.	District Teacher Educators (DTEs)	1370
3.	Cluster Training and Support Centers (CTSCs) Heads	350
4.	District Training and Support Centre (DTSCs) Heads	12
	Total =	49720

(Govt. of Punjab, 2012)

3.4 SAMPLE OF THE STUDY

Simple random sampling technique was applied to select the sample. Computer generated list was used for randomization. The sample comprised of 381 Primary School Teachers (PSTs), 302 District Teachers Educators (DTEs), 186 Cluster Training and Support Centers (CTSCs) Heads and 12 District Training and Support Centers (DTSCs) Heads from the 12 districts of the Punjab Province. As the number of DTSCs was relatively small therefore, all the heads were included in the sample. Table 4 below describes the details of size sample of the study.

Table 4: Sample Size of PSTs, DTEs, CTSCs and DTSCs

Sr. No	Target Groups	Sample
1.	Primary School Teachers (PSTs)	381
2.	District Teacher Educators (DTEs)	302
3.	Cluster Training and Support Centers (CTSCs) Heads	186
4.	District Training and Support Centre (DTSCs) Heads	12
	Total =	881

As the study was delimited to twelve districts of Punjab province, simple random sampling technique was used to select the sample at district level. District wise sample size of the study is as under:

Table 5: District Wise Sample Size

Sr. No.	DISTRICTS	PSTs	DTEs	CTSCs	DTSCs	Total
1.	Attock	31	29	14	1	75
2.	Okara	43	19	15	1	78
3.	Faisalabad	42	28	19	1	90
4.	Gujrat	32	31	22	1	86
5.	Kasur	30	13	12	1	56
6.	Muzaffargarh	42	24	14	1	81
7.	Mianwali	25	25	15	1	66
8.	MandiBahauddin	21	22	18	1	62
9.	Rahim Yaar Khan	29	31	16	1	77
10.	Rajanpur	20	27	18	1	66
11.	Sargodha	35	31	12	1	79
12.	Sheikhupura	31	22	11	1	65
	TOTAL=	381	302	186	12	881

3.5 INSTRUMENTATION

Four questionnaires were developed on five point Likert's scale to collect quantitative data from PSTs, DTEs, CTSCs, and DTSCs respectively. The researcher thoroughly studied the relevant literature to identify the key variables and findings appeared in previous research literature for developing the instruments. Summary of previous research studies is given in Chapter 2. Draft questionnaires for PSTs, DTEs, CTSCs, and DTSCs were developed according to the objectives and research questions of the study. Many drafts of the research instruments were discussed with the research supervisors. At second phase, draft instruments were discussed with experts. As a result, many items were deleted and added into the instruments. At third phase, the designed instruments were pre-tested before using them for data collection in the study. In addition, the researcher

developed observation sheet and completed structured interview guide to collect qualitative data from the respondents. Both the instruments were developed in accordance with the objectives and nature of the study. Qualitative data collection instruments are annexed at annexure-VIII & IX respectively. The reliability and validity of the research instruments is given in heading 3.7 below.

3.6 PILOT TESTING

Prior to the large study, a pilot study was done with the Primary School Teachers (PSTs), District Teacher Educators (DTEs), Cluster Training & Support Centers (CTSCs) Heads, and District Training & Support Centers (DTSCs) Heads. The pilot testing was conducted in the districts which were not included in the sample of the study. For this purpose the participants were taken from Rawalpindi, Sahiwal and Bahawalpur districts of the Punjab province. The results of the pilot testing helped the researcher in establishing internal consistency and content validity of the questionnaires. Many items of the questionnaires were revised on the basis of the pilot testing.

The population of the pilot testing comprised of 11274 Primary School Teachers (PSTs), 299 District Teacher Educators (DTEs), 147 Cluster Training and Support Centers (CTSCs) Heads and 3 District Training and Support Centers (DTSCs) Heads. The sample of the pilot testing was 19 Primary School Teachers (PSTs), 15 District Teacher Educators (DTEs), 9 Cluster Training and Support Centers (CTSCs) Heads and 3 District Training and Support Centers (DTSCs) Heads. The interviews were pilot tested to determine that weather the statements were clearly related to the objectives of the study. As a result of the pilot testing, the questionnaires and interview questions were refined. This pilot testing results facilitated the researcher

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whether the existing mentoring programme was effective and what type of problems were involved in the mentoring process. It also provided the researcher an opportunity to gain experience and skills necessary for face-to-face interviews. Some minor changes were made in the interview questions after pilot testing.

3.7 RELIABILITY AND VALIDITY

Face validity and content validity of the research instruments was checked by the experts and the comments of the small sample of 30 participants were used for pretesting. These participants were not included in the sample of main study. Reliability of the questionnaires was checked by the SPSS version 16. The reliability analysis of questionnaires of PSTs, DTEs, CTSCs & DTSCs was 0.795, 0.946, 0.864 & 0.959 respectively which showed that instruments were reliable. The value of Cronbach's alpha has a range from the value of 0 to 1. The value of Cronbach's alpha closer to 1, is considered as more reliable. As mentioned by the Jackson (2003) the acceptable value of alpha falls in the range from 0.70 to 1.00. Reliability of the four questionnaires are placed at annexure IX-XII.

3.8 DATA COLLECTION

The data collection process was completed in almost one year. The researcher tried to get maximum response and got completely filled questionnaires from all the respondents.

Phase 1: Quantitative data collection.

Phase 2: Qualitative data collection.

3.8.1 Quantitative Data Collection

The data collection procedures were completed in two phases. During the first phase quantitative data were collected. Questionnaires were delivered personally to all four

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categories of participants of the study. Keeping in view the availability of the respondents, researcher preferred to approach the respondents before the summer vacation during May 2013.

3.8.2 Qualitative Data Collection

In second phase the qualitative data were collected. Firstly, researcher conducted interviews with the PSTs, DTEs, CTSCs and DTSCs respectively. Keeping in the view the importance of the Model Lesson, researcher personally visited CTSCs on the Professional Development Days. Researcher obtained Professional Development Days schedules from the Directorate of Staff Development (DSD) Lahore. The observation of Model Lesson on the Professional Development Day reflected the actual relationships between the teachers and mentors.

i. Interviews

The individual interviews were held with the respondents by taking prior permissions over telephone. The detail of the sample size for interviews is given in table 6 below.

Table 6: Sample size for the interviews

S. No	Target Groups	Sample Size	Interview Size
1.	Primary School Teachers (PSTs)	381	38 (10%)
2.	District Teacher Educators (DTEs)	302	30 (10%)
3.	Cluster Training and Support Centers (CTSCs) Heads	186	19 (10%)
4.	District Training and Support Centre (DTSCs) Heads	12	12 (100%)

The interviews with these participants mainly took place in their offices, in the office of the head of the institutions, in CTSCs offices or in the DTSCs offices.

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ii. Observation

The researcher conducted series of observations in the class rooms because that was only time when mentees were together with the mentors. The District wise details of CTSCs to observe model lessons are outlined in table 7 below.

Table 7: Scheduled of Observation of Model Lesson

Sr. No	District	Dates	No Lesson Observed
1.	Attock	27-09-2013	2
2.	Okara	28-09-2013	2
3.	Faisalabad	28-09-2013	2
4.	Gujrat	29-10-2013	2
5.	Kasur	39-10-2013	2
6.	Muzaffargarh	31-10-2013	2
7.	Mianwali	29-11-2013	2
8.	Mandi Bahauddin	29-11-2013	2
9.	Rahim Yar Khan	28-11-2013	2
10.	Rajanpur	19-12-2013	2
11.	Sargodha	20-12-2013	2
12.	Sheikhupura	21-12-2013	2

3.9 DATA ANALYSIS

Data analysis comprised of following phases.

3.9.1 Phase-I

Prior to quantitative data analysis, researcher thoroughly checked the questionnaires to ensure that all the questionnaires are properly filled by the respondents. During data collection process researcher identified partially filled questionnaires on the spot and made a request to the respondents to it again properly. However, during data feeding process researcher identified few partially filled questionnaires which were excluded from the study.

3.9.2 Phase-II

At second phase of data analysis questionnaires were arranged in order and researcher allotted number to each questionnaire. SPSS data entry sheet was developed with the

help of SPSS experts. Furthermore, data was entered into the SPSS data sheet. After completion of data entry, all the data was thoroughly checked to identify the missing values.

3.9.3 Phase-III

Data collected through questionnaires was analyzed by calculating percentages and mean score. Chi-Square was used to compare the group frequencies and t-test was used to see if there was significance between the means of groups.

3.9.4. Phase-IV

Qualitative data collected through interviews and observations was thoroughly checked and transcribed into textual data. NVIVO version 10 was used to analyze the qualitative data. Researcher was keenly interested to accurately apply the qualitative data analysis software. In this endeavor researcher attended NVIVO trainings. Prior to analysis through NVIVO researcher formulated the major themes and subthemes. These themes and subthemes were transcribed into parent node and nodes.

3.10 RESEARCH ETHICS

3.10.1 Anonymity

Researcher was mindful of the confidentiality of the respondents. All the information provided by the respondents was kept confidential and used only for research purpose.

3.10.2 Informed Consent

Informed consent was taken from the targeted sample, before administration and distribution of the instruments. Similarly, Prior permission was sought from the head teachers/principal of schools and district administration of school education department.

CHAPTER 4

ANALYSIS OF DATA

4.1 INTRODUCTION

The present study aimed at investigating the effects of the mentoring process on the professional development of teachers at elementary level in Punjab province. The objectives of the present study were: (i) to study the mentoring system of District Teacher Educators at Primary level in the Punjab province, (ii) to identify the problems involved in District Teacher Educators system of Punjab, (iii) to analyze the effects of mentoring process on the professional development of Primary School Teachers, and (iv) to determine the effectiveness of mentoring process under District Teacher Educators at Primary level in Punjab. The population of the study included all the Primary School Teachers (PSTs), all the District Teachers Educators (DTEs), all the District Training and Support Centers (CTSCs) heads and all the heads of District Training and Support Centers (DTSCs) of the Punjab province.

This descriptive study used mixed method of quantitative and qualitative research. Four sets of questionnaires, in addition to interview and observation, were used for data collection. The quantitative data were collected from the PSTs, DTEs, CTSCs, and DTSCs through the questionnaires which were developed on the five point Likert's scale for the followings:-

     i.   Questionnaire for Primary School Teachers (PSTs). Annexure-V
   ii.   Questionnaire for District Teacher Educators (DTEs). Annexure-V
  iii.   Questionnaire for Cluster Training and Support Center (CTSCs) Heads. Annexure-VI
  iv.   Questionnaire for District Training and Support Center (DTSCs) Heads. Annexure-VI

v. Observation of Model Lesson on PD Day. Annexure-VII

vi. Interview guide for, PSTs, DTEs, CTSCs and DTSCs. Annexure-VIII

The collected data were tabulated and analyzed by using Percentages, Mean and Chi-Square.

t-test was used to determine the difference in the mean opinions scores of the groups. Details

about the data analysis are given below:

4.2 ANALYSIS OF RESPONSES OF PRIMARY SCHOOL TEACHERS (PSTs) AND THE DISTRICT TEACHER EDUCATORS (DTEs)

The questionnaires of Primary School Teachers (PSTs) and for District Teacher Educator

(DTEs) contained 50 items. These questionnaires are attached as Annexure-V. The

questionnaire covered the demographic information and eight mentoring areas: (i) Taleemi

Calendar, (ii) Lesson Planning, (iii) Activity Based Teaching and Learning, (iv) Use of

Support Material, (v) Interaction with Students, (vi) Classroom Management, (vii) Student

Assessment and (viii) Home Work. The data collected were tabulated and analyzed by using

percentages. During the process of analysis researcher has taken 50 % to 69 % responses as

"Most of" while, 70 % above responses were considered as "Majority". The detailed analysis

is given in the below mentioned tables:

Demographic Information of Primary School Teachers (PSTs) and District Teacher Educators (DTEs)

This part of the analysis dealt with demographic information i.e. gender, age, academic

qualifications, professional qualifications, teaching experiences, and marital status of the

Primary School Teachers (PSTs) and District Teacher Educators (DTEs).

Table 8:   Gender Wise Distribution of Primary School Teachers (PSTs) and District Teacher Educators (DTEs)

Gender	PSTs		DTEs	
	Frequencies	Percentages	Frequencies	Percentages
Male	163	42.8%	230	76.2 %
Female	218	57.2%	72	23.8 %
Total	**381**	**100.00%**	**302**	**100.00%**

Table No. 8 indicates that 163 (42.8 %) PST respondents were male, 218 (57.2 %) female and

230 (76.2 %) of DTEs were male, 72 (23.8 %) were female (Table 8).

Table 9: Age Wise Distribution of Primary School Teachers (PSTs) and District Teacher Educators (DTEs)

Age group	PSTs		DTEs	
	Frequencies	Percentages	Frequencies	Percentages
21-25	13	3.4 %	08	2.6 %
26-30	57	15.0 %	43	14.2 %
31-35	56	14.7 %	51	16.9 %
35-40	85	22.3 %	73	24.2 %
above 40	170	44.6 %	127	42.1%
Total	381	100.00 %	302	100%

Table No. 9 shows that 13 (3.4 %) Primary School Teachers (PSTs) were in the age group of

(21-25), 57 (15.0 %) were in the age group of (26-30), 56 (14.7 %) were in the age group of

(31-35), 85 (22.3 %) teachers were in the age group of (35-40) PSTs, 170 (44.6 %) were in

the age group above 40 years and 8 (2.6 %) District Teacher Educators (DTEs) were in the

age group of (21-25) years, 43 (14.2 %) District Teacher Educators were in the age group of

(26-30) years, 51 (16.9 %) District Teacher Educators were in the age group of (31-35)

years, 73 (24.2 %) District Teacher Educators were in the age group of (35-40) years, 127

(42.1 %) were in age group above 40 years (Table 9).

Table 10: Academic Qualifications Wise Distribution of Primary School Teachers (PSTs) and District Teacher Educators (DTEs)

Academics Qualifications	PSTs		DTEs	
	Frequencies	Percentages	Frequencies	Percentages
Matric	80	21.0%	00	0.0 %
FA	53	13.9%	00	0.0 %
BA	106	27.8%	49	16.2 %
BSc	70	18.4%	18	6.0 %
MA	59	15.5%	196	64.9 %
MSc	05	1.3%	25	8.3 %
M.Phil	01	0.3%	03	0.9 %
Others	07	1.8%	11	3.7 %
Total	381	100%	302	100 %

Table No. 10 indicates that the qualifications wise distribution of Primary School Teachers (PSTs) and District Teacher Educators (DTEs). The table showed that 80 (21.0 %) PSTs were Matric, 53 (13.9%) were FA, 106 (27.8%) were BA, 70 (18.4%) were BSc, 59 (15.5%) were MA, 05 (1.3%) were MSc, 01 (0.3%) were M.Phil, 07 (1.8%) were "others" and 49 (16.2 %) DTEs were BA, 18 (6.0%) were B.Sc, 196 (64.9%) were MA, 25 (8.3 %) were M.Sc, 03 (0.9 %) were M.Phil, 11 (3.7%) found others (Table 10).

Table 11: Professional Qualifications Wise Distribution of Primary School Teachers (PSTs) and District Teacher Educators (DTEs)

Prof. Qualifications	PSTs		DTEs	
	Frequencies	Percentages	Frequencies	Percentages
PTC	141	37.0%	00	0.0%
CT	45	11.8%	00	0.0%
B.Ed.	123	32.3%	127	42.1%
M.Ed.	65	17.1%	135	44.7%
Others	07	1.9%	40	13.2%
Total	**381**	**100.00%**	**302**	**100%**

The above table No. 11 reflects the professional qualifications of Primary School Teachers (PSTs) and District Teacher Educators (DTEs). The table shows that 141 (37.0 %) were PTC, 45 (11.8 %) were CT, 123 (32.3 %) were B.Ed., 65 (17.1 %) were M.Ed., and 07 (1.6 %) were other degree holders and of District Teacher Educators (DTEs) that 127 (42.1 %) were B.Ed. 135 (44.7 %) held M.Ed. and 40 (13.2 %) were other degree holders (Table 11).

Table 12: Teaching Experiences Wise Distribution of Primary School Teachers (PSTs) and District Teacher Educators (DTEs)

Teaching Experiences	PSTs		DTEs	
	Frequencies	Percentages	Frequencies	Percentages
less than 10	143	37.5 %	61	20.2 %
11-15	32	8.4 %	35	11.6 %
16-20	82	21.5 %	94	31.1 %
21-25	70	18.4 %	77	25.5 %
above 25	54	14.2 %	35	11.6 %
Total	**381**	**100.0%**	**302**	**100 %**

Table No. 12 indicates that 143 (37.5 %) were (less than 10) years of teaching experience, 32 (8.4 %) were (11-15) years, 82 (21.5 %) were (16-20) years, 70 (18.4 %) were (21-25) years, and 54 (14.2 %) were above 25 years in teaching experience and 61 (20.2 %) District Teacher Educators (DTEs) were less than 10 teaching experience, 35 (11.6 %) fell in (11-15) years, 94 (31.1 %) were (16-20) years, 77 (25.5 %) were (21-25) years, 35 (11.6 2 %) were up 25years of teaching experience (Table 12).

Table 13: Marital Status Wise Distribution of Primary School Teachers (PSTs) and District Teacher Educators (DTEs)

Marital Status	PSTS		DTEs	
	Frequencies	Percentage	Frequencies	Percentage
Single	56	14.7%	35	11.6%
Married	321	84.3%	265	87.7%
Divorced	04	1.0%	02	0.7%
Total	381	100.00%	302	100.00%

Table No. 13 reflects the marital status of respondents that 56 (14.7 %) were unmarried, 321 (84.3 %) were married and 04 (1.0 %) were divorced and 35 (11.6 %) District Teacher Educators (DTEs) were unmarried, 265 (87.7 %) were married, 02 (0.7 %) were divorced (Table 13).

AREA-1 TALEEMI CALENDAR

Table 14: Significance of Divergence of Observed Frequencies of PSTs & DTEs on the Management of Teaching Activities According to the Taleemi Calendar

Statement	Respondents	SDA	DA	UNC	A	SA	χ^2 Value	p-value
Mentoring helps in managing all the teaching	PSTs (N=381)	90 23.6 %	72 18.9 %	11 2.9 %	109 28.6%	99 26.0 %	77.885	0.000
activities according to the Taleemi	DTEs (N=302)	08 2.6 %	20 6.6 %	08 2.6 %	118 39.1%	148 49.0%	299.921	0.000
df=4					χ^2 at 0.05=9.49			

Table No. 14 reflects that 54.6 % respondents PSTs agreed, 2.9 % were uncertain in their responses while, 42.5 % disagreed and 88.1 % DTE respondents agreed, 2.6 % were uncertain in their responses, while 9.2 % remained disagreed with the statement. The calculated values were of χ^2 (77.885) and χ^2 (299.921) were overwhelmingly significant at p=0.001 level of significance due to uncertain responses of the PSTs and DTEs. This showed that there was high difference the responses of PSTs and DTEs on the management of teaching activities according to the Taleemi Calendar. The opinions are highly divided with a tilt toward statement. Therefore, the Null Hypotheses H_{o1} and H_{o2} were rejected (Table 14).

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Table 15: Significance of Divergence of Observed Frequencies of PSTs & DTEs on the Management of Teaching Activities in a Realistic Way

Statement	Respondents	SDA	DA	UNC	A	SA	χ^2 Value	p-value
Mentoring helps to manage teaching activities for the educational year in a realistic way.	PSTs (N=381)	110 28.9 %	91 23.9%	00 0.0	102 26.8%	78 20.5%	6.076	0.108
	DTEs (N=302)	70 23.2%	85 28.1%	00 0.0	68 22.5%	79 26.2%	2.503	0.475
	df=4				χ^2 at 0.05=9.49				

The above table No. 15 indicates that 47.3 % of PST respondents agreed, while 52.8 % of the respondents disagreed and 48.7 % of DTE respondents agreed and 51.3 % of the respondents disagreed with the statement. The calculated values of χ^2 for PSTs and DTEs were of (6.076) and χ^2 (2.503) which were not-significant at p=0.05 level of significance. This showed opinions of PSTs and DTEs about management of teaching activities in a realistic way is equally divided. Hence, the Null Hypotheses H_{o1} and H_{o2} were not rejected (Table 15).

Table 16: Significance of Divergence of Observed Frequencies of PSTs& DTEs on the Rigorously Uses of Taleemi Calendar through Mentoring

Statement	Respondents	SDA	DA	UNC	A	SA	χ^2 Value	p-value
Mentoring helps in using Taleemi Calendar rigorously.	PSTs (N=381)	65 17.1 %	91 23.9%	11 2.9%	98 25.7%	116 30.4%	87.333	0.000
	DTEs (N=302)	65 21.5%	77 25.5%	11 3.6%	70 23.2%	79 26.2%	52.570	0.000
	df=4				χ^2 at 0.05=9.49				

The above table No. 16 showed that 56.1 % of PST respondents agreed, 2.9 % were uncertain, 41.0 % disagreed and 49.4 % of DTE respondents agreed, 3.6 % were uncertain and 47.0 % disagreed with the statement. The calculated values of Chi-square for PSTs and DTEs were of χ^2 (87.333) andχ^2 (52.570) which were overwhelmingly significant at p=0.001 level of significance due to uncertain responses. This depicted high difference in the opinions of PSTs and DTEs on the rigorously usage of Taleemi Calendar through mentoring with tilt towards agreement with the statement. Thus, the Null Hypotheses H_{o1} and H_{o2} were rejected (Table 16).

Table 17: Significance of Divergence of Observed Frequencies of PSTs & DTEs on the Help in Covering the Backlogs of unseen days in an Educational Year

Statement	Respondents	SDA	DA	UNC	A	SA	χ^2 Value	p-value
Mentoring helps to cover the backlogs of unseen days in an educational	PSTs (N=381)	63 16.5%	77 20.2%	07 1.8%	131 34.4%	103 27.0%	113.974	0.000
	DTEs (N=302)	31 10.3%	43 14.2%	09 3.0%	122 40.4%	97 32.1%	148.066	0.000
df=4					χ^2 at 0.05=9.49			

Table No. 17 reflects that 61.4 % of PST respondents agreed, 1.8 % were uncertain, 36.7 % were disagreed and 72.5 % of DTE respondents agreed, 3.0 % were uncertain while, 24.5 % of the respondents disagreed with the statement. The calculated value of χ^2 for PST was (113.974) and DTE was χ^2 (148.066) which were overwhelmingly significant at p=0.001 level of significance due to the uncertain responses in the opinions of PSTs and DTEs. This indicated high difference in the opinions of PSTs and DTEs that mentoring helped in covering the backlogs of unseen days in an educational year with tilt towards agreement the statement. So, the Null Hypotheses H_{o1} and H_{o2} were rejected (Table 17).

Table 18: Significance of Divergence of Observed Frequencies of PSTs & DTEs on the Achievement of the Pre-Set Targets in Advance

Statement	Respondents	SDA	DA	UNC	A	SA	χ^2 Value	p-value
Mentoring helps in achieving the pre-set targets in advance.	PSTs (N=381)	98 25.7%	69 18.1%	05 1.3%	107 28.1%	102 26.8%	94.630	0.000
	DTEs (N=302)	71 23.5%	61 20.2%	00 0.0	75 24.8%	95 31.5%	4.384	0.223
df=4					χ^2 at 0.05=9.49			

The above table No. 18 indicates that 54.9 % of PST respondents agreed, 1.3% were uncertain in their responses while, 43.8 % remained disagreed with the statement. The calculated value of χ^2 for PST was (94.630) overwhelmingly significant at p=0.001 level of significance due to uncertain value in the responses of the PSTs. Thus, the Null Hypothesis H_{o1} was rejected. The data showed that 56.3 % of the DTE respondents agreed while, 43.7 % of the respondents disagreed with the statement. The calculated value of $\chi2$ (4.384) was not-significant at p=0.05 level of significance. This showed that there was equal difference in the opinions of DTEs on the achievement of the pre-set targets in advance. Therefore, the Null Hypothesis H_{o2} was not rejected (Table 18).

Table 19: Significance of Divergence of Observed Frequencies of PSTs & DTEs on the Management of Leave or Absent Days of an Educational Year

Statement	Respondents	SDA	DA	UNC	A	SA	χ^2Value	p-value
Mentor helps in managing the leave or absent days of an educational year.	PSTs (N=381)	98 25.7%	107 28.1%	00 0.0	95 24.9%	81 21.3%	3.661	0.300
	DTEs (N=302)	61 20.2%	68 22.5%	00 0.0	89 29.5%	84 27.8%	6.901	0.075
df=4						χ^2 at 0.05=9.49		

Table No. 19 reflects that 46.2 % of the PST respondents agreed while, 53.8 % disagreed and 57.3 % of the DTE respondents agreed, 42.7% disagreed with the statement. The calculated data showed that values of χ^2 (3.661) and χ^2 (6.901) respectively for PSTs & DTEs were not-significant at p=0.05 level of significance. This showed that there was equal difference in the responses of PSTs & DTEs on the management of leave or absent days of an educational year. Hence, the Null Hypotheses H_{o1} and H_{o2} were not rejected (Table 19).

Table 20: Significance of Divergence of Observed Frequencies of PSTs & DTEs on the Provision of Regular Feedback for the Professional Development of Teachers

Statement	Respondents	SDA	DA	UNC	A	SA	χ^2Value	p-value
Mentoring provides regular feedback which contributes towards professional development of teachers	PSTs (N=381)	71 18.6%	98 25.7%	00 0.0	109 28.6%	103 27.0%	8.869	0.031
	DTEs (N=302)	54 17.9%	71 23.5%	00 0.0	102 33.8%	75 24.8%	15.695	0.001
df=4						χ^2 at 0.05=9.49		

Table No. 20 reflects that 55.6 % of PST respondents agreed and 44.3 % were disagreed with the statement. The calculated value of χ^2 for PST was (8.869) which was not-significant at p=0.05 level of significance. This revealed that the opinion of PSTs regarding the provision of regular feedback for the professional development of teachers is equally divided. Therefore, the Null Hypothesis H_{o1} was not rejected. Table No.20 also depicts that 58.6 % of the DTE respondents agreed and 41.4% disagreed with the statement. The calculated value of χ^2 (15.695) was significant at p=0.01 level of significance. This revealed that there was high difference in the opinions of DTEs about the provision of regular feedback for the professional development of teachers. Hence, the Null Hypothesis H_{o2} was rejected (Table 20).

Table 21: Significance of Divergence of Observed Frequencies of PSTs & DTEs on the Reduction of the Professional Stress of the Teachers through Mentoring

Statement	Respondents	SDA	DA	UNC	A	SA	χ^2 Value	p-value
Mentoring decreases the professional stress of the teacher.	PSTs (N=381)	97 25.5%	81 21.3%	00 0.0	89 23.4%	114 29.9%	6.265	0.099
	DTEs (N=302)	84 27.8%	75 24.8%	05 1.7%	73 24.2%	65 21.5%	66.543	0.000
df=4						χ^2 at 0.05=9.49		

Table above table No. shows that 53.3 % of PST respondents agreed with the statement and 46.8 % disagreed. The calculated value of χ^2 for PST was (6.265) which was not-significant at p=0.05 level of significance. This reflected that the difference in the opinion of PSTs about the professional stress of the teachers with tilt towards the disagreement of the statement. Hence, the Null Hypothesis H_{o1} was not rejected. Table also reflects that 45.7 % of DTE respondents agreed, 1.7 % were uncertain and 52.6 % of the respondents remained disagreed with the statement. The calculated value of χ^2 for DTE was (66.543) which was overwhelmingly significant at p=0.001 level of significance. This showed that there was high difference in the responses of DTEs about the professional stress of the teachers. Therefore, the Null Hypothesis H_{o2} was rejected (Table 21).

AREA-2 LESSON PLANNING

Table 22: Significance of Divergence of Observed Frequencies of PSTs & DTEs on the Separation of Contents and Specification of Time for Each Component

Statement	Respondents	SDA	DA	UNC	A	SA	χ^2 Value	p-value
Mentoring helps in separating the contents into parts and specifying amount of time needed for each component.	PSTs (N=381)	125 32.8	117 30.7%	05 1.3%	65 17.1	69 18.1%	121.953	0.000
	DTEs (N=302)	73 24.2%	55 18.2%	03 1.0%	59 19.5	112 37.1%	101.775	0.000
df=4						χ^2 at 0.05=9.49		

Table reflects that 35.2 % of PST respondents agreed, 1.3 % uncertain, 63.5 % were disagreed and 56.6 % of the DTEs agreed, 1.0 % were uncertain while, 42.4 % disagreed with the statement. The calculated value of χ^2 for PSTs and DTEs were (121.953) and (101.775) respectively which were overwhelmingly significant at p=0.001 level of significance due to uncertain values in the responses of PSTs and DTEs. This showed that there was high difference in the responses of PSTs & DTEs about the separation of contents and specification of time for each component with tilt towards agreement. Therefore, the Null Hypotheses H_{o1} and H_{o2} were rejected (Table 22).

Table 23: Significance of Divergence of Observed Frequencies of PSTs & DTEs on the Separation and Pacing the Learning Activities Appropriately

Statement	Respondents	SDA	DA	UNC	A	SA	χ^2 Value	p-value
Mentoring helps in separating learning activities into components while pacing the activities appropriately.	PSTs (N=381)	112	89	00	77	103	7.483	0.058
		29.4%	23.4%	0.0	20.2%	27.0%		
	DTEs (N=302)	30	42	00	129	101	88.808	0.000
		9.9%	13.9%	0.0	42.7%	33.4%		
df=4				χ^2 at 0.05=9.49				

The above table No. 23 reflects that 47.2 % respondents agreed and 52.8 % of the respondents were disagreed with the statement. The calculated value of χ^2 (7.483) was not-significant at p=0.05 level of significance. This showed that there was equal difference in the opinion of PSTs on separation and pacing the learning activities appropriately. Therefore, the Null Hypothesis H_{o1} was not rejected. The above table also shows that the 76.1 % respondents agreed and 23.8 % of the respondents disagreed with the statement. The calculated value of χ^2 for DTE was (88.808) which was overwhelmingly significant at p=0.001 level of significance. This indicated that there was high difference in the responses of DTEs on the separation and pacing the learning activities appropriately. Hence, the Null Hypothesis H_{o2} was rejected (Table 23).

Table 24: Significance of Divergence of Observed Frequencies of PSTs & DTEs on the effectively use of Lesson Planning Guide through Mentoring

Statement	Respondents	SDA	DA	UNC	A	SA	χ^2 Value	p-value
Mentoring helps in using lesson planning guide effectively.	PSTs (N=381)	52	48	07	151	123	183.134	0.000
		13.6%	12.6%	1.8%	39.6%	32.3%		
	DTEs (N=302)	30	21	00	131	120	13.788	0.000
		9.9%	7.0%	0.0	43.4%	39.7%		
df=4				χ^2 at 0.05=9.49				

It is evident No. 24 from above table that 71.9 % of PSTs agreed, 1.8 % were uncertain in their responses, 26.2 % were disagreed and 83.1 % of the DTE respondents agreed, while 16.9 % of the respondents disagreed with the statement. The calculated value of χ^2 for PST and DTE were (183.134) & (13.788) which were overwhelmingly significant at p=0.001 level of significance due to uncertain responses. This showed that there was high difference in the opinion of PSTs and DTEs on the effectively use of lesson plan guide with tilt towards agreement with the statement. Therefore, the Null Hypotheses H_{o1} and H_{o2} were rejected (Table 24).

Table 25: Significance of Divergence of Observed Frequencies of PSTs &DTEs on the Help in Obtaining the Requisite Lesson Planning Skills through Mentoring

Statement	Respondents	SDA	DA	UNC	A	SA	χ^2 Value	p-value
Mentoring helps in obtaining the requisite lesson planning skills.	PSTs (N=381)	89 23.4%	69 18.1%	05 1.3%	114 29.9%	104 27.3%	98.252	0.000
	DTEs (N=302)	63 20.9%	75 24.8%	05 1.7%	63 20.9%	96 31.8%	72.550	0.000
	df=4					χ^2 at 0.05=9.49		

The above table No. 25 reflects that 57.2 % of the PST respondents agreed, 1.3 % were uncertain, 41.5 % of the respondents disagreed and 52.7 % of the DTE respondents agreed, 1.7 % were uncertain, 45.7% of the respondents disagreed with the statement. The values of χ^2 for PSTs and DTEs were (98.252) and (72.550) which were overwhelmingly significant at p=0.05 level of significance. This showed high difference in the opinions of PSTs on obtaining the requisite lesson planning skills through mentoring. Hence, the Null Hypotheses H_{o1} and H_{o2} were rejected (Table 25).

Table 26: Significance of Divergence of Observed Frequencies of PSTs & DTEs on the Mentoring Help in Starting and Reviewing the Lesson

Statement	Respondents	SDA	DA	UNC	A	SA	χ^2 Value	p-value
Mentoring helps in starting and reviewing the lesson.	PSTs (N=381)	83 21.8%	68 17.8%	06 1.6%	121 31.8%	103 27.0%	101.927	0.000
	DTEs (N=302)	52 17.2%	34 11.3%	02 0.7%	117 38.7%	97 32.1%	144.391	0.000
	df=4					χ^2 at 0.05=9.49		

Table No. 26 depicts that 58.8 % of the PST respondents agreed, 1.6 % were uncertain, 39.6 % of the respondents disagreed and 70.8 % of the DTE respondents agreed, 0.7 % were uncertain, 28.5 % of the respondents were disagreed with the statement. The calculated value of χ^2 for PSTs was (101.927) and DTEs was (144.391) which were overwhelmingly significant at p=0.001 level of significance due to uncertain values in the responses of PSTs and DTEs. This revealed high difference in the opinion of PSTs and DTEs about the starting and reviewing the lesson with high tilt towards agreement with the statement. Hence, the Null Hypotheses H_{o1} and H_{o2} were rejected (Table 26).

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Table 27: Significance of Divergence of Observed Frequencies of PSTs & DTEs on the Provision of Feedback in Instructional Methodologies

Statement	Respondents	SDA	DA	UNC	A	SA	χ^2Value	p-value
Mentoring provides feedback about my instructional methodologies	PSTs (N=381)	99 26.0%	97 25.5%	00 0.0	86 22.6%	99 26.0%	1.226	0.747
	DTEs (N=302)	35 11.6%	48 15.9%	03 1.0%	126 41.7%	90 29.8%	153.530	0.000
df=4						χ^2 at 0.05=9.49		

The above table No. 27 indicates that 48.6 % of the PST respondents agreed, while 51.5 % of disagreed with the statement. The calculated value of χ^2 for PSTs was (1.226) which was not-significant at p=0.05 level of significance. This revealed that the opinion of PSTs about the provision of feedback in instructional methodologies is equally divided. So, the Null Hypothesis H_{o1} was not rejected. The above table also reflects that 71.5 % of DTE respondents agreed, 1.0 % were uncertain, 27.5 % of the respondents disagreed with the statement. The calculated value of χ^2 (153.530) was overwhelmingly significant at p=0.001 level of significance. This showed that there was high difference in the opinions of DTEs about the provision of feedback in instructional methodologies with tilt towards the agreement of the statement. Hence, the Null Hypothesis H_{o2} was rejected (Table 27).

AREA-3 ACTIVITY BASED TEACHING AND LEARNING

Table 28: Significance of Divergence of Observed Frequencies of PSTs & DTEs on the Effective Teaching through Mentoring Process

Statement	Respondents	SDA	DA	UNC	A	SA	χ^2Value	p-value
Through mentoring process, my teaching has become more effective.	PSTs (N=381)	85 22.3%	96 25.2%	03 0.8%	91 23.9%	106 27.8%	91.008	0.000
	DTEs (N=302)	75 24.8%	68 22.5%	00 0.0	96 31.8%	63 20.9%	3.430	0.330
df=4						χ^2 at 0.05=9.49		

Table No. 28 depicts that 51.7 % of the PST respondents agreed, 0.8 % were uncertain, 47.5 % of the respondents disagreed with the statement and the calculated value of χ^2 (91.008) was overwhelmingly significant at p=0.001 level of significance. This indicated that there was high difference in the responses of PSTs about effective teaching through mentoring process. Therefore, the Null Hypothesis H_{o1} was rejected. The table also reflects that 52.7 % of the DTE respondents agreed, 47.3 % of the respondents remained disagreed with the statement. The calculated value of χ^2 (153.530) was not-significant at p=0.05 level of significance. This showed that there was equal difference in the opinions of the DTEs on the effective teaching through mentoring process. Hence, the Null Hypothesis H_{o2} was not rejected (Table 28).

Table 29: Significance of Divergence of Observed Frequencies of PSTs & DTEs on the Eliminating the Feelings of Professional Isolation

Statement	Respondents	SDA	DA	UNC	A	SA	χ^2 Value	p-value
Mentoring helps in eliminating the feelings of professional isolation.	PSTs (N=381)	110 28.9	99 26.0	00 0.0	87 22.8	85 22.3	4.249	0.236
	DTEs (N=302)	66 21.9	72 23.8	00 0.0	96 31.8	68 22.5	7.669	0.053
df=4						χ^2 at 0.05=9.49		

The above table No. 29 indicates that 45.1 % of the PST respondents agreed, 54.9 % were disagreed and 54.3 % DTE respondents agreed, while 45.7 % were disagreed with the statement. The calculated values of χ^2 for PSTs and DTEs were (4.249) & (7.669) respectively which were not-significant at p=0.05 level of significance. This depicted that the opinions of PSTs & DTEs on the eliminating the feelings of professional isolation was equally divided. So, the Null Hypotheses H_{o1} and H_{o2} were not rejected (Table 29).

Table 30: Significance of Divergence of Observed Frequencies of PSTs & DTEs on the Development of Positive Attitude towards Teaching

Statement	Respondents	SDA	DA	UNC	A	SA	χ^2 Value	p-value
Mentoring helps in developing positive	PSTs (N=381)	98 25.7 %	75 19.7%	00 0.0	103 27.0%	105 27.6%	6.013	0.111
	DTEs (N=302)	79 26.2%	63 20.9%	00 0.0	102 33.8%	58 19.2%	15.589	0.001
df=4						χ^2 at 0.05=9.49		

Table No. 30 reveals that 54.6 % of the PSTs agreed, 45.4 % were disagreed and 47.1 % of the DTEs respondents were agreed, while 53.0 % of the remained disagreed with the statement. The calculated value of χ^2 for PST was (6.013) which was not-significant at p=0.05 level of significance and the calculated value of χ^2 for DTEs was (15.589) highly significant. This showed that there was equal difference in the opinions of PSTs on the development of positive attitude towards teaching and there was high difference in the responses of the DTEs about the development of positive attitude towards teaching. Hence, the Null Hypothesis H_{o1} was not rejected and the Null Hypothesis H_{o2} was rejected (Table 30).

Table 31: Significance of Divergence of Observed Frequencies of PSTs & DTEs on the Mentoring Help in the Assessment of the Students Learning

Statement	Respondents	SDA	DA	UNC	A	SA	χ^2 Value	p-value
Mentoring provides help in assessing the student's learning.	PSTs (N=381)	110 28.9%	65 17.1%	00 0.0	108 28.3%	98 25.7%	13.677	0.003
	DTEs (N=302)	27 9.3%	58 18.9%	04 1.3%	114 37.7%	99 32.8%	143.464	0.000
df=4						χ^2 at 0.05=9.49		

Table No. 31 depicts that 54.0 % of the PSTs agreed, while 46.0 % were disagreed and 70.5 % of the DTEs agreed and 28.2 % of the respondents remained disagreed with the statement. The calculated value of χ^2 (13.677) for the PST was significant and for the DTEs was χ^2 (143.464) which was overwhelmingly significant at p=0.01 level of significance. This showed that there was high difference in the responses of PSTs and DTEs about the mentoring help in assessing the students learning with the tilt towards the agreement of the statement. So, the Null Hypotheses H_{o1} and H_{o2} were rejected (Table 31).

Table 32: Significance of Divergence of Observed Frequencies of PSTs & DTEs on the Deepened the Understanding in Teaching and Learning

Statement	Respondents	SDA	DA	UNC	A	SA	χ^2 Value	p-value
Mentoring has deepened the understanding about teaching and learning.	PSTs (N=381)	68 17.8%	85 22.3%	00 0.0	121 31.8%	107 28.1%	17.310	0.001
	DTEs (N=302)	65 21.5%	72 23.8%	05 1.7%	71 23.5%	89 29.5%	68.795	0.000
df=4						χ^2 at 0.05=9.49		

The above table No. 32 depicts that 59.9 % of the PSTs were agreed, 40.1 % disagreed and 53.0 % DTE respondents agreed, 1.7 % were uncertain, while 45.3 % were disagreed with the statement. The calculated value of χ^2 (17.310) for PST was highly significant and for the DTEs χ^2 (68.795) was overwhelmingly at p=0.001 level of significance. This revealed that there was high difference in the responses of PSTs and DTEs on deepening the understanding in teaching and learning with tilt towards agreement with the statement. Hence, the Null Hypotheses H_{o1} and H_{o2} were rejected (Table 32).

Table 33: Significance of Divergence of Observed Frequencies of PSTs & DTEs on the Organization of the Curriculum Related Activities

Statement	Respondents	SDA	DA	UNC	A	SA	χ^2 Value	p-value
Mentoring helps in organizing the curriculum related activities.	PSTs (N=381)	80 21.0%	91 23.9%	04 1.0%	107 28.1%	99 26.0%	90.745	0.000
	DTEs (N=302)	65 21.5%	53 17.5%	03 1.0%	112 37.1%	69 23.8%	101.113	0.000
df=4				χ^2 at 0.05=9.49				

Table No. 33 reveals that 54.1 % of the PST respondents agreed, 1.0 % were uncertain, while 44.9 % disagreed and 60.9 % of the DTE respondents agreed, 1.0 % were uncertain, 39.0% of the respondents disagreed in their responses. The data showed that values of χ^2 of PSTs and DTEs were respectively (90.745) & (101.113) which were overwhelmingly significant at p=0.001 level of significance. This showed that there was high difference in opinions of PSTs and DTEs in the organization of the curriculum related activities. Therefore, the Null Hypotheses H_{o1} and H_{o2} were rejected (Table 33).

AREA-4 USE OF SUPPORT MATERIAL

Table 34: Significance of Divergence of Observed Frequencies of PSTs & DTEs on the Guidance in Searching and Gathering the Teaching Resources

Statement	Respondents	SDA	DA	UNC	A	SA	χ^2 Value	p-value
Mentoring guides in searching and gathering teaching resources.	PSTs (N=381)	65 17.1%	94 24.7%	00 0.0	110 28.9%	112 29.4%	14.853	0.002
	DTEs (N=302)	47 15.6%	32 10.6%	05 1.7%	120 39.7%	98 32.5%	149.358	0.000
df=4				χ^2 at 0.05=9.49				

The above table No. 34 reflects that 58.3 % of the PST respondents agreed, 41.8 % disagreed, 72.2 % of the DTE respondents agreed, 1.7 % were uncertain while, 26.2 % disagreed with the statement. The calculated value of χ^2 for PSTs was (14.853) which was highly significant and for DTEs was (149.358) overwhelmingly significant at p=0.001 level of significance. This indicated that there was high difference in the opinions of PSTs and DTEs about the searching and gathering the teaching resources with tilt towards agreement the statement. So, the Null Hypotheses H_{o1} and H_{o2} were rejected (Table 34).

Table 35: Significance of Divergence of Observed Frequencies of PSTs & DTEs on the Development of Supporting Material for Classroom Instructions

Statement	Respondents	SDA	DA	UNC	A	SA	χ^2 Value	p-value
Mentoring helps in developing supporting material for classroom instructions	PSTs (N=381)	70 18.4%	95 24.9%	00 0.0	114 29.9%	102 26.8%	10.864	0.012
	DTEs (N=302)	37 12.3%	44 14.6%	06 2.0%	117 38.7%	98 32.5%	138.960	0.000
df=4						χ^2 at 0.05=9.49		

The above table No. 35 revealed that 56.7 % of the PST respondents agreed, while 43.3 % disagreed and 71.2 % of the DTE respondents agreed, 2.0 % were uncertain, 26.9 % of the respondents disagreed with the statement. The calculated value of χ^2 (10.864) for PSTs was significant at significant at p=0.05 and for DTEs the value of χ^2 (138.960) was overwhelmingly significant at p=0.001 level of significance. This indicated that there was difference in the responses of PSTs and DTEs about development of supporting material for classroom instructions. Therefore, the Null Hypotheses H_{o1} and H_{o2} were rejected (Table 35).

Table 36: Significance of Divergence of Observed Frequencies of PSTs & DTEs on the Utilization of Instructional Techniques for the Improvement of Student Learning

Statement	Respondents	SDA	DA	UNC	A	SA	χ^2 Value	p-value
Mentoring helps to utilize various kinds of instructional techniques to improve the student learning.	PSTs (N=381)	91 23.9%	79 20.7%	00 0.0	112 29.4%	99 26.0%	6.055	0.109
	DTEs (N=302)	71 23.5%	75 24.8%	00 0.0	79 26.2%	77 25.5%	0.464	0.927
df=4						χ^2 at 0.05=9.49		

Table No. 36 shows that 55.4 % of the PST respondents agreed while, 44.6 % were disagreed and 51.7 % of the DTE respondents agreed, 48.3 % of the respondents disagreed with the statement. The calculated values of χ^2 for PSTs and DTEs were (6.055) & (0.464) respectively which were not-significant at p=0.05 level of significance. This revealed that the opinions of PSTs and DTEs were equally divided about the utilization of various kinds of instructional techniques for the improvement of student learning. Hence, the Null Hypotheses H_{o1} and H_{o2} were not rejected (Table 36).

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Table 37: Significance of Divergence of Observed Frequencies of PSTs & DTEs on the Judging the Supporting Materials Aligned with the Contents

Statement	Respondents	SDA	DA	UNC	A	SA	χ^2 Value	p-value
Mentoring helps in judging the appropriateness of supporting materials aligned with the contents.	PSTs (N=381)	100 / 26.3%	91 / 23.9%	00 / 0.0	82 / 21.0%	110 / 28.9%	4.753	0.191
	DTEs (N=302)	73 / 24.2%	45 / 14.9%	00 / 0.0	78 / 25.8%	106 / 35.1%	24.808	0.000
df=4						χ^2 at 0.05=9.49		

This table No. 37 depicts that 49.9 % of the PST respondents agreed, while 50.2 % were disagreed and 60.9 % of the DTE respondents agreed, 39.1 % of the respondents remained disagreed with the statement. The calculated value of χ^2 (4.753) for PSTs was not-significant at p=0.05 level of significance and for the DTEs χ^2 (24.808) was overwhelmingly at p=0.001 level of significance. This showed that there was equal difference in the responses of the PSTs and high difference in the responses of DTEs was observed on judging the supporting materials aligned with the content. Therefore, the Null Hypothesis H_{o1} was not rejected and Null Hypothesis H_{o2} was rejected (Table 37).

Table 38: Significance of Divergence of Observed Frequencies of PSTs & DTEs on the Preparation of Teacher Made Support Material

Statement	Respondents	SDA	DA	UNC	A	SA	χ^2 Value	p-value
Mentoring helps in preparing teacher made supporting material.	PSTs (N=381)	91 / 23.9%	85 / 22.3%	03 / 0.8%	99 / 26.0%	103 / 27.0%	90.457	0.000
	DTEs (N=302)	48 / 15.9%	67 / 22.2%	02 / 0.7%	103 / 34.1%	82 / 27.2%	97.503	0.000
df=4						χ^2 at 0.05=9.49		

Table No. 38 reflects that 53.0 % PSTs agreed, 0.8 % were uncertain while, 46.2 % disagreed and 61.3 % of the DTE respondents agreed, 0.7 % were uncertain, 38.1 % of the respondents disagreed with the statement. The calculated values of χ^2 for PSTs and DTEs were (90.457) & (97.503) which were overwhelmingly significant at p=0.001 level of significance. This showed that there was high difference in the responses of PSTs and DTEs on the preparation of teacher made support material with tilt towards the agreement of the statement. So, the Null Hypotheses H_{o1} and H_{o2} were rejected (Table 38).

Table 39: Significance of Divergence of Observed Frequencies of PSTs & DTEs on the Guidance in the Preparation of the Cost-Effective Supporting Material

Statement	Respondents	SDA	DA	UNC	A	SA	χ^2Value	p-value
Mentor guides in preparing the cost-effective	PSTs (N=381)	71 18.6%	73 19.2%	04 1.0%	124 32.5%	109 28.6%	113.00	0.000
supporting material	DTEs (N=302)	64 21.2%	48 15.9%	03 1.0%	80 26.5%	107 35.4%	99.623	0.000
	df=4			χ^2 at 0.05=9.49				

The above table No. 39 indicates that 61.1 % of the PST respondents agreed, 1.0 % were uncertain while, 37.8 % disagreed and 61.9 % of the DTEs agreed, 1.0 % were uncertain, 37.1 % of were disagreed with the statement. The calculated values of χ^2 for PSTs and DTEs were (113.003) & (99.623) respectively which were overwhelmingly significant at p=0.001 level of significance due to uncertain value in the responses of PSTs and DTEs. This showed that there was high difference in the opinions of PSTs and DTEs about the mentors' guidance on the preparation of the cost-effective material with high tilt towards agreement. Hence, the Null Hypotheses H_{o1} and H_{o2} were rejected (Table 39).

Table 40: Significance of Divergence of Observed Frequencies of PSTs & DTEs on the Mentoring and Searching & Preparing of the Support Material

Statement	Respondents	SDA	DA	UNC	A	SA	χ^2 Value	p-value
Mentoring helps in searching and preparing	PSTs (N=381)	98 25.7	82 21.5%	03 0.8%	94 24.7%	104 27.3%	91.297	0.000
supporting material.	DTEs (N=302)	69 22.8%	42 13.9%	02 0.7%	109 36.1%	80 26.5%	108.762	0.000
	df=4			χ^2 at 0.05=9.49				

Table No. 40 reflects that 52.0 % of the PST respondents agreed, 0.8 % were uncertain, while 47.2 % remained disagreed and 62.6 % of the DTE respondents agreed, 0.7 % were uncertain in their responses, 36.7 % remained disagreed with the statement. The calculated values of χ^2 for PSTs and DTEs were (91.297) and (108.762) respectively which were overwhelmingly significant at p=0.001 level of significance. This showed a high difference in the opinions of PSTs and DTEs about searching and preparing the support material with tilt towards the agreement of the statement. Hence, the Null Hypotheses H_{o1} and H_{o2} were rejected (Table 40).

Table 41: Significance of Divergence of Observed Frequencies of PSTs & DTEs on the Preparation of Support Material Matching with Mental Abilities of Students

Statement	Respondents	SDA	DA	UNC	A	SA	χ^2 Value	p-value
Mentoring helps in preparing the support material that matches with mental abilities of the students.	PSTs (N=381)	92 24.1%	91 23.9%	00 0.0	85 22.3%	113 29.7%	4.711	0.1940
	DTEs (N=302)	77 25.5%	67 18.5%	00 0.0	78 25.8%	80 30.1%	1.338	0.720
df=4						χ^2 at 0.05=9.49		

Table No. 41 indicates that 52.0 % PSTs agreed while, 48.0 % remained disagreed and 55.9 % of the DTE respondents agreed while, 44.0 % were disagreed with the statement. The calculated values of χ^2 were (4.711) & (1.338) which were not-significant at p=0.05 level of significance. This showed that there was equal difference in the opinions of PSTs and DTEs on the preparation of the support material matching with mental abilities of the students. So, the Null Hypotheses H_{o1} and H_{o2} were not rejected (Table 41).

AREA-5 INTERACTION WITH STUDENTS

Table 42: Significance of Divergence of Observed Frequencies of PSTs & DTEs on the Mentoring and Effective Communicating with Students

Statement	Respondents	SDA	DA	UNC	A	SA	χ^2 Value	p-value
Mentoring helps in communicating with students effectively.	PSTs (N=381)	92 24.1%	91 23.9%	02 0.5%	93 24.4%	103 27.0%	91.533	0.000
	DTEs (N=302)	62 20.5%	52 17.2%	04 1.3%	81 26.8%	103 34.1%	90.947	0.000
df=4						χ^2 at 0.05=9.49		

Table No. 42 shows that 51.4 % PSTs agreed with the statement, 0.5 % were uncertain in their responses, while 48.0 % were disagreed and 60.9 % of DTE respondents agreed, while 37.7 % of the respondents disagreed with the statement. The calculated values of Chi-square for PSTs was χ^2 (91.533) & for DTEs was χ^2 (90.947) which were overwhelmingly significant at p=0.001 level of significance. This indicated that there was high difference in the responses of PSTs and DTEs on the effective communicating with students with tilt towards agreement of the statement. Hence, the Null Hypotheses H_{o1} and H_{o2} were rejected (Table 42).

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Table 43: Significance of Divergence of Observed Frequencies of PSTs & DTEs on the Provision of Guidelines on Talking and Sharing Ideas

Statement	Respondents	SDA	DA	UNC	A	SA	χ^2 Value	p-value
Mentoring provides me guidelines to encourage the students how to talk and share	PSTs (N=381)	84 22.0%	79 20.7%	03 0.8%	117 30.7%	98 25.7%	99.302	0.000
	DTEs (N=302)	65 21.5%	43 14.2%	06 2.0%	112 37.1%	76 25.2%	102.470	0.000
df=4						χ^2 at 0.05=9.49		

The above table No. 43 reflects that 56.4 % of the PST respondents agreed, 0.8 % were uncertain while, 42.7 % remained disagreed and 62.3 % of the DTEs were agreed, 2.0 % uncertain and 35.7 % of the respondents disagreed with the statement. The calculated values of Chi-square for PSTs and DTEs were χ^2 (99.302) & χ^2 (102.470) which were overwhelmingly significant at p=0.001 level of significance. This showed that there was high difference in the responses of PSTs and DTEs in the provision of guidelines on talking and sharing ideas. Therefore, the Null Hypotheses H_{o1} and H_{o2} were rejected (Table 43).

Table 44: Significance of Divergence of Observed Frequencies of PSTs & DTEs on the Provision of Corrective Feedback to the Students

Statement	Respondents	SDA	DA	UNC	A	SA	χ^2 Value	p-value
Mentoring helps in providing corrective feedback to the students.	PSTs (N=381)	103 27.0%	98 25.7%	00 0.0	87 22.8%	93 24.4%	1.478	0.687
	DTEs (N=302)	61 20.2%	37 12.3%	03 1.0%	87 28.8%	114 37.7%	122.901	0.000
df=4						χ^2 at 0.05=9.49		

Table No. 44 indicates that 47.2 % of the PST respondents agreed, 52.7 % remained disagreed and 66.5 % of the DTE respondents were agreed, 1.0 % uncertain and 32.5 % of the respondents disagreed with the statement. The value of χ^2 of PSTs was (1.478) which was not-significant at p=0.05 level of significance. This reflected that the opinion of PSTs on the provision of corrective feedback was equally divided. So, the Null Hypothesis H_{o1} was not rejected. The calculated value of χ^2 for DTEs (122.901) was overwhelmingly significant at p=0.001 level of significance. This showed that there was high difference in the opinions of DTEs on the provision of corrective feedback to the students. Therefore, the Null Hypothesis H_{o2} was rejected (Table 44).

Table 45: Significance of Divergence of Observed Frequencies of PSTs & DTEs on the Mentoring and improvement of Questioning Skills

Statement	Respondents	SDA	DA	UNC	A	SA	χ^2 Value	p-value
Mentoring has improved my	PSTs (N=381)	115 30.2%	70 18.4%	00 0.0	105 27.6%	91 23.9%	11.976	0.007
questioning skills.	DTEs (N=302)	33 10.9%	63 20.9%	01 0.3%	98 32.5%	107 35.4%	130.318	0.000
df=4						χ^2 at 0.05=9.49		

Table No. 45 reflects that 51.5 % of the PST respondents agreed while, 48.6 % respondents' disagreed and 67.9 % of the DTE respondents agreed, 0.3 % were uncertain, 31.8 % respondents disagreed with the statement. The calculated value of χ^2 of PSTs was (11.976) which was significant at p=0.05 level and the value of χ^2 for DTEs was (130.318) overwhelmingly at p=0.001 level of significance due to tilt towards agreement the statement. This indicated that the opinion difference in the responses of PSTs and DTEs on the improvement of questioning skills. Hence, the Null Hypothesis H_{o1} and H_{o2} were rejected (Table 45).

Table 46: Significance of Divergence of Observed Frequencies of PSTs & DTEs to Write Clear Learning Objectives for a Lesson

Statement	Respondents	SDA	DA	UNC	A	SA	χ^2 Value	p-value
Mentoring helps in writing clear learning	PSTs (N=381)	110 28.9%	81 21.3%	00 0.0	89 23.4%	101 26.5%	5.173	0.160
objectives for a lesson.	DTEs (N=302)	74 24.5%	72 23.8%	00 0.0	72 23.8%	84 27.8%	1.311	0.726
df=4						χ^2 at 0.05=9.49		

The above table No. 46 reveals that 49.9 % of the PST respondents agreed, 50.2 % were disagreed and 51.6 % of DTEs agreed while, 48.3 % of the respondents remained disagreed with the statement. The calculated values of χ^2 for PSTs and DTEs were (5.173) & (1.311) respectively which were not-significant at p=0.05 level of significance. This showed that there was no difference in the opinions of PSTs and DTEs in writing the clear learning objectives of the lesson. Hence, the Null Hypotheses H_{o1} and H_{o2} were not rejected (Table 46).

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Table 47: Significance of Divergence of Observed Frequencies of PSTs & DTEs on the Provision of Opportunities to Students to ask Questions

Statement	Respondents	SDA	DA	UNC	A	SA	χ^2 Value	p-value
Mentoring provided opportunities to encouraged students to ask questions.	PSTs (N=381)	93 24.4 %	84 22.0%	03 0.8%	96 25.2%	105 27.6%	90.850	0.000
	DTEs (N=302)	62 20.5%	34 11.3%	02 0.7%	92 30.5%	112 37.1%	128.662	0.000
df=4						χ^2 at 0.05=9.49		

Table No. 47 depicts that 52.8 % PSTs agreed, 0.8 % were uncertain, 46.4 % of the were disagreed and 67.6 % of the DTE respondents agreed, 0.7 % uncertain while, 31.8 % of the respondents remained disagreed with the statement. The calculated value of χ^2 for PSTs and DTEs were (90.850) & (128.662) which were overwhelmingly significant at p=0.001 level of significance. This showed that there was high difference in the opinions of PSTs and DTEs about the provision of opportunities to students to ask questions with tilt towards highly agreement of the statement. Therefore, the Null Hypotheses H_{o1} and H_{o2} were rejected (Table 47).

Table 48: Significance of Divergence of Observed Frequencies of PSTs & DTEs on the Provision of Guidelines on Correct and Incorrect Responses

Statement	Respondents	SDA	DA	UNC	A	SA	χ^2 Value	p-value
Mentoring provides guidelines, in responding the correct responses and incorrect responses of student.	PSTs (N=381)	77 20.2 %	89 23.4%	08 2.1%	99 26.0%	108 28.3%	83.291	0.000
	DTEs (N=302)	47 15.6%	69 22.8%	01 0.3%	102 33.8%	83 27.5%	99.722	0.000
df=4						χ^2 at 0.05=9.49		

The above table No. 48 indicates that 54.3 % of the PST respondents agreed with the statement, 2.1 % were uncertain in their responses, 43.6 % remained of the respondents disagreed and 61.3 % of the DTE respondents agreed, 0.3 % were uncertain while, 38.4 % disagreed with the statement. The analyzed values of χ^2 for PSTs and DTEs were (83.291) & (99.722) which were overwhelmingly significant at p=0.001 level of significance. This revealed that there was high difference in the responses of PSTs and DTEs about the provision of guidelines on correct and incorrect responses with the tilt towards the agreement. So, the Null Hypothesis H_{o1} and H_{o2} were rejected (Table 48).

AREA-6 CLASSROOM MANAGEMENT

Table 49: Significance of Divergence of Observed Frequencies of PSTs & DTEs to Carried out all the Teaching Activities in Classroom

Statement	Respondents	SDA	DA	UNC	A	SA	χ^2 Value	p-value
Mentoring helps in carrying out all the teaching activities in the classroom.	PSTs (N=381)	93 24.4%	90 23.6%	00 0.0	87 22.8%	111 29.1%	3.661	0.300
	DTEs (N=302)	77 25.5%	80 22.8%	00 0.0	60 19.9%	85 31.8%	4.675	0.197
df=4					χ^2 at 0.05=9.49			

The above table No. 49 shows that 51.9 % of the PST respondents agreed, 48.0 % disagreed and 51.7 % of the DTE respondents agreed while, 48.3 % of the respondents disagreed with the statement. The calculated values of χ^2 for PSTs and DTEs were (3.661) & (4.675) which were not-significant at α=0.05 level of significance. This revealed that the difference in the PSTs and DTEs opinions to carry out all the teaching activities in the classroom was equally divided. So, the Null Hypotheses H_{o1} and H_{o2} were not rejected (Table 49).

Table 50: Significance of Divergence of Observed Frequencies of PSTs & DTEs on the Mentoring in Maintaining Attractive & Appropriate Environments

Statement	Respondents	SDA	DA	UNC	A	SA	χ^2 Value	p-value
Mentoring helps in maintaining attractive and appropriate classroom environment for	PSTs (N=381)	84 22.0%	93 24.4%	05 1.3%	94 24.7%	105 27.6%	86.073	0.000
	DTEs (N=302)	42 13.9%	67 22.2%	03 1.0%	78 25.8%	112 37.1%	110.086	0.000
df=4					χ^2 at 0.05=9.49			

Table 50 depicts that 52.3 % of PSTs agreed, 1.3 % uncertain, 46.4 % were disagreed and 62.9 % of the DTE respondents agreed, 1.0 % were uncertain while, 36.1 % of the respondents remained disagreed with the statement. The calculated values of χ^2 for PSTs and DTEs were (86.073) & (110.086) respectively which were overwhelmingly significant at p=0.05 level of significance with high tilt towards strongly agreement. This showed that there was high difference in the opinions of PSTs and DTEs on maintaining attractive and appropriate environment. Hence, the Null Hypotheses H_{o1} and H_{o2} were rejected (Table 50).

Table 51: Significance of Divergence of Observed Frequencies of PSTs & DTEs on the Improvement of Classroom Management Skills

Statement	Respondents	SDA	DA	UNC	A	SA	χ^2 Value	p-value
Mentoring helps in improving my classroom	PSTs (N=381)	78	99	03	98	103	92.845	0.000
		20.5%	26.0%	0.8%	25.7%	27.0%		
management skills.	DTEs (N=302)	48	74	03	62	115	109.556	0.000
		15.9%	24.5%	1.0%	20.5%	38.1%		
df=4						χ^2 at 0.05=9.49		

The above table No. 51 indicates that 52.7 % of PST respondents agreed, 0.8 % were uncertain, 46.5 % remained disagreed and 58.6 % of the DTE respondents agreed, 1.0 % were uncertain while, 40.4 % of the respondents were disagreed with the statement. The calculated value of χ^2 for PSTs and DTEs were (92.845) & (109.556) which were overwhelmingly significant at p=0.001 level of significance. This showed that there was high difference in the opinions PSTs and DTEs about the improvement of classroom management skills with the tilt towards the strongly agreement. So, the Null Hypotheses H_{o1} and H_{o2} were rejected (Table 51).

Table 52: Significance of Divergence of Observed Frequencies of PSTs & DTEs on the Promotion of Desired Behaviors among the Students

Statement	Respondents	SDA	DA	UNC	A	SA	χ^2 Value	p-value
Mentoring helps in promoting desired	PSTs (N=381)	102	91	00	78	110	6.076	0.108
		26.8%	23.9%	0.0	20.5%	28.9%		
behaviors among students.	DTEs (N=302)	69	76	00	71	86	2.291	0.514
		22.8%	25.2%	0.0	23.5%	28.5%		
df=4						χ^2 at 0.05=9.49		

Table No. 52 indicates that 49.4 % of the PST respondents were agreed, while 50.7 % were disagreed and 52.0 % DTEs agreed, 48.0 % of the respondents remained disagreed with the statement. The calculated values of χ^2 were (6.076) & (2.291) which were not-significant at p=0.05 level of significance. This showed that there was no difference in the opinions of PSTs and DTEs about the promotion of desired behaviors among students. Hence, the Null Hypotheses H_{o1} and H_{o2} were not rejected (Table 52).

Table 53: Significance of Divergence of Observed Frequencies of PSTs & DTEs on the Identification of Potential Behavioral Problems

Statement	Respondents	SDA	DA	UNC	A	SA	χ^2Value	p-value
Mentoring helps in identifying and dealing with potential behavioral	PSTs (N=381)	89 23.4%	81 21.3%	00 0.0	96 25.2%	115 30.2%	6.643	0.084
	DTEs (N=302)	65 21.5%	73 24.2%	00 0.0	93 30.8%	71 23.5%	5.868	0.118
df=4				χ^2 at 0.05=9.49				

Table No. 53 depicts that 55.4 % of PST respondents agreed, 44.7 % were disagreed and 54.3 % of DTE respondents agreed while, 45.7 % of the respondents disagreed with the statement. The calculated values of χ^2 for PSTs and DTEs were (6.643) & (5.868) respectively, which was not-significant at p=0.05 level of significance. This showed that the difference in the opinions of PSTs and DTEs about the identification of the potential behavioral problems was equally divided. So, the Null Hypotheses H_{o1} and H_{o2} were not rejected (Table 53).

Table 54: Significance of Divergence of Observed Frequencies of PSTs on the Provision of Guidelines in Keeping the Students on-task

Statement	Respondents	SDA	DA	UNC	A	SA	χ^2Value	p-value
Mentoring provides the guidelines in keeping the students on-task, during class.	PSTs (N=381)	102 26.8%	70 18.4%	00 0.0	94 24.7%	115 30.2%	11.283	0.010
	DTEs (N=302)	33 10.9%	61 20.2%	02 0.7%	87 28.8%	119 39.4%	137.470	0.000
df=4				χ^2 at 0.05=9.49				

Table No. 54 evident those 54.9 % of the PST respondents agreed, 45.2 % were disagreed and 68.2 % DTEs agreed, 0.7 % were uncertain while, 31.1 % of the respondents disagreed with the statement. The calculated value of χ^2 (11.283) for PSTs was significant at p=0.05 level and for DTEs (137.470) was overwhelmingly significant at p=0.001 level of significance. This indicated that there high differences in the opinions of PSTs and DTEs about the provision of guidelines in keeping the students on-task. Therefore, the Null Hypotheses H_{o1} and H_{o2} were rejected (Table 54).

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AREA-7 STUDENT ASSESSMENT

Table 55: Significance of Divergence of Observed Frequencies of PSTs on the Praising and Motivating to the Students during the Work

Statement	Respondents	SDA	DA	UNC	A	SA	χ^2 Value	p-value
Mentoring helps in praising those students who are on task and in	PSTs (N=381)	96 25.2%	71 18.6%	00 0.0	99 26.0%	115 30.2%	10.423	0.015
motivating those who do not complete their work	DTEs (N=302)	70 23.2%	77 22.5%	00 0.0	86 28.5%	69 22.8%	2.450	0.484
df=4					χ^2 at 0.05=9.49			

The above table No. 55 indicates that 56.2 % of the PSTs agreed, 43.8 % disagreed and 47.7 % of the DTE respondents agreed while, 51.3 % of the respondents were disagreed with the statement. The calculated value of χ^2 (10.423) for PSTs was significant at p=0.05 level of significance and DTEs was χ^2 (2.450) which was not-significant at p=0.05 level of significance. This revealed that there was difference in the responses of PSTs about praising and motivating to the students and equal difference was observed in the responses of DTEs. Therefore, the Null Hypothesis H_{o1} was rejected and the Null Hypothesis H_{o2} was not rejected (Table 55).

Table 56: Significance of Divergence of Observed Frequencies of PSTs on the Evaluation of Student Performance in Line to the Objectives

Statement	Respondents	SDA	DA	UNC	A	SA	χ^2 Value	p-value
Mentoring helps in evaluating the student	PSTs (N=381)	99 26.0%	91 23.9%	00 0.0	111 29.1%	80 21.0%	5.383	0.146
performance in line to the objectives of the lesson plan.	DTEs (N=302)	33 10.9%	59 19.5%	02 0.7%	77 25.5%	131 43.4%	156.013	0.000
df=4					χ^2 at 0.05=9.49			

Table No. 56 reflects that 50.1 % PSTs agreed, 49.9 % disagreed and 68.9 % DTE respondents agreed, 0.7 % were uncertain while, 30.4 % disagreed with the statement. The calculated value of χ^2 for PST (5.383) was not-significant at p=0.05 level of significance and for DTEs was χ^2 (156.013) which was overwhelmingly significant at p=0.001 level of significance. This showed that the difference in the opinions of PSTs about the evaluation of the student performance was equally divided while the DTEs opinions tilted towards the agreement of the statement. Hence, the Null Hypothesis H_{o1} was not rejected and Null Hypothesis H_{o2} was rejected (Table 56).

Table 57: Significance of Divergence of Observed Frequencies of PSTs & DTEs on the Mentoring in Monitoring the Progress of Students

Statement	Respondents	SDA	DA	UNC	A	SA	χ^2 Value	p-value
Mentoring helps in monitoring the progress of students.	PSTs (N=381)	87 22.8%	96 25.2%	05 1.3%	90 23.6%	103 27.0%	85.129	0.000
	DTEs (N=302)	44 14.6%	38 12.6%	02 0.7%	99 32.8%	119 39.4%	150.748	0.000
df=4					χ^2 at 0.05=9.49			

Table No. 57 evident that 50.6 % PSTs agreed, 1.3 % were uncertain in their responses, 48.0 % disagreed and 72.2 % of the DTE respondents agreed, 0.7 % were uncertain while, 27.2 % of the respondents disagreed with the statement. The calculated value of χ^2 for PSTs and DTEs were (85.129) & (150.748) which were overwhelming significant at p=0.001 level of significance. This revealed that there was high difference in the responses of PSTs & DTEs in monitoring the progress of students. Therefore, the Null Hypotheses H_{o1} and H_{o2} were rejected (Table 57).

Table 58: Significance of Divergence of Observed Frequencies of PSTs & DTEs on the Provision of Variety of Ways to Assess the Students

Statement	Respondents	SDA	DA	UNC	A	SA	χ^2 Value	p-value
Mentoring provides a variety of ways to assess the students' achievement.	PSTs (N=381)	78 20.5%	105 27.6%	00 0.0	93 24.5%	105 27.6%	5.173	0.160
	DTEs (N=302)	49 16.2%	73 24.2%	03 1.0%	102 33.8%	75 24.8%	91.510	0.000
df=4					χ^2 at 0.05=9.49			

The above table No. 58 depicts that 52.1 % PSTs agreed, 48.1% disagreed and 58.6 % of the DTE respondents agreed, 1.0 % were uncertain in their responses, while 40.4 % of the respondents remained disagreed with the statement. The calculated value of χ^2 for PSTs was (5.173) which was not-significant at p=0.05 level of significance and for DTE χ^2 value was (91.510) overwhelmingly significant at p=0.001 level of significance. This showed that there was equal difference in the responses of PSTs on the provision of variety of ways to assess the students and DTEs opinions tilted towards agreement with the statement. Therefore, the Null Hypothesis H_{o1} was not rejected and the Null Hypothesis H_{o2} was rejected (Table 58).

Table 59: Significance of Divergence of Observed Frequencies of PSTs & DTEs on the Strengthening the Assessment Skills

Statement	Respondents	SDA	DA	UNC	A	SA	χ^2 Value	p-value
Mentoring helps in strengthening my assessment skills.	PSTs (N=381)	99 26.0%	85 22.3%	00 0.0	90 23.6%	107 28.1%	2.758	0.430
	DTEs (N=302)	37 12.3%	56 18.5%	02 0.7%	126 41.7%	81 26.8%	144.126	0.000
df=4				χ^2 at 0.05=9.49				

Table No. 59 shows that 51.7 % of the PST respondents agreed with the statement, 48.3 % of the remained disagreed and 68.5 % DTEs agreed, 0.7 % remained uncertain, 30.8 % of the respondents were disagreed with the statement. The calculated value of χ^2 for PSTs was (2.758) was not-significant at p=0.05 level and for DTEs was χ^2 (144.126) which was overwhelmingly significant at p=0.001 level of significance. The difference in responses of PSTs about the strengthening the assessment skills was equally divided while the difference in the opinions of the DTEs tilted towards agreement of the statement. Therefore, the Null Hypothesis H_{o1} was not rejected and the Null Hypothesis H_{o2} was rejected (Table 59).

AREA-8 HOME WORK

Table 60: Significance of Divergence of Observed Frequencies of PSTs & DTEs on the Guidelines Regarding the Assigning of Home Work

Statement	Respondents	SDA	DA	UNC	A	SA	χ^2 Value	p-value
Mentoring provides guidelines in assigning home work to students.	PSTs (N=381)	98 25.7%	83 21.8%	03 0.8%	105 27.6%	92 24.1%	91.323	0.000
	DTEs (N=302)	65 21.5%	54 17.9%	02 0.7%	111 36.8%	70 23.2%	101.441	0.000
df=4				χ^2 at 0.05=9.49				

The above table No. 60 depicts that 51.7 % of the PST respondents agreed, 0.8 % were uncertain in their responses, 47.5 % were disagreed and 60.0 % of the DTE respondents agreed, 0.7% were uncertain in their responses, while 39.4 % disagreed with the statement. The calculated values of χ^2 for PSTs and DTEs were (91.323) & (101.441) which were overwhelmingly significant at p=0.001 level of significance. This revealed high difference in the opinions of PSTs and DTEs regarding the guidelines in assigning of home work with tilt towards the agreement with the statement due to values of uncertain responses. So, the Null Hypotheses H_{o1} and H_{o2} were rejected (Table 60).

Table 61: Significance of Divergence of Observed Frequencies of PSTs & DTEs on the Guidelines for the Successful Completion of Home Work

Statement	Respondents	SDA	DA	UNC	A	SA	χ^2 Value	p-value
Mentoring helps in providing guidelines to the students for the successful completion of homework.	PSTs (N=381)	97 25.5%	90 23.6%	02 0.5%	103 27.0%	89 23.4%	92.005	0.000
	DTEs (N=302)	59 19.5%	49 16.2%	06 2.0%	103 34.1%	85 28.1%	91.245	0.000
df=4				χ^2 at 0.05=9.49				

Table No. 61 depicts that 50.4 % PST respondents agreed, 0.5 % were uncertain, 49.1 % of the respondents remained disagreed and 62.2 % of DTEs agreed, 2.0 % were uncertain in their responses, 35.7 % of the respondents disagreed with the statement. The calculated values of χ^2 for PSTs and DTEs were (92.005) & (91.245) respectively which were overwhelmingly significant at p=0.001 level of significance. This revealed that there was high difference in the responses of PSTs and DTEs about the guidelines for the successful completion of home work with tilt towards the agreement of the statement. So, the Null Hypotheses H_{o1} and H_{o2} were rejected (Table 61).

Table 62: Significance of Divergence of Observed Frequencies of PSTs & DTEs on the Instructions Regarding the Promotion of Creative Thinking

Statement	Respondents	SDA	DA	UNC	A	SA	χ^2 Value	p-value
Mentoring provides instructions in promoting creative thinking through home work.	PSTs (N=381)	87 22.8%	88 23.1%	00 0.0	97 25.5%	109 28.6%	3.283	0.350
	DTEs (N=302)	44 14.6%	59 19.5%	04 1.3%	78 25.8%	117 38.7%	115.318	0.000
df=4				χ^2 at 0.05=9.49				

The above table No. 62 shows that 54.1 % of the PST respondents agreed, 45.9 % of the respondents disagreed and 64.5 % of the DTE respondents agreed, 1.3 % uncertain while, 34.1 % of the respondents remained disagreed with the statement. The value of χ^2 for PSTs was (3.283) not-significant at p=0.05 level of significance and for DTEs was χ^2 (115.318) overwhelmingly significant at p=0.001 level of significance due to uncertain responses in the opinions of DTEs. This revealed that there was equal difference in the opinions of PSTs and high difference in opinions of DTEs about the instructions regarding the promotion of creative thinking. Hence, the Null Hypothesis H_{o1} was not rejected and the Null Hypothesis H_{o2} was rejected (Table 62).

Table 63: Significance of Divergence of Observed Frequencies of PSTs & DTEs on the Provision of Potentials Based Homework through Mentoring

Statement	Respondents	SDA	DA	UNC	A	SA	χ^2 Value	p-value
Mentoring provides instructions in ensuring that assigned home work is according to the capabilities and potentials of the students.	PSTs (N=381)	91 / 23.9%	76 / 19.9%	00 / 0.0	99 / 26.0%	115 / 30.2%	8.323	0.040
	DTEs (N=302)	62 / 20.5%	69 / 22.8%	00 / 0.0	93 / 30.8%	78 / 25.8%	7.113	0.068
df=4				χ^2 at 0.05=9.49				

The above table No. 63 reflects that 56.2 % of PST respondents agreed, 43.8 % disagreed and 56.6 % of the DTE respondents agreed, 52.7% of the respondents disagreed with the statement. The calculated value of χ^2 for PSTs and DTEs were (8.323) & χ^2 (7.113) respectively, which was not-significant at p=0.05 level of significance. This showed that there was equal difference in the views of PSTs and DTEs about the capabilities and potentials based home work. So, the Null Hypotheses H_{o1} and H_{o2} were not rejected (Table 63).

Table 64: Analysis of PSTs Open Ended Questions (N=381)

A few suggestions given by the PSTs for improvement of mentoring programme are:

Sr. No.	Statements	Total respondents	Percentages
1.	Lack of classrooms/ missing facilities.	79	20.73%
2.	Through this mentoring programme professional development need of Primary School Teachers has been fulfilled.	62	16.27%
3.	English language is a problem especially in rural areas.	52	13.64%
4.	Support material kit be provided to each school.	51	13.38%
5.	This programme has provided the in-service training needs at the door step of PSTs.	43	11.28%

Table 65: Analysis of DTEs responses on open ended questions (N=302)

A few suggestions given by DTEs for improvement of mentoring programme are;

Sr. No.	Statements	Total Respondents	Percentages
1.	Support kit be provided to each school to achieve the objective of this programme.	61	20.19%
2.	The promotion of PSTs be linked with the performance.	55	18.21%
3.	The share proportionate of mentoring and assessment days be changed.	43	14.23%
4.	There should be compulsory induction training of newly inducted teachers before receiving mentoring activities.	42	13.90%

Sr. No.	Statements	Total Respondents	Percentages
5.	Each Primary school must be functional under one teacher one classroom policy.	33	10.9%
6.	The Education Calendar should have 190 days of the year.	31	10.26%
7.	No DTE should be below SST i.e. BPS-16.	31	10.26%
8.	For effective mentoring, each school must have one Science Teacher Educator.	22	7.28%

4.3 ANALYSIS OF RESPONSES OF CLUSTER TRAINING AND SUPPORT CENTERS (CTSCs) HEADS AND DISTRICT TRAINING AND SUPPORT CENTERS (DTSCs) HEADS

The questionnaires of the Cluster Training and Support Centers (CTSCs) Heads and District Training and Support Centers (DTSCs) Heads were developed on five point likert's scale and comprised of 40 items. This questionnaires are attached at Annexure-VI. Like the PSTs and DTEs questionnaires, the questionnaires of CTSCs and DTSCs also discussed the demographic information and eight mentoring areas i.e. (i) Taleemi Calendar, (ii) Lesson Planning, (iii) Activity Based Teaching and Learning, (iv) Use of Support Material, (v) Interaction with Students, (vi) Classroom Management, (vii) Student Assessment and (viii) Home Work. The detailed analysis of the responses of the Cluster Training and Support Centers (CTSCs) Heads and District Training and Support Centers (DTSCs) Heads is given below:

Demographic Information of Cluster Training and Support Centers (CTSCs) Heads and District Training and Support Centers (DTSCs) Heads

This part of analysis deals with the demographic information of the Cluster Training and Support Centers (CTSCs) Heads and District Training and Support Centers (DTSCs) Heads by (i) gender, (ii) age, (iii) academic qualifications, (iv) professional qualifications, (v) teaching experiences and (vi) marital status. Detail analysis is given in the below mentioned tables.

Table 66: Gender Wise Distribution of Cluster Training and Support Centers (CTSCs) Heads &of District Training and Support Centers (DTSCs) Heads

Gender	CTSCs		DTSCs	
	Frequencies	Percentages	Frequencies	Percentages
Male	142	76.3 %	10	83.3 %
Female	44	23.3 %	02	16.7 %
Total	186	100.00%	12	100.00%

Table No. 66 reflects that 142 (76.3 %) CTSCs Heads were male, 44 (23.7%) were female and

(83.3 %) DTSCs Heads were males and 02 (16.7%) were females (Table 66).

Table 67: Age Wise Distribution of Cluster Training and Support Centers (CTSCs) Heads& District Training and Support Centers (DTSCs) Heads

Age group	CTSCs		DTSCs	
	Frequencies	Percentages	Frequencies	Percentages
26-30	06	3.2 %	00	0.0 %
31-35	11	5.9 %	00	0.0 %
35-40	19	10.2 %	0ì	8.3 %
above 40	150	80.6 %	11	91.7 %
Total	186	100%	12	100%

Table above table No. 67 shows that 06 (3.2 %) CTSCs were in the age group of 26-30

years, 11 (5.9 %) were in the age group of 31-35 years, 19 (10.2 %) were in the age group of

35-40 years, 150 (80.6 %) were in the age group above 40 years and 01 (8.37 %) DTSCs

were in the age group of 35-40 years, 11 (91.7%) were in the age group above 40 years

(Table 67).

Table 68: Academic Qualifications Wise Distribution of Cluster Training and Support Centers (CTSCs) Heads & District Training and Support Centers (DTSCs) Heads

Qualifications	CTSCs		DTSCs	
	Frequencies	Percentages	Frequencies	Percentages
BA	08	4.3 %	00	0.0 %
B.Sc	10	5.4 %	02	16.7 %
MA	140	75.2 %	05	41.7 %
M.Sc	24	12.9 %	03	25.0 %
Others	04	2.2 %	02	16.7 %
Total	186	100 %	12	100 %

Table No. 68 indicates that the academic qualifications of CTSCs. The table shows that 8

(4.3 %) were BA, 10 (5.4 %) were B.Sc, 140 (75.2 %) were MA, 24 (12.9 %) were M.Sc, 4

(2.2 %) were others and 02 (16.7 %) DTSCs were B.Sc., 05 (41.7 %) were MA, 03 (25.0 %)

were M.Sc., 02 (16.7 %) held "others" (Table 68).

Table 69: Professional Qualifications Wise Distribution of Cluster Training and Support Center (CTSCs) Heads & District Training and Support Center (CTSCs) Heads

Prof. Qualifications	CTSCs		DTSCs	
	Frequencies	Percentages	Frequencies	Percentages
B.Ed.	40	21.5 %	00	0.0 %
M.Ed.	136	73.1 %	06	50.0 %
Others	10	5.5 %	06	50.0 %
Total	**186**	**100%**	**12**	**100%**

The above table No. 69 reflects professional qualifications of the Cluster Training and Support

Center (CTSC) Heads. The table showed the 40 (21.5 %) CTSCs were B.Ed. 136 (73.1 %)

were M.Ed., 10 (5.5 %) were other degree holders and 06 (50.0 %) DTSCs held M.Ed, 06 (50.0

%) possessed "others" professional qualifications (Table 69).

Table 70: Experiences Wise Distribution of Cluster Training and Support Center (CTSCs) Heads & District Training and Support Center (DTSCs) Heads

Teaching Experiences	CTSCs		DTSCs	
	Frequencies	Percentages	Frequencies	Percentages
less than 10	14	7.5 %	00	0.0 %
11-15	14	7.5 %	00	0.0 %
16-20	31	16.7 %	01	8.3 %
21-25	40	21.5 %	00	0.0 %
above 25	87	46.8 %	11	91.7 %
Total	**186**	**100 %**	**12**	**100 %**

The above mentioned table No. 70 indicates that 14 (7.5 %) Cluster Training and Support

Center (CTSCs) Heads held less than 10 years teaching experiences, 14 (7.5 %) were the

11-15 years, 31 (16.7 %) were 16-20 years, 40 (21.5 %) were 21-25 years, and 87 (46.8 %)

were above 25 years teaching experiences and 01 (8.3 %) DTSCs were (16-20) years

teaching experiences, 11 (91.7 %) were (above 25) years teaching experiences (Table 70).

Table 71: Marital Status Wise Distribution of Cluster Training and Support Center (CTSCs) Heads & District Training and Support Center (DTSCs) Heads

Marital Status	CTSCs		DTSCs	
	Frequencies	Percentages	Frequencies	Percentages
Single	03	1.6 %	01	8.3 %
Married	181	97.3 %	11	91.7 %
Divorced	02	1.1 %	00	0.0 %
Total	186	100.00%	12	100.00%

This table reflects No. 71 that 03 (1.6 %) CTSCs were single, 181 (97.3 %) were married,

02 (1.1 %) were divorced and 01 (8.3%) DTSCs were unmarried, 11 (91.7%) were married

status (Table 71).

AREA-1 TALEEMI CALENDATR

Table 72: Significance of Divergence of Observed Frequencies of CTSCs & DTSCs on the Management of Teaching Activities according to Taleemi Calendar

Statement	Respondents	SDA	DA	UNC	A	SA	χ^2 Value	p-value
Mentor helps to the mentees in managing their teaching activities according to the Taleemi	CTSCs (N=186)	47 25.3%	51 27.4%	06 3.20%	42 22.6%	40 21.5%	34.699	0.000
	DTSCs (N=12)	1 8.3%	1 8.3%	0 0.0	2 16.7%	8 66.7%	11.333	0.010
df=4				χ^2 at 0.05=9.49				

The above mentioned table No. 72 reflects that 44.3 % of the CTSC respondents agreed with

the statement, 3.2 % were uncertain in their responses, while 52.7% remained disagreed and

83.4 % DTCs agreed, 16.6% of the respondents remained disagreed. The calculated value of

χ^2 for CTSCs was (34.699) which was overwhelmingly significant at p=0.001 level of

significance due to uncertain value in the responses of CTSCs and value of χ^2 (11.333) of

DTSCs was significant at p=0.05 level of significance. This showed that there was high

difference in the opinions of CTSCs and DTSCs about the management of teaching activities

according to the Taleemi Calendar. Therefore, the Null Hypotheses H_{o3} and H_{o4} were

rejected (Table 72).

Table 73: Significance of Divergence of Observed Frequencies of CTSCs & DTSCs on the Management of Teaching Activities in a Realistic Way

Statement	Respondents	SDA	DA	UNC	A	SA	χ^2	p-value
Mentor helps to the mentees to manage their teaching activities for the educational year in a realistic way.	CTSCs (N=186)	52 28.0%	47 25.3%	00 0.0	53 28.5%	34 18.3%	4.925	0.177
	DTSCs (N=12)	2 16.7%	1 8.3%	0 0.0	6 50.0%	3 25.0%	4.667	0.198

df=4	χ^2 at 0.05=9.49

Table No. 73 shows that 46.8 % CTSCs agreed with the statement, while 53.3 % of the respondents disagreed and 75.0 % of the DTSC respondents agreed and 25.0 % of the respondents disagreed with the statement. The calculated values of χ^2 for CTSCs and DTSCs were (4.925) & (4.667) which were not-significant at p=0.05 level of significance. This showed that the responses of CTSCs and DTSCs on the management of teaching activities for the educational year in a realistic way were equally divided. Hence, the Null Hypotheses H_{o3} and H_{o4} were not rejected (Table 73).

Table 74: Significance of Divergence of Observed Frequencies of CTSCs & DTSCs on the Rigorously use of Taleemi Calendar

Statement	Respondents	SDA	DA	UNC	A	SA	χ^2 Value	p-value
Mentor helps to the mentees in using the Taleemi Calendar	CTSCs (N=186)	13 7.0%	21 11.3%	04 2.2%	78 41.9%	70 37.6%	126.097	0.000
	DTSCs (N=12)	1 8.3%	1 8.3%	0 0.0	5 41.7%	5 41.7%	5.333	0.149

df=4	χ^2 at 0.05=9.49

The above table No. 74 depicts that 79.5 % CTSCs agreed, 2.2% were uncertain in their responses, 18.3 % were disagreed and 83.4 % of the DTSCs agreed, 16.3 % respondents disagreed with the statement. The calculated values of χ^2 for CTSCs and DTSCs were (126.097) & (5.333) respectively. The χ^2 value of CTSCs was overwhelmingly significant at p=0.001 level due to uncertain responses of CTSCs but the χ^2 value of DTSCs was not-significant at p=0.05 level of significance. This showed that there was high difference in opinions of CTSCs on the rigorously use of Taleemi Calendar with the tilt towards agreement of the statement and the opinions of DTSCs were equally divided. Therefore, the Null Hypothesis H_{o3} was rejected and the Null Hypothesis H_{o4} could not be rejected (Table 74).

Table 75: Significance of Divergence of Observed Frequencies of CTSCs & DTSCs on the Achievement of the Pre-Set Targets in Advance

Statement	Respondents	SDA	DA	UNC	A	SA	χ^2 Value	p-value
Mentor helps to the mentees in to achieve their pre-set targets in advance.	CTSCs (N=186)	52 27.9%	45 24.2%	00 0.0	50 26.8%	39 20.9%	2.172	0.537
	DTSCs (N=12)	2 16.7%	3 25.0%	0 0.0	1 8.3%	6 50.0%	3.500	1.732
	df=4					χ^2 at 0.05=9.49		

Table No. 75 depicts that 47.7 % of the CTSC respondents agreed, 52.1 % respondents were disagreed, 58.3 % respondents agreed, 41.7 % disagreed with the statement. The calculated values of χ^2 for CTSCs and DTSCs were (2.172) & (3.500) which were not-significant at p=0.05 level of significance. This showed that there was equal difference in the responses of the CTSCs about the achievement of pre-set targets in advance but the responses of DTSCs were tilted towards strongly agreement of the statement. Therefore, the Null Hypotheses H_{o3} and H_{o4} were not rejected (Table 75).

Table 76: Significance of Divergence of Observed Frequencies of CTSCs & DTSCs on the Management of Leave or Absent Days of an Educational Year

Statement	Respondents	SDA	DA	UNC	A	SA	χ^2 Value	p-value
Mentor guides to the mentees to manage the leave or absent days of an educational	CTSCs (N=186)	15 8.1%	22 11.8%	07 3.8%	97 52.2%	45 24.2%	141.742	0.000
	DTSCs (N=12)	1 8.3%	1 8.3%	0 0.0	1 8.3%	9 75.0%	16.000	0.001
	df=4					χ^2 at 0.05=9.49		

The above table No. 76 shows that 76.4 % CTSCs agreed, 3.8 % were uncertain, 19.9 % were disagreed and 83.3 % DTSCs agreed, 16.6 % of the respondents disagreed with the statement. The values of χ^2 for CTSCs and DTSCs were (141.742) & (16.000) which were overwhelmingly significant at p=0.001 level of significance. This revealed that there were high differences in opinions of CTSCs and DTSCs on the management of leave or absent days. Hence, the Null Hypotheses H_{o3} and H_{o4} were rejected (Table 76).

AREA-2 LESSON PLANNING

Table 77: Significance of Divergence of Observed Frequencies of CTSCs & DTSCs on the Separation of Contents and Specification of Time for Each Component

Statement	Respondents	SDA	DA	UNC	A	SA	χ^2 Value	p-value
Mentor guides to the mentees in separating the contents into parts	CTSCs (N=186)	55	46	00	47	38	3.118	0.374
		29.6%	24.7%	0.0	25.3%	20.4%		
and specifying amount of time needed for each component of the contents.	DTSCs (N=12)	0	1	00	3	8	16.500	0.039
		0.0	8.3%	0.0	25.0%	66.7%		
df=4					χ^2 at 0.05=9.49			

Table No. 77 reflects that 45.7 % of the CTSC respondents agreed and 54.3 % disagreed and 91.7 % of DTSCs, 8.3 % of the respondents remained disagreed with the statement. The calculated value of χ^2 for CTSCs was (3.118) which was not-significant at p=0.05 level significance. This showed that there was equal difference in the opinions of CTSCs on the separation of contents and specification time for each component and the Null Hypothesis H_{o3} was not rejected. The calculated value of χ^2 for DTSCs (16.500) was significant at p=0.05 level. This showed that there was difference in the opinions of DTSCs on the separation of contents and specification time for each component. Therefore, the Null Hypothesis H_{o4} was rejected (Table 77).

Table 78: Significance of Divergence of Observed Frequencies of CTSCs & DTSCs on the Separation and Pacing the Learning Activities Appropriately

Statement	Respondents	SDA	DA	UNC	A	SA	χ^2 Value	p-value
Mentor helps to the mentees in separating learning	CTSCs (N=186)	4	22	07	85	68	147.300	0.000
		2.2%	11.8%	3.8%	45.7%	36.6%		
activities into components while pacing the activities appropriately.	DTSCs (N=12)	1	1	0	4	6	16.003	0.009
		8.3%	8.3%	0.0	33.3%	50.0%		
df=4					χ^2 at 0.05=9.49			

Table No. 78 reflects that 82.3 % of the CTSC respondents agreed, 3.8 % were uncertain, 14.0 % disagreed and 83.3 % DTSCs agreed, 16.6 % of the respondents were disagreed with the statement. The calculated values of χ^2 for CTSCs and DTSCs were (147.300) & (16.003) which were overwhelmingly significant at p=0.001 level of significance. This showed that there was high difference in CTSCs and DTSCs in the separation and pacing the learning activities appropriately. Therefore, the Null Hypotheses H_{o3} and H_{o4} were rejected (Table 78).

Table 79: Significance of Divergence of Observed Frequencies of CTSCs & DTSCs in Obtaining the Requisite Lesson Planning Skills through Mentoring

Statement	Respondents	SDA	DA	UNC	A	SA	χ^2 Value	p-value
Mentor guides to the mentees in obtaining the requisite lesson planning skills.	CTSCs (N=186)	9 4.8%	19 10.2%	08 4.3%	71 38.2%	79 42.5%	130.882	0.000
	DTSCs (N=12)	1 8.3%	1 8.3%	0 00	1 8.3%	9 75.0%	16.000	0.001
	df=4					χ^2 at 0.05=9.49		

Table No. 79 reflects that 80.7 % CTSCs agreed, 4.3 % were uncertain, 15.0 % of remained disagreed and 83.3 % DTSCs agreed, 16.6 % of the respondents remained disagreed with the statement. The calculated values of χ^2 (130.882) & $\chi2$ (16.000) for CTSCs and DTSCs were overwhelmingly significant at p=0.001 level of significance. This showed that there was high difference in the opinions of CTSCs and DTSCs on obtaining the requisite lesson planning skills through mentoring with tilt towards the strongly agreement of the statement. Hence, the Null Hypotheses H_{o3} and H_{o4} were rejected (Table 79).

Table 80: Significance of Divergence of Observed Frequencies of CTSCs & DTSCs on the Mentoring Help in Starting and Reviewing the Lesson

Statement	Respondents	SDA	DA	UNC	A	SA	χ^2 Value	p-value
Mentoring helps in starting and reviewing the lesson.	CTSCs (N=186)	04 2.2%	23 12.4%	08 4.3%	74 39.8%	77 41.4%	136.957	0.000
	DTSCs (N=12)	1 8.3%	1 8.3%	0 00	2 16.6%	8 67.7%	11.330	0.001
	df=4					χ^2 at 0.05=9.49		

Table No.80 indicates that 81.2 % CTSCs agreed, 4.3 % were uncertain in their responses, while 14.6 % of the respondents disagreed and 84.3 % DTSC respondents agreed, 16.6 % of the respondents disagreed with the statement. The calculated values of χ^2 for CTSCs and DTSCs were (136.957), (11.330) overwhelmingly significant at p=0.001 level of significance. This reflected that there was high difference among the opinions of CTSCs and DTSCs on starting and reviewing the lesson with tilt towards the strongly agreement of the statement. Hence, the Null Hypotheses H_{o3} and H_{o4} were rejected (Table 80).

Table 81: Significance of Divergence of Observed Frequencies of CTSCs & DTSCs on the Provision of Feedback in Instructional Methodologies

Statement	Respondents	SDA	DA	UNC	A	SA	χ^2 Value	p-value
Mentor provides feedback to the about the instructional methodologies they adopt during teaching.	CTSCs (N=186)	59 31.7%	51 27.4%	00 0.0	44 23.7%	32 17.2%	2.344	0.504
	DTSCs (N=12)	1 8.3%	3 25.0%	00 0.0	1 8.3%	6 50.0%	9.000	0.092
df=4					χ^2 at 0.05=9.49			

The table No. 81 reveals that 40.9 % CTSCs agreed, while 59.1 % disagreed and 58.3 % DTSC respondents agreed and 33.3 % disagreed with the statement. The values of χ^2 for CTSCs and DTSCs were (2.344) & (9.000) which were not-significant at p=0.05 level of significance because the calculated value of χ^2 was less than the table value. This showed that there was equal difference among the opinions of CTSCs and DTSCs on the provision of feedback in instructional. Therefore, the Null Hypotheses H_{o3} and H_{o4} were not rejected (Table 81).

AREA-3 ACTIVITY BASED TEACHING AND LEARNING

Table 82: Significance of Divergence of Observed Frequencies of CTSCs & DTSCs on the Eliminating the Feelings of Professional Isolation

Statement	Respondents	SDA	DA	UNC	A	SA	χ^2 Value	p-value
Mentor helps to the mentees in eliminating their feelings of professional isolation.	CTSCs (N=186)	2 1.1%	15 8.1%	5 2.7%	104 55.9%	60 32.3%	208.355	0.000
	DTSCs (N=12)	2 16.7%	3 25.0%	0 0.0	1 8.3%	6 50.0%	4.560	0.198
df=4					χ^2 at 0.05=9.49			

Table No. 82 indicates that 88.2 % CTSCs agreed, 2.7 % were uncertain, while 9.2 % disagreed and 58.3 % DTSCs agreed, 41.7 % of the respondents were disagreed with the statement. The value of χ^2 for CTSCs (208.355) was overwhelmingly significant at p=0.001 level of significance due to uncertain value in the responses of the CTSCs and the value of χ^2 (4.560) for DTSCs was not-significant at p=0.05 level of significance. This reflected that there was high difference in the opinions of the CTSCs and equal difference in the opinions of DTSCs on the elimination of the feelings of professional isolation. Hence, the Null Hypothesis H_{o3} was rejected and the Null Hypothesis H_{o4} was not rejected (Table 82).

Table 83: Significance of Divergence of Observed Frequencies of CTSCs & DTSCs on the Development of Positive Attitude towards Teaching

Statement	Respondents	SDA	DA	UNC	A	SA	χ^2 Value	p-value
Mentor helps to the mentees in developing positive attitude towards teaching.	CTSCs (N=186)	5 2.7%	15 8.1%	2 1.1%	104 55.9%	60 32.3%	109.055	0.000
	DTSCs (N=12)	1 8.3%	0 0.0	0 0.0	3 25.0%	8 66.7%	16.500	0.009
df=4					χ^2 at 0.05=9.49			

Table No. 83 reveals that 88.2 % CTSCs agreed, 1.1 % were uncertain, 10.8 % were disagreed and 91.7 % of DTSC respondents agreed while, 8.3 % disagreed with the statement. The calculated value of χ^2 for CTSCs was (109.055) which was overwhelmingly significant at p=0.001 and DTSCs was χ^2 (16.500) which was highly significant at p=0.01 level of significance. This reflected that there was difference in the opinions of CTSCs and DTSCs in developing positive attitude towards teaching with tilt towards the agreement with the statement. Therefore, the Null Hypotheses H_{o3} and H_{o4} were rejected (Table 83).

Table 84: Significance of Divergence of Observed Frequencies of CTSCs & DTSCs on the Mentoring Help in the Assessment of the Students Learning

Statement	Respondents	SDA	DA	UNC	A	SA	χ^2 Value	p-value
Mentor helps to the mentees in assessing the learning needs of their student	CTSCs (N=186)	3 1.6%	11 5.9%	7 3.8%	112 60.2%	53 28.5%	231.527	0.000
	DTSCs (N=12)	1 8.3%	2 16.7%	0 0.0	0 0.0	9 75.0%	9.500	0.009
df=4					χ^2 at 0.05=9.49			

The table No. 84 reflects that 88.7 % CTSCs agreed, 3.8 % were uncertain, 7.5 % of the respondents disagreed and 75.0 % of DTSC respondents agreed, 25.0 % of the respondents were disagreed with the statement. The calculated value of χ^2 for CTSCs (231.527) was overwhelming significant at p=0.001 due to uncertain value in the opinions of the CTSCs and χ^2 of DTSCs was (9.500) highly significant at p=0.01 level of significance. This showed that there was high difference in opinions of the CTSCs and DTSCs about the help in assessing the students learning with tilt towards the agreement of the statement. Hence, the Null Hypotheses H_{o3} and H_{o4} were rejected (Table 84).

Table 85: Significance of Divergence of Observed Frequencies of CTSCs & DTSCs on the Organization of the Curriculum Related Activities

Statement	Respondents	SDA	DA	UNC	A	SA	χ^2 Value	p-value
Mentor helps to the mentees in organizing the curriculum related activities.	CTSCs (N=186)	3 1.6%	22 11.8%	03 1.6%	103 55.4%	55 29.6%	194.00	0.000
	DTSCs (N=12)	1 8.3%	2 16.7%	0 0.0	1 8.3%	8 66.7%	11.450	0.000
df=4					χ^2 at 0.05=9.49			

Table No. 85 shows that 85.0 % CTSCs agreed, 1.6 % were uncertain, 13.4 % disagreed and 75.0 % of DTSC respondents agreed, 25.0 % disagreed with the statement. The calculated values of χ^2 for CTSCs was (194.00) and for DTSCs was (11.450) which were overwhelmingly significant at p=0.001 level of significance. This reflected that there was high difference in the responses of CTSCs and DTSCs on organization of the curriculum related activities. Therefore, the Null Hypotheses H_{o3} and H_{o4} were rejected (Table 85).

Table 86: Significance of Divergence of Observed Frequencies of CTSCs & DTSCs on the Designing the New Activities to Clarify the Concepts

Statement	Respondents	SDA	DA	UNC	A	SA	χ^2 Value	p-value
Mentor helps to the mentees in designing new activities to clarify the concepts of their students.	CTSCs (N=186)	62 33.3%	43 23.1%	00 0.0	39 21.0%	42 22.6%	7.075	0.070
	DTSCs (N=12)	1 8.3%	3 25.0%	0 0.0	1 8.3%	7 58.3%	9.988	0.046
df=4					χ^2 at 0.05=9.49			

Table No. 86 reflects that 43.6 % of CTSC respondents agreed, 56.4 % disagreed and 66.6 % of DTSCs agreed with the statement, 33.33 % of the respondents were disagreed. The calculated value of χ^2 for CTSCs (7.075) was not-significant and for DTSCs χ^2 (9.988) was significant at p=0.05 level of significance. This showed that there difference in the opinions of DTSCs and there was equal divergence in the opinions of the CTSCs in designing the new activities to clarify the concepts. Therefore, the Null Hypothesis H_{o3} was not rejected and the Null Hypothesis H_{o4} was rejected (Table 86).

AREA-4 USE OF SUPPORT MATERIAL

Table 87: Significance of Divergence of Observed Frequencies of CTSCs & DTSCs on the Guidance in Searching and Gathering the Teaching Resources

Statement	Respondents	SDA	DA	UNC	A	SA	χ^2	p-value
Mentor helps to the mentees in searching and	CTSCs (N=186)	29 15.6%	19 10.2%	00 0.0	75 40.3%	63 33.9%	46.170	0.000
	DTSCs (N=12)	1 8.3%	1 8.3%	0 0.0	8 66.7%	2 16.7%	11.300	0.010
df=4					χ^2 at 0.05=9.49			

The above table No. 87 reflects that 74.2 % CTSCs agreed, 25.8 % of the respondents disagreed and 83.4 % of DTSCs agreed, 16.6 % of the respondents were disagreed with the statement. The calculated value of χ^2 for CTSC (46.170) was overwhelmingly significant at p=0.001 and the value of χ^2 for DTSC (11.300) was significant at p=0.05 level of significance. This proved that there was high difference in CTSCs and DTSCs on the guidance in searching and gathering the teaching resources. Hence, the Null Hypotheses H_{o3} and H_{o4} were rejected (Table 87).

Table 88: Significance of Divergence of Observed Frequencies of CTSCs & DTSCs on the Development of Supporting Material for Classroom Instructions

Statement	Respondents	SDA	DA	UNC	A	SA	χ^2 Value	p-value
Mentor helps to the mentees in developing supporting material for classroom	CTSCs (N=186)	31 16.7%	23 12.4%	00 0.0	67 36.0%	65 34.9%	33.441	0.000
	DTSCs (N=12)	1 8.3%	2 16.7%	0 0.0	2 16.7%	7 58.3%	9.333	0.062
df=4					χ^2 at 0.05=9.49			

The table No. 88 reflects that 70.9 % CTSCs agreed whereas, 29.1 % of the respondents disagreed and 75.0 % DTSCs agreed, 25.0 % disagreed with the statement. The calculated value of χ^2 for CTSCs (33.441) was overwhelming significant at p=0.001 level and DTSCs was χ^2 (9.333) was not-significant at p=0.05 level of significance. This showed that there was difference in the opinions of the CTSCs and equal difference was observed in the opinions of the DTSCs about development of supporting material for classroom instructions. Hence, the Null Hypothesis H_{o3} and H_{o4} was not rejected (Table 88).

Table 89: Significance of Divergence of Observed Frequencies of CTSCs& DTSCs on the Utilization of Instructional Techniques for the Improvement of Student Learning

Statement	Respondents	SDA	DA	UNC	A	SA	χ^2 Value	p-value
Mentor helps to the mentees in utilizing various kinds of instructional	CTSCs (N=186)	15	10	03	104	54	192.118	0.000
		8.1%	5.4%	1.6%	55.9%	29.0%		
techniques to improve the student learning.	DTSCs (N=12)	1	2	0	1	8	11.240	0.010
		8.3%	16.7%	0.0	8.3%	66.7%		

df=4 χ^2 at 0.05=9.49

This table No. 89 indicates that 80.2 % CTSCs agreed with the statement, 1.6 % were uncertain, while 13.5 % remained disagreed and 75.0 % of the DTSC respondents agreed, 25.0 % disagreed with the statement. The calculated value of χ^2 for CTSCs was (192.118) overwhelmingly significant at p=0.001 level due to uncertain value in the responses of the CTSCs and DTSCs χ^2 (11.240) was significant at p=0.05 level of significance. This reflected that there was high difference among the opinions of CTSCs and DTSCs about the utilization of various kinds of instructional techniques for the improvement of student learning with the tilt towards the agreement of the statement. Therefore, the Null Hypotheses H_{o3} and H_{o4} were rejected (Table 89).

Table 90: Significance of Divergence of Observed Frequencies of CTSCs & DTSCs on the Judging the Supporting Materials Aligned with the Contents

Statement	Respondents	SDA	DA	UNC	A	SA	χ^2 Value	p-value
Mentor helps to the mentees in judging the appropriateness	CTSCs (N=186)	51	53	00	37	45	3.333	0.343
		27.4%	28.5%	0.0	19.9%	24.2%		
of supporting materials and it's aligned with the teaching	DTSCs (N=12)	2	1	0	1	8	12.989	0.010
		16.7%	8.3%	0.0	8.3%	66.7%		

df=4 χ^2 at 0.05=9.49

Table No. 90. reflects that 44.1 % of CTSCs agreed, 55.9 % disagreed and 75.0 % of the DTSC respondents agreed whereas, 25 % disagreed with the statement. The calculated value of χ^2 for CTSCs (3.333) was not-significant and value of χ^2 (12.989) for DTSCs was significant at p=0.05 level of significance. This showed that there was equal difference in opinions of CTSCs and there was high difference in the opinions of DTSCs on judging the supporting materials aligned with the contents. So, the Null Hypothesis H_{o3} was not rejected and the Null Hypothesis H_{o4} was rejected (Table 90).

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Table 91: Significance of Divergence of Observed Frequencies of CTSCs & DTSCs on the Preparation of Teacher Made Support Material

Statement	Respondents	SDA	DA	UNC	A	SA	χ^2 Value	p-value
Mentor helps to the mentees in preparing teacher made supporting material.	CTSCs (N=186)	14 7.5%	22 11.8%	01 0.5%	105 56.5%	44 23.7%	180.720	0.000
	DTSCs (N=12)	1 8.3%	1 8.3%	0 0.0	2 16.7%	8 66.7%	11.033	0.010
df=4					χ^2 at 0.05=9.49			

Table No. 91 shows that 89.2 % CTSCs agreed, 0.5 % were uncertain, 19.3 % of the disagreed and 83.4 % DTSC respondents agreed, while 16.6 % disagreed with the statement. The calculated value of χ^2 for CTSCs was (180.720) overwhelmingly significant at p=0.001 level and for DTSCs was χ^2 (11.033) significant at p=0.05 level of significance. This reflected that there was high difference in CTSCs and DTSCs in the preparation of teacher made supporting material with the tilt towards the agreement of the statement. Therefore, the Null Hypotheses H_{o3} and H_{o4} were rejected (Table 91).

AREA-5 INTERACTION WITH STUDENTS

Table 92: Significance of Divergence of Observed Frequencies of CTSCs & DTSCs on the Provision of Guidelines in Talking and Sharing Ideas

Statement	Respondents	SDA	DA	UNC	A	SA	χ^2 Value	p-value
Mentor provides guidelines to mentees regarding encouragement to the students to talk and share their ideas.	CTSCs (N=186)	36 19.4%	42 22.6%	03 1.6%	80 43.0%	25 13.4%	85.344	0.000
	DTSCs (N=12)	0 0.0	1 8.3%	0 0.0	1 8.3%	10 83.3%	13.433	0.000
df=4					χ^2 at 0.05=9.49			

Table No. 92 shows that 56.4 % CTSC respondents agreed, 1.6 % were uncertain, while 42.0 % remained disagreed and 91.6 % of DTSCs agreed, 8.3 % disagreed with the statement. The calculated values of χ^2 for CTSCs and DTSCs were (85.344) & (13.433) which were overwhelmingly significant at p=0.001 level of significance. This reflected that there was high difference in the opinions of the CTSCs and DTSCs with the statement that mentor provided the guidelines the mentees on talking and sharing ideas with the tilt towards the agreement with the statement. Therefore, the Null Hypotheses H_{o3} and H_{o4} were rejected (Table 92).

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Table 93: Significance of Divergence of Observed Frequencies of CTSCs & DTSCs on the Provision of Corrective Feedback to the Students

Statement	Respondents	SDA	DA	UNC	A	SA	χ^2 Value	p-value
Mentor helps to the mentees in providing corrective feedback to the students	CTSCs (N=186)	59 31.7%	49 26.3%	00 0.0	37 19.9%	41 22.0%	8.086	0.107
	DTSCs (N=12)	1 8.3%	3 25.0%	0 0.0	2 16.7%	6 50.0%	4.667	0.198
df=4					χ^2 at 0.05=9.49			

Table No. 93 reflects that 41.9 % of the CTSC respondents agreed, while 58.0 % disagreed and 66.7 % of DTSCs agreed, 33.3 % of the respondents' disagreed with the statement. The calculated values of χ^2 for CTSCs and DTSCs were (8.086) & (4.667) which were not-significant at p=0.05 level of significance. This showed that there was difference in CTSCs on the provision of corrective feedback to the students with the tilt towards the disagreement with the statement. Therefore, the Null Hypotheses H_{o3} and H_{o4} were not rejected (Table 93).

Table 94: Significance of Divergence of Observed Frequencies of CTSCs & DTSCs on the Mentoring and Improvement of Questioning Skills

Statement	Respondents	SDA	DA	UNC	A	SA	χ^2 Value	p-value
Mentor helps to the mentees to improve their questioning skills.	CTSCs (N=186)	04 2.2%	20 10.8%	06 3.2%	71 38.2%	85 45.7%	155.882	0.000
	DTSCs (N=12)	1 8.3%	2 16.7%	0 0.0	1 8.3%	8 66.7%	11.450	0.010
df=4					χ^2 at 0.05=9.49			

Table No. 94 reflects that 83.9 % CTSCs agreed, 3.2 % were uncertain, 13.0 % remained disagreed and 75.0 % of the DTSC respondents agreed, 25.0 % respondents disagreed with the statement. The calculated value of χ^2 for CTSCs (155.882) was overwhelmingly significant at p=0.001 level due to the uncertain responses and value of χ^2 for DTSCs (11.450) was significant at p=0.05 level of significance. This indicated that there was high difference in the responses of CTSCs and DTSCs on the improvement of questioning skills with tilt towards the strongly agreement with the statement. Hence, the Null Hypotheses H_{o3} and H_{o4} were rejected (Table 94).

Table 95: Significance of Divergence of Observed Frequencies of CTSCs & DTSCs in Writing Clear Learning Objectives for a Lesson

Statement	Respondent	SDA	DA	UNC	A	SA	χ^2 Value	p-value
Mentor helps to the mentees in writing clear learning objectives for a lesson.	CTSCs (N=186)	54 29.0%	51 27.4%	00 0.0	38 20.4%	43 23.1%	3.462	0.326
	DTSCs (N=12)	2 16.7%	1 8.3%	0 0.0	4 33.3%	5 41.7%	3.330	0.343
df=4					χ^2 at 0.05=9.49			

The table No. 95 reveals that 43.5 % CTSCs agreed whereas, 56.4 % were disagreed and 75.0 % of DTSCs agreed, 25.0 % were disagreed with the statement. The calculated value of χ^2 for CTSCs and DTSCs were (3.462) & (3.330) which were not-significant at p=0.05 level of significance. This reflected that the difference in the opinions of CTSCs and DTSCs in writing the clear learning objective for a lesson was equally divided. Therefore, the Null Hypotheses H_{o3} and H_{o4} were not rejected (Table 95).

Table 96: Significance of Divergence of Observed Frequencies of CTSCs & DTSCs on the Provision of Opportunities to Students to Ask Questions

Statement	Respondents	SDA	DA	UNC	A	SA	χ^2 Value	p-value
Mentor provides opportunities to the mentees in encouraging their students to ask questions.	CTSCs (N=186)	08 4.3%	15 8.1%	07 3.8%	74 39.8	82 44.3%	151.043	0.000
	DTSCs (N=12)	1 8.3%	1 8.3%	1 8.3%	3 25.0%	6 50.0%	9.500	0.042
df=4					χ^2 at 0.05=9.49			

Table No. 96 reflects that 84.1 % CTSCs agreed, 3.8 % were uncertain, 12.4 % of the disagreed and 75.0 % DTSC respondents agreed, 8.3 % were uncertain, 16.6 % of the respondents remained disagreed with the statement. The calculated value of χ^2 (151.043) for CTSCs and for DTSCs was (9.500) significant at p=0.05 level of significance. This showed that there was difference in the opinions of CTSCs and DTSCs about the provision of opportunities to students to ask questions with tilt towards the strongly agreement with the statement. So, the Null Hypotheses H_{o3} and H_{o4} were rejected (Table 96).

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AREA-6 CLASSROOM MANAGEMENT

Table 97: Significance of Divergence of Observed Frequencies of CTSCs & DTSCs in Carrying out All the Teaching Activities in Classroom

Statement	Respondents	SDA	DA	UNC	A	SA	χ^2 Value	p-value
Mentor helps to the mentees in carrying out all the teaching activities in the classroom.	CTSCs (N=186)	14	16	02	99	55	171.043	0.000
		7.5%	8.6%	1.1%	53.2%	29.6%		
	DTSCs (N=12)	1	1	0	1	9	16.000	0.000
		8.3%	8.3%	0.0	8.3%	75.0%		
df=4					χ^2 at 0.05=9.49			

Table No. 97 indicates that 82.8 % CTSCs agreed, 1.1 % were uncertain, 16.1 % remained disagreed and 83.3 % DTSC respondents agreed, while 16.3 % of the respondents were disagreed in with the statement. The calculated value of χ^2 for CTSCs and DTSCs (171.043) & (16.00) were overwhelmingly significant at p=0.001 level of significance. This showed that there was highly difference in the opinions of CTSCs and DTSCs to carry out all the teaching activities in the classroom. Therefore, the Null Hypotheses H_{o3} and Ho_4 were rejected (Table 97).

Table 98: Significance of Divergence of Observed Frequencies of CTSCs & DTSCs on the Mentoring and Maintaining Attractive &Appropriate Environments

Statement	Respondents	SDA	DA	UNC	A	SA	χ^2 Value	p-value
Mentor helps to the mentees in maintaining appropriate classroom environment for students.	CTSCs (N=186)	10	21	05	76	74	131.688	0.000
		5.4%	11.3%	2.7%	40.9%	39.8%		
	DTSCs (N=12)	2	0	0	3	7	3.490	0.174
		16.7%	0.0	0.0	25.0%	58.3%		
df=4					χ^2 at 0.05=9.49			

This table No. 98 shows that 80.7 % of the CTSC respondents agreed, 2.7 % were uncertain, 16.7 % of the respondents disagreed and 83.3 % of DTSCs agreed, 16.7 % remained disagreed with the statement. The calculated value of χ^2 for CTSCs (131.688) was overwhelming significant at p=0.001 level and value of χ^2 for DTSCs was (3.490) not-significant at p=0.05 level of significance. This revealed that there was high difference in the opinions of the CTSCs and equal difference on the opinions of the DTSCs was noted on maintaining attractive and appropriate classroom environment for students with the tilt towards the strongly agreement with the statement. Therefore, the Null Hypothesis H_{o3} was rejected and the Null Hypothesis H_{o4} was not rejected (Table 98).

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Table 99: Significance of Divergence of Observed Frequencies of CTSCs & DTSCs on the Improvement of Classroom Management Skills

Statement	Respondents	SDA	DA	UNC	A	SA	χ^2 Value	p-value
Mentor helps to the mentees in improving their classroom management skills.	CTSCs (N=186)	03 1.6%	14 7.5%	04 2.2%	112 60.2%	53 28.5%	232.656	0.000
	DTSCs (N=12)	1 8.3%	1 8.3%	0 0.0	8 66.7%	2 16.7%	11.300	0.000
df=4					χ^2 at 0.05=9.49			

The above mentioned table No. 99 indicates that 88.7 % of the CTSC respondents agreed, 2.2 % were uncertain, 9.1 % of the respondents disagreed and 83.4 % of DTSCs agreed, 16.6 % were disagreed with the statement. The calculated value of χ^2 for CTSCs and DTSCs were (232.656) & (11.300) overwhelmingly significant at p=0.001 level of significance. This revealed that there was high difference in the opinions of CTSCs and DTSCs about the improvement of classroom management skills with tilt towards the agreement of the statement. Hence, the Null Hypotheses H_{o3} and H_{o4} were rejected (Table 99).

Table 100: Significance of Divergence of Observed Frequencies of CTSCs & DTSCs on the Promotion of Desired Behaviors among the Students

Statement	Respondents	SDA	DA	UNC	A	SA	χ^2 Value	p-value
Mentor helps the mentees in promoting desired behaviors among their students.	CTSCs (N=186)	58 31.2%	47 25.3%	00 0.0	34 18.3%	47 25.3%	6.086	0.102
	DTSCs (N=12)	3 25.0%	2 16.7%	0 0.0	1 8.3%	6 50.0%	4.360	0.198
df=4					χ^2 at 0.05=9.49			

Table No. 100 shows that 43.6 % of the CTSC respondents agreed, while 56.5 % were disagreed with the statement and 58.3 % DTSCs agreed, 41.7 % remained disagreed with the statement. The calculated values of χ^2 for CTSCs and DTSCs were (6.086) & (4.360) which were not-significant at p=0.05 level of significance. This indicated that there was equal difference in the opinions of CTSCs and DTSCs about the promotion of desired behaviors among students. So, the Null Hypothesis H_{o3} and H_{o4} were not rejected (Table 100).

Table 101: Significance of Divergence of Observed Frequencies of CTSCs & DTSCs on the Identification of Potential Behavioral Problems

Statement	Respondents	SDA	DA	UNC	A	SA	χ^2 Value	p-value
Mentor helps to the mentees in identifying potential behavioral problems of their students.	CTSCs (N=186)	58 31.2%	39 21.0%	00 0.0	35 18.8%	54 29.0%	5.957	0.102
	DTSCs (N=12)	1 8.3%	2 16.7%	0 0.0	1 8.3%	8 66.7%	11.240	0.010
df=4						χ^2 at 0.05=9.49		

Table 101. reveals that 47.8 % CTSCs agreed, while 52.2 % of the respondents disagreed and 75.0 % DTSCs agreed, 25.0 % were disagreed with the statement. The value of χ^2 for CTSCs was (5.957) not-significant at p=0.05 level of significance and value of χ^2 for DTSCs was (11.240) significant at p=0.05 level of significance. This showed that there was equal difference in opinion of the CTSCs and high difference in the opinions of the DTSCs about the identification of potential behavioral problems is equally divided. So, the Null Hypothesis H_{o3} was not rejected and the Null Hypothesis H_{o4} was rejected (Table 101).

AREA-7 STUDENT ASSESSMENT

Table 102: Significance of Divergence of Observed Frequencies of CTSCs & DTSCs on the Praising and Motivating to the Students during the Work

Statement	Respondents	SDA	DA	UNC	A	SA	χ^2 Value	p-value
Mentor helps to the mentees in praising those students who are on task and in motivating those who do not complete their work.	CTSCs (N=186)	52 28.0%	41 22.0%	0 0.0	38 20.4%	55 29.6%	4.409	0.221
	DTSCs (N=12)	1 8.3%	1 8.3%	0 0.0	2 16.7%	8 66.7%	11.033	0.010
df=4						χ^2 at 0.05=9.49		

Table No. 102 reflects that 50.0 % CTSCs agreed, while 50.0 % of the respondents disagreed and 75.0 % of the DTSC respondents agreed, 25.0 % were disagreed with the statement. The calculated value of χ^2 for CTSCs was (4.409) not-significant and the value of χ^2 for DTSCs was (11.333) significant at p=0.05 level of significance. This showed that there was equal difference in the opinions of the CTSCs and there was high difference in the opinion of DTSCs about praising and motivating to the students. So, the Null Hypothesis H_{o3} was not rejected and the Null Hypothesis H_{o4} was rejected (Table 102).

Table 103: Significance of Divergence of Observed Frequencies of CTSCs & DTSCs on the Evaluation of Student Performance in Line to the Objectives

Statement	Respondents	SDA	DA	UNC	A	SA	χ^2 Value	p-value
Mentor helps to the mentees in evaluating the student performance in line to the objectives of the lesson plan.	CTSCs (N=186)	51 27.4%	47 25.3%	00 0.0	34 18.3%	54 29.0%	5.011	0.171
	DTSCs (N=12)	2 16.7%	2 16.7%	0 0.0	2 16.7%	6 50.0%	4.000	0.261

df=4 χ^2 at 0.05=9.49

Table No. 103 reflects that 47.3 % of the CTSC respondents agreed, 52.7 % of the respondents disagreed and 66.7 % DTSCs agreed, 33.4 % were disagreed with the statement. The calculated value of χ^2 for CTSCs and DTSCs were (5.011) & (4.000) which were not-significant at p=0.05 level of significance. This showed that there was equal difference in the opinions of the CTSCs and DTSCs about the evaluation of the student performance in line to the objectives of the lesson plan. Therefore, the Null Hypothesis H_{o3} and H_{o4} were not rejected (Table 103).

Table 104: Significance of Divergence of Observed Frequencies of CTSCs & DTSCs on the Mentoring and Monitoring the Progress of Students

Statement	Respondents	SDA	DA	UNC	A	SA	χ^2 Value	p-value
Mentor helps to the mentees in monitoring the progress of students.	CTSCs (N=186)	22 11.8%	17 9.1%	00 0.0	67 36.0%	80 43.0%	64.796	0.000
	DTSCs (N=12)	2 16.7%	1 8.3%	0 0.0	1 8.3%	8 66.7%	11.290	0.010

df=4 χ^2 at 0.05=9.49

Table No. 104 reveals that 79.1 % CTSCs agreed, 20.9 % of the respondents were disagreed and 75.0 % of the DTSC respondents agreed, 25.0 % of the respondents remained disagreed with the statement. The calculated value of χ^2 for CTSCs (64.796) was overwhelming significant at p=0.001 level and value of χ^2 for DTSCs (11.290) was significant at p=0.05 level of significance. This reflected that there was highly difference in the opinions of CTSCs and DTSCs about the monitoring the progress of students. Therefore, the Null Hypotheses H_{o3} and H_{o4} were rejected (Table 104).

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Table 105: Significance of Divergence of Observed Frequencies of CTSCs& DTSCs on the Provision of Variety of Ways to Assess the Students

Statement	Respondents	SDA	DA	UNC	A	SA	χ^2 Value	p-value
Mentor helps to the mentees in a variety of ways to assess their students' achievement.	CTSCs (N=186)	18 9.7%	17 9.1%	00 0.0	84 45.2%	67 36.0%	75.462	0.000
	DTSCs (N=12)	1 8.3%	1 8.3%	0 0.0	1 8.3%	9 75.0%	16.000	0.000
df=4						χ^2 at 0.05=9.49		

Table No. 105 reflects that 81.2 % of the CTSC respondents agreed, while 18.8 % of the respondents disagreed and 88.3 % DTSCs agreed, 16.6 % of the respondents disagreed with the statement. The calculated values of χ^2 for CTSCs and DTSCs were (75.462) & (16.000) which were overwhelmingly significant at p=0.001 level of significance. This showed that there was high difference in the opinions of CTSCs and DTSCs about the provision of variety of ways to assess the students. Therefore, the Null Hypotheses H_{o3} and H_{o4} were rejected (Table 105).

Table 106: Significance of Divergence of Observed Frequencies of CTSCs & DTSCs on the Strengthening the Assessment Skills

Statement	Respondents	SDA	DA	UNC	A	SA	χ^2 Value	p-value
Mentor helps to the mentees in strengthening their assessment skills.	CTSCs (N=186)	14 7.5%	21 11.3%	00 0.0	96 51.6%	55 29.6%	90.946	0.000
	DTSCs (N=12)	1 8.3%	1 8.3%	0 0.0	1 8.3%	9 75.0%	16.000	0.000
df=4						χ^2 at 0.05=9.49		

Table No. 106 reflects that 81.2 % of the CTSC respondents agreed while, 18.8 % disagreed and 75.0 % of the DTSC respondents agreed, 25.0 % of the respondents were disagreed with the statement. The calculated values of χ^2 were (90.946) & (16.000) which were overwhelmingly significant at p=0.001 level of significance. This showed that there was high difference in responses of the CTSCs and DTSCs about the strengthening assessment skills with tilt towards the agreement with the statement. So, the Null Hypotheses H_{o3} and H_{o4} were rejected (Table 106).

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AREA-8 HOME WORK

Table 107: Significance of Divergence of Observed Frequencies of CTSCs & DTSCs on the Guideline Regarding the Assigning of Home Work

Statement	Respondents	SDA	DA	UNC	A	SA	χ^2 Value	p-value
Mentor provides guideline to the mentees in assigning home work to their students.	CTSCs (N=186)	10	22	05	72	77	129.108	0.000
		5.4%	11.8%	2.7%	38.7%	41.4%		
	DTSCs (N=12)	1	1	0	3	8	11.333	0.010
		8.3%	8.3%	0.0	16.7%	66.7%		
df=4					χ^2 at 0.05=9.49			

Table No. 107 indicates that 80.1 % CTSCs agreed with the statement, 2.7 % were uncertain, 17.2 % of the respondents disagreed and 83.4 % of the DTSC respondents agreed, 16.6 % of the respondents remained disagreed with the statement. The calculated values of χ^2 for CTSCs and DTSCs were (129.108) & (11.333) which were overwhelmingly significant at p=0.001 level of significance. This showed that there was high difference in the opinions of the CTSCs and DTSCs about the guideline regarding the assigning of homework. Therefore, the Null Hypotheses H_{o3} and H_{o4} were rejected (Table 107).

Table 108: Significance of Divergence of Observed Frequencies of CTSCs & DTSCs on the Guidelines for the Successful Completion of Home Work

Statement	Respondents	SDA	DA	UNC	A	SA	χ^2 Value	p-value
Mentor helps to the mentees in providing guidelines to their students for the successful completion of homework.	CTSCs (N=186)	05	09	06	79	87	189.054	0.000
		2.7%	4.8%	3.2%	42.5%	46.8%		
	DTSCs (N=12)	1	1	0	1	9	16.000	0.000
		8.3%	8.3%	0.0	8.3%	75.0%		
df=4					χ^2 at 0.05=9.49			

Table No. 108 shows that 89.3 % of the CTSC respondents agreed with the statement, 3.2 % were uncertain in their responses, while 7.5 % of the respondents disagreed and 83.3 % DTSCs agreed, 16.6 % of the respondents were disagreed with the statement. The calculated values of χ^2 (189.054) & (16.000) were overwhelmingly significant at p=0.001 level. This reflected that there was high difference in the opinions of CTSCs and DTSCs about the guidelines for the successful completion of homework. The opinion is highly divided with a tilt towards the agreement with the statement. Hence, the Null Hypotheses H_{o3} and H_{o4} were rejected (Table 108).

Table 109: Significance of Divergence of Observed Frequencies of CTSCs & DTSCs on the Instructions Regarding the Promotion of Creative Thinking

Statement	Respondents	SDA	DA	UNC	A	SA	χ^2 Value	p-value
Mentor provides instructions to the mentees in promoting creative thinking through home work.	CTSCs (N=186)	51 27.4%	35 18.8%	00 0.0	58 31.2%	42 22.6%	6.559	0.087
	DTSCs (N=12)	3 25.0%	2 16.7%	0 0.0	1 8.3%	6 50.0%	4.360	0.198
df=4						χ^2 at 0.05=9.49		

The above mentioned table No. 109 indicates that 53.8 % of the CTSC respondents agreed and 46.2 % of the respondents were disagreed and 58.3 % DTSCs agreed 47.1 % disagreed with the statement. The calculated values of χ^2 for CTSCs and DTSCs were (6.559) and (4.360) which were not-significant at p=0.05 level of significance. This reflected that there was equal difference in the responses of the CTSCs and DTSCs about the instructions regarding the promotion of creative thinking. Therefore, the Null Hypotheses H_{o3} and H_{o4} were rejected (Table 109).

Table 110: Significance of Divergence of Observed Frequencies of CTSCs & DTSCs on the Provision of Capabilities Based Home through Mentoring

Statement	Respondents	SDA	DA	UNC	A	SA	χ^2 Value	p-value
Mentor provides instructions to the mentees in ensuring that assigned home work is according to the capabilities of their students.	CTSCs (N=186)	56 30.1	53 28.5	00 0.0	45 24.2	32 17.2	7.419	0.060
	DTSCs (N=12)	2 16.7	2 16.7	0 0.0	3 25.0	5 41.7	2.000	0.572
df=4						χ^2 at 0.05=9.49		

Table No. 110 indicates that 41.4 % of CTSC respondents agreed, 58.6 % of the respondents were disagreed and 66.7 % DTSCs agreed, while 33.4 % of the respondents were disagreed with the statement. The calculated value of χ^2 (7.419) & (2.000) were not-significant at p=0.05 level of significance. This showed that the difference in the in the opinions of the CTSCs and DTSCs about the capabilities based home work for the students is equally divided. So, the Null Hypotheses H_{o3} and H_{o4} were not rejected (Table 110).

Table 111: Significance of Divergence of Observed Frequencies of CTSCs & DTSCs on the Help in Evaluating the Home Work of the Students

Statement	Respondents	SDA	DA	UNC	A	SA	χ^2 Value	p-value
Mentor helps to the mentees in evaluating	CTSCs (N=186)	05 2.7%	13 7.0%	07 3.8%	77 41.4%	84 45.2%	169.591	0.000
the home work of their students.	DTSCs (N=12)	2 16.7%	1 8.3%	0 0.0	1 8.3%	9 75.0%	9.515	0.009
df=4					χ^2 at 0.05=9.49			

Table No. 111 evident that 86.6 % of the CTSC respondents agreed with the statement, 3.8 % were uncertain in their responses while, 9.7 % of the respondents disagreed and 83.3 % of DTSCs agreed, 25.0 % were disagreed with the statement. The calculated value of χ^2 for CTSCs was (169.591) and for DTSCs χ^2 was (9.515) which were highly significant at p=0.001 level of significant. This depicted that there was high difference in the responses of CTSCs and DTSCs in evaluating the home work of the students with tilt towards the agreement of the statement. Hence, the Null Hypotheses H_{o3} and H_{o4} were rejected (Table 111).

Table 112: Analysis of CTSCs responses on Open Ended Questions (N=186)

A few suggestions given by CTSCs for improvement of mentoring programme are given below:

Sr. No.	Statements	Total	Percentages
1.	Poor incentives for CTSC Heads	71	38.00%
2.	Lack of accountability of teachers due to political interference, teachers' unions and role of ministerial staff.	53	28.49%
3.	Non educational assignments entrusted to teachers	35	18.81%
4.	Science teacher be provided to each school	32	17.20%
5.	Lack of facilities for teachers	31	16.60%
6.	Mentoring has fulfilled the TNA of the PSTs	27	14.50%

Table: 113. Analysis of DTSCs responses on Open Ended Questions (N=12)

A few suggestions given by DTSCs for improvement of mentoring programme are.

Sr. No.	Statement	Total	Percentages
1.	At least 6 teachers be deployed in each primary school.	4	33.33%
2.	Mentoring should also be started in private schools	4	33.33%
3.	The Existing mentoring process must be extended to Elementary School Teachers (EST).	4	33.33%
4.	Need based and important topics should be dealt on PD	4	33.00%

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5.	The share propionate of mentoring days and assessment days should be changed.	4	33.33%
6.	Low qualified staff at primary level should be given golden shake hand.	3	25.00%
7.	DTEs should be selected through Punjab Public Service Commission.	3	25.00%
8.	Mentoring areas should be revisited and female mentors should be appointed for girls schools	3	25.00%
9.	Incentives and appreciations to the best performers' teachers may be provided on PD day.	2	16.66%

4.4 SIGNIFICANCE OF DIFFERENCE BETWEEN MEAN OPINION SCORES OF PSTs AND DTEs

The preceding sections 4.2 & 4.3 of this chapter demonstrated the analysis of the responses of the Primary School Teachers (PSTs) & District Teacher Educators (DTEs) and Cluster Training and Support Centers (CTSCs) heads & District Training and Support Centers (DTSCs) heads. The data collected through questionnaires from PSTs and DTEs was tabulated and analyzed in line to the objectives of study by using Percentages and Chi-Square to test the Null Hypotheses: *(i)"H_{01}Frequency of the opinions of the PSTs on the mentoring process does not diverge significantly from those expected on supposition of equal probability", (ii)and "H_{02}Frequency of the opinions of the DTEs on the mentoring process does not diverge significantly from those expected on supposition of equal probability"..*

To check the reliability of the results obtained from one technique, alternative techniques were equally applied i.e. the results obtained through the Percentages and Chi-Square of PSTs and DTEs were verified by using t-test to compare the group means between the PSTs and DTEs and to test the Null Hypothesis that *"$H_{03}$the mean opinion scores of "PSTs& DTEs" do not differ significantly on the mentoring process".* For this purpose questionnaires of the PSTs and the DTEs comprised of 50 items on eight mentoring areas, i.e. (i) Taleemi Calendar, (ii) Lesson Planning, (iii) Activity Based Teaching and Learning, (iv) Use of Support Material, (v) Interaction with Students, (vi) Classroom Management, (vii) Student Assessment

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and (viii) Home Work. The questionnaire items of the Primary School Teachers (PSTs) and the District Teacher Educators (DTEs) were developed on the following five point Likert's scale.

Responses	Abbreviations	Marks
Strongly Disagree	SDA	1
Disagree	DA	2
Uncertain	UNC	3
Agree	A	4
Strongly Agree	SA	5

The details of the analysis of mean opinion difference between the mean scores of PSTs and DTEs on all eight mentoring areas are presented in tables 114 to 164 below.

AREA NO-1 TALEEMI CALENDAR

Table 114: Significance of Difference between Mean Opinion Scores of PSTs & DTEs on the Management of Teaching Activities

Statement	Respondents	N	X	SD	t-value	p-value
Mentoring helps in managing all teaching activities according to the Taleemi Calendar.	PSTs	381	2.57	1.528	10.727	0.000
	DTEs	302	3.27	1.662		

df=681　　t at 0.05=1.96

Table shows No. 114 the mean opinion score difference between the PSTs & the DTEs on management of all teaching activities. The PSTs mean opinion score was 2.57 and mean opinion score of DTEs was 3.27. The calculated t-value was 10.727 (t=10.727, p< 0.001) which is overwhelmingly significant at p=0.001 level of significance. Hence, the Null Hypothesis H_{05} was rejected. This revealed that PSTs and DTEs differed in their responses on the statement that mentoring process was helpful in managing all teaching activities according to the Taleemi Calendar (Table 114).

Table 115: Significance of Difference between Mean Opinion Scores of PSTs & DTEs on the realistic way of teaching activities

Statement	Respondents	N	X	SD	t-value	p-value
Mentoring helps to manage teaching activities for the educational year in a realistic way.	PSTs	381	3.04	1.530	1.175	0.241
	DTEs	302	3.00	1.577		

df=681   t at 0.05=1.96

Table No. 115 presents the mean opinion scores difference between the PSTs & the DTEs on the management of teaching activities in a realistic way. The data showed that the respondents PSTs mean opinion score was 3.04 and the DTEs opinion score was 3.00. The t-value was 1.175 (t=1.175, p>0.05) which was not-significant at p=0.05 level of significance. Therefore, the Null Hypothesis H_{O5} was not rejected. This showed that both groups of respondents PSTs & DTEs were in favorable opinions with the statement that mentoring was helpful to manage teaching activities for the educational year in a realistic way (Table 115).

Table 116: Significance of Difference between Mean Opinion Scores of PSTs &DTEs on the rigorously use of Taleemi Calendar

Statement	Respondents	N	X	SD	t-value	p-value
Mentoring helps in using Taleemi Calendar rigorously.	PSTs	381	3.09	1.615	1.832	0.067
	DTEs	302	3.07	1.548		

df=681   t at 0.05=1.96

Table No. 116 shows the difference between mean opinion scores of the PSTs & the DTEs on the rigorously use of Taleemi Calendar. The data reflected that the respondents PSTs mean opinion score was 3.09 and the respondents DTEs mean opinion score was 3.07. The calculated t-value was 1.832 not-significant at p=0.05 level of significance. Hence, the Null Hypothesis H_{O5} could not be rejected. This explained both groups of respondents PSTs and DTEs led favorable opinions towards the statement that mentoring was helpful in using Taleemi Calendar rigorously (Table 116).

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Table 117: Significance of Difference between Mean Opinion Scores of PSTs & DTEs on coverage of Backlogs of Unseen Days

Statement	Respondents	N	X	SD	t-value	p-value
Mentoring helps to cover the backlogs of unseen days in an educational year.	PSTs	381	4.55	0.987	3.193	0.001
	DTEs	302	4.12	1.172		
df=681					t at 0.05=1.96	

The above table No. 117 indicates difference between the mean opinion scores of PSTs & DTEs in covering the backlogs of unseen days. The data showed that the respondents PSTs mean opinion score was 4.55 and the DTEs mean opinion score was 4.12. The t-value was 3.193 (t=3.193, p<0.01) which was highly significant at p=0.01 level of significance. Hence, the Null Hypothesis H_{05} was rejected. This indicated that PSTs and DTEs differed in their opinions that mentoring process was helpful in covering the backlogs of unseen days in an educational year (Table 117).

Table 118: Significance of Difference between Mean Opinion Scores of PSTs & DTEs in Achieving the Pre-Set Targets in Advance

Statement	Respondents	N	X	SD	t-value	p-value
Mentoring helps in achieving the pre-set targets in advance.	PSTs	381	3.29	1.598	0.386	0.700
	DTEs	302	3.07	1.629		
df=681					t at 0.05=1.96	

Table No. 118 reflects the difference between the mean opinion scores of PSTs & DTEs on the achievement of the pre-set targets in advance. The analyzed data showed that respondents PSTs mean opinion score was 3.29 and DTEs was 3.07. The calculated t-value was 0.386 (t=0.386, p>0.05) which was not-significant at p=0.05 level of significance. So, the Null Hypothesis H_{05} was not rejected. This showed that both groups of respondents PSTs and DTEs were in favorable opinions with the statement that mentoring process was helpful in achieving the pre-set targets in advance (Table 118).

Table 119: Significance of Difference between Mean Opinion Scores of PSTs & DTEs on the Management of Leave or Absent Days

Statement	Respondents	N	X	SD	t-value	p-value
Mentor helps in managing the leave or absent days of an educational year.	PSTs	381	2.90	1.550	2.870	0.004
	DTEs	302	3.22	1.549		
df=681				t at 0.05=1.96		

The above table No. 119 shows that PSTs mean opinion score was 2.90 and DTEs mean score was 3.22 on the management of leaves or absent days. The calculated t-value was 2.870, (t=2.870, p<0.01) which was highly significant at p=0.01 level of significance. Therefore, the Null Hypothesis H_{05} was rejected. This depicted that the respondents PSTs and DTEs differed in their opinions that mentoring process helped the mentees in managing the leave or absent days of an educational year (Table 119).

Table 120: Significance of Difference between Mean Opinion Scores of PSTs & DTEs on the Regular Feedback towards the Professional Development

Statement	Respondents	N	X	SD	t-value	p-value
Mentoring provides regular feedback which contributes towards professional development of teachers.	PSTs	381	3.56	1.429	0.385	0.700
	DTEs	302	3.24	1.493		
df=681				t at 0.05=1.96		

Table No. 120 indicates the difference between the mean opinion scores of PSTs & DTEs on the provision of regular feedback towards the professional development of teachers. The calculated data showed that PSTs mean opinion score was 3.56 and the DTEs mean opinion score was 3.24. The t-value was 0.385, (t=0.385, p>0.05) which was not-significant at p=0.05 level of significance. Therefore, the Null Hypothesis H_{05} could not be rejected. This showed that both groups of the respondents PSTs and DTEs were in favorable opinions on the statement that mentoring process provided regular feedback to the mentees which contributes towards their professional development (Table 120).

Table 121: Significance of Difference between Mean Opinion Scores of PSTs & DTEs in Decreasing the Professional Stress

Statement	Respondents	N	X	SD	t-value	p-value
Mentoring decreases the professional stress of the teachers.	PSTs	381	2.96	1.560	1.966	0.050
	DTEs	302	2.87	1.567		
df=681					t at 0.05=1.96	

Table No. 121 indicates the mean difference between the mean opinion scores of PSTs & DTEs in decreasing the professional stress of the teachers. Analysis of data yield that the respondents PSTs mean opinion score was 2.96 and the DTEs mean opinion score was 2.87. The t-value was 1.966 significant at p=0.05 level of significance. Therefore, the Null Hypothesis H_{O5} was rejected. This revealed that PSTs and DTEs differed in their opinions on the statement that mentoring decreased the professional stress of the Primary School Teachers (Table 121).

AREA No-2 LESSON PLANNING

Table 122: Significance of Difference between Mean Opinion Scores of PSTs &DTEs in Separating and Specifying the Components

Statement	Respondents	N	X	SD	t-value	p-value
Mentoring helps in separating the contents into parts and specifying amount of time needed for each component.	PSTs	381	2.57	1.528	5.734	0.000
	DTEs	302	3.27	1.662		
df=681					t at 0.05=1.96	

Table No. 122 indicates the difference between mean opinion scores of the PSTs and the DTEs in separating and specifying the component. The data showed that the PSTs and the DTEs mean opinion scores were 2.57 and DTEs 3.27 respectively. The t-value was 5.734 overwhelmingly significant at p=0.001 level of significance. Therefore, the Null Hypothesis H_{O5} was rejected. This showed that PSTs and DTEs differed significantly in their opinions about the mentoring process helped the mentees in separating the contents into parts and specifying amount time needed for each component (Table 122).

Table 123: Significance of Difference between Mean Opinion Scores of PSTs& DTEs in Separating and Pacing the Learning Activities

Statement	Respondents	N	X	SD	t-value	p-value
Mentoring helps in separating learning activities into components while pacing the activities appropriately.	PSTs	381	2.92	1.641	7.213	0.000
	DTEs	302	3.76	1.316		
df=681				t at 0.05=1.96		

Table No. 123 shows the difference between the mean opinion scores of PSTs and DTEs on

the separating and pacing the learning mean opinion score was 2.92 and the DTEs mean

opinion score was 3.76. The t-value was 7.213 (t=7.213, p<0.001) which was

overwhelmingly significant at p=0.001 level of significance. Hence, the Null Hypothesis

H_{05} was rejected. This revealed that there was high difference in the opinions of PSTs and

DTEs that mentoring process helped the mentees in separating learning activities into

components while pacing the activities appropriately (Table 123).

Table 124: Significance of Difference between Mean Opinion Scores of PSTs & DTEs in using Lesson Planning Guide Effectively

Statement	Respondents	N	X	SD	t-value	p-value
Mentoring helps in using lesson planning guide effectively	PSTs	381	3.64	1.397	3.083	0.002
	DTEs	302	3.96	1.254		
df=681				t at 0.05=1.96		

Table No. 124 reflects the difference between the mean opinion scores of PSTs & DTEs

about the usage of lesson planning guide effectively. The data showed that the respondents

PSTs mean opinion score was 3.64 and the mean opinion score of DTEs was 3.96. The t-

value was 3.083 (t=3.083, p<0.01) which was highly significant at p=0.01 level of

significance. Hence, the Null Hypothesis H_{05} was rejected. This revealed the respondents of

PSTs and DTEs differed in their opinions that mentoring process helped the mentees in using

lesson plan guide effectively (Table 124).

Table 125: Significance of Difference between Mean Opinion Scores of PSTs & DTEs in Obtaining the Requisite Lesson Planning Skills

Statement	Respondents	N	X	SD	t-value	p-value
Mentoring helps in obtaining the requisite lesson planning skills.	PSTs	381	3.19	1.573	0.148	0.882
	DTEs	302	3.18	1.594		
df=681				t at 0.05=1.96		

Table No. 125 depicts the difference between the mean scores of PSTs & DTEs about the requisite lesson planning skills. The calculated data showed that the respondents PSTs mean opinion score was 3.19 and mean opinion score of DTEs was 3.18. The t-value was 0.148 (t=0.148, p>0.882) which was not-significant at p=0.05 level of significance. Therefore, the Null Hypothesis H_{05} was not rejected. This revealed that both the PSTs and the DTEs were in favorable opinions with the statement that mentoring was helpful in obtaining the requisite lesson planning skills (Table 125).

Table 126: Significance of Difference between Mean Opinion Scores of PSTs & DTEs on Starting and Reviewing the Lesson

Statement	Respondents	N	X	SD	t-value	p-value
Mentoring helps in starting and reviewing the lesson.	PSTs	381	3.24	1.548	2.821	0.005
	DTEs	302	3.57	1.467		
df=681				t at 0.05=1.96		

Table No. 126 indicates the difference of mean opinion scores of the PSTs & the DTEs on starting and reviewing the lesson. The data showed that PSTs mean opinion score was 3.24 and mean opinion score of the DTEs was 3.57. The t-value was 2.821 highly significant at p=0.01 level of significance. Hence, the Null Hypothesis H_{05} was rejected. This showed that both PSTs and DTEs differed in their opinion with the statement that mentoring process helped the mentees in starting and reviewing the lesson (Table 126).

Table 127: Significance of Difference between Mean Opinion Scores of PSTs & DTEs on Provision of Feedback during Teaching

Statement	Respondents	N	X	SD	t-value	p-value
Mentoring provides feedback about my instructional methodologies.	PSTs	381	2.97	1.602	5.638	0.000
	DTEs	302	3.62	1.360		
df=681				t at 0.05=1.96		

Table No. 127 indicates the difference between the mean opinion scores of PSTs & DTEs on the provision of feedback during teaching. The calculated data showed that the PSTs mean opinion score was 2.97 while, the DTEs mean opinion score remained 3.62. The t-value was 5.638 overwhelmingly significant at p=0.001 level of significance. Therefore, the Null Hypothesis H$_{05}$ was rejected. This showed that there was high difference in the opinions of PSTs and DTEs that mentoring provided feedback in instructional methodologies (Table 127).

AREA No-3 ACTIVITY BASED TEACHING AND LEARNING

Table 128: Significance of Difference between Mean Opinion Scores of PSTs & DTEs on Effective Teaching through Mentoring

Statement	Respondents	N	X	SD	t-value	p-value
Through mentoring process, my teaching has become more effective.	PSTs	381	3.09	1.579	1.633	0.103
	DTEs	302	2.90	1.539		
df=681				t at 0.05=1.96		

The above table No. 128 reveals difference in the mean opinion scores of the PSTs and the DTEs on effective teaching through mentoring. The respondents PSTs mean opinion score was 3.09 and the DTEs mean opinion score was 2.90. The calculated t-value was 1.633, (t=1.633, p>0.05) which was not-significant at p=0.05 level of significance. Therefore, the Null Hypothesis H$_{05}$ was not rejected. This showed that the opinion of the PSTs and DTEs was more favorable with the statement that mentoring process has made the mentees' teaching more effective (Table 128).

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Table 129: Significance of Difference between Mean Opinion Scores of PSTs & DTEs in Eliminating the Feelings of Professional Isolation

Statement	Respondents	N	X	SD	t-value	p-value
Mentoring helps in eliminating the feelings of professional isolation.	PSTs	381	2.84	1.586	2.125	0.034
	DTEs	302	3.09	1.527		

df=681   t at 0.05=1.96

Table No. 129 depicts the difference between the mean opinions scores of PSTs & DTEs in the eliminating the feelings of professional isolation. The data showed that the respondents PSTs mean opinion score was 2.84 and DTEs mean opinion score was 3.09. The t-value was 2.125, i.e. (t=2.125, p<0.05) which was significant at p=0.05 level of significance. Therefore, the Null Hypothesis H_{05} was rejected. This showed that the both groups have differed significantly towards statement that mentoring process helped the mentees in eliminating the feelings of professional isolation (Table 129).

Table 130: Significance of Difference between Mean Opinion Scores of PSTs & DTEs in Developing Positive Attitude towards Teaching

Statement	Respondents	N	X	SD	t-value	p-value
Mentoring helps in developing positive attitude towards teaching.	PSTs	381	3.01	1.548	0.988	0.324
	DTEs	302	2.99	1.539		

df=681   t at 0.05=1.96

The above mentioned table No. 130 indicates the difference between the mean opinion scores of PSTs & DTEs about the development of positive attitude towards teaching. The mean opinion score of PSTs was 3.01 and the mean opinion score of DTEs was 2.99. The calculated t-value was 0.988 (t=0.988, p>0.05) which was not-significant at p=0.05 level of significance. So, the Null Hypothesis H_{05} was not rejected. This showed that the respondents PSTs and DTEs were in favorable opinions with the statement about the mentoring helped in developing positive attitude towards teaching (Table 130).

Table 131: Significance of Difference between Mean Opinion Scores of PSTs& DTEs in Assessing the Learning Needs of Students

Statement	Respondents	N	X	SD	t-value	p-value
Mentoring provides helps in assessing the student's learning.	PSTs	381	3.11	1.620	5.273	0.000
	DTEs	302	3.66	1.344		
df=681				t at 0.05=1.96		

The above table No. 131 reveals the difference between mean opinion score of PSTs was 3.11 and the mean score of DTEs was 3.66. The t-value was 5.273 (t=5.273, p<0.001) which was overwhelmingly significant at p=0.001 level of significance. Therefore, the Null Hypothesis H_{O5} was rejected. This showed that the respondents PSTs and DTEs differed in their opinions that mentoring process helped the mentees in assessing the students learning (Table 131).

Table 132: Significance of Difference between Mean Opinion Scores of PSTs & DTEs on the Deepness in Teaching &Learning

Statement	Respondents	N	X	SD	t-value	p-value
Mentoring has deepened the understanding about teaching and learning.	PSTs	381	3.30	1.515	1.207	0.228
	DTEs	302	3.16	1.580		
df=681				t at 0.05=1.96		

Table No. 132 reveals the mean opinion difference between the PSTs & DTEs on deepness in teaching and learning through mentoring. The PSTs mean opinion score was 3.30 greater as compared to DTEs 3.16. The t-value was 0.228, (t=1.207, p>0.05) which was not-significant at p=0.05 level of significance. Therefore, the Null Hypothesis H_{O5} was not rejected. This showed there was no difference in the opinions of PSTs and DTEs towards the statement that mentoring has deepened the understanding about teaching and learning (Table 132).

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Table 133: Significance of Difference between Mean Opinion Scores of PSTs& DTEs in Organizing the Curriculum Related Activities

Statement	Respondents	N	X	SD	t-value	p-value
Mentoring helps in organizing the curriculum related activities.	PSTs	381	3.12	1.544	0.680	0.080
	DTEs	302	3.22	1.510		

df=681   t at 0.05=1.96

Table No. 133 reflects the difference between mean opinions scores of PSTs and DTEs in organizing the curriculum related activities. The calculated data showed that respondents PSTs mean opinion score was 3.12 and the DTEs mean opinion score was 3.22. The t-value was 0.680 not-significant at p=0.05 level of significance. Hence, the Null Hypothesis H_{05} was not rejected. This revealed that both groups of respondents PSTs and DTEs were in favorable opinions towards the statement that mentoring helped in organizing the curriculum related activities (Table 133).

AREA No-4 USE OF SUPPORT MATERIAL

Table 134: Significance of Difference between Mean Opinion Scores of PSTs& DTEs in Searching and Gathering Teaching Resources

Statement	Respondents	N	X	SD	t-value	p-value
Mentoring guides in searching and gathering teaching resources.	PSTs	381	3.40	1.479	2.984	0.003
	DTEs	302	3.63	1.426		

df=681   t at 0.05=1.96

Table No. 134 shows the difference between the mean opinions scores of PSTs and DTEs on the in searching and gathering teaching resources. The mean opinion score of PSTs was 3.40 and DTEs mean opinion score was 3.63. The calculated t-value was 2.984 (t=2.984, p<0.01) which was highly significant at p=0.01level of significance. So, the Null Hypothesis H_{05} was rejected. This indicated that both groups of the respondents PSTs and DTEs differed in their opinion that mentoring process guided the mentees in searching and gathering teaching resources (Table 134).

Table 135: Significance of Difference between Mean Opinion Scores of PSTs & DTEs in Developing Supporting Material

Statement	Respondents	N	X	SD	t-value	p-value
Mentoring helps in developing supporting material for classroom instructions	PSTs	381	3.22	1.521	3.800	0.000
	DTEs	302	3.65	1.382		
df=681				t at 0.05=1.96		

The above table No. 135 reflects the difference between the mean opinion scores of PSTs

and DTEs in developing supporting material. The data showed that mean opinion score of

the PSTs was 3.22 and the DTEs mean opinion score was 3.65. The t-value was 3.800

(t=3.800, p<0.001) which was overwhelmingly significant at p=0.001 level of

significance. Therefore, the Null Hypothesis H_{05} was rejected. This showed that there was

high difference in the opinions of PSTs and DTEs that mentoring process helped in

developing supporting material for classroom instructions (Table 135).

Table 136: Significance of Difference between Mean Opinion Scores of PSTs & DTEs on the Utilization of Various Kinds of Instructional Techniques

Statement	Respondents	N	X	SD	t-value	p-value
Mentoring helps to utilize various kinds of instructional techniques to improve the student learning.	PSTs	381	3.31	1.567	0.623	0.533
	DTEs	302	3.05	1.573		
df=681				t at 0.05=1.96		

Table No. 136 evident the difference between the mean opinions scores of PSTs and DTEs

about utilization various kinds of instructional techniques. The data showed that respondents

PSTs mean opinion score was higher 3.31 than DTEs 3.05. The t-value was 0.623 (t=0.623,

p>0.05) which was not-significant at p=0.05 level of significance. Hence, the Null Hypothesis

H_{05} could not be rejected. This revealed that there was no difference in the opinions of PSTs

and DTEs towards the statement about the mentoring process helped the mentees in utilizing

various kinds of instructional techniques to improve the student learning (Table 136).

Table 137: Significance of Difference between Mean Opinion Scores of PSTs & DTEs in Judging Alignment of Materials with the Contents

Statement	Respondents	N	X	SD	t-value	p-value
Mentoring helps in judging the appropriateness of supporting materials aligned with the contents.	PSTs	381	3.73	1.502	2.356	0.019
	DTEs	302	3.33	1.637		
df=681				t at 0.05=1.96		

Table No. 137 depicts the difference in the mean opinion scores of PSTs and DTEs in judging alignment of materials with the contents. The data showed that the respondents PSTs mean opinion score was 3.73 and the DTEs mean opinion score was 3.33. Therefore, the Null Hypothesis H_{O5} was rejected. The t-value was 2.356 which was significant at p=0.05 level of significance. This showed that there was difference in the opinions of the PSTs and the DTEs about the mentoring process helped the mentees in judging the appropriateness of supporting materials (Table 137).

Table 138: Significance of Difference between Mean Opinion Scores of PSTs & DTEs on the Preparation of Teacher Made Material

Statement	Respondents	N	X	SD	t-value	p-value
Mentoring helps in preparing teacher made supporting material.	PSTs	381	3.17	1.584	2.065	0.039
	DTEs	302	3.34	1.474		
df=681				t at 0.05=1.96		

Table No. 138 evident the difference between the mean opinions scores of PSTs and DTEs about the preparation of teacher made supporting material. The analyzed data reflected that respondents PSTs mean opinion score was 3.17 and the DTEs mean opinion score was 3.34. The calculated t-value was 2.065, (t=2.065, p<0.05) which was significant at p=0.05 level of significance. Therefore, the Null Hypothesis H_{O5} was rejected. This showed PSTs and DTEs differed in their opinions that mentoring process helped the mentees in preparing teacher made supporting material (Table 138).

Table 139: Significance of Difference between Mean Opinion Scores of PSTs & DTEs on the Preparation of Cost-effective Material

Statement	Respondents	N	X	SD	t-value	p-value
Mentor guides in preparing the cost-effective supporting material	PSTs	381	3.59	1.457	0.480	0.631
	DTEs	302	3.39	1.595		

df=681	t at 0.05=1.96

Table No. 139 indicates that difference between mean opinion scores of PSTs and DTEs on the preparation of cost-effective supporting material. The data showed that respondents PSTs mean opinion score was 3.59 and the DTEs mean opinion score was 3.39. The calculated t-value was 0.480 not-significant at p=0.05 level of significance. Therefore, the Null Hypothesis H_{05} could not be rejected. This revealed that both groups the respondents PSTs and DTEs were favorable in their opinion towards the statement that mentor guided the mentees in preparing the cost-effective supporting material (Table 139).

Table 140: Significance of Difference between Mean Opinion Scores of PSTs & DTEs in Searching and Preparing Supporting Material

Statement	Respondents	N	X	SD	t-value	p-value
mentoring helps in searching and preparing supporting material	PSTs	381	3.47	1.486	1.902	0.058
	DTEs	302	3.29	1.547		

df=681	t at 0.05=1.96

Table No. 140 depicts the difference in the mean opinion scores of PSTs and DTEs in searching and preparing supporting material. The PSTs mean opinion score was 3.47 and the mean opinion score of DTEs was 3.29. The t-value was 1.902; (t=1.902, p>0.05) which was not-significant at p=0.05 level of significance. Therefore, the Null Hypothesis H_{05} was not rejected. The opinions of PSTs and DTEs were more favorable towards the statement that mentoring process helped the mentees in searching and preparing supporting material (Table 140).

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Table 141: Significance of Difference between Mean Opinion Scores of PSTs & DTEs in preparation of Material Matching with Students Abilities

Statement	Respondents	N	X	SD	t-value	p-value
Mentoring helps in preparing the support material that matches with mental abilities of the students.	PSTs	381	3.09	1.616	0.308	0.758
	DTEs	302	3.06	1.602		
df=681				t at 0.05=1.96		

The above table No. 141 reveals the difference between the mean opinion scores of PSTs and DTEs in preparation of material matching with the students' abilities. The mean opinion score of PSTs was 3.09 and the mean opinion score of DTEs was 3.06. The t-value was 0.308, (t=0.308, p>0.05) which was not-significant at p=0.05 level of significance. So, the Null Hypothesis H_{05} was not rejected. This showed that there held difference in the opinions of PSTs and DTEs towards the statement that mentoring process helped in preparing the supporting material that matches with mental abilities of the students (Table 141).

AREA-5 INTERACTION WITH STUDENTS

Table 142: Significance of Difference between Mean Opinion Scores of PSTs & DTEs on Effective Communication with Students

Statement	Respondents	N	X	SD	t-value	p-value
Mentoring helps in communicating with students effectively.	PSTs	381	3.09	1.591	2.491	0.013
	DTEs	302	3.37	1.581		
df=681				t at 0.05=1.96		

Table No. 142 shows the difference between the mean opinion scores of PSTs & DTEs on effective communication with students. The PSTs mean opinion score was 3.09 and the DTEs mean opinion score was 3.37. The t-value was 2.491, (t=2.491, p<0.05) which was significant at p=0.05 level of significance. Therefore, the Null Hypothesis H_{05} was rejected. This depicted that the respondents PSTs and DTEs differed in their opinions that mentoring process helped the mentees in communicating with students effectively (Table 142).

Table 143: Significance of Difference between Mean Opinion Scores of PSTs & DTEs on the in talking and sharing ideas

Statement	Respondents	N	X	SD	t-value	p-value
Mentoring provides me guidelines to encourage the students how to talk and share their ideas.	PSTs	381	3.61	1.550	1.083	0.279
	DTEs	302	3.30	1.516		
df=681				t at 0.05=1.96		

Table No. 143 shows the difference between the mean opinion scores of PSTs and DTEs on the mentoring help in talking and sharing ideas. The data showed that the respondents PSTs mean opinion score was 3.61 and the mean opinion score of DTEs was 3.30. The calculated t-value was 1.083, (t=1.083, p>0.05) which was not-significant at p=0.05 level of significance. Hence, the Null Hypothesis H_{05} could not be rejected. This revealed that the respondents PSTs and DTEs were favorable with the statement that mentoring process provided guidelines to encourage the students how to talk and share ideas (Table 143).

Table 144: Significance of Difference between Mean Opinion Scores of PSTs & DTEs on the Provision of Corrective Feedback

Statement	Respondents	N	X	SD	t-value	p-value
Mentoring helps in providing corrective feedback to the students.	PSTs	381	2.92	1.594	4.898	0.000
	DTEs	302	3.52	1.572		
df=681				t at 0.05=1.96		

Table No. 144 depicts the difference between the mean opinion scores of PSTs and DTEs on the provision of corrective feedback. The respondents PSTs and DTEs mean opinion scores were 2.92 and 3.52 respectively. The calculated t-value was 4.898, (t=4.898, p<0.001) which was overwhelmingly significant at p=0.001 level of significance. Therefore, the Null Hypothesis H_{05} was rejected. This revealed that the respondents PSTs and DTEs differed in their opinions that mentoring was helpful in providing corrective feedback to the students (Table 144).

Table 145: Significance of Difference between Mean Opinion Scores of PSTs & DTEs on the Improvement of Questioning Skills

Statement	Respondents	N	X	SD	t-value	p-value
Mentoring has improved my questioning skills.	PSTs	381	3.13	1.542	5.405	0.000
	DTEs	302	3.61	1.424		
df=681				t at 0.05=1.96		

The above mentioned table No. 145 shows difference between the mean opinion scores of PSTs & DTEs on the improvement of questioning skills. The PSTs mean opinion score was 3.13 and the DTEs mean opinion score was 3.61. The calculated t-value was 5.405, (t=5.405, p<0.001) which was overwhelmingly significant at p=0.001 level of significance. Therefore, the Null Hypothesis H_{05} was rejected. This indicated that there was high difference in the opinions of PSTs and DTEs that mentoring process improved the questioning skills of teachers (Table 145).

Table 146: Significance of Difference between Mean Opinion Scores of PSTs & DTEs on writing the clear learning Objectives

Statement	Respondents	N	X	SD	t-value	p-value
Mentoring helps in writing clear learning objectives for a lesson.	PSTs	381	2.97	1.633	0.741	0.459
	DTEs	302	3.07	1.604		
df=681				t at 0.05=1.96		

Table No. 146 depicts the mean difference between the mean opinion scores of PSTs & DTEs on writing the clear learning objectives. The calculated data showed that respondents PSTs mean opinion score was 2.97 and the DTEs mean opinion score was 3.07. The t-value was 0.741, (t=0.741, p>0.05) which was not-significant at p=0.05 level of significance. So, the Null Hypothesis H_{05} was not rejected. This revealed about the PSTs and DTEs were in favorable opinions of towards statement that mentoring process helped in writing clear learning objectives for a lesson (Table 146).

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Table 147: Significance of Difference between Mean Opinion Scores of PSTs & DTEs on Encouraging Students to ask Questions

Statement	Respondents	N	X	SD	t-value	p-value
Mentoring provided opportunities to encouraged students to ask questions.	PSTs	381	3.10	1.597	3.513	0.000
	DTEs	302	3.52	1.567		
df=681				t at 0.05=1.96		

Table No. 147 depicts the difference between the mean opinion scores of PSTs & DTEs in encouraging students to ask questions. The analyzed data showed that mean opinion score of PSTs was 3.10 and the mean opinion score of DTEs was 3.52. The t-value was 3.513, (t=3.513, p<0.001) which was overwhelmingly significant at p=0.05 level of significance. Therefore, the Null Hypothesis H_{O5} was rejected. This showed that there was high difference in the opinions of PSTs and DTEs that mentoring process provided opportunities to encouraged students to ask questions (Table 147).

Table 148: Significance of Difference between Mean Opinion Scores of PSTs & DTEs in Providing the Guidelines on Correct and Incorrect Responses

Statement	Respondents	N	X	SD	t-value	p-value
Mentoring provides guidelines, in responding the correct responses and incorrect responses of student.	PSTs	381	3.19	1.551	1.357	0.175
	DTEs	302	3.35	1.475		
df=681				t at 0.05=1.96		

Table No. 148 reflects the difference in the mean opinion scores of PSTs & DTEs in providing the guidelines on correct and incorrect responses. The PSTs mean opinion score was 3.19 and mean opinion score of DTEs was 3.35. The calculated t-value was 1.357, (t=1.357, p>0.05) which was not-significant at p=0.05 level of significance. Hence, the Null Hypothesis H_{O5} could not be rejected. This revealed that the respondents of PSTs and DTEs were in favorable opinions with the statement that mentoring process provided guidelines in responding the correct responses and incorrect responses of student (Table 148).

AREA-5 CLASSROOM MANAGEMENT

Table 149: Significance of Difference between Mean Opinion Scores of PSTs & DTEs on carrying out the Teaching Activities

Statement	Respondents	N	X	SD	t-value	p-value
Mentoring helps in carrying out all the teaching activities in the classroom.	PSTs	381	3.08	1.614	0.802	0.423
	DTEs	302	2.99	1.618		
df=681				t at 0.05=1.96		

The above table No. 149 depicts difference between the mean opinion scores of PSTs and DTEs on carrying out all the teaching activities. The respondents PSTs mean opinion score was 3.08 and DTEs mean opinion score was 2.99. The t-value was 0.802, (t=0.802, p>0.05) which was not-significant at p=0.05 level of significance. Therefore, the Null Hypothesis H_{O5} was not rejected. This indicated that the respondents PSTs and DTEs were favorable in their opinions towards the statement that mentoring helped in carrying out all the teaching activities in the classroom (Table 149).

Table 150: Significance of Difference between Mean Opinion Scores of PSTs & DTEs on Maintaining Classroom Environment for Students

Statement	Respondents	N	X	SD	t-value	p-value
Mentoring helps in maintaining attractive and appropriate classroom environment for students.	PSTs	381	3.11	1.571	3.254	0.001
	DTEs	302	3.50	1.509		
df=196				t at 0.05=1.96		

Table No. 150 evident that the calculated mean opinion score of PSTs was 3.11 and the mean opinion score of DTEs was 3.50. The calculated t-value was 3.254, (t=3.254, p<0.001) overwhelmingly significant at p=0.001level of significance. So, the Null Hypothesis H_{O5} was rejected. This indicated that PSTs and DTEs differed in their opinions that mentoring process helped the mentees in maintaining attractive and appropriate classroom environment for students (Table 150).

Table 151: Significance of Difference between Mean Opinion Scores of PSTs & DTEs on the Improvement of Classroom Management Skills

Statement	Respondents	N	X	SD	t-value	p-value
Mentoring helps in improving my classroom management skills.	PSTs	381	3.13	1.551	2.294	0.022
	DTEs	302	3.40	1.567		
df=681				t at 0.05=1.96		

Table No. 151 showed that the respondents PSTs mean opinion score was 3.13 the DTEs mean opinion score was 3.40. The calculated t-value was 2.294, (t=2.294, p<0.05) significant at p=0.05 level of significance. Therefore, the Null Hypothesis H_{O5} was rejected. This showed that the respondents PSTs and DTEs differed in their opinions about the help mentoring process helped the mentees in improving the classroom management skills (Table 151).

Table 152: Significance of Difference between Mean Opinion Scores of PSTs & DTEs on the Promotion Desired Behaviors among Students

Statement	Respondents	N	X	SD	t-value	p-value
Mentoring helps in promoting desired behaviors among students.	PSTs	381	3.01	1.636	0.707	0.480
	DTEs	302	3.10	1.539		
df=681				t at 0.05=1.96		

Table No. 152 reveals the difference in the mean opinion scores of PSTs and DTEs about the promotion of desired behaviors among the students. The respondents PSTs mean opinion score was 3.01 and the DTEs mean opinion score was 3.10. The calculated t-value was 0.707, (t=0.707, p>0.05) which was not-significant at p=0.05 level of significance. Therefore, the Null Hypothesis H_{O5} could not be rejected. This showed that there was favorable difference in the opinions of PSTs and DTEs with the statement that the mentoring helped the mentees' in promoting desired behaviors among students (Table 152).

Table 153: Significance of Difference between Mean Opinion Scores of PSTs& DTEs on the Identification of Potential Behavioral Problems

Statement	Respondents	N	X	SD	t-value	p-value
Mentoring helps in identifying and dealing with potential behavioral problems before they develop.	PSTs	381	3.17	1.607	0.576	0.565
	DTEs	302	3.11	1.532		
df=681				t at 0.05=1.96		

Table No. 153 reflects the difference in the mean opinions scores of PSTs and DTEs on the identification of the potential behavioral problems. The respondents PSTs mean opinion score was 3.17 and the DTEs mean opinion score was 3.11. The t-value was 0.576, (t=0.576, p>0.05) which was not-significant at p=0.05 level of significance. Hence, the Null Hypothesis H$_{05}$ was not rejected. This showed that there was favorable difference in the opinion of PSTs and DTEs towards statement that mentoring helped in identifying and dealing with potential behavioral problems (Table 153).

Table 154: Significance of Difference between Mean Opinion Scores of PSTs& DTEs on the Provision of Guidelines to Students during Class

Statement	Respondents	N	X	SD	t-value	p-value
Mentoring provides the guidelines in keeping the students on-task, during class.	PSTs	381	3.13	1.643	4.371	0.000
	DTEs	302	3.66	1.442		
df=681				t at 0.05=1.96		

Table No. 154 shows the mean scores difference in the opinions of PSTs and DTEs on the provision of guidelines to students during the class. The calculated data showed that respondents PSTs mean opinion score was 3.13 and the DTEs mean opinion score was 3.66. The calculated t-value was 4.371, (t=4.371, p<0.001) overwhelmingly significant at p=0.001 level of significance. Therefore, the Null Hypothesis H$_{05}$ was rejected. This revealed that there was high difference in the responses of PSTs and DTEs that the mentoring process provided to the mentees guidelines in keeping the students on-task, during class (Table 154).

AREA-7 STUDENT ASSESSMENT

Table 155: Significance of Difference between Mean Opinions Scores of PSTs & DTEs in Praising and in motivating the Students

Statement	Respondents	N	X	SD	t-value	p-value
Mentoring helps in praising those students who are on task and in motivating those who do not complete their work	PSTs	381	3.17	1.624	1.225	0.221
	DTEs	302	3.02	1.545		
df=681				t at 0.05=1.96		

The above table No. 155 shows the mean scores difference in the opinions of the respondents PSTs and DTEs on praising and motivating the students. The mean opinion score of PSTs was 3.17 and the mean opinion score of the DTEs was 3.02. The calculated t-value was (t=1.225, p>0.05) which was not-significant at p=0.05 level of significance. Hence, the Null Hypothesis H_{O5} was not rejected. This revealed that PSTs and DTEs both were more favorable in opinions that mentoring process helped in praising those students who are on task and in motivating those who do not complete the work (Table 155).

Table 156: Significance of Difference between Mean Opinions Scores of PSTs& DTEs on the Evaluation of Student Performance

Statement	Respondents	N	X	SD	t-value	p-value
Mentoring helps in evaluating the student performance in line to the objectives of the lesson plan.	PSTs	381	2.96	1.554	6.487	0.000
	DTEs	302	3.71	1.459		
df=681				t at 0.05=1.96		

Table No. 156 reflects the difference in mean opinion scores of PSTs on the evaluation of students' performance. The mean opinion scores of the PSTs and the DTEs were 2.96 and 3.71 respectively. The t-value was 6.487 (t=6.487, p<0.001) which was overwhelmingly significant at p=0.001 level of significance. This showed that there was high difference in the opinions of PSTs and DTEs that mentoring process helped the mentees in evaluating the student performance in line to the objectives of the lesson plan (Table 156).

Table 157: Significance of Difference between Mean Opinions Scores of PSTs & DTEs in Monitoring the Progress of Students

Statement	Respondents	N	X	SD	t-value	p-value
Mentoring helps in monitoring the progress of students.	PSTs	381	3.07	1.567	5.362	0.000
	DTEs	302	3.70	1.460		
df=681					t at 0.05=1.96	

Table No. 157 shows that the respondents PSTs mean opinion score was 3.07 and the respondent DTEs mean opinion score was 3.70. The t-value was 5.362; (t=5.362, p<0.001) which was overwhelmingly significant at p=0.05 level of significance. So, the Null Hypothesis H_{O5} was rejected. This revealed that the PSTs and DTEs held favorable opinions towards the statement that mentoring process helped the mentees in monitoring the progress of students (Table 157).

Table 158: Significance of Difference between Mean Opinions Scores of PSTs & DTEs in using the Variety of Ways to Assess the Students

Statement	Respondents	N	X	SD	t-value	p-value
Mentoring provides a variety of ways to assess the student's achievement.	PSTs	381	3.11	1.561	1.348	0.178
	DTEs	302	3.27	1.469		
df=681					t at 0.05=1.96	

Table No. 158 indicates difference between the mean opinion scores of PSTs and DTEs in using the variety of ways to assess the students. The data showed that the respondents PSTs mean opinion score was 3.11 and mean opinion score of DTEs was 3.27. The calculated t-value was 1.348 which was not-significant i.e. p>0.05 level of significance. Therefore, the Null Hypothesis H_{O5} was not rejected. It evident that the PSTs and DTEs held favorable opinions with the statement that mentoring provided a variety of ways to assess the students' achievement (Table 158).

Table 159: Significance of Difference between Mean Opinions Scores of PSTs & DTEs on Mentees Assessment Skills

Statement	Respondents	N	X	SD	t-value	p-value
Mentoring helps in strengthening my assessment skills.	PSTs	381	3.05	1.620	4.045	0.000
	DTEs	302	3.52	1.378		

df=681   t at 0.05=1.96

Table No. 159 depicts the difference in the mean opinion scores of PSTs and DTEs on the mentees assessment skills. The PSTs opinion score was 3.05 and DTEs mean opinion score was 3.52. The t-value was 4.045, (t=4.045, p<0.001) which was overwhelmingly significant at p=0.001 level of significance. Therefore, the Null Hypothesis H_{05} was rejected. This showed that PSTs and DTEs differed in their responses that mentoring process helped the mentees in strengthening assessment skills (Table 159).

AREA -8 HOME WORKS

Table 160: Significance of Difference between Mean Opinions Scores of PSTs & DTEs in Assigning Home Work to the Students

Statement	Respondents	N	X	SD	t-value	p-value
Mentoring provides guideline in assigning home work to students.	PSTs	381	3.02	1.579	1.637	0.102
	DTEs	302	3.22	1.514		

df=681   t at 0.05=1.96

The above mentioned table No. 160 shows the mean opinion score of PSTs was 3.02 and mean opinion score of DTEs was 3.22. The t-value was 1.637 (t=1.637, p>0.05) which was not-significant at p=0.05 level of significance. Therefore, the Null Hypothesis H_{05} could not be rejected. This revealed that there was significant difference in the opinions of PSTs and DTEs with the statement that mentoring process provided guideline in assigning home work to students (Table 160).

Table 161: Significance of Difference between Mean Opinions Scores of PSTs & DTEs on the Guidelines for the of Completion of Home Work

Statement	Respondents	N	X	SD	t-value	p-value
Mentoring helps in providing guidelines to the students for the successful completion of homework.	PSTs	381	2.99	1.570	3.013	0.003
	DTEs	302	3.35	1.515		
df=681				t at 0.05=1.96		

Table No. 161 shows the differences between the mean opinion scores of PSTs and DTEs about guidelines for the completion of homework. Analysis of data yield that respondents PSTs mean opinion score was 2.99 and the DTEs mean opinion score was 3.35. The t-value was (t=3.013, p<0.01) which was highly significant at p=0.01 level of significance. Therefore, the Null Hypothesis H_{O5} was rejected. This revealed that there was high difference in the opinions of PSTs and DTEs that mentoring process helped the mentees in providing guidelines to the students for the successful completion of homework (Table 161).

Table 162: Significance of Difference between Mean Opinions Scores of PSTs & DTEs on the Provision of Instructions for Creative Thinking

Statement	Respondents	N	X	SD	t-value	p-value
Mentoring provides instructions in promoting creative thinking through Home Work.	PSTs	381	3.14	1.591	3.393	0.001
	DTEs	302	3.55	1.515		
df=681				t at 0.05=1.96		

Table No. 162 revealed the difference between the mean opinion scores of PSTs and DTEs on the provision of instructions for creative thinking. The calculated data showed that PSTs mean opinion score was 3.14 and the DTEs was 3.55. The t-value was 3.393, (t=3.393, p<0.01) which was highly significant at p=0.01 level of significance. Therefore, the Null Hypothesis H_{O5} was rejected. This revealed that there was high difference in the opinions of PSTs and DTEs that mentoring process provided instructions in promoting creative thinking through Home Work (Table 162).

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Table 163: Significance of Difference between Mean Opinions Scores of PSTs& DTEs on Assigning of Home Work According to the Capabilities of Students

Statement	Respondents	N	X	SD	t-value	p-value
Mentoring provides instructions in ensuring that assigned home work is according to the capabilities and potentials of the students.	PSTs	381	3.19	1.611	0.008	0.994
	DTEs	302	3.19	1.538		
df=681				t at 0.05=1.96		

Table No. 163 evident the difference between the mean opinions scores of PSTs and DTEs on assigning of homework according to the capabilities of students. The data showed that respondents PSTs mean opinion score was 3.19 and the DTEs mean opinion score was 3.19. The t-value was 0.008, (t=0.008, p>0.05) which is not-significant at p=0.05 level of significance. Hence, the Null Hypothesis H_{O5} could not be rejected. This showed that PSTs and DTEs held favorable opinion that mentoring provided instructions in ensuring that assigned home work was according to the capabilities and potentials of the students (Table 163).

Table 164: The Overall Significance of Difference between Mean Opinion Scores of PSTs & DTEs overall Eight Mentoring Areas

Mentoring Areas	Respondents	N	X	SD	t-value	p-value
Area-1 Taleemi Calendar	PSTs	381	24.9528	4.92554	3.711	0.000
	DTEs	302	26.4272	5.43518		
Area-2 Lesson Planning	PSTs	381	18.5459	3.94383	8.560	0.000
	DTEs	302	21.3642	4.65627		
Area-3 Activity Based Teaching and Learning	PSTs	381	18.5354	4.26083	1.383	0.167
	DTEs	302	19.0232	4.94785		
Area-4 Use of Support Material	PSTs	381	25.2572	5.49229	2.614	0.009
	DTEs	302	26.7417	9.21321		
Area-5Interaction with Students	PSTs	381	21.3780	5.04338	4.633	0.000
	DTEs	302	23.7285	8.12439		
Area-6 Classroom	PSTs	381	18.6430	4.31261	2.627	0.009
	DTEs	302	19.7483	6.63347		

Mentoring Areas Management	Respondents	N	X	SD	t-value	p-value
Area-7 Student Assessment	PSTs	381	15.3465	3.97302	5.177	0.000
	DTEs	302	17.2219	5.48515		
Area-8 Homework	PSTs	381	12.3438	3.53998	2.714	0.007
	DTEs	302	13.3046	5.65097		
Total	PSTs	381	155.0026	18.19275	5.532	0.000
	DTEs	302	167.5596	39.31542		

The above table No. 164 reflects that the overall and total difference between the mean opinion scores of PSTs & DTEs on the all eight Mentoring Areas i.e. (i) Taleemi Calendar, (ii) Lesson Planning, (iii) Activity Based Teaching and Learning, (iv) Use of Support Material, (v) Interaction with Students, (vi) Classroom Management, (vii) Student Assessment and (viii) Home Work.. The overall calculated t-value was overwhelmingly significant at p=0.001 level of significance in mentoring areas, Area-1, Area-2, Area-5 & Area-7, it was highly significant in mentoring areas, Area-6 & Area-8 and t-value was not-significant in mentoring Area-3. The t-value was also overwhelmingly significant on the total sum of all the mentoring areas. So it is concluded that mentoring process significantly contributed professional development of the Primary School Teachers (Table 164).

4.5 SIGNIFICANCE OF DIFFERENCE BETWEEN MEAN OPINION SCORES OF CTSCs AND DTSCs

The preceding section 4.4 of this chapter demonstrated the analyses of the responses of the Primary School Teachers (PSTs) and the District Teacher Educators (DTEs). The collected data through questionnaires of CTSCs and DTSCs was also tabulated and analyzed in line to the objectives of study by using Percentages and Chi-Square to test the Null Hypotheses: *(i)"H$_{03}$ Frequency of the opinions of the CTSCs on the mentoring process does not diverge significantly from those expected on supposition of equal probability", (ii)* and *"H$_{04}$*

Frequency of the opinions of the DTSCs on the mentoring process does not diverge significantly from those expected on supposition of equal probability".

Again in this case researcher checked the reliability of the results obtained from one technique, alternative techniques were also applied i.e. the results obtained through the Percentages and Chi-Square of CTSCs and DTSCs were also verified by using t-test to compare the group means between the CTSCs and DTSCs and to test the Null Hypothesis *"H_{O6} that the mean opinion scores of "CTSCs& DTSCs" do not differ significantly on the mentoring process".* For this purpose 50-tem questionnaires of the CTSCs and the DTSCs comprised of eight mentoring areas, i.e. (i) Taleemi Calendar, (ii) Lesson Planning, (iii) Activity Based Teaching and Learning, (iv) Use of Support Material, (v) Interaction with Students, (vi) Classroom Management, (vii) Student Assessment and (viii) Home Work. The questionnaire items of the CTSCs and the DTSCs were developed on the following five point likert's scale.

Responses	Abbreviations	Marks
Strongly Disagree	SDA	1
Disagree	DA	2
Uncertain	UNC	3
Agree	A	4
Strongly Agree	SA	5

The details of the analysis mean opinion difference between the mean scores of PSTs and DTEs on all eight mentoring areas presented in below mentioned tables from 165 to 205.

MENTORING AREA-1 TALEEMI CALENDAR

Table 165: Significance of Difference between Mean Opinion Scores of CTSCs & DTSCs on the Management of Teaching Activities

Statement	Respondents	N	X	SD	t-value	p-value
Mentor helps to the mentees in managing their teaching activities according to the Taleemi Calendar.	CTSCs Heads	186	2.88	1.539	3.016	0.003
	DTSCs Heads	12	4.25	1.357		

df=196   t at 0.05=1.96

Table No. 165 shows that the mean opinion difference between the PSTs and DTEs on management of teaching activities. The calculated data reflected that the respondents CTSCs mean opinion score was 2.88 and DTSCs mean opinion score was 4.25. The t-value was 3.016, (t=3.016, p<0.01) which was highly significant at p=0.01 level of significance. Hence, the Null Hypothesis H_{O6} was rejected. This revealed that there was high difference in the opinions of the CTSCs and the DTSCs on the statement that mentoring process was helpful in managing all the teaching activities according to the Taleemi Calendar (Table 165).

Table 166: Significance of Difference between Mean Opinion Scores of CTSCs & DTSCs on the Realistic Way of Teaching Activities

Statement	Respondents	N	X	SD	t-value	p-value
Mentor helps to the mentees to manage their teaching activities for the educational year in a realistic way.	CTSCs Heads	186	2.84	1.541	1.628	0.105
	DTSCs Heads	12	3.58	1.443		

df=196   t at 0.05=1.96

Table No. 166 depicts that the mean difference between the mean opinion scores of CTSCs & DTSCs on the realistic way of teaching activities. The respondents CTSCs mean opinion score was 2.84 and DTSCs mean opinion score was 3.58. The t-value was 1.628, (t=1.628, p>0.05) which was not-significant at p=0.05 level of significance. So, the Null Hypothesis H_{O6} was not rejected. This reflected that both CTSCs and DTSCs were in favorable opinions towards the statement that mentors helped the mentees in managing the teaching activities in a realistic way (Table 166).

Table 167: Significance of Difference between Mean Opinion Scores of CTSCs & DTSCs on Rigorously the use of Taleemi Calendar

Statement	Respondents	N	X	SD	t-value	p-value
Mentor helps to the mentees in using the Taleemi Calendar rigorously.	CTSCs Heads	186	3.92	1.217	0.222	0.825
	DTSCs Heads	12	4.00	1.279		
df=196				t at 0.05=1.96		

Table No. 167 indicates the mean difference in the mean opinion scores of CTSCs and DTSCs on the mentor helps to the mentees in using the Taleemi Calendar rigorously. The data showed that respondents CTSCs mean opinion score was 3.92 and the DTSCs mean opinion score was 4.00. The calculated t-value was 0.222, (t=0.222, p>0.05) which was not-significant at p=0.05 level of significance. Hence the Null Hypothesis H_{O6} was not rejected. This evident that CTSCs & DTSCs found favorable in their opinion that mentor helped mentees in using the Taleemi Calendar rigorously (Table 167).

Table 168: Significance of Difference between Mean Opinion Scores of CTSCs & DTSCs in Achieving the Pre-Set Targets

Statement	Respondents	N	X	SD	t-value	p-value
Mentor helps to the mentees in to achieve their pre-set targets in advance.	CTSCs Heads	186	2.89	1.571	1.881	0.94
	DTSCs Heads	12	3.67	1.303		
df=196				t at 0.05=1.96		

Table No. 168 shows the difference between the mean opinion scores of CTSCs and DTSCs on the achievement of pre-set targets in advance. The analyzed data depicted that respondents CTSCs mean opinion score was 2.89 and DTSCs mean opinion score was 3.67. The t-value was 1.881, (t=1.881, p>0.05) which was not-significant at p=0.05 level of significance. Therefore, the Null Hypothesis H_{O6} was not rejected. This showed that the respondents CTSCs and DTSCs held favorable in their opinion towards the statement that mentors help the mentees in achieving the pre-set targets in advance (Table 168).

Table 169: Significance of Difference between Mean Opinion Scores of CTSCs & DTSCs on the Management of the Leave or Absent Days

Statement	Respondents	N	X	SD	t-value	p-value
Mentor guides the mentees to manage the leave or absent days of an educational year.	CTSCs Heads	186	3.73	1.188	1.701	0.090
	DTSCs Heads	12	4.33	1.371		
df=196			t at 0.05=1.96			

Table No. 169 indicates the difference between the mean opinion scores of CTSCs and DTSCs on the management of leave or absent days of an educational year. The data showed that respondents CTSCs mean score was 3.73 and the mean score of DTSCs was 4.33. The t-value was 1.701, (t=1.701, p>0.05) which was not-significant at p=0.05 level of significance. Therefore, the Null Hypothesis H_{O6} could not be rejected. This showed that respondents CTSCs and DTSCs held favorable opinions about the mentors guided the mentees in managing the leave or absent days of an educational year (Table 169).

AREA-2 LESSON PLANNING

Table 170: Significance of Difference between Mean Opinion Scores of CTSCs & DTSCs in Separating and Specifying the Contents

Statement	Respondents	N	X	SD	t-value	p-value
Mentor guides the mentees in separating the contents into parts and specifying amount of time needed for each component of the	CTSC Heads	186	2.82	1.575	3.644	0.000
	DTSC Heads	12	4.50	0.905		
df=196			t at 0.05=1.96			

The above table No. 170 depicts that the mean opinion score of CTSCs was 2.82 and the mean opinion score of DTSCs was 4.50. The t-value was 3.644, (t=3.644, p<0.001) which was overwhelmingly significant at p=0.001 levels of significance. Therefore, the Null Hypothesis H_{O6} was rejected. This revealed a high difference in the mean opinion scores of CTSCs and DTSCs that mentors guided the mentees in separating the contents into parts and specifying amount of time needed for each component of the contents (Table 170).

Table 171: Significance of Difference between Mean Opinion Scores of CTSC& DTSCs in Separating and Pacing the Activities

Statement	Respondents	N	X	SD	t-value	p-value
Mentoring help in separating learning activities into components while pacing the activities	CTSC Heads	186	4.03	1.037	0.167	0.976
	DTSC Heads	12	4.08	1.311		

df=196   t at 0.05=1.96

Table No. 171 shows the difference in the mean opinion scores of CTSCs and DTSCs in

separating and pacing the activities. The respondents CTSCs mean opinion score was 4.03

and the respondents DTSCs mean opinion score was 4.08. The t-value was 0.167, (t=0.167,

p>0.05) which was not-significant at p=0.05 level of significance. Hence, the Null

Hypothesis H_{O6} could not be rejected. This depicted that the opinions of CTSCs and DTSCs

were favorable about the mentoring help in separating learning activities into components

while pacing the activities appropriately (Table 171).

Table 172: Significance of Difference between Mean Opinion Scores of CTSCs & DTSCs on Obtaining the Requisite Lesson Planning Skills

Statement	Respondents	N	X	SD	t-value	p-value
Mentor guides to the mentees in obtaining the requisite lesson planning skills.	CTSC Heads	186	4.03	1.148	0.157	0.876
	DTSC Heads	12	4.33	1.371		

df=196   t at 0.05=1.96

The above table No. 172 shows the difference between the mean opinion scores of CTSCs

and DTSCs in obtaining the requisite lesson planning skills. The respondents CTSCs mean

opinion score was 4.03 and the DTSCs mean opinion score was 4.33. The t-value was 0.157,

(t=0.157, p>0.05) which was not-significant at p=0.05 level of significance. Therefore, the

Null Hypothesis H_{O6} was not rejected. This depicted that the both groups of the respondents

CTSCs and DTSCs held favorable towards the statement that the mentors helped the mentees

in obtaining the requisite lesson planning skills (Table 172).

Table 173: Significance of Difference between Mean Opinion Scores of CTSCs & DTSCs on Starting and Reviewing the Lesson

Statement	Respondents	N	X	SD	t-value	p-value
Mentoring helps in starting and reviewing the lesson.	CTSC Heads	186	4.06	1.071	0.844	0.400
	DTSC Heads	12	4.33	1.371		
df=196				t at 0.05=1.96		

Table No. 173 reflects the difference between the mean opinion scores of CTSCs & DTSCs on starting and reviewing the lesson. The respondents CTSCs and the DTSCs mean opinion scores were 4.06 and 4.33 respectively. The calculated t-value remained 0.844 (t=0.844, p>0.05) which was not-significant at p=0.05 level of significance. So, the Null Hypothesis H_{O6} could not be rejected. This evident that the CTSCs & DTSCs were more favorable in their opinions about the mentoring helps in starting and reviewing the lesson (Table 173).

Table 174: Significance of Difference between Mean Opinion Scores of CTSCs& DTSCs in the Provision of Feedback during Teaching

Statement	Respondents	N	X	SD	t-value	p-value
Mentor provides feedback to the about the instructional methodologies they adopt during teaching.	CTSC Heads	186	2.85	1.579	1.728	0.086
	DTSC Heads	12	3.67	1.557		
df=196				t at 0.05=1.96		

The above table No. 174 indicates the mean difference between the CTSCs & DTSCs on the provision of feedback during teaching. The calculated data reflected that mean opinion scores of the respondents CTSCs and DTSCs were 2.85 and 3.67 respectively. The t-value was 1.728, (t=1.728, p>0.05) which was not-significant at p=0.05 level of significance. This revealed that the respondent CTSCs and DTSCs were favorable in their opinions about the provision of feedback to the mentees in the instructional methodologies (Table 174).

A REA-3   ACTIVITY BASED TEACHING AND LEARNING

Table 175: Significance of Difference between Mean Opinion Scores of CTSCs & DTSCs in Eliminating the Feelings of Professional Isolation

Statement	Respondents	N	X	SD	t-value	p-value
Mentor helps to the mentees in eliminating their feelings of professional isolation.	CTSC Heads	186	4.10	0.873	2.145	0.033
	DTSC Heads	12	3.50	1.732		
df=196					t at 0.05=1.96	

Table No. 175 reflects the mean difference between the CTSCs and DTSCs on the elimination the feelings of professional isolation. The respondents CTSCs and DTSCs mean opinion scores were 4.10 and 3.50 respectively. The t-value was 2.145, (t=2.145, p<0.05) which was significant at p=0.05 level of significance. Therefore, the Null Hypothesis H_{O6} was rejected. This showed that there was high difference in the opinions of CTSCs and DTSCs about the mentors help in eliminating the mentees feelings of professional isolation (Table 175).

Table 176: Significance of Difference between Mean Opinion Scores of CTSCs & DTSCs in Developing Positive Attitude towards Teaching

Statement	Respondents	N	X	SD	t-value	p-value
Mentor helps to the mentees in developing positive attitude towards teaching.	CTSC Heads	186	4.10	0.873	1.184	0.238
	DTSC Heads	12	4.42	1.165		
df=196					t at 0.05=1.96	

Table No. 176 shows the difference in the mean opinion scores of CTSCs and DTSCs on the development positive attitude towards teaching. The data reflected that the respondents CTSCs mean opinion score was 4.10 and DTSCs mean opinion score was 4.42. The t-value was 1.184, (t=1.184, p>0.05) which was not-significant at p=0.05 level of significance. Therefore, the Null Hypothesis H_{O6} was not rejected. This revealed that the respondents CTSCs and DTSCs were favorable in their opinions in developing positive attitude towards teaching (Table 176).

Table 177: Significance of Difference between Mean Opinion Scores of CTSCs & DTSCs in Assessing the Learning Needs of the Students

Statement	Respondents	N	X	SD	t-value	p-value
Mentor helps to the mentees in assessing the learning needs of their student.	CTSC Heads	186	4.08	0.838	0.324	0.746
	DTSC Heads	12	4.17	1.528		

df=196   t at 0.05=1.96

Table No. 177 indicates the mean difference between the scores of CTSCs & DTSCs in assessing the learning needs of their student. The respondents CTSCs and DTSCs mean opinion scores were 4.08 and 4.17 respectively. The calculated data showed that t-value was 0.324, (t=0.0324, p>0.05) which was not-significant at p=0.05 levels. Therefore, the Null Hypothesis H_{O6} could not be rejected. This revealed that CTSCs & DTSCs were in favorable opinions about the mentors help in assessing the learning needs of students (Table 177).

Table 178: Significance of Difference between Mean Opinion Scores of CTSCs & DTSCs in Organizing the Curriculum Related Activities

Statement	Respondents	N	X	SD	t-value	p-value
Mentor helps the mentees in organizing the curriculum related activities.	CTSC Heads	186	3.99	0.967	0.296	0.767
	DTSC Heads	12	4.08	1.505		

df=196   t at 0.05=1.96

Table No. 178 reflects that the respondents CTSCs mean opinion score was 3.99 and the DTSCs mean opinion score was 4.08. The t-value was 0.296, (t=0.296, p> 0.05) which was not-significant at p=0.05 level of significance. Therefore, the Null Hypothesis H_{O6} was not ejected. This showed that the respondent CTSCs and DTSCs were in more favorable opinions that mentors helped the mentees in organizing the curriculum related activities (Table 178).

Table 179: Significance of Difference between Mean Opinion Scores of CTSCs & DTSCs in Designing Activities to Clarify the Concepts

Statement	Respondents	N	X	SD	t-value	p-value
Mentor helps the mentees in designing new activities to clarify the concepts of their students.	CTSC Heads	186	2.76	1.623	0.215	0.28
	DTSC Heads	12	3.83	1.586		
df=196				t at 0.05=1.96		

Table No. 179 depicts the difference in the mean opinion scores of CTSCs and DTSCs on the designing new activities to clarify the concepts. The data showed that respondents CTSCs mean opinion score was 2.76 and the mean opinion score of DTSCs was 3.83. The t-value was 0.215, (t=0.215, p>0.05) which was not-significant at p=0.05 level of significance. Hence, the Null Hypothesis H_{O6} was not rejected. This revealed that CTSCs and DTSCs held favorable opinions with the statement that mentor helped mentees in designing new activities to clarify the concepts of students (Table 179).

AREA-4 USE OF SUPPORT MATERIAL

Table 180: Significance of Difference between Mean Opinion Scores of CTSCs & DTSCs on Searching and Gathering the Teaching Resources

Statement	Respondents	N	X	SD	t-value	p-value
Mentor helps the mentees in searching and gathering teaching resources.	CTSC Heads	186	3.67	1.432	0.197	0.844
	DTSC Heads	12	3.75	1.138		
df=196				t at 0.05=1.96		

Table No. 180 shows the difference between the mean opinion scores of CTSCs and DTSCs in searching and gathering teaching resources. The data showed that the respondents CTSCs mean opinion score was 3.67 and the DTSCs mean opinion score was 3.75. The t-value was 0.197, (t=0.197, p>0.05) which was not-significant at p=0.05 level. Hence, the Null Hypothesis H_{O6} was not rejected. This revealed that the CTSCs and DTSCs were favorable in their opinions that mentor helped the mentees in searching and gathering teaching resources (Table 180).

Table 181: Significance of Difference between Mean Opinion Scores of CTSCs & DTSCs on Developing Supporting Material

Statement	Respondents	N	X	SD	t-value	p-value
Mentor helps the mentees in developing supporting material for classroom instructions.	CTSC Heads	186	3.60	0.799	0.901	0.369
	DTSC Heads	12	4.00	0.905		
df=196				t at 0.05=1.96		

The above table No. 181 depicts the difference between the mean opinion scores of CTSCs

and DTSCs on the development of supporting material. The CTSCs and DTSCs mean

opinion scores were 3.60 and 4.00 respectively. The t-value was 0.901, (t=0.901, p>0.05)

which was not-significant at p=0.05 level of significance. Therefore, the Null Hypothesis

H_{O6} is not rejected. This evident there was favorable opinion of CTSCs & DTSCs that

mentors helped the mentees in developing supporting material for classroom instructions

(Table 181).

Table 182: Significance of Difference between Mean Opinion Scores of CTSCs & DTSCs on the Utilizing of Various Instructional Techniques

Statement	Respondents	N	X	SD	t-value	p-value
Mentor helps the mentees in utilizing various kinds of instructional techniques to improve the student learning.	CTSC Heads	186	3.92	1.117	0.166	0.042
	DTSC Heads	12	4.08	1.505		
df=196				t at 0.05=1.96		

Table No. 182 reflects mean difference between the CTSCs and DTSCs on the utilizing

various kinds of instructional techniques to improve the student learning. The data showed

that respondents CTSCs mean opinion score was 3.92 and the DTSCs mean opinion score was

4.08. The t-value was 0.166, (t=0.446, p<0.05) which was not-significant at p=0.05 level of

significance. Hence, the Null Hypothesis H_{O6} was not rejected. This showed that the CTSCs

and DTSCs were of favorable opinion on the statement that mentor helped the mentees in

utilizing various kinds of instructional techniques to improve the student learning (Table 182).

Table 183: Significance of Difference between Mean Opinion Scores of CTSCs & DTSCs on Judging Materials with the Contents

Statement	Respondents	N	X	SD	t-value	p-value
Mentor helps the mentees in judging the appropriateness of supporting materials and it's aligned with the teaching contents.	CTSC Heads	186	2.85	1.594	2.419	0.016
	DTSC Heads	12	4.00	1.651		
df=196				t at 0.05=1.96		

Table No. 183 indicates the difference in the mean opinion scores of CTSCs and DTSCs in judging the appropriateness of supporting materials. The data showed that respondents CTSCs and DTSCs mean opinion scores were 2.85 and 4.00 respectively. The t-value was 2.419, (t=2.419, p<0.05) which was significant at p=0.05 level of significance. Therefore, the Null Hypothesis H_{O6} was rejected. This depicted that CTSCs & DTSCs differed in their opinions that mentor helped the mentees in judging the appropriateness of supporting materials and it's aligned with the teaching contents (Table 183).

Table 184: Significance of Difference between Mean Opinion Scores of CTSCs & DTSCs on the Preparation of Teacher made Material

Statement	Respondents	N	X	SD	t-value	p-value
Mentor helps the mentees in preparing teacher made supporting material.	CTSC Heads	186	3.77	1.160	1.378	0.170
	DTSC Heads	12	4.25	1.357		
df=196				t at 0.05=1.96		

The above table No. 184 shows the difference between the mean opinion scores of CTSCs and DTSCs on the preparation of teacher made supporting material. The respondents CTSCs and DTSCs mean scores were 3.77, 4.25 respectively. The t-value was 1.378, (t=1.378, p>0.05) which was not-significant at p=0.05 level of significance. So, the Null Hypothesis H_{O6} was not rejected. This revealed that both the groups CTSCs & DTSCs being more favorable opinion about the statement that mentor helped the mentees in preparing teacher made supporting material (Table 184).

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AREA-5 INTERACTION WITH STUDENTS

Table 185: Significance of Difference between Mean Opinion Scores of CTSCs & DTSCs on the Students in Talking and Sharing Ideas

Statement	Respondents	N	X	SD	t-value	p-value
Mentor provides guidelines to mentees regarding encouragement to the students to talk and share their ideas.	CTSC Heads	186	3.09	1.404	3.846	0.000
	DTSC Heads	12	4.67	0.888		
df=196				t at 0.05=1.96		

Table No. 185 shows difference in the mean opinion scores of CTSCs and DTSCs regarding encouragement to the students to talking and sharing ideas. The data reflected that respondents CTSCs mean opinion score was 3.09 and the DTSCs mean opinion score was 4.67. The t-value was 3.846, (t=3.846, p<0.001) which was overwhelmingly significant at p=0.05 level of significance. Therefore, the Null Hypothesis H_{O6} was rejected. This proved that there was high difference in the opinions of the CTSCs and the DTSCs the mentor provided guidelines to the mentees regarding encouragement to the students to talk and share the ideas (Table 185).

Table 186: Significance of Difference between Mean Opinion Scores of CTSCs & DTSCs on the Provision of Corrective Feedback

Statement	Respondents	N	X	SD	t-value	p-value
Mentor helps the mentees in providing corrective feedback to the students.	CTSC Heads	186	2.74	1.600	2.119	0.035
	DTSC Heads	12	3.75	1.545		
df=196				t at 0.05=1.96		

The above table No. 186 indicates the difference between the mean opinion scores of CTSCs and DTSCs on the provision of corrective feedback to the students. The data showed that the respondents CTSCs mean opinion score was 2.74 and the DTSCs mean opinion score was 3.75. The t-value was 2.119, (t=2.119, p<0.05) which was significant at p=0.05 level of significance. Hence, the Null Hypothesis H_{O6} was rejected. This depicted that there was high difference in the opinions of CTSCs & DTSCs that mentors helped the mentees in providing corrective feedback to the students (Table 186).

Table 187: Significance of Difference between Mean Opinion Scores of CTSCs & DTSCs on the Improvement of Questioning Skills

Statement	Respondents	N	X	SD	t-value	p-value
Mentor helps the mentees to improve their questioning skills.	CTSC Heads	186	4.15	1.048	0.330	0.742
	DTSC Heads	12	4.25	1.357		
df=196				t at 0.05=1.96		

Table No. 187 evident the difference in the mean opinion scores of CTSCs and DTSCs on the improvement of questioning skills. The mean opinion scores of respondents CTSCs and DTSCs were 4.15 and 4.25 respectively. The t-value was 0.330 (t=0.330, p>0.05) which was not-significant at p=0.05 level of significance. Therefore, the Null Hypothesis H_{06} was not rejected. This showed that the CTSCs & DTSCs the favorable were of opinions with the statement that mentor helped the mentees in improving the questioning skills (Table 187).

Table 188: Significance of Difference between Mean Opinion Scores of CTSCs &DTSCs on Writing the Clear Learning Objectives

Statement	Respondents	N	X	SD	t-value	p-value
Mentor helps the mentees in writing clear learning objectives for a lesson.	CTSC Heads	186	2.81	1.595	1.979	0.049
	DTSC Heads	12	3.75	1.545		
df=196				t at 0.05=1.96		

Table No. 188 reflects the difference between the mean opinion scores of CTSCs and DTSCs in writing clear learning objectives of lesson. The respondents CTSCs mean opinion score was 2.81 and DTSCs mean opinion score was 3.75. The t-value was 1.979 (t=1.979, p<0.05) which was significant at p=0.05 level of significance. Hence, the Null Hypothesis H_{06} was rejected. This revealed that CTSCs & DTSCs differed in their responses about the mentor help to the mentees in writing clear the learning objectives for a lesson (Table 188).

Table 189: Significance of Difference between Mean Opinion Scores of CTSCs & DTSCs on Encouraging the Students to ask Questions

Statement	Respondents	N	X	SD	t-value	p-value
Mentor provides opportunities the mentees in encouraging their students to ask questions	CTSC Heads	186	4.11	1.087	0.344	0.732
	DTSC Heads	12	4.00	1.348		
df=196					t at 0.05=1.96	

Table No. 189 depicts the difference in the mean opinion scores of CTSCs and DTSCs in encouraging the students to ask questions. The respondents CTSCs and DTSCs mean opinion scores were 4.11 and 4.00 respectively. The t-value was 0.344, (t=0.344, p>0.05) which was not-significant at p=0.05 level of significance. So, the Null Hypothesis H_{O6} was not rejected. This showed that both the groups CTSCs and DTSCs were in favorable opinions with the statement that mentor provided opportunities to the mentees in encouraging the students to ask questions (Table 189).

AREA-6 CLASSROOM MANAGEMENT

Table 190: Significance of Difference between Mean Opinion Scores of CTSCs & DTSCs on Carrying out all the Teaching Activities

Statement	Respondents	N	X	SD	t-value	p-value
Mentor helps the mentees in carrying out all the teaching activities in the classroom.	CTSC Heads	186	3.89	1.150	1.288	0.199
	DTSC Heads	12	4.33	1.371		
df=196					t at 0.05=1.96	

The above table No. 190 indicates the difference in the mean opinion scores of CTSCs and DTSCs to carry-out all the teaching activities in the classroom. The respondents CTSCs mean opinion score was 3.89 and the DTSCs mean opinion score was 4.33. The t-value was (t=1.288, p>0.05) which was not-significant at p=0.05 level of significance. So, the Null Hypothesis H_{O6} was not rejected. This revealed that the CTSCs & DTSCs were in favorable opinions that mentor helped the mentees in carrying out all the teaching activities in the classroom (Table 190).

Table 191: Significance of Difference between Mean Opinion Scores of CTSCs & DTSCs on Maintaining the Classroom Environment

Statement	Respondents	N	X	SD	t-value	p-value
Mentor helps the mentees in maintaining appropriate classroom environment for students.	CTSC Heads	186	3.98	1.169	0.280	0.779
	DTSC Heads	12	4.08	1.505		
df=196				t at 0.05=1.96		

Table No. 191 shows the difference between the mean opinion scores of CTSCs and DTSCs in maintaining appropriate classroom environment. The data indicated that the respondents CTSCs mean opinion score was 3.98 and the DTSCs mean opinion score was 4.08. The t-value was 0.280, (t=0.280, p>0.05) which was not-significant at p=0.05 level of significance. Hence, the Null Hypothesis H_{O6} was not rejected. This depicted that CTSCs and DTSCs were in more favorable opinions that mentor helped the mentees in maintaining appropriate classroom environment for students (Table 191).

Table 192: Significance of Difference between Mean Opinion Scores of CTSCs& DTSCs on the Improvement of Classroom Management Skills

Statement	Respondents	N	X	SD	t-value	p-value
Mentor helps the mentees in improving their classroom management skills.	CTSC Heads	186	4.06	0.868	0.690	0.491
	DTSC Heads	12	4.25	1.357		
df=196				t at 0.05=1.96		

Table No. 192 reveals the difference in the mean opinion scores of CTSCs and DTSCs on the improvement of classroom management skills. The mean opinion scores of the respondents CTSCs and DTSCs were 4.06 and 4.25 respectively. The t-value was 0.690, (t=0.690, p>0.05) which was not-significant at p=0.05 level of significance. Therefore, the Null Hypothesis H_{O6} was not rejected. This depicted that both of the groups of CTSCs and DTSCs were in favorable opinions with the statement that mentor helped in improving the classroom management skills of mentees (Table 192).

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Table 193: Significance of Difference between Mean Opinion Scores of CTSCs & DTSCs on the Promotion of Desired Behaviors in Students

Statement	Respondents	N	X	SD	t-value	p-value
Mentor helps the mentees in promoting desired behaviors among their students.	CTSC Heads	186	2.81	1.635	1.233	0.219
	DTSC Heads	12	3.42	1.832		
df=196				t at 0.05=1.96		

Table No. 193 shows difference between the mean opinion scores of CTSCs and DTSCs in promoting the desired behaviors among the students. The data indicated that the CTSCs mean opinion score was 2.81 and DTSCs mean opinion score was 3.42. The t-value was 1.233, (t=1.233, p>0.05) which was not-significant at p=0.05 level of significance. Therefore, the Null Hypothesis H_{O6} was not rejected. This revealed that the CTSCs and the DTSCs were in favorable opinions towards the statement that mentor helped the mentee in promoting desired behaviors among the students (Table 193).

Table 194: Significance of Difference between Mean Opinion Scores of CTSCs & DTSCs on the Identification of Potential Behavioral Problems

Statement	Respondents	N	X	SD	t-value	p-value
Mentor helps the mentees in identifying potential behavioral problems of their students.	CTSC Heads	186	3.12	1.656	2.316	0.022
	DTSC Heads	12	4.25	1.357		
df=196				t at 0.05=1.96		

Table No. 194 presents the difference between the mean opinion scores of CTSCs and DTSCs in identifying potential behavioral problems of students. The data showed that respondents CTSCs and DTSCs mean opinion scores were 3.12 and 4.25 respectively. The t-value was 2.316, (t=2.316, p<0.05) which was significant at p=0.05 level of significance. Therefore, the Null Hypothesis H_{O6} was rejected. This revealed a high difference in the opinions of CTSCs and DTSCs about the mentors help the mentees in identifying potential behavioral problems of their students (Table 194).

AREA-7 STUDENT ASSESSMENT

Table 195: Significance of Difference between Mean Opinion Scores of CTSCs & DTSCs in Praising and in motivating the Students

Statement	Respondents	N	X	SD	t-value	p-value
Mentor helps the mentees in praising those students who are on task and in motivating those	CTSC Heads	186	3.02	1.655	2.175	0.031
who do not complete their work.	DTSC Heads	12	4.08	0.505		

df=196   t at 0.05=1.96

Table No. 195 shows that the respondents CTSCs mean opinion score was 3.02 and DTSCs mean opinion score was 4.08. The t-value was 2.175 (t=2.175, p<0.05) which was significant at p=0.05 level of significance. Therefore, the Null Hypothesis H$_{O6}$ was rejected. This showed that the CTSCs and DTSCs differed in their opinions in relation to the mentor help the mentees in praising those students who are on task and in motivating those who do not complete their work (Table 195).

Table 196: Significance of Difference between Mean Opinion Scores of CTSCs & DTSCs on the Evaluation of Students Performance

Statement	Respondents	N	X	SD	t-value	p-value
Mentor helps the mentees in evaluating the student performance	CTSC Heads	186	2.96	1.645	1.436	0.049
in line to the objectives of the lesson plan.	DTSC Heads	12	3.67	1.670		

df=196   t at 0.05=1.96

Table No. 196 reflects that the CTSC Heads and DTSC Heads mean opinion scores were 2.96 and 3.67 respectively. The t-value was 1.436, (t=1.436, p>0.05) which was significant at p=0.05 level of significance. Therefore, the Null Hypothesis H$_{O6}$ was rejected. This revealed that the CTSCs and DTSCs differed in their opinion that mentor helped the mentees in evaluating the student performance in line to the objectives of lesson plan (Table 196).

Table 197: Significance of Difference between Mean Opinion Scores of CTSCs &DTSCs in Monitoring the Progress of Students

Statement	Respondents	N	X	SD	t-value	p-value
Mentor helps to the mentees in monitoring the progress of students.	CTSC Heads	186	3.89	1.363	0.261	0.794
	DTSC Heads	12	4.00	1.651		
df=196					t at 0.05=1.96	

Table No. 197 shows the difference between the mean opinion scores of CTSCs and DTSCs on monitoring the progress of students. The CTSCs mean opinion score was 3.89 and the DTSCs mean opinion score was 4.00. The t-value was 0.261 i.e. (t=0.261, p>0.05) which was not-significant at p=0.05 level of significance. Therefore, the Null Hypothesis H_{06} was not rejected. This revealed of CTSCs and DTSCs were in favorable in the opinions about mentor helped the mentees in monitoring the progress of students (Table 197).

Table 198: Significance of Difference between Mean Opinion Scores of CTSCs & DTSCs in using Variety of Ways to Assess the Students

Statement	Respondents	N	X	SD	t-value	p-value
Mentor helps to the mentees in a variety of ways to assess their students' achievement.	CTSC Heads	186	3.89	1.262	1.181	0.239
	DTSC Heads	12	4.33	1.371		
df=196					t at 0.05=1.96	

Table No. 198 depicts that the mean difference between the mean opinion scores of CTSCs and DTSCs on the usability of variety of ways to assess the students' achievement. The analyzed data showed that respondents CTSCs and DTSCs mean opinion scores were 3.89 and 4.33 respectively. The t-value was 1.181, (t=1.181, p>0.05) which was not-significant at p=0.05 level of significance. Hence, the Null Hypothesis H_{06} was not rejected. This showed that the CTSCs and DTSCs were in favorable opinions with the statement that mentor helped the mentees in a variety of ways to assess their students' achievement (Table 198).

Table 199: Significance of Difference between Mean Opinion Scores of CTSCs & DTSCs in Strengthening the Mentees Assessment Skills

Statement	Respondents	N	X	SD	t-value	p-value
Mentor helps to the mentees in strengthening their assessment skills.	CTSCs Heads	186	3.84	1.187	0.203	0.840
	DTSC Heads	12	3.92	1.443		
df=196				t at 0.05=1.96		

Table No. 199 presents the difference between the mean opinion scores of CTSCs and DTSCs in strengthening the mentees assessment skills. The data showed that respondents CTSCs mean opinion score was 3.84 and DTSCs mean opinion score was 3.92. The t-value was 0.203, (t=0.203, p>0.05) which was not-significant at p=0.05 level of significance. Therefore, the Null Hypothesis H_{O6} is not rejected. This indicated that the opinion of the CTSCs and DTSCs were more favorable about the mentor helped the mentees in strengthening their assessment skills (Table 199).

AREA-8 HOME WORK

Table 200: Significance of Difference between Mean Opinion Scores of CTSCs & DTSCs in Assigning Home Work to the Students

Statement	Respondents	N	X	SD	t-value	p-value
Mentor provides guideline to the mentees in assigning home work to their students.	CTSC Heads	186	3.99	1.185	0.732	0.465
	DTSC Heads	12	4.25	1.352		
df=196				t at 0.05=1.96		

Table No. 200 shows that the CTSCs mean opinion score was 3.99 and the value of mean opinion score for the DTSCs was 4.25. The t-value was 0.732, (t=0.732, p>0.05) which was not-significant at p=0.05 level of significance. Therefore, the Null Hypothesis H_{O6} was not rejected. This revealed that both CTSCs and DTSCs were of favorable opinions that the mentor provided guidelines to the mentees in assigning home work (Table 200).

Table 201: Significance of Difference between Mean Opinion Scores of CTSCs & DTSCs on the Guidelines for the Completion of Home Work

Statement	Respondents	N	X	SD	t-value	p-value
Mentor helps the mentees in providing guidelines to their students for the successful completion of homework.	CTSC Heads	186	4.26	0.935	0.262	0.794
	DTSC Heads	12	4.33	1.371		
df=196				t at 0.05=1.96		

Table No. 201 reveals the mean difference between the mean opinion scores of CTSCs and DTSCs on the guidelines for the completion of homework. The data showed that the CTSCs mean opinion score was 4.26 and DTSCs mean opinion score was 4.33. The t-value was 0.262, (t=0.262, p>0.05) which was not-significant at p=0.05 level of significance. Hence, the Null Hypothesis H_{O6} was not rejected. This showed that the CTSCs and DTSCs were in the favorable opinions about the mentor helped the mentees in providing guidelines to the students for the successful completion of homework (Table 201).

Table 202: Significance of Difference between Mean Opinion Scores of CTSCs & DTSCs on the Provision of Instructions for Creative Thinking

Statement	Respondents	N	X	SD	t-value	p-value
Mentor provides instructions to the mentees in promoting creative thinking through home work	CTSC Heads	186	3.03	1.585	1.170	0.243
	DTSC Heads	12	3.58	1.782		
df=196				t at 0.05=1.96		

Table No. 202 reflects the difference in the mean opinion scores of CTSCs and DTSCs on the provision of instructions to mentees in promoting creative thinking. The calculated data showed that the respondents CTSCs mean opinion score was 3.03 and the DTSCs mean opinion score was 3.58. The t-value was 1.170, (t=1.170, p>0.05) which was not-significant at p=0.05 level of significance. Therefore, the Null Hypothesis H_{O6} could not be rejected. This revealed that CTSCs and DTSCs were in favorable opinions that mentor provided instructions to mentees in promoting creative thinking through homework (Table 202).

Table 203: Significance of Difference between Mean Opinion Scores of CTSCs & DTSCs on Home Work According to the Capabilities of Students

Statement	Respondents	N	X	SD	t-value	p-value
Mentor provides instructions to the mentees in ensuring that assigned home work is according to the capabilities of their students.	CTSC Heads	186	2.70	1.530	1.934	0.049
	DTSC Heads	12	3.58	1.621		
df=196				t at 0.05=1.96		

Table No. 203 shows the difference in the mean opinion scores of CTSCs and DTSCs on homework according to the capabilities of students. The mean opinion score of CTSCs was 2.70 and DTSCs mean opinion score was 3.58. The t-value was 1.934, (t=1.934, p<0.05) which was significant at p=0.05 level of significance. Therefore, the Null Hypothesis H_{06} could not be rejected. This showed there was difference in the opinions of CTSCs and DTSCs that mentors provide instructions the mentees in ensuring that assigned home work was according to the capabilities of the students (Table 203).

Table 204: Significance of Difference between Mean Opinion Scores of CTSCs & DTSCs on the Evaluation of the Students Home Work

Statement	Respondents	N	X	SD	t-value	p-value
Mentor helps to the mentees in evaluating the home work of their students.	CTSC Heads	186	4.19	0.989	0.184	0.854
	DTSC Heads	12	4.25	1.545		
df=196				t at 0.05=1.96		

Table No. 204 shows that the CTSCs mean opinion score was 4.19 and DTSCs mean opinion score was 4.25. The t-value was 0.184, (t=0.184, p>0.05) which was not-significant at p=0.05 level of significance. So, the Null Hypothesis H_{06} was not rejected. This showed that CTSCs and DTSCs differed in their opinion that mentor helped the mentees in evaluating the home work of the students (Table 204).

Table 205: The Overall Significance of Difference between Mean Opinion Scores of PSTs & DTEs on Eight Mentoring Areas

Mentoring Areas	Respondents	N	X	SD	t-value	p-value
Area-1	CTSC Heads	186	16.2473	3.62023		
Taleemi Calendar	DTSC Heads	12	19.8333	5.07818	3.239	0.001
Area-2	CTSC Heads	186	17.7957	3.45178		
Lesson Planning	DTSC Heads	12	20.9167	4.07784	3.003	0.003
Area-3	CTSC Heads	186	19.0430	2.96617		
Activity Based Teaching	DTSC Heads	12	20.000	4.65149	1.041	0.299
Area-4	CTSC Heads	186	17.8118	4.42744		
Use of Support	DTSC Heads	12	20.0833	4.35803	1.724	0.86
Area-5 Interaction with	CTSC Heads	186	16.8978	4.52683		
	DTSC Heads	12	20.4167	5.19542	2.587	0.010
Area-6	CTSC Heads	186	17.8656	3.67875		
Classroom Management	DTSC Heads	12	20.3333	6.37229	2.136	0.034
Area-7	CTSC Heads	186	17.6022	5.08658		
Student Assessment	DTSC Heads	12	20.000	7.39779	1.535	0.126
Area-8	CTSC Heads	186	18.1667	3.48420		
Homework	DTSC Heads	12	20.000	7.27386	1.621	0.107
Total	CTSC Heads	186	141.4301	21.11303		
	DTSC Heads	12	161.5833	35.96579	3.046	0.03

The above table No. 205 reflects that the overall and total difference between the mean opinion scores of CTSCs & DTSCs on the all eight Mentoring Areas i.e. (i) Taleemi Calendar, (ii) Lesson Planning, (iii) Activity Based Teaching and Learning, (iv) Use of Support Material, (v) Interaction with Students, (vi) Classroom Management, (vii) Student Assessment and (viii) Home Work. The overall calculated t-value was overwhelmingly significant at $p=0.001$ level of significance in mentoring areas, Area-1,it was highly significant in Area-2 & Area-5, it was significant in mentoring area, Area-6 and t-value was not-significant in mentoring Area-3 & Area-4 Area-7 & Area-8,. The t-value was significant on the total sum of all the eight mentoring areas. So, in the opinions of CTSCs and DTSCs it is concluded that mentoring process extensively contributed professional development of the Primary School Teachers (Table 205).

4.6 ANALYSIS OF OBSERVATIONS

Observation of Model Lesson was mandatory to understand the phenomena of mentoring and to see what actually happened in the classroom between the mentor and mentees. As stated by Bernard (2000) "when you want to know what people actually do there is no substitute for watching them". Three steps were involved in the process of observation; (i) getting permission from the mentor, (ii) actual observation of sessions, (iii) getting field notes. Permission was taken from the concerned CTSCs and DTSCs Heads beforehand. Person has assured the participants that all information will be strictly confidential and it will be used only research purpose. It was also assured to the mentors that observers were not in any way assessing their knowledge or performance.

The observation of the Model Lesson was started when the mentor proceeded the Professional Development classes. Field Notes were written about the interaction between the mentors and mentees on the eight mentoring areas. Observers noted that how the "Taleemi Calendar" was used, how the lesson was planned, how the "Activity Based Teaching and Learning" was exercised; how the "Support Material" was used; how the "Interaction with Mentees" took place; how the "Classroom Management" was done and how the "Home Work" was assigned.

Observation forms were a significant part of the data collection procedure and added important information for this study. The district wise detail of CTSCs to observe of model lesson is as under:-

Table 206: District Wise Observations Schedule of Model Lessons

Sr. No.	Name of District	Date of Observation	No of Model Lesson Observed
1.	Attock	27-09-2013	2
2.	Faisalabad	28-09-2013	2
3.	Kasur	28-09-2013	2

Sr. No.	Name of District	Date of Observation	No of Model Lesson Observed
4.	Mianwali	29-10-2013	2
5.	Rahim Yaar Khan	39-10-2013	2
6.	Sargodha	31-10-2013	2
7.	Okara	29-11-2013	2
8.	Gujrat	29-11-2013	2
9.	Muzaffargarh	28-11-2013	2
10.	MandiBahauddin	19-12-2013	2
11.	Rajanpur	20-12-2013	2
12.	Sheikhupura	21-12-2013	2

The observation was conducted and Field Notes were prepared of each Model Lesson. The collected data from all 24 observations was tabulated and analyzed by using "Percentages" of each item on the eight mentoring areas. The area wise analysis of the observation is as under:-

Table 207: Mentoring Area-1 "Taleemi Calendar"

Sr. No.	Indicators observed	Percentages	
		Yes	No
1.	Taleemi Calendar was available in the class room.	91% (N=22)	08 % (N=02)
2.	Teaching activities were going on according to the Taleemi Calendar.	79% (N=19)	21% (N=05)
3.	Mentor taught the lesson to the mentees according to the Taleemi Calendar.	71% (N=17)	29% (N=08)
4.	Mentor taught to the mentees how to use Taleemi Calendar.	62% (N=15)	34% (N=09)

Table No. 207 shows that during the observation of Model Lesson on Professional Development Day. Taleemi Calendars were available in the majority of classrooms 91 % (N=22) and (N=19, 79 %) of classroom were observed where teaching activities were going on according to the Taleemi Calendar. The mentor taught the lesson to the mentees according

to the Taleemi Calendar (N=17, 71 %) and 62 % (N=15) mentor taught to the mentees how to use Taleemi Calendar (Table 207).

Table 208: Mentoring Area-2 "Lesson Planning"

Sr. No.	Indicators observed	Percentages	
		Yes	No
1.	Objectives of the lesson were available in the lesson plan.	83 % (N=20)	17 % (N=04)
2.	Contents of the lesson were according to the objectives of the lesson.	71 % (N=17)	29 % (N=07)
3.	Mentor guides how to make lesson attractive.(researcher will note down the explanation/ examples)	67 % (N=16)	33 % (N=08)
4.	All activities in the classroom were according to the lesson plan.	54 % (N=13)	46 % (N=11)

The above table No. 208 reflects that a large majority of 83 % (N=20) mentors clearly wrote the objectives of the lesson plan and 71 % (N=17) contents of the lesson were according to the objectives of the lesson. Majority 67 % (N=16) of the mentors guided the mentees that how to make lesson attractive and in majority of the classrooms 67 % (N=16) activities were according to the lesson plan (Table 208).

Table 209: Mentoring Area-3 "Activity Based Teaching and Learning"

Sr. No.	Indicators observed	Percentages	
		Yes	No
1.	Mentor guides about preparation of individual and group activities.	75 % (N=18)	25 % (N=06)
2.	Mentor provides guidelines how to develop teaching and learning activities.	67 % (N=16)	33 % (N=08)
3.	Mentor gives activities from textbook.	62 % (N=15)	34 % (N=09)
4.	Activities are according to the lesson plan.	54 % (N=13)	46 % (N=11)
5.	Verbal activities other than lesson plan are given.	48 % (N=10)	58 % (N=14)

Table No. 209 indicates that a large majority (N=18, 75 %) mentors guided the mentees about preparation of individual and group activities and also (N=16, 67 %) provided the guidelines to the mentees that how to develop teaching and learning activities. Mentors gave the activities

from textbook 62 %, (N=15) and 54 % (N=13) activities were according to the lesson plan. (N=13,54 %) mentors did not give verbal activities other than lesson plan (Table 209).

Table 210: Mentoring Area-4 "Use of Support Material"

Sr. No.	Indicators observed	Percentages	
		Yes	No
1.	Mentor used handwritten/handmade material.	79 % (N=19)	21 % (N=05)
2.	Supporting material is according to objectives of the lesson.	58 % (N=14)	42 % (N=10)
3.	Mentor guides to the mentees how to search out supporting material.	54 % (N=13)	46 % (N=11)
4.	Mentor guides to the mentees how to include the supporting material in the lesson plan.	48 % (N=10)	58 % (N=14)

Table No. 210 shows that 79 % (N=19) that majority of the mentors used handwritten/handmade material during model lesson and 58 % (N=14) mentor's supporting material was according to objectives of the lesson. 54 % (N=13) of the mentors guided to the mentees that how to search out supporting material. Only 48 % (N=10) mentors guided to the mentees how to include the supporting material in the lesson plan (Table 210).

Table 211: Mentoring Area-5 "Interaction with Students"

Sr. No.	Indicators observed	Percentages	
		Yes	No
1.	Mentor guided the mentee how to ask question from students.	67 % (N=16)	33 % (N=08)
2.	Mentor guides how to start and conclude discussions among the students.	62 % (N=15)	34 % (N=09)
3.	Mentor guided the mentee how to invite the student feedback.	54 % (N=13)	46 % (N=11)
4.	Mentor provided the guidelines to the mentees how to communicate with the students effectively.	46 % (N=11)	54 % (N=13)

Table No. 211 shows that majority of the mentors guides to the mentee that how to ask question from students and (N=15, 62 %) of the mentors guided that how to start and conclude discussions among the students. A little majority (N=13, 54 %) of the mentors guided to the

mentees that how to invite the student feedback. Only (N=11, 46 %) mentors provided guidelines

to the mentees how to communicate with the students effectively (Table 211).

Table 212: Mentoring Area-6 "Classroom Management"

Sr. No.	Indicators observed	Percentages	
		Yes	No
1.	Mentor guided how to make proper seating arrangement.	79% (N=22)	21% (N=22)
2.	Mentor guided how to maintain cleanliness of classroom.	58% (N=14)	42% (N=10)
3.	Mentor guided how to make proper space for movement and group work in the classroom.	54% (N=13)	46% (N=11)
4.	Mentor guided how to properly display of materials, e.g. pictures/models, charts.	54% (N=13)	46% (N=11)

Table No. 212 indicates that majority of the mentor guided the mentees in making proper seating

arrangement and 58 % (N=14) mentors guided to the mentees that how to maintain cleanliness of

classroom.54 % (N=13) mentors guided how to make proper space for movement and group

work in the classroom and 54 % (N=13) mentors guided properly how to display materials, e.g.

pictures/models, charts during the lessons (Table 212).

Table 213: Mentoring Area-7 "Student Assessment"

Sr. No.	Indicators observed	Percentages	
		Yes	No
1.	Mentor guides to the mentees about conduct of exams.	83 % (N=20)	17 % (N=04)
2.	Mentor guides to the mentees about construction of test according the curriculum objectives.	71 % (N=17)	29 % (N=07)
3.	Mentor guides about classroom test construction.(MCQ's and subjective tests)	67 % (N=16)	33 % (N=08)
4.	Mentor guides to the mentees about marking of class tests of the students.	62 % (N=15)	34 % (N=09)
5.	Mentor guides to the mentees about preparation of results.	62 % (N=15)	34 % (N=09)

Table No. 213 shows that majority of the mentors guided to the mentees about conduct of exams 71 % (N=17) mentor guided to the mentees about construction of test according the curriculum objectives. 67 % (N=16) mentor guided about classroom test construction. (MCQ's and subjective tests) while, 62 % (N=15) mentors guided to the mentees about marking of class tests of the students. Also 62 % (N=15) mentor guides to the mentees about preparation of results (Table 213).

Table 214: Mentoring Area-8 "Home Work"

Sr. No.	Indicators observed	Percentages	
		Yes	No
1.	Mentor guided the mentees how to evaluate the home work of the students.	79% (N=19)	21% (N=05)
2.	Mentor guided how to guide the students about the completion of homework.	75% (N=18)	25% (N=06)
3.	Mentor guided the mentees how to assign home work.	62% (N=15)	34% (N=09)
4.	Mentor guided the mentees how to match the home work with class work.	58% (N=14)	42% (N=10)
5.	Mentor guided the mentees how to determine the difficulty level of the homework before its assignment.	46% (N=11)	44% (N=13)

The above table No. 214 reflects that 79 % (N=19) mentors guided to the mentees to evaluate the home work of the students and 75 % (N=18) of the mentors guided mentees regarding the guidelines to the students about the completion of homework. 62 % N=15) of the mentors guided to the mentees how to assigned homework and 58 % (N=14) mentors guided to the mentees how to match the home work with class work. Only 46 % (N=11) mentors guided to the mentees how to determine the difficulty level of the homework before its assignment (Table 214).

4.7 ANALYSIS OF THE INTERVIEWS

This part of the analysis deals with the qualitative portion of the study. As this study formed on mixed methods paradigm, therefore two major procedures i.e. QUAL & QUAN were employed. Mixed method mixed method research is an intentional use of more than one method or methodologies in the same research. The researcher held individual interviews with the following participants:

1. Primary School Teachers (PSTs).

2. District Teacher Educators (DTEs).

3. Cluster Training and Support Centers (CTSCs) Heads.

4. District Training and Support Centre (DTSCs) Heads.

The detail of participants is given in table 215.

Table 215: Sample Size for the Interview

Sr. No.	Target Groups	Sample of the Study	Percentages for interview	Size for Interview
1.	Primary School Teachers (PSTs).	381	10%	38
2.	District Teacher Educators (DTEs).	302	10%	30
3.	Cluster Training and Support Centers (CTSCs) Heads.	186	10%	19
4.	District Training and Support Centre (DTSCs) Heads.	12	100%	12
		Total=		99

The interviews with the above mentioned participants were held in the offices of the heads of the institutions, at Cluster Training and Support Centers (CTSCs) Head's offices, or in the offices of the Heads of District Training and Support Centre (DTSCs). The data collected through interviews was analyzed by using NVIVO Software version 10. Researcher thoroughly studied the qualitative responses and formulated following themes: (i) Taleemi Calendar (ii) Lesson Planning, (iii) Activities based teaching and learning (iv)

Used of support material (v) Interaction with students (vi) Classroom management, (vii) Students assessment, (viii) Homework and (ix) problems involved in the mentoring process.

4.7.1 Analysis of the Interviews Primary School Teacher (PSTs)

The total number of the PSTs respondents were 38 whose the interview was conducted. The details of analysis are given in the figures No 2-27.

Figure 1: Age Group Wise Distribution of Opinions of PSTs
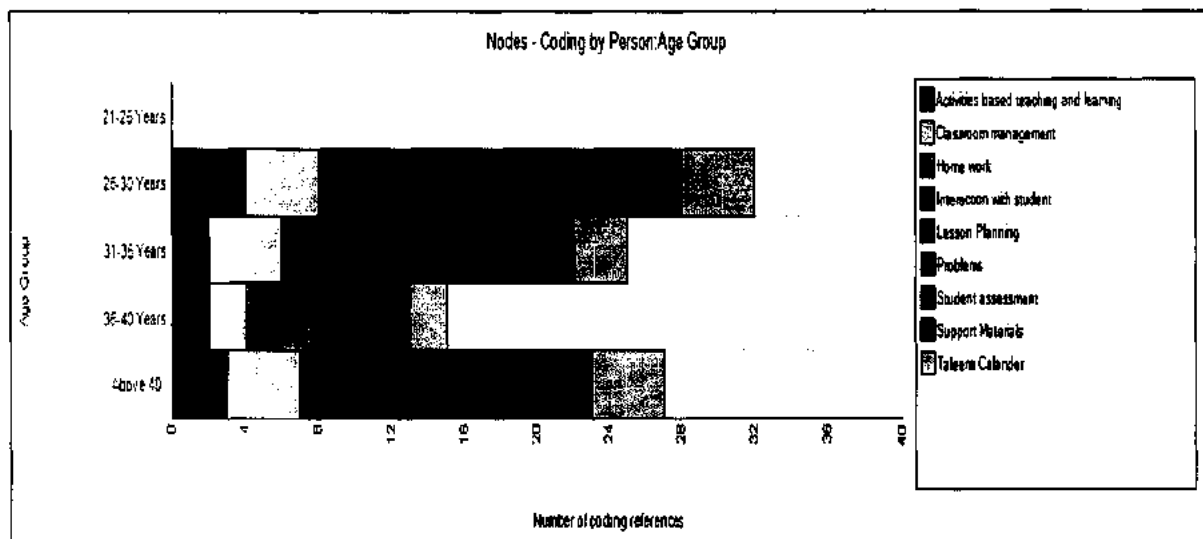
The above figure No. 1 shows age groups wise difference in the opinions of Primary School Teachers (PSTs) on the eight mentoring areas. The respondents belonging to age group (25-30) years emphasized on the usage of, (i) Taleemi Calendar, (ii) Activities Based Teaching and Learning, (ii) Lesson Planning and (iv) Classroom Management While, the age group (31-36) years focused on (i) Used of Support Material (ii) Interaction with Students (iii) Classroom Management, (iv) Students Assessment and (v) Home Work, The age group (31-35) years focused on the mentoring areas, (i) Taleemi Calendar, (ii) Classroom Management, and (iii) Lesson Planning Whereas, the age group (above 40) years stressed on (i) Classroom Management, (ii) Lesson Planning and (iii) Taleemi Calendar. Analysis of the data given in

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figure 1 revealed that the age group of (26-30) years focused more on mentoring areas as compared to the other age groups. The overall results reflected that all three age groups focused on usage of, (i) Taleemi Calendar, (ii) Classroom Management, and (iii) Lesson Planning (Figure 1).

Wright (1984) explained in his study that effective teachers utilized effective management strategies to encourage and motivate towards favorable learning environment. Similarly one of the PSTs respondents said *"through efficient class management all types of teaching activities can be carried out in the classroom"*.

Figure 2: Gender Wise Distribution of the Opinions of PSTs
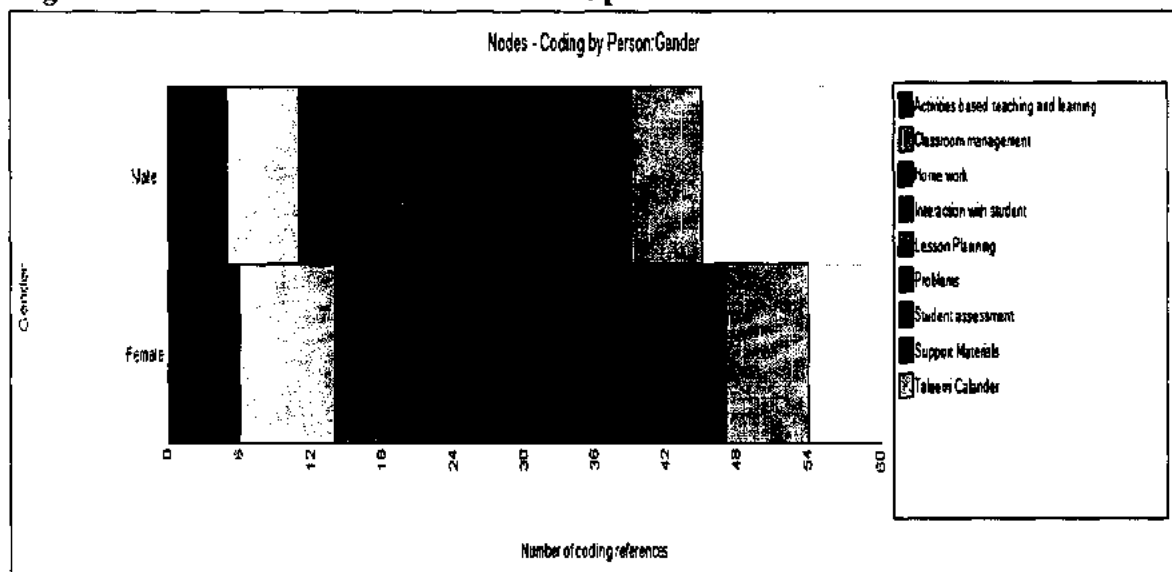
Figure No. 2 reflects the contents analysis of gender wise difference on the eight mentoring areas. The female respondents laid stress on the following areas: (i) Taleemi Calendar (ii) Lesson Planning, (iii) Activities Based Teaching and Learning and (iv) Classroom Management While, the male respondent stressed on (i) Classroom Management, (ii) Lesson Planning and (ii) Home Work. It is depicted from the analysis that female respondent stressed more on mentoring areas as compared to the male respondents. It is evident from the analysis

that both the groups equally focused on the (i) Taleemi Calendar, (ii) Lesson Planning and (viii) Homework (Figure 2).

Cooper (2006) stated that homework is considered as outside classroom learning and it has long term benefits on students' achievement. Similarly one of the PST respondents said that *"homework contributes towards the effective learning and it helps in improving the grading of the students"*.

Figure 3: Marital Status Wise Distribution in the Opinions of PSTs
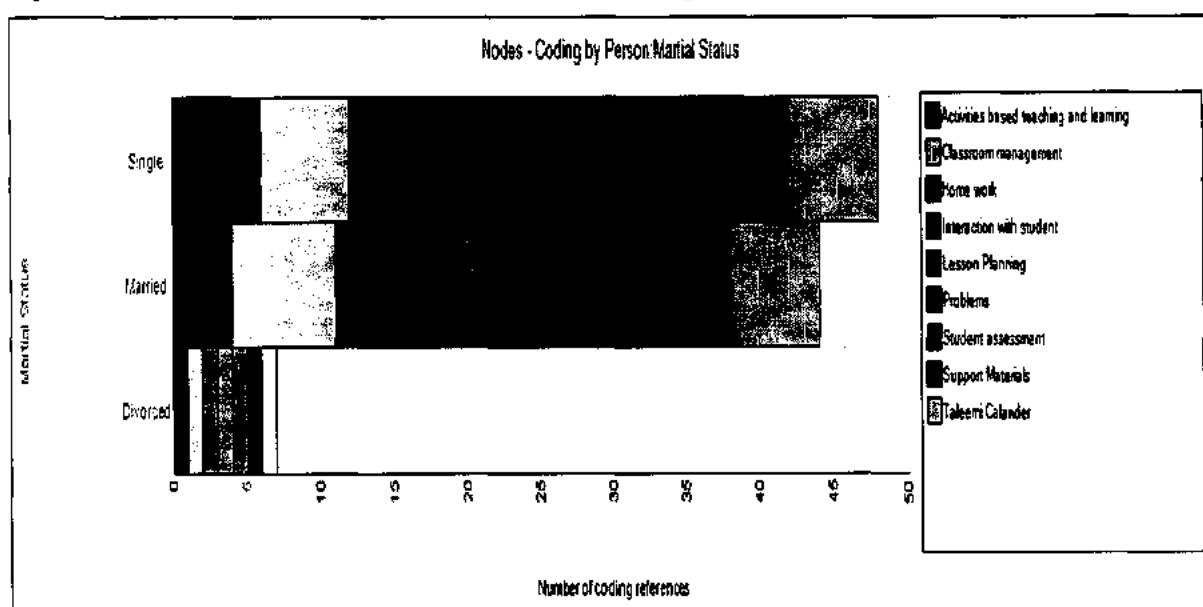
The above figure No. 3 shows that marital status wise difference in the opinions of the respondents on the eight mentoring areas. The respondents un-married focused on (i) Taleemi Calendar, (ii) Lesson Planning, (iii) Classroom Management, (vi) Home Work. The married respondents focused on the usage of (i) Taleemi Calendar, (ii) Lesson Planning, (iii) Support Material and (iv) Homework. Both groups of the respondents male and female focused on the mentoring areas, (i) Taleemi Calendar, (ii) Homework and (iii) Lesson Planning (figure 3).

Cool (2002) stated that at primary level mentoring process on achievement and learning through homework activities. One positive effect is retention of factual knowledge and increase the understanding of the students regarding content materials. One of the PSTs respondents said

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"mentoring *has positive effects in developing critical thinking skills and concept formulation of the students".*

Figure 4: Qualifications Wise Distribution in the Opinions of PSTs
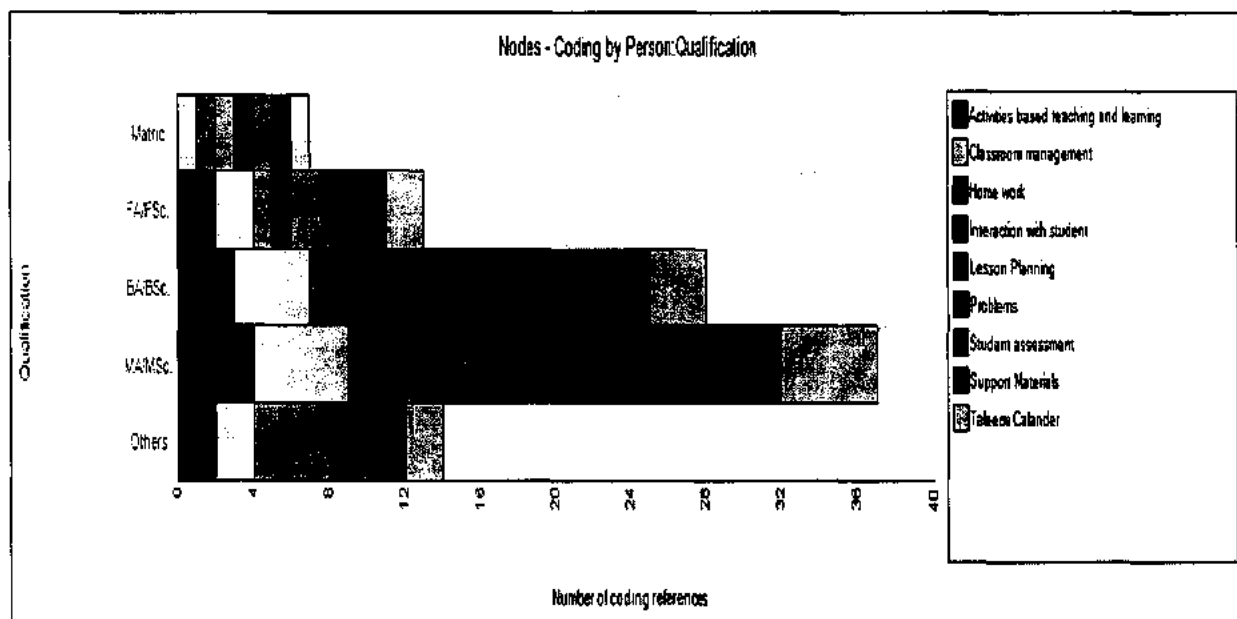
The above figure No. 4 reflects qualifications wise difference in the opinions of PSTs on the eight mentoring areas. Analysis depicted that PSTs respondents having Matric qualifications equally focused on all areas while the respondents having qualification FA/FSC stressed on (i) Taleemi Calendar (ii) Lesson Planning , (iii) Used of Support Material and (iv) Classroom Management. The respondents having BA/BSc qualifications stressed on the (i) Lesson Planning, (ii) Classroom Management, and (iii) Use of Support Material and the respondents having qualifications MA/MSc (i) Taleemi Calendar, (ii) Lesson Planning, (iii) Classroom Management, (iv) Use of Support Materials and (v) Home Work while the respondent having qualifications "others" focused on the (i) Taleemi Calendar, (ii) Lesson Planning , (iii) Activities Based Teaching and Learning, (iv) Used of Support Material, and (viii) Home Work. It is revealed from the analysis that all of the respondents focused on mentoring areas: (i) Taleemi Calendar, (ii) Classroom Management, and (iii) Lesson Planning (Figure 4).

Bannon (2008) explained that Lesson Plan reflects the needs and interests of the contents and it integrates best practices for the mentoring process. It correlates with the mentoring practices which the purpose of educating the students. One of the PSTs respondents said that *"A mentor analyzed the demerits in lesson planning skills and cultivate the activity based teaching"*.

Figure 5: Region Wise Distribution in the Opinions of PSTs
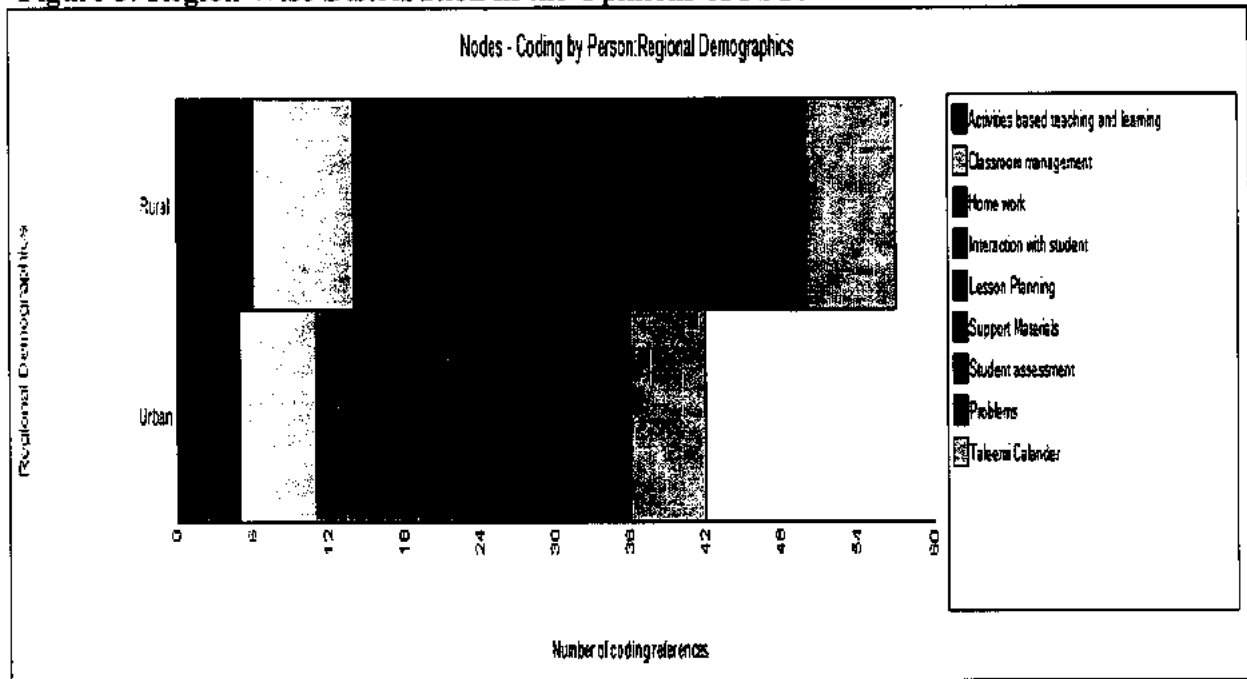
The above figure No. 5 shows regional difference in the opinions of the PSTs on the mentoring areas. It is evident that the PSTs belonging to rural areas focused on (i) Taleemi Calendar, (ii) Lesson Planning, (iii) Interaction with Students, (vi) Classroom Management and (vii) Home Work While, the respondents belonging to urban areas focused on (i) Taleemi Calendar, (ii) Lesson Planning, (iii) Use of Support Material, and (iv) Student Assessment. Both groups of the respondents urban and rural focused on (i) Taleemi Calendar and (ii) Lesson Planning (Figure 5). One of the respondents said that *"A lesson plan provided the description to the mentees for class instructions. A daily lesson plan helps the mentees to guide class instructions and creating the curiosity of students"*.

Figure 6: Teaching Experiences Wise Distribution in the Opinions of PSTs

Nodes - Coding by Person:Teaching Experience
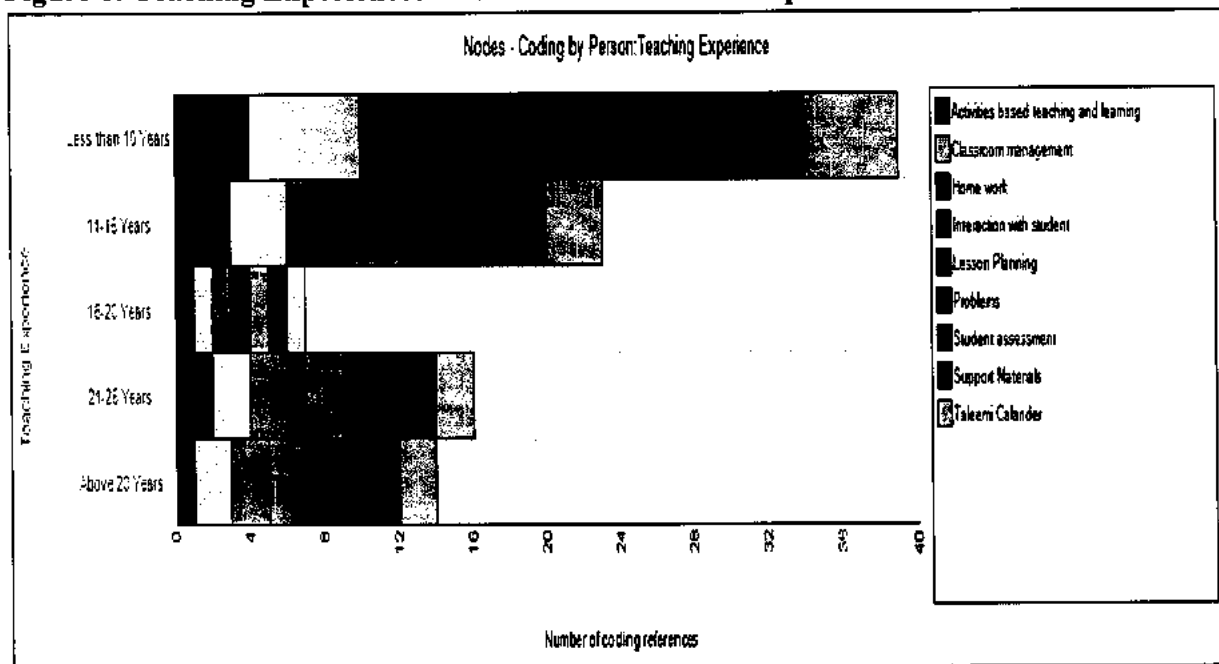
The above figure No. 6 reflects that PSTs respondents having (less than 10) years teaching experience

stressed on (i) Classroom Management, (ii) Lesson Planning, (iii) Support Material, and Home Work

While, the respondents having (11-15) years teaching experience focused on (i) Activity, Based

Teaching and Learning, (ii) Classroom Management, (iii) Lesson Planning, (iv) Support Materials

and (v) Taleemi Calendar. The respondents having (16-20) years teaching experiences equally

focused on eight mentoring areas. PSTs having (21-25) years teaching experiences focused on (i)

Activity Based Teaching and Learning, (ii) Classroom Management and (iii) Home Work Whereas,

the respondents having (Above 20) years teaching experiences focused on (i) Classroom

Management, (ii) Home Work, (iii) Lesson Planning and (iv) Home Work. It is evident from the

analysis that all of the respondents focused on, (i) Taleemi Calendar (ii) Lesson Planning, (iii)

Homework and (iv) Classroom management (Figure 6).

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One of the PST respondents said that *"mentor guided in classroom management in making the learning process interesting. It has also helped how to achieve students' learning outcomes through the existing mentoring process"*.

Figure 7: Tree Map of the Opinions of PSTs on Eight Mentoring Areas

Nodes compared by number of items coded
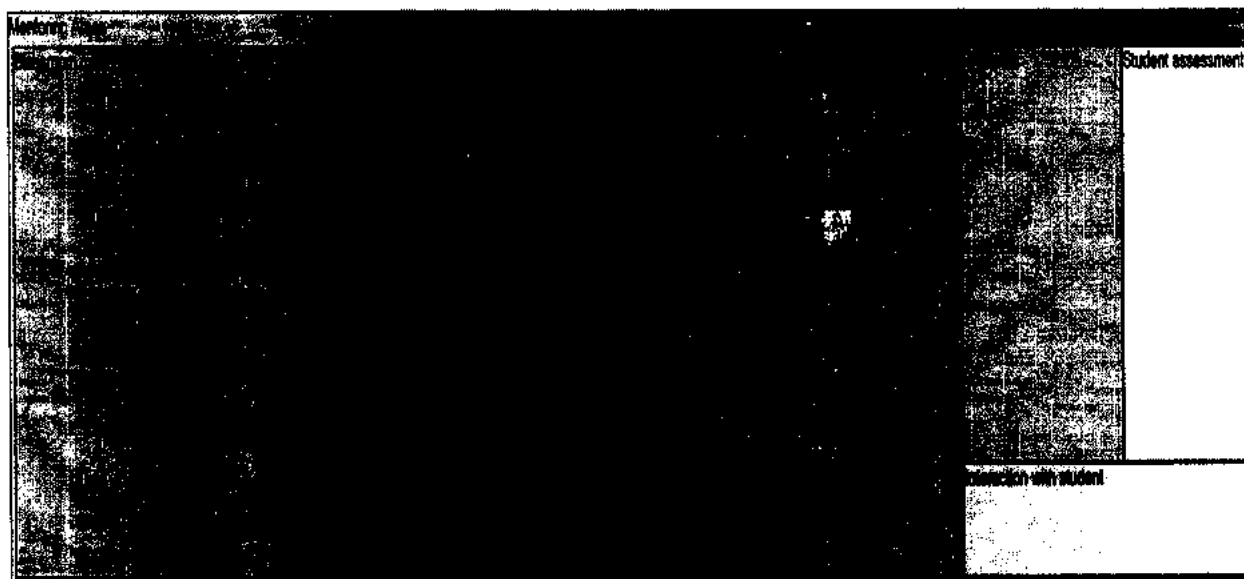
The above mentioned figure No. 7 shows the Tree map on the responses of Primary School Teachers on eight Mentoring Areas. The diagram reflected that respondents laid stress on the, (i) Classroom Management, (ii) Lesson Planning, (iii) Used of Support Material, (iv) Taleemi Calendar, (iv) Activities Based Teaching and Learning and (viii) Home Work (Figure 8). The subsequent used mentoring areas were; (i) Classroom Management, (ii) Lesson Planning and (iii) Used of Support Material (Figure 7).

One of the PSTs respondents said that *"Classroom management plays a critical role in the teaching learning process. A well-managed classroom results in achieving the learning goals"*.

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4.7.2 Analysis of the District Teacher Educators (DTEs)

There were 302 District Teacher Educators (DTEs) for the sample of this study and 30 DTEs

i.e. 10 % of the strata were taken as sample for interview. The detail of the interview is given

below:

Figure 8: Age GroupWise Distribution in the Opinions of DTEs
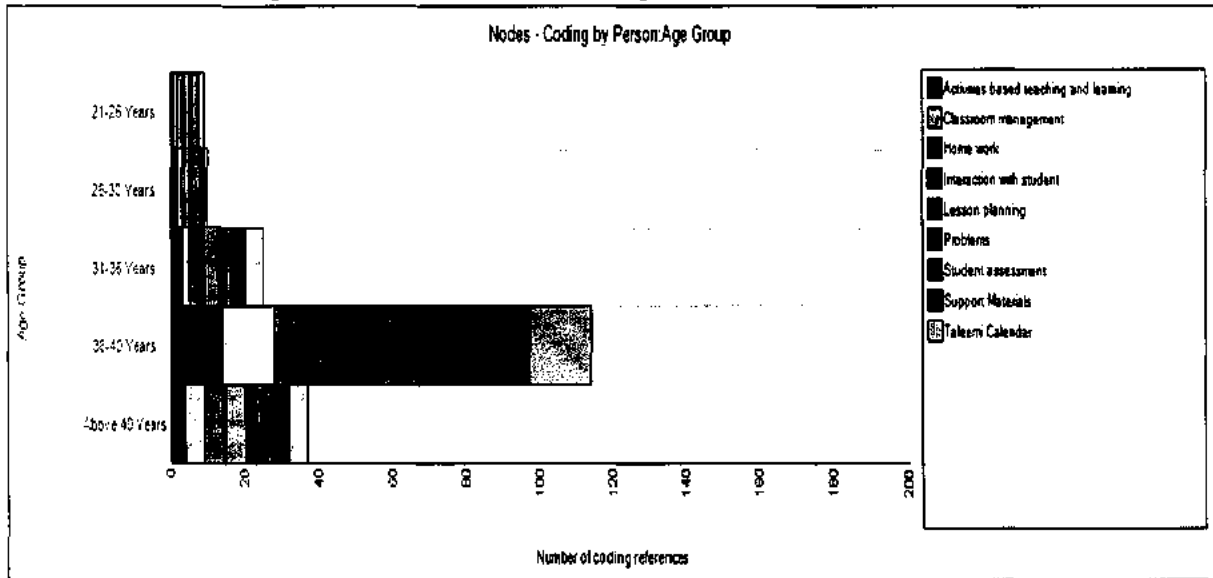
The above figure No. 8 shows age groups wise difference in the opinions of the District Teacher

Educators on the Eight Mentoring Areas. The age group (31-36) focused on (i) Used of Support

Material (ii) Interaction with Students (iii) Classroom Management (iv) Students Assessment,

(v) Homework. The age group (31-35) years focused on the mentoring areas, (i) Taleemi

Calendar, (ii) Classroom Management, and (iii) Lesson Planning, while the age group (above

40) years focused on (i) Classroom Management, (ii) Lesson Planning and (iii) Taleemi

Calendar. It is revealed from the figure that the age group of (26-30) years focused more as

compared to the other age groups. So it is revealed that all three age groups focused on the

mentoring areas (i) Classroom Management, (ii) Lesson Planning and (ii) Taleemi Calendar

(Figure 8).

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One of the DTE respondents said that *"mentor guided that how to use Taleemi Calendar efficiently and effectively for the smooth and dynamic working of the school. It helped as information source for the students, teachers and for the department"*.

Figure 9: Gender Wise Distribution in the Opinions of DTEs
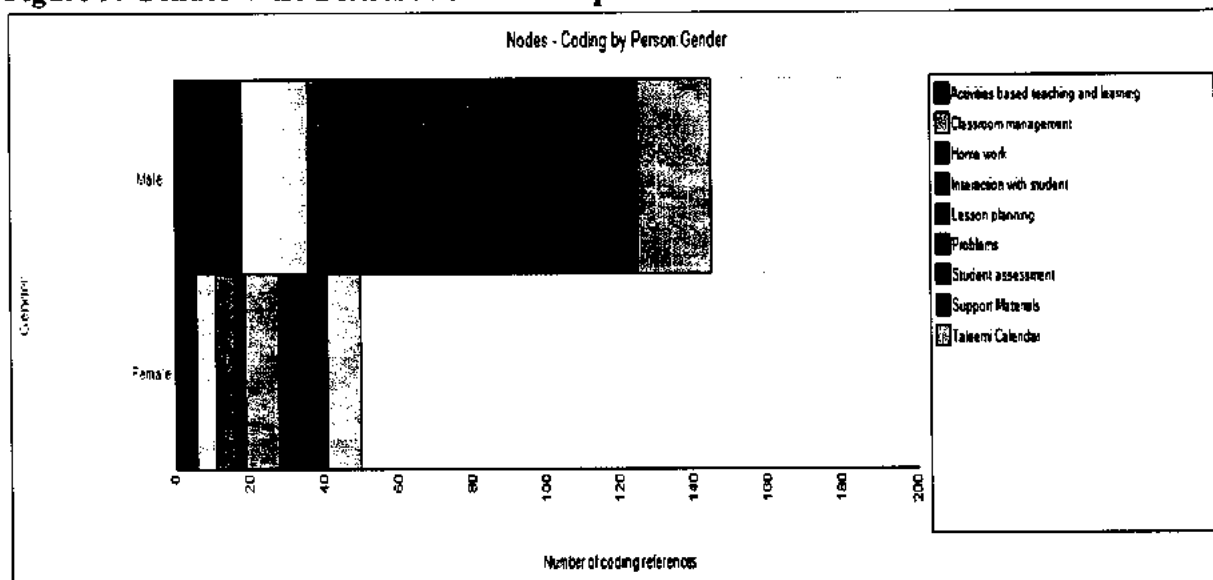
The above figure No.9 shows gender wise difference in the opinions in the data analysis on the eight mentoring areas. The male respondents having focused on the mentoring areas: (i) Taleemi Calendar, (ii) Lesson Planning, (iii) Classroom Management, (vi) Home Work and the female respondents focused on the mentoring areas, (i) Taleemi Calendar, (ii) Lesson Planning, (iii) Support Material and (iv) Home Work. Both of the respondents groups focused on the mentoring areas (i) Taleemi Calendar, (ii) Lesson Planning and (iii) Homework (Figure 9).

Figure 10: Martial Status Wise Distribution in the Opinions of DTEs

Nodes - Coding by Person:Martial Status
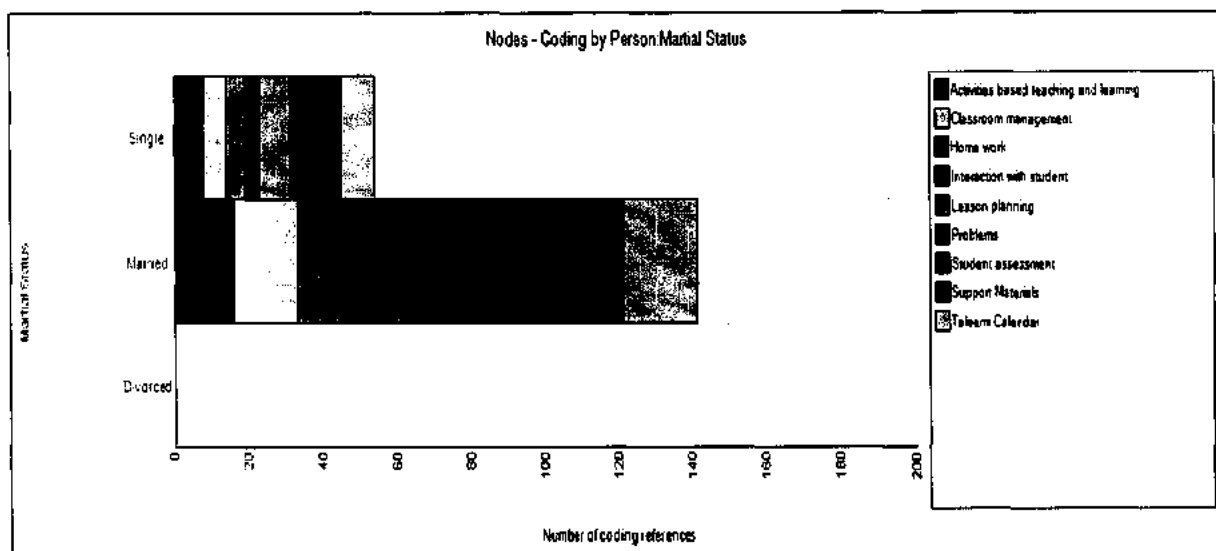
The above figure No. 10 shows marital status wise difference in the opinions in the data analysis on the eight mentoring areas. The status respondents having "single marital status" focused on the mentoring areas (i) Taleemi Calendar, (ii) Lesson Planning, (iii) Classroom Management, (vi) Home Work. The respondents having status "married focused" on the mentoring areas, (i) Taleemi Calendar, (ii) Lesson Planning, (iii) Support Material, and (iv) Home Work. Both of the respondents groups focused on the mentoring areas, (i) Taleemi Calendar, (ii) Lesson Planning and (iii) Home Work (Figure 10).

Figure 11: Qualifications Wise Distribution in the Opinions of DTEs
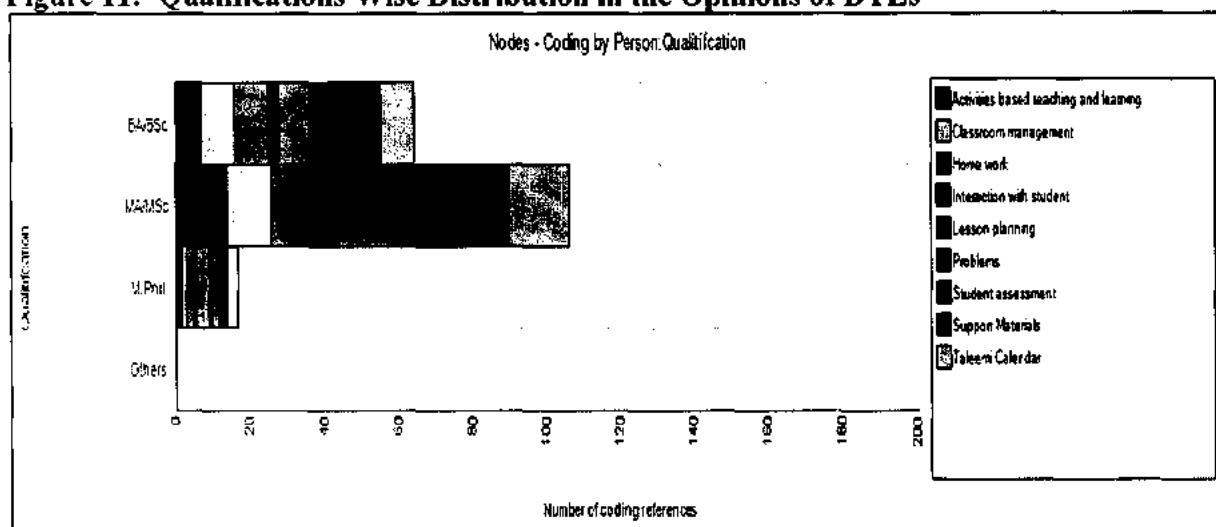
The above figure No. 11 shows the qualifications wise difference in the opinions of DTEs on the eight mentoring areas. It evident that DTEs having BA/ BSc qualifications stressed on the (i) Lesson Planning, (ii) Classroom Management, (iii) Home Work and (iv) Use of Support Material. The respondents having qualifications MA /MSc (i) Taleemi Calendar, (ii) Lesson Planning, (iii) Classroom Management, (iv) Use of Support Materials and (v) Home Work while the respondent having qualifications "others" focused on the (i) Taleemi Calendar (ii) Lesson Planning, (iii) Used of Support Material and (iv) Home work. It is evident that all of the respondents focused on mentoring areas (i) Homework, (ii) Lesson Planning, and (iii) Taleemi Calendar (Figure 11).On the respondents said that *"Academic Calendar enables the teachers to complete the activities according the given schedule. It helped to maintain academic and non-academic record and is helpful in evaluating the performing of teachers as per the given in the calendar"*.

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Figure 12: Region Wise Distribution in the Opinions of DTEs

Nodes - Coding by Person:Regional Demographics
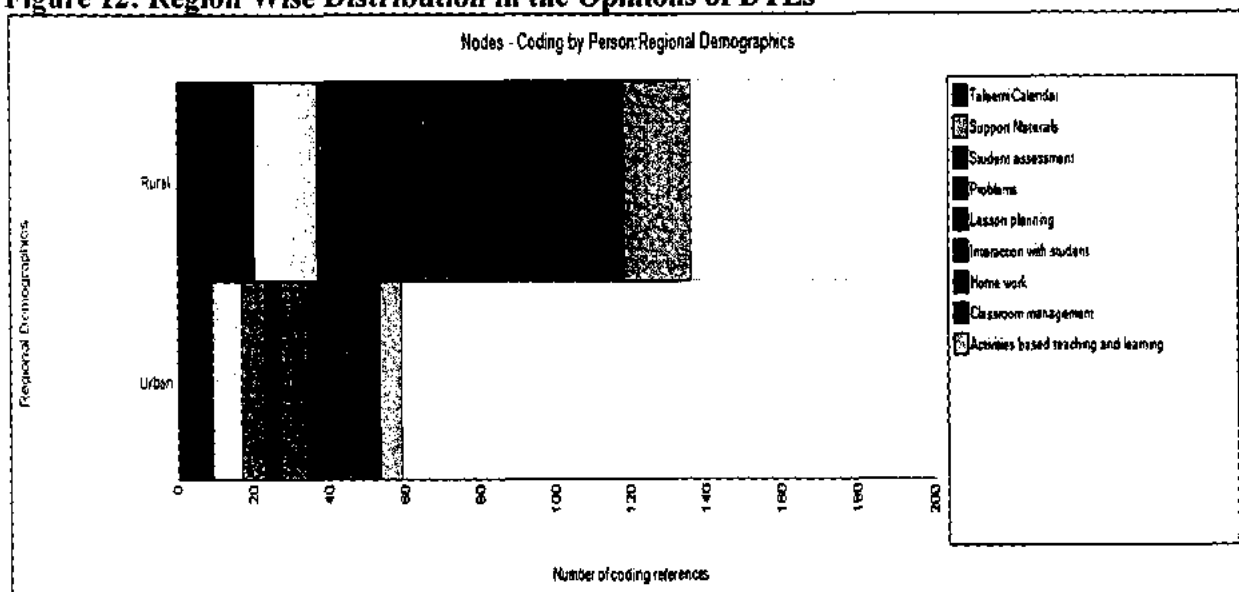
The above figure No. 12 shows the region difference in the opinions of the DTEs on the mentoring areas. It is evident that the DTEs belonging to rural areas focused on the mentoring areas, (i) Taleemi Calendar, (ii) Lesson Planning, (iii) Use of Support Material, (iv) Classroom Management (v) Interaction with Students and the respondents belonging to urban areas focused on the area, (i) Taleemi Calendar, (ii) Lesson Planning, (iii) Use of Support Material and (iv) Student Assessment. Both of the groups focused on, (i) Taleemi Calendar, (ii) Lesson Planning and Use of Support Material (Figure 12).

Figure 13: Teaching Experiences Wise Distribution in the Opinions of DTEs

Nodes - Coding by Person:Teaching Experience

Number of coding references
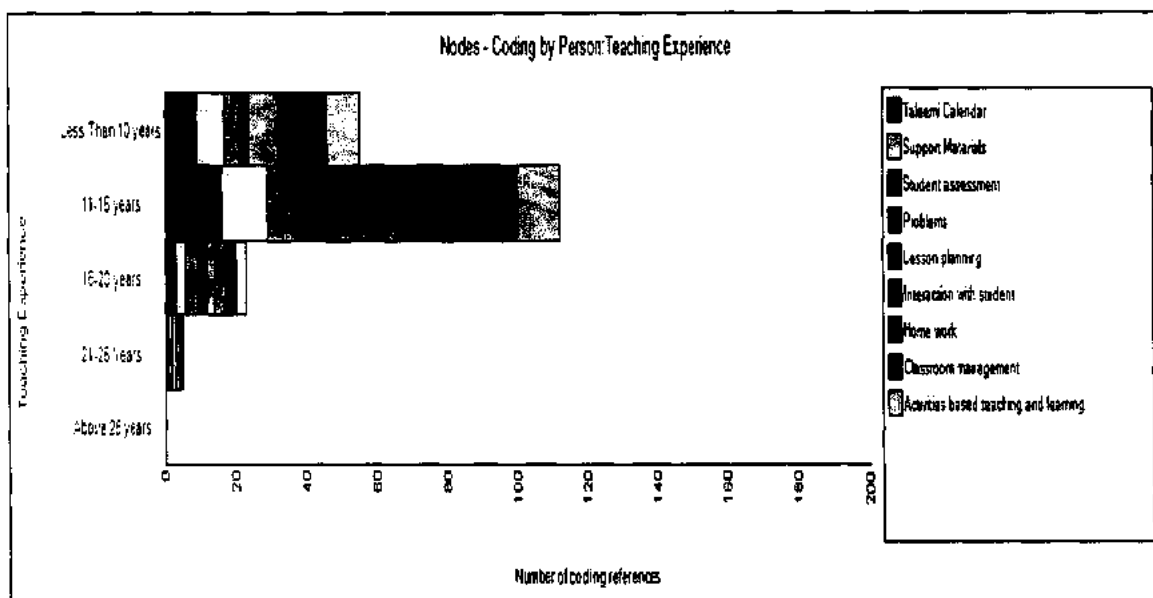
The above figure No. 13 reflects that the DTEs respondents having teaching experience less than 10 years stressed on the mentoring areas: (i) Taleemi Calendar, (ii) Lesson Planning, (iii) Activities based teaching and learning and (iv) Used of support material, while the respondents having teaching experience (11-15) years focused on, (i) Taleemi Calendar, (ii) Used of support material, (iii) Lesson Planning, (iv) Home work (v) Interaction with students and (vi) Classroom management. The respondents having teaching experiences (16-20) years focused on, (i) Taleemi Calendar, (ii) Used of support material, (iii) Lesson Planning, (iv) Activities based Teaching and Learning and (v) Homework while, the respondents having teaching experiences (21-25) years focused on equally on all eight mentoring areas. It is evident from the analysis that all of the respondents focused on, (i) Taleemi Calendar (ii) Lesson Planning, (iii) Activity Based Teaching and Learning and (viii) Homework (figure 13).

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Figure 14:   Tree Map of the Opinions of DTEs on Eight Mentoring Areas

Nodes compared by number of items coded
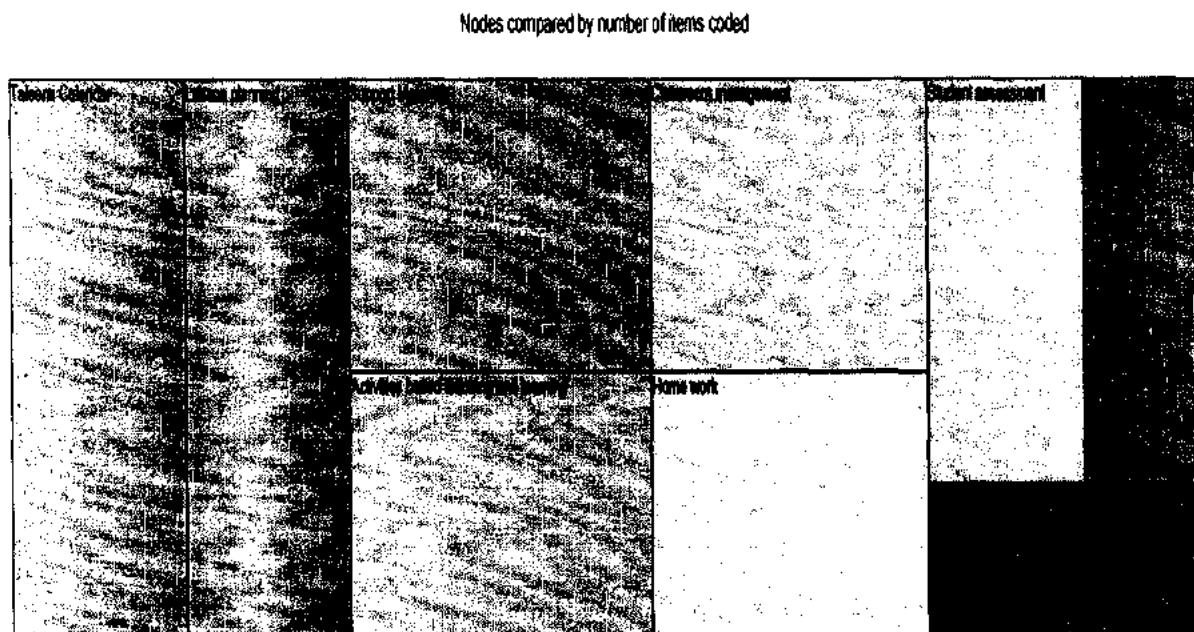
The above mentioned figure No. 14 shows the Tree Diagram on eight mentoring areas. The diagram reflected that the respondents laid stress on the, (i) Classroom management, (ii) Lesson Planning, (iii) Used of Support Material, (iv) Taleemi Calendar, (iv) Activities Based Teaching and Learning and (viii) Home work. The respondent subsequently focused on the mentoring areas; (i) Taleemi Calendar, (ii) Lesson Planning and (iv) Use of Support Material (Figure 14).

4.7.3   Analysis of the Opinions of the District Training and Support Center (CTSCs) Heads

There were 186 the Cluster Training and Support District (DTSCs) Heads for the sample of this study and 19 CTSCs i.e. 10 % of the strata were taken as sample for interview. The detail of the interview is given below:

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Figure 15: Age Group Wise Distribution in the Cluster Training and Support Centers (CTSCs)
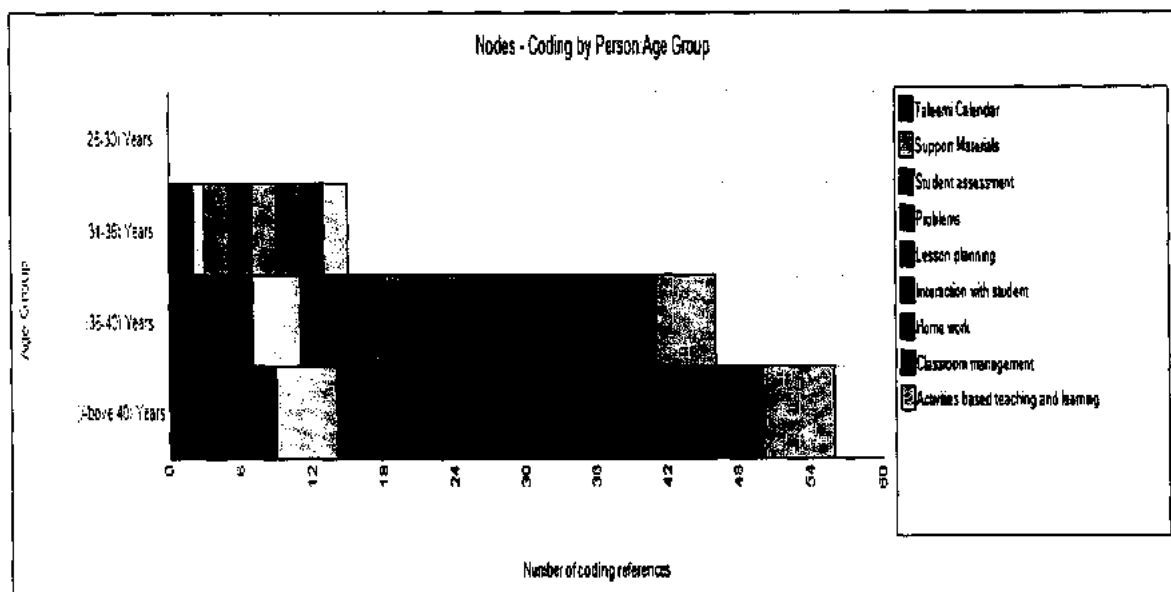
The above figure No. 15 reflects that the CTSCs respondents having age group (31-36) years stressed on the mentoring areas: (i) Taleemi Calendar (ii) Student Assessment, and (iii) Classroom Management while, the respondents having age group (36-40) years focused on (i) Taleemi Calendar, (ii) Lesson Planning and (iii) Classroom management whereas, the respondents having teaching experience (above 40) years focused on (i) Taleemi Calendar (ii) Lesson Planning and (v) Classroom Management. It is evident from the analysis that all of the respondents focused on (i) Taleemi Calendar (ii) Lesson Planning and (iii) Classroom Management (Figure 15).

One of the CTSCs respondents said that *"an efficient classroom management leads towards effective learning environment for the students.*

Figure 16: Teaching Experience Wise Distribution in the Opinions of Cluster Training and Support Centers (CTSCs)

Nodes - Coding by Person:Experience in Years

Legend:
- Taleem Calendar
- Support Materials
- Student assessment
- Problems
- Lesson planning
- Interaction with student
- Home work
- Classroom management
- Activities based teaching and learning

Y-axis categories: (Less than 10 years), (11-15) years, (16-20) years, (21-25) years, (Above 25) years

Percentage coverage
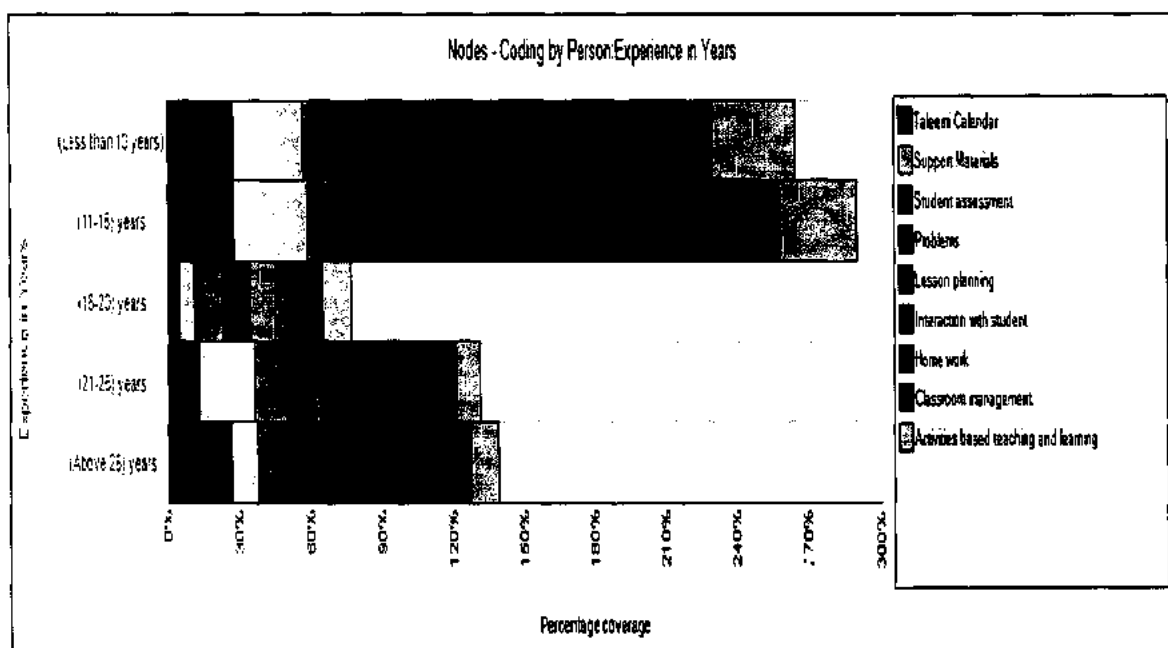
Figure No. 16 reflects that the CTSCs respondents having teaching experience less than 10 years stressed on the mentoring areas: (i) Taleemi Calendar (ii) Student Assessment, (iii) Activities Based Teaching and Learning and (iv) Homework while, the respondents having teaching experience (11-15) years focused on (i) Taleemi Calendar, (ii) Used of support material, (iii) Interaction with Students and (iv) Homework. The respondents having teaching experiences (16-20) years focused on, (i) Student Assessment and (v) Homework, while the respondents having teaching experiences (21-25) years focused on (i) Support Material, (ii) Interaction with Students and (iii) Homework. It is evident from the analysis that all of the respondents focused on the mentoring area "Homework" (Figure 16).

One of the CTSCs respondents said that *"Homework practices provide opportunities to pertain learning in daily life situations. Homework practices helps to develops skills such as self-discipline, time management, task commitment and problem solving".*

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Figure 17: Gender Wise Distributions in the opinions of Cluster Training and Support Centers (CTSCs)
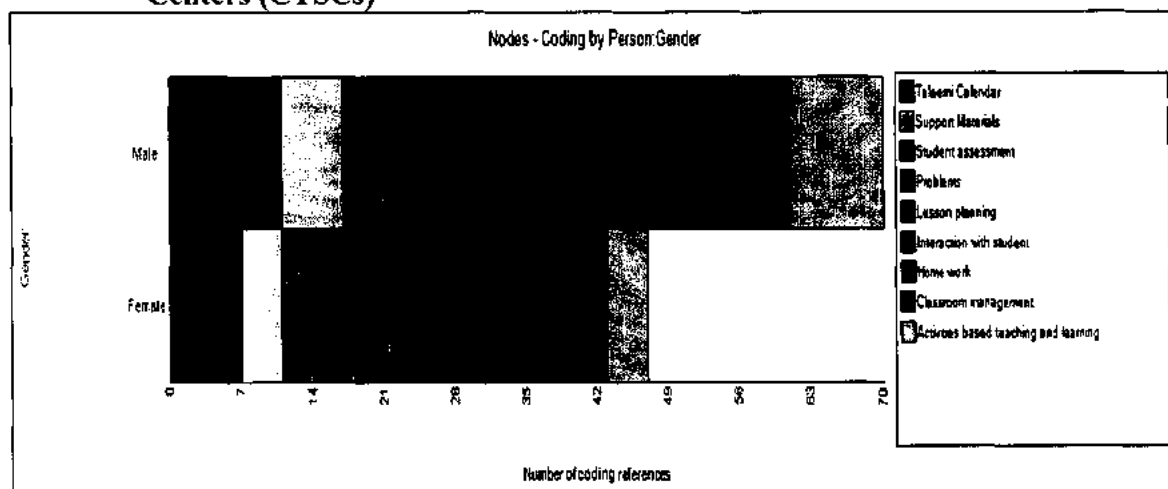
Figure No. 17 shows gender wise difference in the opinions of CTSCs on the eight mentoring areas. The male respondents stressed on the mentoring areas: (i) Taleemi Calendar, (ii) Lesson Planning, (iii) Homework, (iv) Classroom Management, (iv) Activity Based Teaching and Learning. The female respondents focused on the mentoring areas, (i) Taleemi Calendar, (ii) Lesson Planning and (iii) Classroom Management. Both of the respondents spotlighted on the mentoring areas, (i) Taleemi Calendar, (ii) Lesson Planning and (iii) Classroom Management (Figure 17).

Figure 18: Marital Status Wise Distribution in the Opinions of Cluster Training and Support Centers (CTSCs)
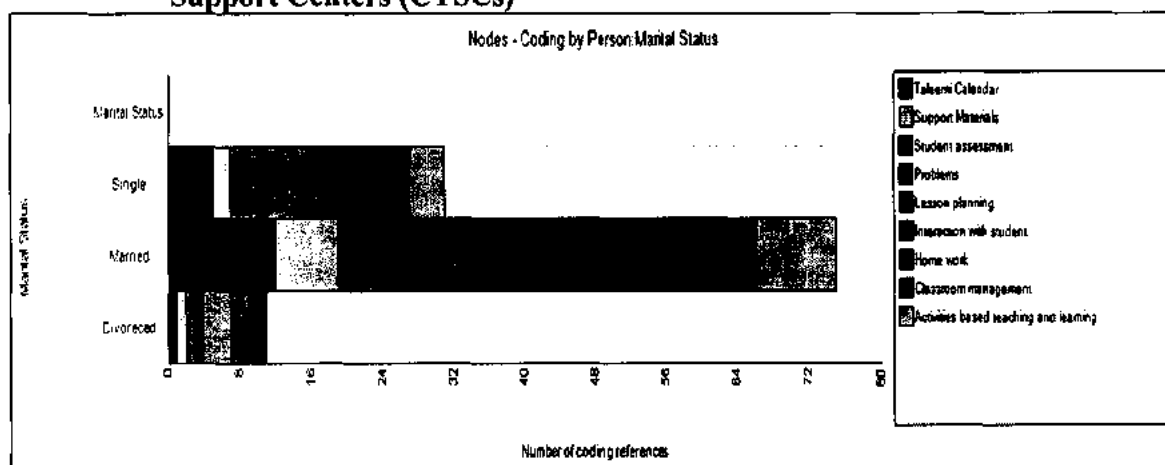
The above figure No.18 shows marital status wise difference in the opinions of CTSCs on the eight mentoring areas. The unmarried respondents having focused on the mentoring areas (i) Taleemi Calendar, (ii) Lesson Planning and (iii) Classroom Management. The unmarried respondents focused on the mentoring areas, (i) Taleemi Calendar, (ii) Lesson Planning, (iii) Classroom Management and (iv) Activity Based Teaching and Learning whereas, divorced respondents focused on (i) Homework, (ii) Classroom Management and (iii) Lesson Planning. All three groups of the respondents were jointly stressed on the mentoring areas, (i) Classroom Management and (ii) Lesson Planning (Figure 18).

Figure 19: Qualifications Wise Distribution in the Opinions of Cluster Training and Support Centers (CTSCs)
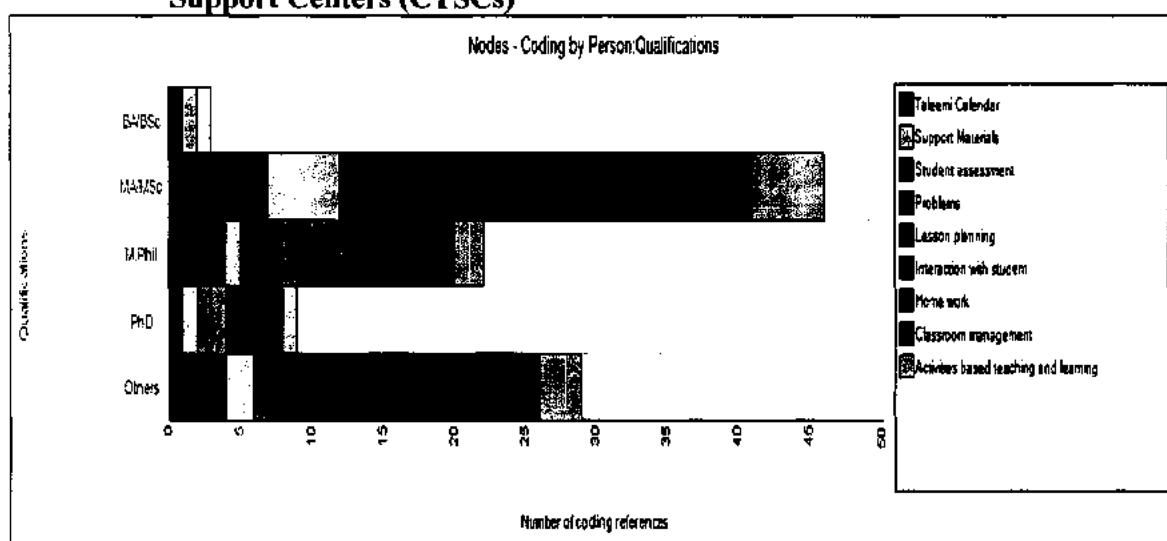
Figure No. 19 shows the qualification wise difference in the opinions of CTSCs on the eight mentoring areas. It is evident from the analysis that CTSCs having BA/ BSc focused equally on (i) Lesson Planning, (ii) Classroom Management, (iii) Home Work and (iv) Use of Support Material. The respondents having qualifications MA /MSc focused on (i) Taleemi Calendar, (ii) Lesson Planning, (iii) Home Work while the respondent having qualifications M.Phil &PhD focused on the, (i) Taleemi Calendar, (ii) Lesson Planning, (iii) Classroom

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Management. All of the respondents focused on mentoring areas (i) Taleemi Calendar, (ii)

Lesson Planning, and (iii) Homework (Figure 19).

Figure 20: Tree Map in the Opinions of the Cluster Training and Support Centers (CTSCs)

Nodes compared by number of items coded
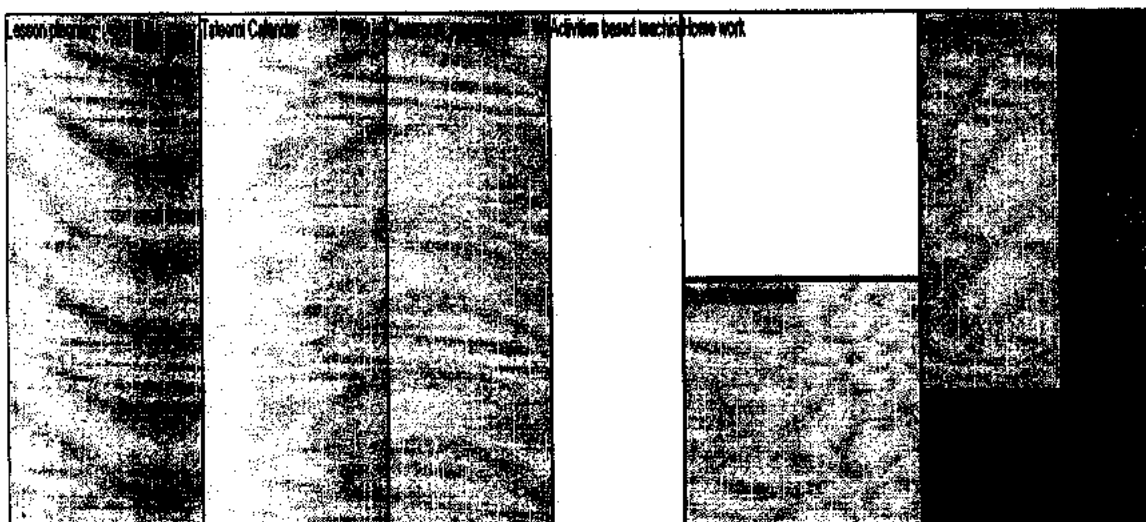
The above mentioned figure No.20 shows the Tree Diagram on eight mentoring areas. The

diagram reflected that the respondents laid stress on the, (i) Lesson Planning, (ii), Taleemi

Calendar (iii) Classroom Management, (iv) Activity Based Teaching and Learning (v)

Homework, (vi) Student Assessment, (vii) Use of Support Material and (viii) Interaction with

Students. The respondent subsequently focused on the mentoring areas; (i) Lesson Planning, (ii),

Taleemi Calendar (iii) Classroom Management. All of the CTSC respondents focused on the

mentoring area "Lesson Planning" (figure 20)

4.7.4 Analysis of the Opinions of the District Training and Support Centers (DTSCs)

There were 12 the Cluster Training and Support Center (CTSCs) Heads for the sample of this

study and 100 % of the strata were taken as sample for interview. The detail of the interview is

given below:

Figure 21: Age group Wise Distribution in the Opinions of the District Training and Support Centers (DTSCs)
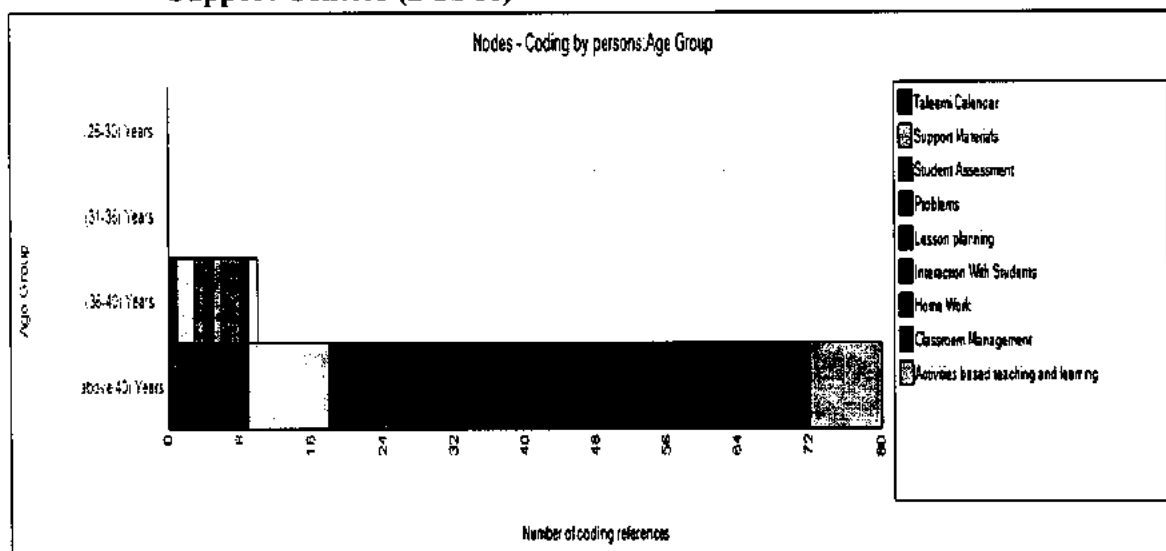
The above figure No. 21 reflects that the DTSCs respondents having age group (36-40) years focused on, (i) Support Material and (ii) Homework whereas, the respondents having teaching experience (above 40) years focused on; (i) Taleemi Calendar, (ii) Support Material,(iii) Student Assessment, Lesson Planning and Homework. It is evident from the analysis that all of the respondents focused on (i) Support Material and (ii) Homework (Figure 21).

Figure 22: Gender Wise Distribution in the Opinions of the District Training and Support Centers (DTSCs)
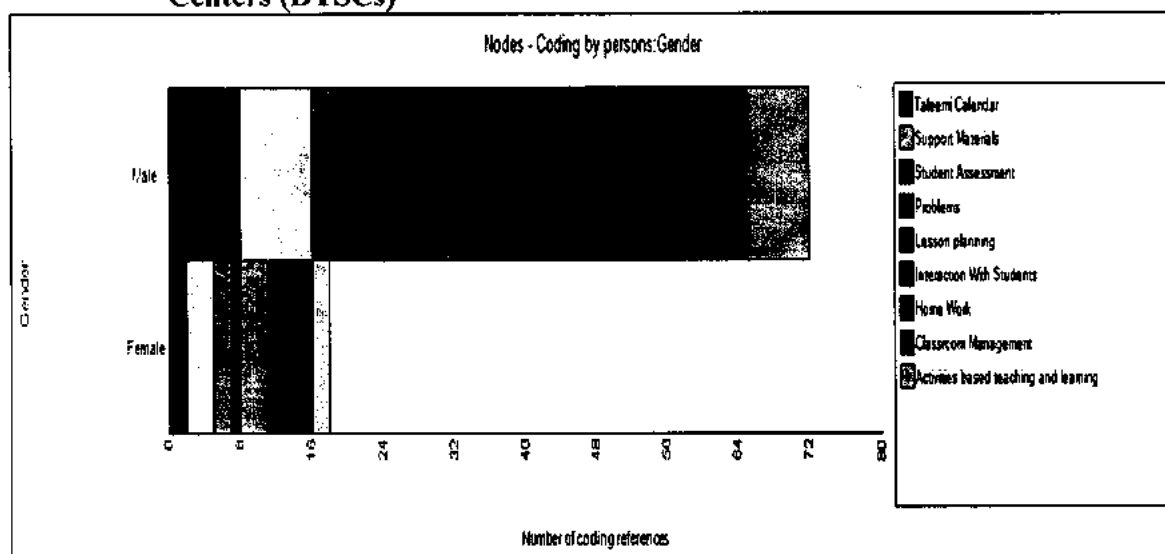
The above figure No. 22 shows gender wise distribution in the opinions in the data analysis on the eight mentoring areas. The male respondents stressed on the mentoring areas: (i) Taleemi Calendar, (ii) Lesson Planning, (iii) Home Work, (iv) Activity Based Teaching and Learning and the female respondents focused on the mentoring areas, (i) Support Material, (ii) Lesson Planning and (iii) Homework. Both of the DTSC respondents male and female spotlighted on the mentoring areas, (i) Lesson Planning, (ii) Home Work (Figure 22).

Figure 23: Marital Status Wise Distribution in the Opinions of the District Training and Support Centers (DTSCs)
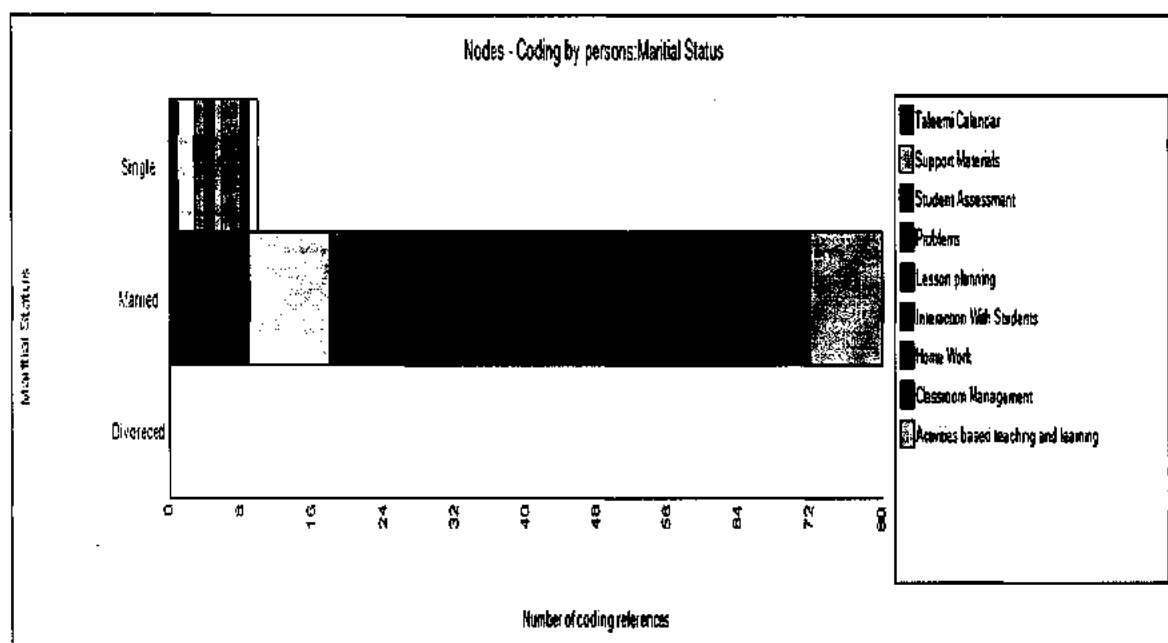
Figure No. 23 shows marital status wise difference in the opinions of CTSCs on the eight mentoring areas. The unmarried respondents focused on mentoring areas (i) Support Material and (ii) Homework. The unmarried respondents focused on the mentoring areas, (i) Lesson Planning and (ii) Homework. It is evident that both married and unmarried respondents stressed on mentoring area "Homework" (Figure 23).

Figure 24: Qualifications Wise Distribution in the Opinions of the District Training and Support Centers (DTSCs)
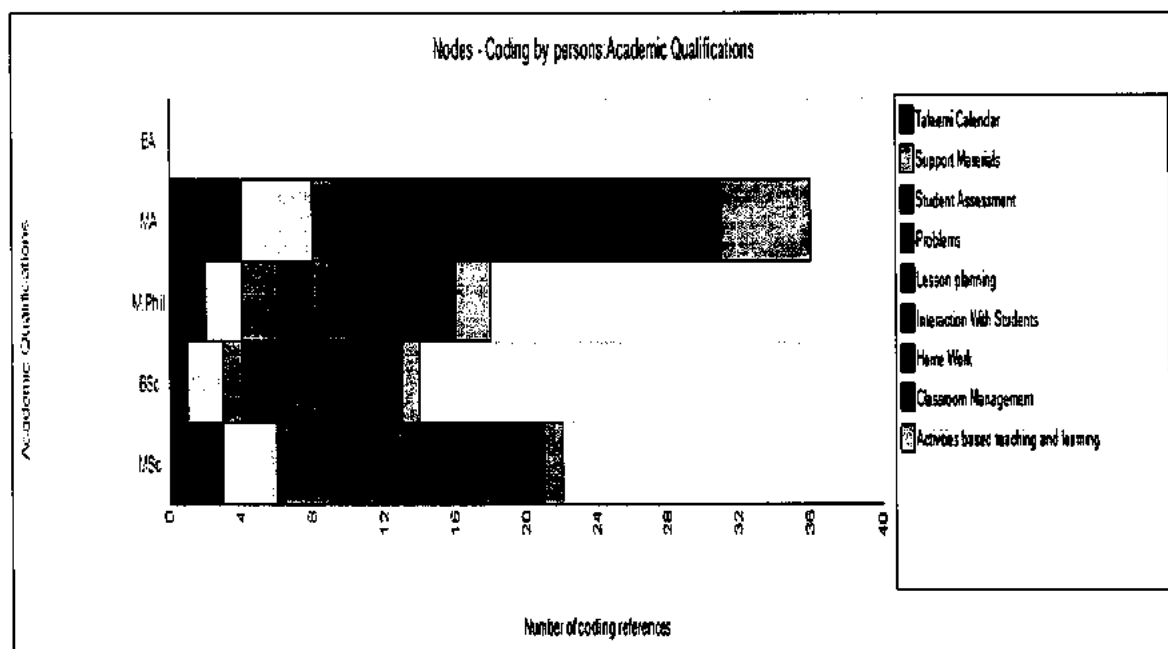
Figure No. 24 reflects the qualifications wise difference in the opinions of DTSCs on the eight mentoring areas. It evident that DTSCs had MA qualifications focused equally on (i) Student Assessment, (ii) Lesson Planning, (iii) Home Work and (iv) Activity Based Teaching and Learning whereas, respondents had M.Phil qualifications focused on Homework. The respondents having BSc qualifications focused on (i) Lesson Planning, (ii) Lesson Planning, (iii) Homework and (iv) Classroom Management and the respondents having MSc qualifications stressed on (i) Taleemi Calendar, (ii) Support Material, (iii) Student Assessment, (iv) Lesson Planning, (v) Homework and (vi) Classroom Management. It is evident from the figure that all of the DTSC respondents focused on mentoring areas (i) Lesson Planning and (iii) Home work (Figure 24).

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Figure 25: **Teaching Experiences Wise Distribution in the Opinions of the District Training and Support Centers (DTSCs)**

Nodes - Coding by persons:Experience in Years

Legend:
- Taleemi Calendar
- Support Materials
- Student Assessment
- Problems
- Lesson planning
- Interaction With Students
- Home Work
- Classroom Management
- Activities based teaching and learning

Y-axis: Experiences In Years (Less than 10 Years, 11-15 Years, 16-20 Years, 21-25 Years, above 25 Years)

X-axis: Number of coding references (0, 8, 16, 24, 32, 40, 48, 56, 64, 72, 80)
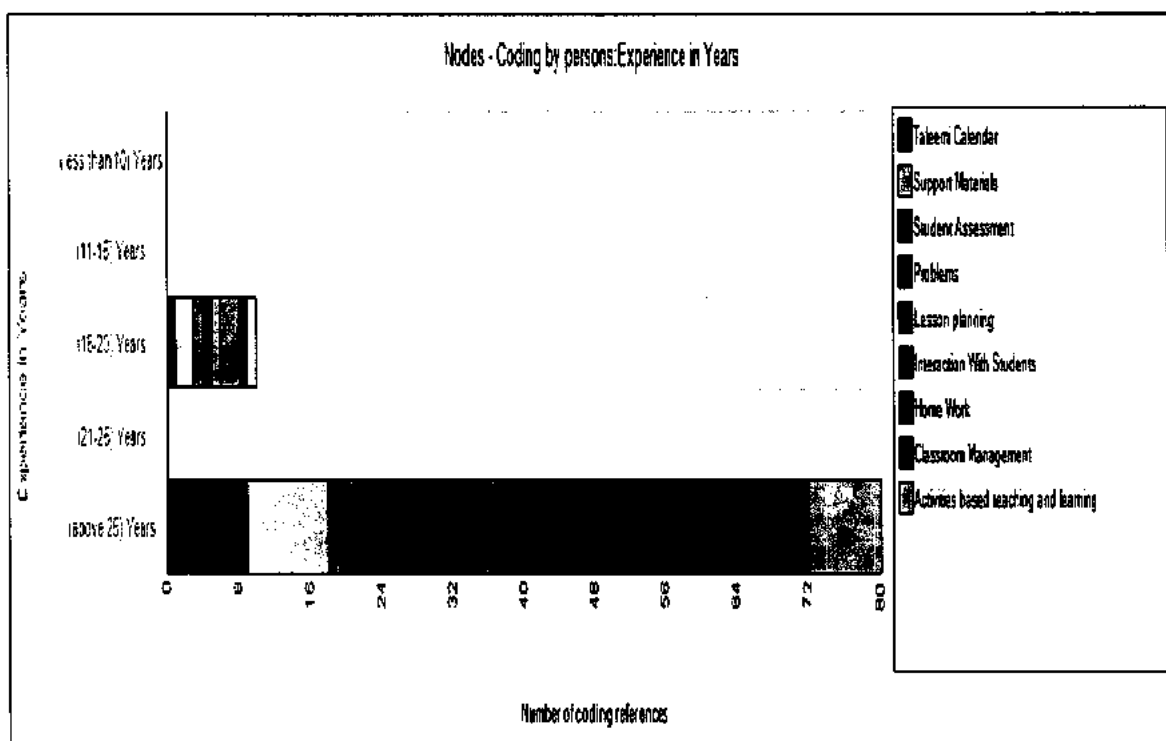
The above figure No.25 reflects that the difference in the opinions of the CTSCs respondents w.r.t. teaching experiences. The respondents having teaching experiences (16-20) years focused on; (i) Taleemi Calendar, (ii) Support Material, (iii) Student Assessment, (iv) Lesson Planning, and (v) Homework, while the respondents having teaching experiences (above 25) years focused on (i) Support Material, (ii) Interaction with Students and (iii) Homework. It is evident from the analysis that both of the respondents groups focused on the mentoring area (i) Support Material and (ii) Homework (Figure 25).

Figure 26: Tree Map in the Opinions of the District Training and Support Centers (DTSCs)

Nodes compared by number of items coded
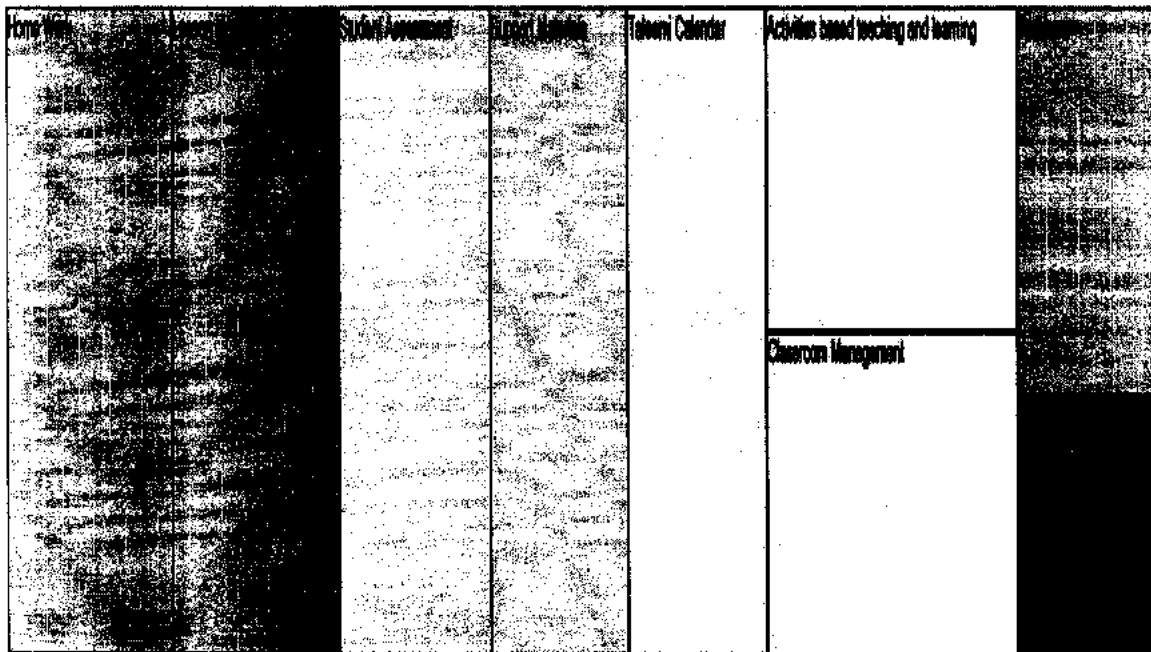
The above mentioned figure No. 26 shows the Tree Diagram on eight mentoring areas. The diagram reflected that the DTSC respondents subsequently laid stress on the mentoring areas (i) Homework, (ii) Lesson Planning, (iii) Student Assessment. (iv) Use of Support Material, (v) Taleemi Calendar ((vi) Activity Based Teaching and Learning, (vii) Classroom Management and (vii) Interaction with Students. The DTSCs respondents consequently focused on the mentoring areas (i) Homework and (ii) Lesson Planning (Figure 26).

CHAPTER 5

SUMMARY FINDINGS CONCLUSIONS AND

RECOMMENDATIONS

In this chapter a concise introduction of this study has been given. In light of the data analysis findings of the study have been discussed. This chapter has the following sections:-

5.1 Summary

5.2 Findings

5.3 Conclusions

5.4 Discussion

5.5 Recommendations

5.6 Suggestions for further research

5.1 SUMMARY

The present study aimed at studying the effects of the mentoring process on the professional development of teachers at elementary level in Punjab. The objectives of the present study were: (i) to study the mentoring system of District Teacher Educators at Primary level in the Punjab province, (ii) to indentify the problems

involved in District Teacher Educators system of Punjab, (iii) to analyze the effects of mentoring process on the professional development of Primary School Teachers and (iv) to determine the effectiveness of mentoring process under District Teacher Educators at Primary level in Punjab. In addition, following Hypotheses were tested:-

H_{o1} Frequency of the opinions of the PSTs on the mentoring process does not diverge significantly from those expected on supposition of equal probability.

H_{o2} Frequency of the opinions of the DTEs on the mentoring process does not diverge significantly from those expected on supposition of equal probability.

H_{o3} Frequency of the opinions of the CTSCs on the mentoring process does not diverge significantly from those expected on supposition of equal probability.

H_{o4} Frequency of the opinions of the DTSCs on the mentoring process does not diverge significantly from those expected on supposition of equal probability.

H_{o5} The mean opinion scores of "PSTs & DTEs" do not differ significantly on the mentoring process.

H_{o6} The mean opinion scores of "CTSCs & DTSCs" do not differ significantly on the mentoring process.

This descriptive study used mixed method approach. Qualitative and qualitative data were collected and analyzed. Four sets of questionnaires in addition to interview and observation were used for data collection. The quantitative data

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were collected through the questionnaires which were developed on five point Likert's scale for the followings:-

    i. Questionnaire for Primary School Teachers (PSTs).

    ii. Questionnaire for District Teacher Educators (DTEs).

    iii. Questionnaire for Cluster Training and Support Centers (CTSCs) Heads.

    iv. Questionnaire for District Training and Support Centers (DTSCs) Heads.

The collected data were tabulated and analyzed by using SPSS version 16. Percentages, Mean, Chi-Square and t-test was used to analyze the data. Chi-square was used to compare the group frequencies and t-test was used to see that if there is significant between the means of groups. The data collected through interviews were analyzed by using NVIVO software version 10. The population of the study comprised of 47988 Primary School Teachers (PSTs), 1370 District Teachers Educators (DTEs), 980 District Training and Support Centers (CTSCs) heads and 12 District Training and Support Centers (DTSCs) heads of Punjab province. Sample of the study comprised of 381 Primary School Teachers (PSTs), 302 District Teachers Educators (DTEs), 186 District Training and Support Centers (CTSCs) heads and 12 District Training and Support Centers (DTSCs) of the Punjab providence.

5.2 FINDINGS

This section of Chapter 5 deals with the findings of questionnaires, observations and interviews of PSTs, DTEs, CTSCs and DTSCs. The details of the findings are given below:-

    i. Findings of the questionnaire for Primary School Teachers (PSTs).

    ii. Findings of the questionnaire for District Teacher Educators (DTEs).

iii. Findings of the questionnaire for Cluster Training and Support Centers (CTSCs) Heads.

iv. Findings of the questionnaire for District Training and Support Centers (DTSCs) Heads.

v. Findings of observations of the Model Lesson on Professional Development Day.

vi. Findings of the interviews of the PSTs, DTEs, CTSCs and DTSCs.

The above mentioned findings from (i) to (vi) were merged under the respective research questions. The detail is given below in section 5.2.1:-

5.2.1 Findings of the analysis of the Questionnaires of PSTs, DTEs, CTSCs and DTSCs, Observations of PD Day and Interviews of PSTs, DTEs, CTSCs and DTSCs.

This section deals with the details of the finding of questionnaires of PSTs, DTEs, CTSCs and DTSCs, Observations of PD Day and Interviews of PSTs, DTEs, CTSCs and DTSCs.

Demographic Information

The demographic information of PSTs, DTEs, CTSCs and DTSCs are given below:

i. 57.0 % of the PSTs were female, 42.8 % were male and 76.2 % of DTEs were male, 23.8 % were female whereas, 76.3 % of the CTSCs were male, 23.3 % were female and 83.3 % the DTSCs were male, 16.7 % were female (Table 8, 66).

ii. 44.6 % of the PSTs were in (above 40) year age group and 42.1 % of the DTEs were in (above 40) years age group whereas, 80.6 % of the CTSCs were (above 40) years age group and 91.7 % of the DTSCs were (above 40) age group (Table 9, 67).

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iii. 27.8 % of the PSTs were graduates and 64.9 % of the DTEs were MA whereas, 75.2 % of the CTSCs were MA and 41.7 % of the DTSCs were MA in the academic qualifications (Table 10, 68).

iv. 37.0 % of the PSTs were PTCs in professional qualifications, 32.3 % were B.Ed's and 44.7 % DTEs were M.Ed. whereas, 73.1 % of the CTSCs were M.Ed. and 50.0 % DTSCs were M.Ed. in professional qualifications (Table 11, 69).

v. 37.5 % of the PSTs had less than 10 years teaching experience and 31.1 % of the DTEs were (16-20) years of teaching experience whereas, 46.8 % of the CTSCs were (above 25) years teaching experience and 91.7 % of the DTSCs were (above 25) teaching experience (Table 12, 70).

vi. 84.3 % of the PST respondents were married, 14.7 % were single, 0.5 % were divorced and 87.7 % DTEs were married, 11.6 % un-married, 0.7 % of the were divorced whereas, 97.3 % CTSCs were married, 1.6% were unmarried, 1.1 % of the CTSCs were divorced and 91.7 % DTSCs were married, 8.3 % were married (Table 13, 71).

Findings of PSTs, DTEs, CTSCs and DTSCs on Eight Mentoring Areas

Findings of the questionnaires of the PSTs, DTEs, CTSCs and DTSCs dealt with detailed analysis of interviews and observations on all eight mentoring areas: (i) Taleemi Calendar, (ii) Lesson Planning, (iii) Activity Based Teaching and Learning, (iv) Use of Support Material, (v) Interaction with Students, (vi) Classroom Management, (vii) Student Assessment and (viii) Home Work are given below:-

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AREA-1 TALEEMI CALENDAR

Research Question No. 1

How much the Taleemi Calendar is effective in mentoring process of the Primary School Teachers?

1.Most of the PST respondents 54.6 % agreed with the statement that mentoring process helped the mentees in managing all the teaching activities according to the Taleemi Calendar. The value of χ^2 was (77.885) overwhelmingly significant. Majority of the DTE respondents 88.1 % agreed that mentoring process helped the mentees in managing all the teaching activities according to the Taleemi Calendar. The value of χ^2 was (299.921) which was overwhelming significant. Most of the CTSC respondents 44.1 % agreed that mentoring process helped the mentees in managing all the teaching activities according to the Taleemi Calendar. The value of χ^2 was (34.699) overwhelming significant. Majority of the DTSCs 83.4 % agreed that mentor helped the mentees in managing their teaching activities according to the Taleemi Calendar. The value of χ^2 was (11.333) which was overwhelming significant. The mean opinions score of Primary School Teaches (PSTs) out of 5 was 2.57 and the mean score of District Teacher Educator (DTEs) out of 5 was 3.27. The t-value was 10.727 and Null Hypothesis H_{05} was rejected. This indicated that PSTs and DTEs differed in their opinions with the statement that mentoring helped in managing all teaching activities according to the Taleemi Calendar. The mean score of CTSCs was 2.88 and mean score of DTSCs was 4.25 out of maximum score of 5 out of maximum score of 5. The t-value was 3.016 and Null Hypothesis H_{06} was rejected. This indicated that there was high difference in the

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opinions of the CTSCs and DTSCs that mentoring process helped the mentees in managing all the teaching activities according to the Taleemi Calendar. (Table 14, 72, 114, & 165).

2.Results conceived through observations revealed that Taleemi Calendar was available in 91 % of the mentoring centers on PD Day and 79 % of the teaching activities were going on according to the Taleemi Calendar whereas, 71 % of the mentors taught the Model Lesson according to Taleemi Calendar. The results conceived through the interviews showed that all age groups of Primary School Teachers focused on usage of (i) Taleemi Calendar, (ii) Classroom Management and (iii) Lesson Planning. The interview results evident that both male and female groups of the PST respondents equally focused on (i) Taleemi Calendar, (ii) Lesson Planning and (viii) Home work. The interviews analysis also showed that all three unmarried, married and divorced groups of PST focused on the mentoring areas (i) Taleemi Calendar, (ii) Homework and (iii) Lesson Planning (Table 207, Figure 1, 2 & 3).

3.Most of the PST respondents 52.8 % disagreed with the statement that mentoring process helped the mentees to manage teaching activities for the educational year in a realistic way. The value of χ^2 was (6.076) not-significant. Most of the DTE respondents 51.3 % disagreed that mentoring process helped the PSTs in managing the teaching activities for the educational year in a realistic way. The value of χ^2 was (2.503) which was not-significant. Most of the CTSCs 53.3 % disagreed that mentoring process helped the mentees to manage teaching activities for the educational year in a realistic way. The value of χ^2 was (4.925) which was not-

significant. Majority of the DTSCs 75.0 % agreed that mentoring process helped the mentees to manage teaching activities for the educational year in a realistic way. The value of χ^2 was (4.667) which was not-significant. The value of mean opinions score of PSTs was 3.04 and DTEs was 3.00. The t-value was 1.175 and Null Hypothesis H_{O5} was not rejected. The mean score of CTSCs was 2.84 and mean score of DTSCs was 3.58 out of maximum score of 5. The t-value was 1.628 not-significant and Null Hypothesis H_{O6} was not rejected (Table15, 73, 115 & 166).

4. Most of the PST respondents 56.1 % agreed that mentoring process helped the mentees in using Taleemi Calendar rigorously. The value χ^2 was (87.333) overwhelmingly significant. Most of the DTEs 49.4 % agreed that mentoring helped in using Taleemi Calendar rigorously. The value of χ^2 was (52.570) overwhelming significant. Majority of the CTSC respondents 79.5 % agreed that mentoring helped in using Taleemi Calendar rigorously. The value of χ^2 was (126.097) overwhelming significant. Majority of the DTSC respondents 83.4 % agreed that mentoring process helped the mentees in using Taleemi Calendar rigorously. The value of χ^2 was (5.333) not-significant. The value of mean opinions score of PSTs was 3.09 and DTEs mean opinions score was 3.07. The t-value was 1.832 and Null Hypothesis H_{O5} was not rejected. The mean score of CTSCs was 3.92 and the mean score of DTSCs was 4.00. The t-value was 0.222 and Null Hypothesis H_{O6} was not rejected (Table 16, 74, 116 & 167).

5. Majority of the PSTs 88.1 % agreed that mentoring process helped the mentees to cover the backlogs of unseen days in an educational year. The value χ^2 was (113.974) which was overwhelming significant. Majority of the DTE respondents

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72.5 % agreed that mentoring process helped the mentees to cover the backlogs of unseen days in an educational year. The value of χ^2 was (148.066) which was overwhelming significant. The mean opinions score of PSTs was 4.55 and mean score of DTEs was 4.12. The t-value was 3.193 and Null Hypothesis H_{O5} was rejected. This depicted that there was high difference in opinions of PSTs and DTEs that mentoring process helped the mentees to cover the backlogs of unseen days of educational year (Table 17 &117).

6. Most of the PSTs 54.9 % agreed that mentoring process helped the mentees in achieving the pre-set targets in advance. The value of χ^2 was (94.630) which was overwhelmingly significant. 43.7 % of the DTE respondents disagreed with the statement that mentoring helped in achieving the pre-set targets in advance. The value of χ^2 was (4.348) which was not-significant. Most of the CTSCs 52.1 % disagreed that mentor process helped the mentees to achieve their pre-set targets in advance. The value of χ^2 was (2.172) which was not-significant. Most of the DTSCs 58.3 % agreed that mentor helped the mentees in achieve the pre-set targets in advance. The value of χ^2 was (3.540) which was not-significant. The value of mean score of PSTs was 3.29 and mean score of DTEs was 3.07. The t-value was 0.386 and Null Hypothesis H_{O5} was not rejected. The calculated value of mean scores of CTSCs and DTSCs were 2.89 and 3.67 respectively. The t-value value was 1.881 and Null Hypothesis H_{O6} was not rejected (Table 18, 75, 118 & 168).

7. Most of the PST respondents 53.8 % disagreed with the statement that mentor helped in managing the leave or absent days of an educational year. The value of χ^2 was (3.661) not-significant. 42.7 % DTEs disagreed that mentor helped in

managing the leave or absent days of an educational year. The value of χ^2 was (6.901) not-significant. Majority of the CTSC respondents 76.4 % agreed with the statement that mentor guided the mentees to manage the leave or absent days of an educational year. The value of χ^2 was (141.742) which was highly significant. Majority of the DTSCs 83.3 % agreed that mentor guided the mentees to manage the leave or absent days of an educational year. The value of χ^2 was (16.00) which was highly significant. The calculated value of mean opinions score of PSTs was 2.90 and mean opinions score of DTEs was 3.22. The t-value was 2.870 and Null Hypothesis H_{05} was rejected. This indicated that CTSCs and DTSCs differed significantly that mentor helped the mentees in managing the leave or absent days of an educational year. The value of mean score of CTSCs was 3.73 and DTSCs mean score was 4.33. The t-value was 1.701 and Null Hypothesis H_{06} was not rejected. This showed that CTSCs and DTSCs were in favorable opinions that mentor helped the mentees to manage the leave or absent days of an educational year (Table 19, 76, 119 & 169).

8. Most of the PSTs 44.3 % agreed that mentoring process provides regular feedback which contributed towards professional development of teachers. The value of χ^2 was (8.869) not-significant. Most of the DTE respondents 58.6 % agreed that mentoring provided regular feedback which contributes towards professional development of teachers. The value of χ^2 was (15.695) which was highly significant. The mean opinions score of PSTs was 3.56 and DTEs was 3.24. The t-value was 0.385 and Null Hypothesis H_{05} was not rejected. This showed that PSTs and DTEs were in favorable

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opinions with the statement that mentoring provided regular feedback which contributed towards professional development of teachers (Table 20 & 120).

9. Most of the PST respondents 53.3 % disagreed that mentoring process decreased the professional stress of the teachers. The χ^2 was (6.265) which was not-significant. 45.7 % of the DTEs disagreed that mentoring process decreased the professional stress of the teachers. The value of χ^2 was (66.543) which was overwhelmingly significant. The mean opinion score of PSTs was 2.96 and mean opinion score of DTEs was 2.87. The calculated t-value was 1.966 and Null Hypothesis H_{O5} was rejected. This indicated that PSTs and DTEs differed significantly in their opinions with the statement that mentoring process decreased the professional stress of teachers because the DTEs were in favorable opinions towards their duties to show the effectiveness of this programme (Table 21&121).

AREA-2 LESSON PLANNING

Research Question No. 2

"To what extent is the mentoring process effective for lesson planning of the Primary School Teachers?"

10. Most of the DTE respondents 56.6 % agreed that mentoring process helped in separating the contents into parts and specifying amount of time needed for each component. The value of χ^2 was (101.775) which was overwhelming significant. Most of the CTSCs 54.3 % disagreed with this statement and value of χ^2 was (3.118) which was significant. Majority of the DTSCs 91.7 % agreed that mentor guided the mentees in separating the contents into parts and specifying amount of time needed to teach the each component. The value of χ^2 was (9.500) which was significant. The mean opinion score of PSTs was 2.57 and mean opinion score of

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DTEs was 3.27. The t-value was 5.734 and Null Hypothesis H_{O5} was rejected. This indicated that there was significant difference in the opinions of PSTs and DTEs that mentoring helped in separating the contents into parts and specifying amount of time needed for each component. The mean score of CTSCs was 2.82 and mean score of DTSCs was 4.50. The t-value was 3.644 and Null Hypothesis H_{O6} was rejected. This indicated that there was high difference in the opinions of CTSCs and DTSCs that mentor guided to the mentees in separating the contents into parts and specifying amount of time needed for each component of the contents (Table 22, 77, 122 & 170).

11. Most of the PSTs 52.8 % disagreed that mentoring process helped in separating learning activities into components while pacing the activities appropriately. The value of χ^2 was (7.483) not-significant. Majority of the DTE respondents 76.1 % agreed and the value of χ^2 was (88.808) which was overwhelming significant. Majority of the CTSCs 82.3 % agreed that mentoring process helped in separating learning activities into components while pacing the activities appropriately. The value of χ^2 was (147.300) overwhelming significant at 0.001 level of significance. Majority of the DTSCs 83.3 % agreed that mentoring process helped in separating learning activities into components while pacing the activities appropriately. The value of χ^2 was (6.000) which was not-significant. The mean opinion score of PSTs was 2.92 and mean opinion score of DTEs was 3.76. The t-value was 7.213 and Null Hypothesis H_{O5} was rejected. This indicated that there was high difference in the opinions of PSTs and DTEs that mentoring process helped in separating learning activities into components while pacing the activities appropriately. The

value of mean score of CTSCs was 4.03 and DTSCs was 4.08. The t-value was 0.167 and Null Hypothesis H_{06} was rejected. This showed that respondents CTSCs and DTSCs were favorable in their opinions that mentoring process helped in separating learning activities into components while pacing the activities appropriately (Table 23, 78, 123 & 170).

12. Majority of the PSTs 71.9 % agreed that mentoring process helped in using lesson planning guide effectively. The value of χ^2 was (183.134) overwhelming significant. Majority of the DTEs 83.1 % agreed that mentoring process helped in using lesson planning guide effectively. The value of χ^2 was (133.788) which was overwhelming significant. The value of mean score of PSTs was 3.64 and mean score of DTEs was 3.96. The t-value was 3.083 and Null Hypothesis H_{05} was rejected. This indicated that PSTs and DTEs differed in their opinions that mentoring process helped the teachers in using lesson planning guide effectively (Table 24 & 124).

13. Most of PSTs 57.2 % agreed with the statement that mentoring helped in obtaining the requisite lesson planning skills. The value of χ^2 (98.252) was overwhelming significant at 0.001 level of significance. Most of the DTE respondents 52.7 % agreed that mentoring helped in obtaining the requisite lesson planning skills. The value of χ^2 was (72.550) overwhelming significant. Majority of the CTSCs 80.7 % agreed that mentor guided the mentees in obtaining the requisite lesson planning skills. The value of χ^2 was (130.88) which was highly significant. Majority of the DTSCs 83.3 % agreed that mentor guided the mentees in obtaining the requisite lesson planning skills. The value of χ^2 was (16.000) was highly significant. The mean opinion score of PSTs was 3.19 and mean opinion score of

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DTEs was 3.18. The t-value was 0.148 and Null Hypothesis H_{05} was not rejected. The mean score of CTSCs was 4.03 and mean score of DTSCs was 4.33. The t-value was 0.157 and Null Hypothesis H_{06} was not rejected (Table 25, 79, 125 & 172).

14. Most of the PST respondents 58.8 % agreed that mentoring process helped in starting and reviewing the lesson. The value of χ^2 was (101.927) overwhelmingly significant. Majority of the DTE respondents 70.8 % agreed that mentoring helped in starting and reviewing the lesson. The value of χ^2 was (144.391) overwhelming significant. Majority of the CTSCs 81.2 % agreed that mentoring helped in starting and reviewing the lesson. The value of χ^2 was (136.957) which was highly significant. Majority of the DTSC respondents 83.3 % agreed that mentoring process helped the mentees' in starting and reviewing the lesson. The value of χ^2 was (11.330) which was highly significant. The calculated value of mean score of PSTs was 3.24 and DTEs was 3.57. The t-value was 2.821 and Null Hypothesis H_{05} was rejected. The mean score of CTSCs was 4.06 and DTSCs was 4.33. The t-value was 0.844 and Null Hypothesis H_{06} was not rejected (Table 26, 80, 126 & 173).

15. Most of the PSTs 51.5 % disagreed that mentoring provided feedback about instructional methodologies. The value of χ^2 was (1.226) not-significant. Majority of the DTEs 71.5 % disagreed that mentoring provided the feedback about instructional methodologies. The value of χ^2 was (153.530) overwhelming significant. Majority of the CTSCs 59.1 % disagreed that mentor provided feedback to the about the instructional methodologies which they adopt during teaching. The value of χ^2 was (2.344) which was not-significant at 0.05 level of significance. Most

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of the DTSC respondents 66.6 % agreed that mentor provided feedback to the mentees about their instructional methodologies which they adopted during teaching. The value of χ^2 was (8.000) which was not-significant. The mean scores of PSTs and DTEs were 2.97 and 3.62 respectively. The t-value was 5.638 and Null Hypothesis H_{05} was rejected. The mean score of CTSCs was 2.85 and mean score of DTSCs was 3.67 and t-value 1.728 and Null Hypothesis H_{06} was not rejected (Table 27, 81, 127 & 174).

16. The analysis of the observations of Model Lesson conceived that objectives of the lesson were available in 83 % of the Model Lesson plan, in 71 % Model Lessons contents were according to the objectives of the lesson plan and 67 % mentors guided the mentees how to make lesson plan attractive. Similarly, 45 % mentoring centers all teaching activities were taking place according to the lesson plan. The analysis of the interviews revealed that qualifications wise PST respondents focused on mentoring areas: (i) Lesson Planning, (ii) Classroom Management and (iii) Taleemi Calendar. The analysis of the interviews also showed that both rural and urban groups of PST respondents focused on (i) Lesson Planning and (ii) Taleemi Calendar. The interviews of the PSTs evident that all the PST respondents stressed on (i) Lesson Planning, (ii) Taleemi Calendar and (iii) Homework. The tree map of the interview analysis of the PSTs showed that the respondents consequently used the mentoring areas; (i) Classroom Management, (ii) Lesson Planning, (iii) Used of Support Material. The interviews results depicted that all groups of CTSC respondents focused on the mentoring area "Lesson Planning" (Table 208, Figure 4, 5, 6 & 7).

AREA-3 ACTIVITY BASED TEACHING AND LEARNING

Research Question No. 3

"In what ways mentoring process of District Teacher Educators enable the PSTs to opt for activity based teaching and learning"?

17. Most of the PST respondents 51.7 % agreed that through mentoring process their teaching has become more effective. The value of χ^2 was (91.008) overwhelming significant. 47.3 % of the DTE respondents disagreed with the statement that through mentoring process mentees' teaching has become more effective. The value of χ^2 was (3.430) not-significant. The mean opinion score of PSTs was 3.09 and mean opinion score of DTEs was 2.90. The t-value was 1.633 and Null Hypothesis H_{05} was not rejected. This indicated that PSTs and DTEs were in favorable opinion that through mentoring process teaching of the mentees became more effective (Table 28 & 128).

18. Most of the PSTs 54.9 % disagreed with the statement that mentoring helped in eliminating the feelings of professional isolation. The value of χ^2 was (4.249) not-significant. Most of the DTE respondents 54.3 % agreed that mentoring helped in eliminating the feelings of their professional isolation. The value of χ^2 was (7.669) not-significant. Majority of the CTSC respondents 88.2 % agreed that mentor helped the mentees in eliminating their feelings of professional isolation. The value of χ^2 was (208.355) which was overwhelming significant. Most of the DTSCs 58.3 % agreed that mentor helped the mentees in eliminating their feelings of professional isolation. The value of χ^2 was (4.560) which was not-significant. The calculated values of mean opinion scores of PSTs and DTEs were 2.84 & 3.09 respectively.

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The t-value was 2.125 and Null Hypothesis H_{O5} was rejected. This indicated that there was high difference in the opinions of PSTs and DTEs that mentoring helped in eliminating the feelings of professional isolation. The mean score of CTSCs was 4.10 and DTSCs was 3.50. The t-value was 2.145 and H_{O6} were rejected. The contradictions in the opinions of PSTs and DTEs were observed as the DTEs were in favor of their profession there may be many reasons for this contradiction including continuation of their jobs (Table 29, 82, 129 &175).

19. Most of the PST respondents 45.4 % disagreed that mentoring helped in developing positive attitude towards teaching. The value of χ^2 was (6.013) not-significant at 0.05 level of significance. Most of the DTEs 53.0 % disagreed that mentoring helped in developing positive attitude towards teaching. The value of χ^2 was (15.589) which was highly significant. Majority of the CTSC respondents 88.2 % agreed that mentor helped the mentees in developing positive attitude towards teaching. The value of χ^2 was (109.055) overwhelming significant. Majority of the DTSCs 91.7 % agreed that mentor helped the mentees in developing positive attitude towards teaching. The value of χ^2 was (6.500) not-significant at 0.05 level of significance. The mean score of PSTs was 3.01 and mean score of DTEs was 2.99. The t-value was 0.988 and Null Hypothesis H_{O5} was not rejected. The mean score of CTSCs was 4.10 and mean score of DTSCs was 4.42. The t-value was 1.184 and Null Hypothesis H_{O6} was not rejected (Table 30, 83, 130 & 176).

20. Most of the PST respondents 54.0 % agreed with the statement that mentoring provided help in assessing the students' learning needs. The value of χ^2 was (13.677) highly significant at 0.01 level of significance. Majority of the DTE respondents

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70.5 % agreed that mentoring process provided help in assessing the students' learning. The value of χ^2 was (143.464) overwhelming significant at 0.001 level of significance. Majority of the CTSCs 88.7 % agreed that mentor helped the mentees in assessing the learning needs of their student. The value of χ^2 was (231.527) overwhelming significant. Majority of the DTSCs 75.0 % agreed that mentor helped the mentees in assessing the learning needs of student. The value of χ^2 was (9.500) which was highly significant. The mean score of PSTs was 3.11 and DTEs was 3.66. The t-value was 5.237 and Null Hypothesis H_{O5} was rejected. The value of mean score of CTSCs was 4.08 and mean score of DTSCs was 4.17. The t-value 0.324 and Null Hypothesis H_{O6} was not rejected (Table 31, 84, 131 & 177).

21. Most of the PST respondents 59.9 % agreed with the statement that mentoring process has deepened the understanding about teaching and learning. The value of χ^2 was (17.310) highly significant. Most of the DTE respondents 53.0 % agreed that mentoring deepened the understanding about teaching and learning. The value of χ^2 was (68.795) overwhelming significant. The mean score of PSTs was 3.30 and mean score of DTEs was 3.16. The t-value was 1.207 and Null Hypothesis H_{O5} was not rejected. This depicted that PSTs and DTEs held favorable opinions with the statement that mentoring has deepened their understanding about teaching and learning (Table 32 & 132).

22. Most of the PSTs 54.1 % agreed that mentoring process helped in organizing the curriculum related activities. The value of χ^2 was (90.745) overwhelming significant. Most of the DTE respondents 60.9 % agreed that mentoring process helped in organizing the curriculum related activities. The value of χ^2 was (101.113) which

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was overwhelming significant. Most of the CTSCs 60.9 % disagreed that mentor helped the mentees in organizing the curriculum related activities. The value of χ^2 was (194.00) overwhelming significant. Majority of the DTSCs 75.0 % agreed with the statement that mentor helped the mentees in organizing the curriculum related activities and value of χ^2 was (11.450) significant. The mean score of PSTs was 3.12 and DTEs was 3.22. The t-value was 0.680 and Null Hypothesis H_{O5} was not rejected. The value of mean score of CTSCs was 3.99 and DTSCs was 4.08. The t-value was 0.296 and Null Hypothesis H_{O6} was rejected. The analyzed data of the observations conceived that 75 % of the mentor guided to the mentees about preparation of individual & group activities and 67 % mentors provided guidelines to the mentees how to develop teaching and learning activities. In 54 % Model Lessons, activities were according to the lesson plan and 62 % mentor gave activities to the mentees from textbook while, in 48 % Model Lessons, verbal activities other than lesson plan were given. It is evident from the interviews analysis that all of the DTEs respondents w. r. t. teaching experiences focused on (i) Activity Based Teaching and Learning, (ii) Lesson Planning, (iii) Taleemi Calendar and (viii) Homework (Figure 13, Table 33, 85, 133 & 178).

AREA-4 USE OF SUPPORT MATERIAL

Research Question No. 4

"How the mentoring processes enable the Primary School Teachers to search and use supportive material during the instructional process"?

23. Majority of the PSTs 83.0 % agreed that mentoring guided in searching and gathering teaching resources. The value of χ^2 was (14.853) highly significant. Majority of the DTEs 72.2 % agreed that mentoring guided in searching and

gathering teaching resources. The value of χ^2 was (149.358) which was overwhelming significant. Majority of the CTSC respondents 74.2 % agreed that mentor helped the mentees in searching and gathering teaching resources. The value of χ^2 was (46.170) which was overwhelming significant. Majority of the DTSC respondents 83.4 % agreed that mentor helped the mentees in searching and gathering teaching resources. The value of χ^2 was (11.300) significant. The mean opinion score of PSTs was 3.40 and mean opinion score of DTEs was 3.63. The t-value was 2.984 and Null Hypothesis H_{O5} was rejected. The mean score of CTSCs was 3.67 and the mean score of DTSCs was 3.75. The t-value was 0.197 and Null Hypothesis H_{O6} was not rejected (Table 34, 86, 134 &179).

24. Most of the PST respondents 56.7 % agreed that mentoring process helped in developing supporting material for classroom instructions. The value of χ^2 was (10.864) significant. Majority of the DTEs 71.2 % agreed that mentoring helped in developing support material for classroom instructions. The value of was χ^2 (138.960) overwhelming significant. Majority of the CTSCs 70.9 % agreed that mentor helped the mentees in developing supporting material for classroom instructions. The value of χ^2 was (33.441) which was overwhelming significant. Majority of the DTSCs 75.0 % agreed that mentor helped the mentees in developing supporting material for classroom instructions. The value of χ^2 was (7.333) not-significant. The value of mean opinion score of PSTs was 3.22 and mean opinion score of DTEs was 3.65. The t-value was 3.800 and Null Hypothesis H_{O5} was rejected. The mean score of CTSCs was 3.60 and mean score of DTSCs

was 4.00. The t-value was 0.901 and Null Hypothesis H_{O6} was not rejected (Table 35, 87, 135 & 180).

25. Most of the PST respondents 45.6 % agreed that mentoring process helped the mentees in utilizing the various kinds of instructional techniques to improve the students' learning. The value of value of χ^2 (6.055) was not-significant. Most the DTE respondents 51.7 % of agreed that mentoring helped in utilizing various kinds of instructional techniques to improve the student learning. The value of χ^2 was (0.464) not-significant. Majority of the CTSC respondents 84.9 % disagreed that mentor helped to the mentees in utilizing various kinds of instructional techniques to improve the student learning. The value of χ^2 (192.118) was overwhelming significant. Majority of the DTSC respondents 75.0 % agreed that mentor helped the mentees in utilizing various kinds of instructional techniques to improve the student learning. The value of χ^2 was (11.240) significant. The mean score of PSTs was 3.31 and mean score of DTEs was 3.05. The t-value was 0.623 and Null Hypothesis H_{O5} was not rejected. The mean score of CTSCs was 3.72 and mean score of DTSCs was 4.08. The calculated t-value was 0.166 and Null Hypothesis H_{O6} was not rejected (Table 36, 88, 136 & 181).

26. Most of the PST respondents 50.2 % disagreed that mentoring helped in judging the appropriateness of supporting materials aligned with the contents. The value of χ^2 was (4.753) not-significant. Most of the DTE respondents 60.9 % agreed that mentoring helped in judging the appropriateness of supporting materials aligned with the contents. The value of χ^2 was (24.808) which was overwhelming significant. Majority of the CTSCs 55.9 % disagreed that mentor helped the

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mentees in judging the appropriateness of supporting materials and it's aligned with the teaching contents. The value of χ^2 was (3.333) which was not-significant. 75.0 % of the DTSCs agreed that mentor helped the mentees in judging the appropriateness of supporting materials and it's aligned with the teaching contents. The value of χ^2 was (11.989) significant. The mean scores of PSTs and DTEs were 3.73 and 3.33 respectively. The t-value was 2.356 and Null Hypothesis H_{O5} was rejected. The mean score of CTSCs was 2.85 and mean score of DTSCs was 4.00. The t-value 2.419 and Null Hypothesis H_{O6} was rejected (Table 37, 89, 137 &182).

27. Most of the PSTs 53.0 % agreed with the statement that mentoring helped in preparing teacher made supporting material. The value of χ^2 was (90.457) overwhelming significant. Majority of the DTE respondents 61.3 % agreed that mentoring helped in preparing teacher made supporting material. The value of χ^2 was (97.503) which was overwhelming significant. Majority of the CTSC respondents 89.2 % agreed that mentor helped the mentees in preparing teacher made supporting material. The value of χ^2 was (180.720) overwhelming significant. Majority of the DTSC respondents 83.4 % agreed that mentor helped the mentees in preparing teacher made supporting material. The value of χ^2 was (11.033) significant. The mean score of PSTs was 3.17 and DTEs was 3.34. The t-value was 2.065 and Null Hypothesis H_{O5} was rejected. The value of mean score of CTSCs was 3.77 and mean score of DTSCs was 4.25. The t-value remained 1.378 and Null Hypothesis H_{O6} was not rejected (Table 38, 90, 138 & 183).

28. Most of PSTs 61.1 % agreed with the statement that mentor guided in preparing the cost-effective supporting material. The value χ^2 was (113.00) overwhelmingly

significant. Most of the DTE respondents 61.9 % agreed that mentor guided the mentees in preparing the cost-effective supporting material. The value of χ^2 was (99.623) overwhelming significant. The mean opinion score of PSTs was 3.59 and mean opinion score of DTEs was 3.39. The t-value was 0.480 and Null Hypothesis H_{05} was not rejected (Table 39 & 139).

29. Most of the PST respondents 52.0 % agreed with the statement that mentoring helped in searching and preparing supporting material. The value of χ^2 was (91.297) overwhelmingly significant. Most of the DTE respondents 62.6 % agreed that mentoring process helped in searching and preparing supporting material. The value of χ^2 was (108.762) overwhelming significant. The mean score of PSTs was 3.47 and mean score of DTEs was 3.29. The t-value was 1.902 and Null Hypothesis H_{05} was not rejected (Table 40, 90, 140 & 184).

30. 48.0 % PSTs disagreed that mentoring process helped in preparing the support material that matches with mental abilities of the students. The value of χ^2 was (4.711) not-significant. Most of the DTE respondents 55.9 % were agreed that mentoring process helped in preparing the support material that matches with mental abilities of the students. The value of χ^2 was (1.338) not-significant. The mean score of PSTs was 3.09 and DTEs mean score was 3.06. The t-value was 0.308 and Null Hypothesis H_{05} was rejected. The data obtained through observations conceived that 79 % of the mentors used handwritten/handmade material on PD Day. 58 % of Model Lesson, supporting material was according to objectives of the lesson. In 54 % of the Model Lesson, mentor guided the mentees how to search out supporting material and 48 % of mentors guided the mentees how

include the supporting material in the lesson plan. The analysis of interviews conceived that both of the rural and urban groups of DTEs focused on (i) Taleemi Calendar, (ii) Lesson Planning and Use of Support Material. The tree map of the respondents showed that all PSTs subsequently focused on the mentoring areas (i) Use of Support Material, (ii) Lesson Planning and (iv) Taleemi Calendar. The analysis of interviews also evident that all age groups of DTSC respondents focused on (i) Support Material and (ii) Homework. The analysis of the DTSCs interviews conceived that all groups of the respondents focused on the mentoring areas (i) Support Material and (ii) Homework (Table 41, & 141, Figure 12, 14, 21 & 25).

AREA-5 INTERACTION WITH STUDENT

Research Question No. 5

"To what extent mentoring is helpful in creating interaction with students during teaching"?

31. Most of the PST respondents 51.4 % agreed that mentoring process helped in communicating with students effectively. The value of χ^2 was (91.533) overwhelmingly significant. Most of the DTE respondents 60.9 % agreed with the statement that mentoring helped in communicating with students effectively. The value of χ^2 was (90.947) overwhelming significant. The calculated value of mean score of the PSTs was 3.09 and mean score of DTEs was 3.37. The t-value was 2.491 and Null Hypothesis H_{O5} was rejected (Table 42 & 142).

32. Most of the PST respondents 56.4 % agreed that mentoring provided guideline to encourage the students how to talk and share their ideas. The value of χ^2 was (99.302) overwhelming significant. Most of the DTE respondents 62.3 % agreed

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that mentoring provided guidelines to the mentees in encouraging the students how to talk and share their ideas. The value of χ^2 was (102.470) overwhelming significant. Most of the CTSC respondents 53.4 % agreed that mentor provided guidelines to mentees regarding encouragement to the students to talk and share their ideas. The value of χ^2 was (85.344) highly significant. Majority of the DTSC respondents 91.6 % agreed that mentor provided guidelines to mentees regarding encouragement the students to talk and share their ideas. The value of χ^2 was (13.433) highly significant. The mean opinion score of PSTs was 3.61 and mean opinion score of DTEs was 3.30. The t-value was 1.083 and Null Hypothesis H_{O5} was not rejected. The value of mean score of CTSCs was 3.09 and mean score of DTSCs was 4.67. The t-value 3.846 and Null Hypothesis H_{O6} was rejected (Table 43, 92, 143 & 185).

33. Most of the PST respondents 52.7% disagreed with the statement that mentoring process helped in providing corrective feedback to the students. The value of χ^2 was (1.478) which was not-significant. Most of the DTEs 66.5 % disagreed that mentoring process helped in providing corrective feedback to the students. The value of χ^2 was (122.901) overwhelming significant. Majority of the CTSC respondents 58.0 % disagreed that mentor helped the mentees in providing corrective feedback to the students. The value of χ^2 was (8.086) which was not-significant. Most of the DTSC respondents 66.7 % agreed that mentor helped the mentees in providing corrective feedback to the students. The value of χ^2 was (4.667) which was not-significant. The mean score of PSTs was 2.92 and mean score of DTEs was 3.52. The t-value was 4.898 and Null Hypothesis H_{O5} was

rejected. The mean score of CTSCs was 2.74 and mean of DTSCs was 3.75. The t-value was 2.119 and Null Hypothesis H_{O6} was rejected (Table 44, 93, 144 & 186).

34. Most of the PST respondents 51.5 % agreed that mentoring improved their questioning skills. The value of χ^2 was (11.976) which was highly significant. 67.9 % of DTEs agreed that mentoring improved questioning skills of the mentees. The value of χ^2 was (130.318) overwhelming significant. Majority of the CTSCs 83.9 % agreed that mentor helped the mentees to improve their questioning skills. The value of χ^2 was (155.882) which was overwhelming significant. 75.0 % of the DTSCs agreed that mentor helped the mentees to improve their questioning skills. The value of χ^2 was (11.450) which was significant. The mean score of PSTs was 3.13 and mean score of DTEs was 3.61. The t-value was 5.405 and Null Hypothesis H_{O5} was rejected. The value of mean score of CTSCs was 4.15 and mean score of DTSCs was 4.25. The calculated t-value was 0.330 and Null Hypothesis H_{O6} was not rejected 0.742 (Table 45, 94, 145 & 187).

35. Most of the PST respondents 50.2 % disagreed that mentoring process helped in writing clear learning objectives for a lesson. The value of χ^2 was (5.173) not-significant. 48.3 % DTEs disagreed that mentoring helped in writing clear learning objectives for a lesson. The value of χ^2 was (1.311) not-significant. Most of the CTSCs 56.4 % disagreed that mentor helped mentees in writing clear learning objectives for a lesson. The value of χ^2 was (3.462) not-significant. Majority of the DTSC respondents 75.0 % disagreed that mentor helped the mentees in writing clear learning objectives for a lesson. The value of χ^2 was (3.330) not-significant. The mean score of PSTs was 2.97 and mean score of DTEs was 3.07. The t-value

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was 0.741 and Null Hypothesis H_{O5} was rejected. The mean score of CTSCs was 2.81 and mean score of DTSCs was 3.75. The t-value remained 1.979 and Null Hypothesis H_{O6} was rejected (Table 46, 95, 146 & 188).

36. Most of the PST respondents 52.8 % agreed that mentoring provided opportunities to encouraged students to ask questions. The value of χ^2 was (90.850) overwhelmingly significant. Most of the DTE respondents 67.6 % agreed with the statement that mentoring provided opportunities to encouraged students to ask questions. The value of χ^2 was (128.662) overwhelming significant Majority of the CTSCs 84.1 % agreed that mentor provided opportunities to mentees in encouraging their students to ask questions. The value of χ^2 was (151.043) which was overwhelming significant. Majority of the DTSCs 75.0 % agreed that mentor provided opportunities to the mentees in encouraging their students to ask questions. The value of χ^2 was (8.00) which was not-significant. The mean score of PSTs was 3.10 and DTEs was 3.52. The t-value was 3.513 and Null Hypothesis H_{O5} was rejected. The mean score of CTSCs was 4.11 and mean score of DTSCs was 4.00. The t-value was 0.344 and Null Hypothesis H_{O6} was not rejected (Table 47, 96, 147 & 189).

37. Most of the PST respondents 54.3 % agreed that mentoring provided guidelines in responding the correct responses and incorrect responses of students. The value of χ^2 was (83.291) overwhelmingly significant. Most of the DTE respondents 61.3 % agreed that mentoring provided guidelines, in responding the correct responses and incorrect responses of students. The value of χ^2 was (99.722) overwhelming significant. The calculated value of mean score of PSTs was 3.19 and mean score of

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DTEs was 3.35. The t-value remained 1.357 and Null Hypothesis H_{O5} was not rejected. The data obtained through observations conceived that 67 % of the mentors guided the mentees, how to ask questions from students. 62 % of the mentors guided the mentees, how to start and conclude discussions among the students. 54 % of the mentors guided the mentees, how invite the students feedback and 46 % of the mentors provided guidelines to the mentees, how to communicate with the students effectively (Table 47, 96, 147 & 189).

AREA-6 CLASSROOM MANAGEMENT

Research Question No. 6

"To what extent the mentoring process helped the Primary School Teachers in gaining classroom management skills"?

38. 48.3 % PSTs disagreed that mentoring process helped in carrying out all the teaching activities in the classroom. The value of χ^2 was (3.661) not-significant. 48.3 % of the DTE respondents disagreed that mentoring process helped in carrying out all the teaching activities in the classroom. The value of χ^2 was (4.675) not-significant. Majority of CTSCs 82.8 % agreed with the statement that mentor helped the mentees in carrying out all the teaching activities in the classroom. The value of χ^2 was (171.043) which was overwhelming significant. Majority of DTSCs 83.4 % agreed that mentor helped the mentees in carrying out all the teaching activities in the classroom. The value of χ^2 was (16.00) which was highly significant. The mean score of PSTs was 3.08 and mean opinion score of DTEs was 2.99. The t-value was 0.802 and Null Hypothesis H_{O5} was not rejected. The mean opinion score of CTSCs was 3.89 and mean opinion score of DTSCs was 4.33. The

t-value remained 1.288 and Null Hypothesis H_{06} was not rejected (Table 48, 97, 148 & 190).

39. Most of the PSTs 52.3 % agreed that mentoring process helped in maintaining attractive and appropriate classroom environment for students. The value of χ^2 was (86.073) overwhelmingly significant. Most of the DTE respondents 62.9 % agreed that mentoring process helped the mentees in maintaining attractive and appropriate classroom environment for students. The value of χ^2 was (110.086) overwhelming significant. Majority of the CTSC respondents 80.7 % agreed that mentor helped the mentees in maintaining appropriate classroom environment for students. The value of χ^2 was (131.688) overwhelming significant. Majority of the DTSC respondents 83.3 % agreed that mentor helped the mentees in maintaining appropriate classroom environment for students. The value of χ^2 (11.300) was significant. The mean opinion score of PSTs was 3.11 and mean opinion score of DTEs was 3.50. The t-value was 3.254 and Null Hypothesis H_{05} was rejected. The mean score of CTSCs was 3.98 and mean score of DTSCs was 4.08. The t-value was 0.280 and Null Hypothesis H_{06} was not rejected (Table 49, 99, 149 & 191).

40. Most of PSTs 52.7 % agreed that mentoring helped in improving classroom management skills that mentoring helped in improving classroom management skills of the mentees. The value of χ^2 was (92.845) overwhelming significant. Most of the DTE respondents 58.6 % agreed that mentoring helped in improving classroom management skills that mentoring helped in improving classroom management skills of the mentees. The value of χ^2 was (109.556) overwhelming significant. Majority of CTSCs 88.7 % agreed that mentor helped the mentees in

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improving their classroom management skills. The value of χ^2 was (232.656) which was overwhelming significant. Majority of DTSCs 83.4 % agreed that mentor helped the mentees in improving their classroom management skills. The value of χ^2 was (11.300) which was highly significant. The mean opinion score of PSTs was 3.13 and mean opinion score of DTEs was 3.40. The t-value was 2.294 and Null Hypothesis H_{O5} was rejected. The mean score of CTSCs was 4.06 and mean score of DTSCs was 4.25. The t-value 0.690 and Null Hypothesis H_{O6} was not rejected (Table 51, 99, 151 & 192).

41. Most of the PSTs 50.7 % disagreed that mentoring process helped in promoting desired behaviors among students. The value of χ^2 (6.076) was not-significant. Most of the DTEs 52.0 % disagreed that mentoring process helped in promoting desired behaviors among students. The value of χ^2 was (2.291) not-significant. Most of CTSCs 56.5 % disagreed that mentor helped the mentees in promoting desired behaviors among the students. The value of $\chi2$ was (6.086) which was not-significant. Most of the DTSCs 58.3 % agreed that mentor helped the mentees in promoting desired behaviors among the students. The value of χ^2 was (4.360) which was not-significant. The mean score of PSTs was 3.01 and mean score of DTEs was 3.10. The t-value was 0.707 and Null Hypothesis H_{O5} was not rejected. The mean score of CTSCs was 2.81 and mean score of DTSCs was 3.42. The t-value was 1.233 and Null Hypothesis H_{O6} was not rejected (Table 52, 100, 152 & 193).

42. 44.7 % PSTs disagreed that mentoring process helped in identifying and dealing with potential behavioral problems before they develop. The value of χ^2 was (6.643)

not-significant. 45.7 % of the DTE respondents disagreed that mentoring process helped in identifying and dealing with potential behavioral problems before they develop. The value of χ^2 was (5.868) not-significant. Most of the CTSCs 52.2 % disagreed that mentor helped the mentees in identifying potential behavioral problems of their students before they develop. The value of χ^2 was (5.957) not-significant. Majority of the DTSC respondents 75.0 % agreed that mentor helped the mentees in identifying potential behavioral problems. The value of χ^2 was (11.240) highly significant. The mean score of PSTs was 3.17 and DTEs was 3.11. The t-value was 0.576 and Null Hypothesis H_{O5} was not rejected. The value of mean opinion score of CTSCs was 3.12 and mean opinion score of DTSCs was 4.25. The t-value was 2.316 and Null Hypothesis H_{O6} was rejected (Table 53, 101, 153 & 194).

43. Most of the PST respondents 54.9 % agreed that mentoring process provided the guidelines in keeping the students on-task, during class. The value of χ^2 was (11.283) significant. Most of the DTE respondents 68.2 % agreed that mentoring process provided the guidelines in keeping the students on-task, during class. The value of χ^2 was (137.470) overwhelming significant. The mean score of PSTs was 3.13 and mean score of DTEs was 3.66. The t-value was 4.371 and Null Hypothesis H_{O5} was not rejected. The observations data reflected that 79 % of the mentors guided to the mentees, how to make proper seating arrangement of students and 58 % of the mentors guided to the mentees, how to maintain cleanliness of classroom. In 54 % of Model Lessons, the mentors guided to the mentees, how to make proper space for movement and group work in the classroom. 54 % of the mentors guided, how to

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properly display of visual materials, e.g. pictures/models and charts. The data obtained through interviews revealed that all five age groups of DTEs focused on the mentoring areas (i) Classroom Management, (ii) Lesson Planning, and (ii) Taleemi Calendar. Both male and female of the DTE respondents spotlighted on the mentoring areas (i) Classroom Management, (ii) Lesson Planning and (iii) Taleemi Calendar. All three groups of the respondents were commonly stressed on the mentoring areas (i) Classroom Management and (ii) Lesson Planning (Table 54, 102, 154 & 195, Figure 8, 15, 17 & 18).

AREA-7 STUDENT ASSESSMENT

Research Question. 7

"In what ways the mentoring process is helpful to Primary School Teachers in assessing the student performance"?

44. Most of the PST respondents 56.2 % agreed that mentoring helped in praising those students who are on task and in motivating those who do not complete their work. The value χ^2 was (10.423) significant. Most of the DTE respondents 51.3 % agreed that mentoring helped in praising those students who are on task and in motivating those who do not complete their work. The value of χ^2 was (2.450) not-significant. Most of CTSCs 50.0 % disagreed that mentor helped to the mentees in praising those students who are on task and in motivating those who do not complete their work. The value of χ^2 was (4.409) which was not-significant. Majority of 75.0 % of DTSCs agreed that mentor helped the mentees in praising those students who are on task and in motivating those who did not complete their work. The value of χ^2 was (11.033) highly significant. The value of mean opinion

score of PSTs was 3.17 and mean opinion score of DTEs was 3.02. The t-value was 1.225 and Null Hypothesis H_{O5} was not rejected. The mean opinion score of CTSCs was 3.02 and mean opinion score of DTSCs was 4.08. The t-value was 2.175 and Null Hypothesis H_{O6} was rejected (Table 55, 103, 155 & 196).

45. Most of the PST respondents 49.9 % disagreed that mentoring process helped in evaluating the students' performance in line to the objectives of the lesson plan. The value of χ^2 (5.383) was not-significant. Most of the DTE respondents 68.9 % disagreed that mentoring process helped in evaluating the students' performance in line to the objectives of the lesson plan. The value of χ^2 was (156.013) overwhelming significant. Most of the CTSCs 52.7 % disagreed that mentor helped the mentees in evaluating the students' performance in line to the objectives of the lesson plan. The value of χ^2 was (5.011) not-significant. Most of the DTSCs 66.7 % agreed that mentor helped the mentees in evaluating the students' performance in line to the objectives of the lesson plan. The value of χ^2 was (4.00) which was not-significant. The calculated value of mean score of PSTs was 2.96 and mean score of DTE was 3.71. The t-value was 6.489 and Null Hypothesis H_{O5} was rejected. The value of mean score of CTSCs was 2.96 and mean score of DTSCs was 3.67. The t-value remained 1.436 and Null Hypothesis H_{O6} was not rejected (Table 56, 104, 156 & 197).

46. Majority of the DTE respondents 72.2 % agreed with the statement that mentoring helped in monitoring the progress of students. The value of χ^2 was (150.748) overwhelming significant. Majority of the CTSC respondents 79.1 % agreed that mentor helped the mentees in monitoring the progress of students. The

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value of χ^2 was (64.796) overwhelming significant. Majority of the DTSC respondents 75.0 % agreed that mentor helped the mentees in monitoring the progress of students. The value of χ^2 was (11.280) highly significant. The mean opinion score of PSTs was 3.07 and mean opinion score of DTEs was 3.70. The t-value was 5.362 and Null Hypothesis H_{O5} was rejected. The mean opinion score of CTSCs was 3.89 and mean opinion score of DTSCs was 4.00. The t-value was 0.261 and Null Hypothesis H_{O6} was not rejected (Table 57, 105, 157 & 198).

47. 48.1 % PSTs disagreed that mentoring process provided a variety of ways to assess the students' achievement. The value of χ^2 was (5.173) not-significant. Most of the DTEs 58.6 % disagreed that mentoring process provided a variety of ways to assess the students' achievement. The value of χ^2 was (91.510) which was overwhelming significant. Majority of the CTSCs 81.2 % agreed that mentor helped the mentees in a variety of ways to assess their students' achievement. The value of χ^2 was (75.462) overwhelming significant. Majority of the DTSCs 83.3 % were agreed that mentor helped the mentees in variety of way to assess the students' achievement. The value of χ^2 was (11.333) overwhelming significant. The value of mean score of PSTs was 3.11 and mean score of DTEs was 3.27. The t-value was 1.348 and Null Hypothesis H_{O5} was not rejected (Table 58, 106, 158 & 199).

48. 48.3 % PSTs disagreed that mentoring helped in strengthening assessment skills of the mentees. The value of χ^2 was (2.758) not-significant. Most of the DTE respondents 68.5 % disagreed that mentoring helped in strengthening assessment skills of the mentees. The value of χ^2 was (144.126) overwhelming significant.

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Majority of the CTSCs 81.2 % agreed that mentor helped the mentees in strengthening their assessment skills. The value of χ^2 was (90.946) which was overwhelming significant. Majority of the DTSCs 75.0 % agreed that mentor helped to the mentees in strengthening their assessment skills. The value of χ^2 was (4.667) which was not-significant. The value of mean score of PSTs was 3.05 and mean score of DTEs was 3.52. The t-value was 4.045 and Null Hypothesis H_{O5} was rejected. The value of mean score of CTSCs was 3.84 and mean score of DTSCs was 3.92. The t-value was 0.203 and Null Hypothesis H_{O6} was not rejected. The data of observations showed that 83 % of the mentors guided to the mentees about the conduct of exams and 71 % of the mentors guided the mentees about construction of test according to the curriculum objectives and 67 % of the mentors guided to the mentees about the classroom test construction whereas, 62 % of the mentors guided the mentees about the preparation of results (Table 59, 106, 159 & 199).

AREA-8 HOME WORK

Research Question No. 8

"To what extent mentoring process helped the PSTs regarding the home work of the students?"

49. Most of the PST respondents 51.7 % agreed that mentoring process provided guidelines in assigning home work to students. The value of χ^2 was (91.323) overwhelming significant. Most of the DTE respondents 60.0 % agreed that mentoring process provided guidelines in assigning home work to students. The value of χ^2 was (101.441) overwhelming significant. Majority of the CTSC

respondents 80.1 % agreed that mentor provided guideline to the mentees in assigning home work to their students. The value of χ^2 was (129.108) overwhelming significant. Majority of the DTSC respondents 83.4 % agreed that mentor provided guideline to the mentees in assigning home work to their students. The value of χ^2 was (11.333) significant. The calculated value of mean score of PSTs was 3.02 and mean score of DTEs was 3.22. The t-value was 1.637 and Null Hypothesis H_{05} was not rejected. The value of mean score of CTSCs was 3.99 and mean score of DTSCs was 4.25. The t-value remained 0.732 and Null Hypothesis H_{06} was not rejected (Table 60, 107, 160 & 200).

50. Majority of the PST respondents 62.2 % agreed that mentoring process helped in providing guidelines the students for the successful completion of home work. The value of χ^2 was (92.005) overwhelming significant. Most of the DTEs 62.2 % agreed that mentoring process helped in providing guidelines to the students for the successful completion of home work. The value of χ^2 was (91.245) which was overwhelming significant. Majority of the CTSCs respondents 89.3 % agreed that mentor helped the mentees in providing guidelines to their students for the successful completion of homework. The value of χ^2 was (189.054) highly significant. Majority of the DTSCs 83.3 % agreed that mentor helped the mentees in providing guidelines to their students for the successful completion of homework. The value of χ^2 was (16.00) highly significant. The value of mean score of PSTs was 2.99 and DTEs was 3.35. The t-value was 3.013 and Null Hypothesis H_{05} was rejected. The value of mean score of CTSCs was 4.26 and mean score of DTSCs was 4.33. The t-value

remained 0.262 and Null Hypothesis H_{O6} was not rejected (Table 61, 108, 161 & 201).

51. Most of the PST respondents 45.9 % disagreed that mentoring process provided instructions in promoting creative thinking through home work. The value of χ^2 was (3.283) not-significant. Majority of the DTE respondents 64.5 % agreed that mentoring process provided instructions in promoting creative thinking through home work. The value of χ^2 was (115.318) which was overwhelming significant. Most of the CTSCs respondents 53.8 % agreed that mentor provided instructions to the mentees in promoting creative thinking through home work. The value of χ^2 was (6.559) which was not-significant. Majority of the DTSCs 66.7 % agreed that mentor provided instructions to the mentees in promoting creative thinking through home work. The value of χ^2 was (4.360) which was not-significant. The mean opinion score of PSTs was 3.14 and mean opinion score of DTEs was 3.55. The t-value was 3.393 and Null Hypothesis H_{O5} was rejected. The mean score of CTSCs was 3.03 and mean score of DTSCs was 3.58. The t-value remained 1.170 and Null Hypothesis H_{O6} was not rejected (Table 62, 109, 162 & 202).

52. Most of the PST respondents 56.2 % were agreed that mentoring process provided instructions in ensuring that assigned homework was according to the capabilities of their students. The value χ^2 was (8.323) significant. Most of the DTE respondents 52.7 % agreed that mentoring process provided instructions in ensuring that assigned homework was according to the capabilities of their students. The value of χ^2 was (7.113) not-significant. Most of the CTSCs 58.6 % disagreed that mentor provided instructions to the mentees in ensuring that assigned homework

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was according to the capabilities of their students. The value of χ^2 was (7.419) not-significant. Most of the DTSC respondents 66.7 % agreed that mentor provided instructions to the mentees in ensuring that assigned homework was according to the capabilities of their students. The value of χ^2 was (2.00) not-significant. The mean score of PSTs was 3.19 and mean score of DTEs was 3.19. The t-value was 0.008 and Null Hypothesis H_{O5} was not rejected. The value of mean score of CTSCs was 2.70 and DTSCs was 3.58. The t-value was 1.934 and Null Hypothesis H_{O6} was not rejected. The data conceived through observations showed that 79 % of the mentors guided the mentees how to evaluate the home work of the students and 75 % of the mentors guided the mentees how to provide guidance to the students to complete their homework. In 62 % observations of the Model Lessons mentors guided the mentees, how to assign home work to the students, 58 % of the mentors guided the mentees, how to match the home work with class work. The analysis of interviews showed that male and female respondents focused on the mentoring areas (i) Taleemi Calendar, (ii) Lesson Planning, and (iii) Home Work. It is evident that qualification wise all three groups of the respondents focused on mentoring areas (i) Homework, (ii) Lesson Planning and (iii) Taleemi Calendar. It is also evident that the CTSC respondents w.r.t. to qualifications wise focused on mentoring areas (i) Taleemi Calendar, (ii) Lesson Planning, and (iii) Home work whereas, male and female of the DTSC respondents spotlighted on the mentoring areas (i) Lesson Planning and (ii) Home Work (Table 63, 110, 163 & 203 Figure 9, 10, 11, 16, 19 & 22).

Research Question No. 9

"What are the overall effects of mentoring process on the professional development of the primary school teachers"?

53. The overall difference between the mean scores of PSTs & DTEs on the all Mentoring Areas i.e. (i) Taleemi Calendar, (ii) Lesson Planning, (iii) Activity Based Teaching and Learning, (iv) Use of Support Material, (v) Interaction with Students, (vi) Classroom Management, (vii) Student Assessment and (viii) Home Work was overwhelmingly significant. The overall calculated t-values of PSTs and DTEs were overwhelmingly significant at p=0.001 level of significance in the mentoring areas: Area-1, Area-2, Area-5 & Area-7. It was highly significant in the mentoring areas: Area-6 & Area-8 and remained not-significant in mentoring Area-3. The total sum of all t-value of PSTs and DTEs was also overwhelmingly significant the eight mentoring areas. So, in the opinions of PSTs and DTEs it is concluded that mentoring process significantly contributed professional development of the Primary School Teachers. The overall calculated t-value for CTSCs & DTSCs was overwhelmingly significant at p=0.001 level of significance in mentoring areas, Area-1. It was highly significant in Area-2 & Area-5, it was significant in the mentoring Area-6 and not-significant in the mentoring Area-3 & Area-4 Area-7 & Area-8. The total sum of all t-value for CTSCs and DTSCs was significant on the eight mentoring areas. So, in the opinions of CTSCs and DTSCs it is concluded that mentoring process was effective for professional development of the Primary School Teachers (Table 164 & 205).

54. **Analysis of the Open Ended Question (PSTs)**

 i. 20.73 % PSTs agreed that facilities be provided to all the primary schools.

 ii. 16.27 % PSTs mentoring process fulfilled their professional development needs.

 iii. 13.64 % PSTs agreed that English language is problem especially in rural areas.

 iv. 13.38 % PSTs agreed that support material kit be provided to each school.

 v. 11.28 % PSTs agreed that this programme has provided the in-service training needs at the door.

55. **Finding of the Open Ended Questions (DTEs)**

 i. 18.21 % DTEs agreed that the promotion of PSTs be linked with the performance.

 ii. 14.23 % DTEs agreed that share proportionate of "mentoring days" and "assessment days" be changed.

 iii. 13.90 % DTEs agreed that there should be compulsory induction training of newly inducted teachers before receiving mentoring activities.

 iv. 10.90 % DTEs agreed that each Primary School must be functional under the policy of one teacher one classroom.

 v. 10.26 % DTEs agreed that Educational Calendar should have 190 days of year.

56. **Analysis of Open Ended Questions (CTSCs)**

i. 38.00 % of the CTSCs agreed that poor incentives for CTSC Heads.

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ii. 28.49 % of the CTSCs agreed that lack of accountability of teachers due to political interference, teachers' unions and role of ministerial staff.

iii. 18.81 % of the CTSCs agreed that non-educational assignments entrusted to teachers.

iv. 17.20 % of the CTSCs agreed science teacher be provided to each primary school.

v. 16.60 % of the CTSCs agreed that there were lack of facilities for primary school teachers.

57. Analysis of the Open Ended Question (DTSCs)

i. 33.33 % of the DTSCs agreed that at least 6 teachers required at primary level for each school.

ii. 33.00 % of the DTSCs agreed that need based and important topics should be dealt on PD day.

iii. 33.33 % of the DTSCs agreed that the share propionate of "mentoring days" and "assessment days" should be changed.

iv. 25.00 % of the DTSCs agreed that low qualified staff at primary level should be removed.

v. 16.66 % of the DTSCs incentives and appreciations to the best performers' teachers may be provided on PD day.

5.3 CONCLUSIONS

Following conclusions were derived from findings of the study.

1. The respondents comprising Primary School Teachers, District Teacher Educators, Cluster Training and Support Centers heads & District Training and Support Centers heads agreed that mentoring process helped in managing the teaching activities according to Taleemi Calendar, using the Taleemi Calendar rigorously which covers the backlogs of unseen days and to achieve the pre-set targets in advance (Findings 1, 2, 4, 5 & 6).

2. The above categories of respondents agreed that mentoring process was helpful for Primary School Teachers in attaining the requisite instructional skills such as lesson planning, introducing the new lesson and reviewing the previous lessons, assessing the learning needs of students in order to deepen teachers' understanding about teaching and learning (Findings 12, 13, 14, 15,19 & 20).

3. The respondents were of view that mentoring process helped in organizing the curriculum related activities, searching and gathering the teaching resources and preparing the teacher made cost-effective support materials. Moreover, District Teacher Educators encouraged the Primary School Teachers to improve their interaction with students and share their ideas with mentors. Similarly, mentoring process improved teachers' questioning skills by providing them opportunities to encourage their students to ask questions and to maintain productive environment in the classroom (Findings 22, 23, 24, 25, 27, 28, 32, 34, 36 & 39).

4. Mentoring process was also reported to help the mentees in improving their classroom management skills, in monitoring the learning progress of students

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effectively, in evaluating the homework of the students, in providing a variety of ways to assess the students' achievement and in providing guidelines for assigning and successful completion of homework (Findings 40, 45, 46, 47, 49, 50 & 51).

5. The respondents were of the view that mentoring process did not help them to manage the teaching activities in a realistic way e.g. to prepare the supporting materials which match with mental abilities of their students, to write down the clear learning objectives, to promote the desired behavior among the students, to identify the potential behavioral problems of students. The mentors did not provide the instruction which ensured that the assigned homework suited to the capabilities of students (Findings 3, 30, 35, 41, 42 & 52).

6. Majority of Cluster Training and Support Centers heads & District Training and Support Centers heads agreed that mentoring process helped in managing leave or absent days, in eliminating the feelings of professional isolation, in utilizing the various kinds of instructional techniques to improve the student learning. But majority of Primary School Teachers and District Teacher Educators had opposite views about the above aspects (Findings 7, 18 & 25).

7. Majority of Primary School Teachers and District Teacher Educators agreed that mentoring process helped in separating the content into parts and in carrying out all the teaching activities in the classroom. But majority of Cluster Training and Support Centers heads & District Training and Support Centers heads were of different point of view (Findings 10 & 38).

8. Majority of the District Teacher Educators agreed but majority of Primary School Teachers disagreed that mentoring process helped to decrease the professional stress,

to keep the activities smoothly, to provide effective instructional methodologies, to develop positive attitude towards teaching, to develop the supporting material, to use and align the supporting materials with the content, to provide corrective feedback to the students and to strengthen the assessment skills of teachers (Findings, 8, 9, 15, 19, 24, 26, 33 & 48).

9. Most of the Primary School Teachers agreed but District Teacher Educators disagreed that through mentoring process, the teaching of teachers had become more effective for evaluating the students' performance in line with the objectives of the lesson, providing instruction in enhancing creative thinking through homework. The District Teacher Educators disagreed perhaps because they wanted to see their teachers at higher standards of teaching (Findings 17, 45 & 51).

10. Through the findings of open ended questions, it was found that Primary School Teachers, specially serving in rural areas, had the problem of English as medium of instruction. There was dire need of provision of a science teacher as well as support material kit in every school. Though investigation of the mentoring process was confined to only public schools, it appears that situation in private schools of Punjab province would not be much different (Findings 54 & 56).

5.4 DISCUSSION

The present study explored the effect of mentoring process on the professional development of the primary school teachers in Punjab. The effect of mentoring process was evaluated in the following eight areas: (i) Taleemi Calendar, (ii) Lesson Planning, (iii) Activity Based Teaching and Learning, (iv) Use of Support Material, (v) Interaction with Students, (vi) Classroom Management, (vii) Student Assessment

and (viii) Home Work. The overall average opinions of Primary School Teachers, District Teacher Educators, Cluster Training and Support Centers heads & District Training and Support Centers heads differed on all eight mentoring areas which reflected that the effect of mentoring process on the professional development of the Primary School Teachers was viewed differently by teachers and administrators.

This section of the report deals with the comparisons of the study results with relevant previous research studies of this field. The study conducted by Sheri (2012) entitled "Mentoring Functions within the ACE Leadership Development Programme" revealed that mentoring programme was helpful for the professional development of the teachers which has bridged the professional development gaps in specific areas for the target group. Similarly, the results of study in hand found that mentoring process contributed towards the professional development of the Primary School Teachers.

The study conducted by Bresnahan (2011) revealed that mentoring had positive effect on the professional development of the teachers and enhanced their communication skills. This study also showed that mentoring process improved the communication skills and helped the mentees in communicating effectively with students.

The study of Jaja (2010) indicated that new teachers and mentors were of same opinion that mentoring had helped to achieve the objectives of this programme. The result of this study supports the results of Jaja's study that professional development skills of the Primary School Teachers were enhanced through the mentoring process. The study conducted by the Gardiner (2008) also revealed that mentoring programme

benefited the junior teachers but the senior teachers were not positively influenced by mentoring activities. The results of present study are not in line with Gardiner's study because mentoring programme contributed towards professional development of the Primary School Teachers. It may however be noted that Gardiner's study was focused on public sector schools of junior level. The researcher in the referred study emphasized on the informal and online mentoring while, the present study focused on formal and on the job mentoring.

A few limitations of the study were felt during the conduction of this study. Though eight aspects of teaching and learning were crucial, some other aspects could also be included such as time management, stress management and dealing with potential behavior problems. Another limitation of the study was that it was limited to only 12 districts of the Punjab province. Therefore, the results of this study could be generalized to these districts only. Furthermore, there was a need to conduct studies to compare and contrast the mentoring process initiated in Pakistan by the various mentoring programmes initiated by many developed in typological context.

5.4 RECOMMENDATIONS

On the basis of findings and conclusions of the study, following recommendations are drawn:-

1. Mentoring services in different areas of professional development of Primary School Teachers with reference to training, research, monitoring and evaluation have gained substantial ground. At policy level, a vigorous set of goals, structures and networking form an imperative policy commitment. The Directorate of Staff Development and

University Education Departments need to evolve a comprehensive and well-connected mentoring model for implementation.

2. The Taleemi Calendar holds the key position in mentoring process. It includes the schedules of teaching, learning and assessment. The Taleemi Calendar be revisited and revised keeping in the view the ground realities so that it would enable the mentees (PSTs) to manage the teaching activities in a realistic and systematic way throughout the educational year.

3. Lesson plans keep the teaching process truly systematic and well thought out activity and provides a framework for teaching. Comprehensive guidelines, teaching points, examples, use of projected and non-projected teaching aids for teaching various components of core courses be developed and manuals be made available for classroom teaching and learning.

4. Student Learning Outcomes (SLOs') play an important role in students' teachers' and institutions' evaluation which forms a weak area in our educational system. The work done by Provincial Education System (PEAS) at primary level be integrated and student assessment system be connected with graded milestones of learning.

5. English language learning is one of the major problems at every level of education in Pakistan. English language was viewed in the present study as a problem in the mentoring process. A specialized English language lab may be set up in Directorate of Staff Development to organize English language courses for primary teachers and trainers. One English language teacher from each primary school be inducted and trained in this area.

6. District Teacher Educator structure forms a sensitive position. He/ She plays a linchpin role and occupies a bridging position in managerial, administrative and professional tiers. His/ her position be raised to grade 17 and a strong induction procedure be evolved for inducting right kind of personnel for professional socialization of teachers. At least masters' degree in education be the entry level of this group. Both male and female groups may be inducted and trained for this task. In the hierarchy of administration, they may be linked with Directorate of Staff Development.

7. The Directorate of Staff Development may evolve an interlink-age system of monitoring model and inter-institutional arrangement be made with overseas institutions for developing teacher enrichment programmes viz-a-viz faculty development.

8. Conflict resolution strategies may be incorporated in the training programme of the District Teacher Educators so that they may guide the Primary School Teachers to deal with the challenging behaviors of their students.

9. The training duration of the District Teacher Educators may be enhanced to enable them to prepare the Primary School Teachers for developing support materials that matches with the mental abilities of their students. Similarly, the number of days allocated for assessment be increased to enable the mentees to use a variety of assessment techniques in order to assess their students' performance.

10. Importance of homework assigned to students cannot be underestimated. Homework has been found in this study to be a neglected area in the training of Primary School Teachers. Mentees may be given more skills in assigning and checking homework of

their students. There should be a homework policy for assigning and checking students' homework and mentors should train the mentees in such a way that they are able to assign and correct homework according to the policy.

11. Primary School Teachers reported that it was difficult for them to manage activities for their multi-grade students. Therefore, subject based mentoring may be introduced and separate mentors be appointed to provide mentoring facilities to those teachers who are teaching different subjects at primary school level.

12. Keeping in the view societal, cultural, religious barriers and gender sensitization, female District Teacher Educators may be appointed to provide mentoring to the female Primary School Teachers to make this programme more effective.

13. Stress management was reported in this study to be neglected in the existing mentoring process. There is a need of training in the area of stress management of teachers. Therefore; stress management may also be given weight-age in provision of mentoring facilities.

14. A number of private schools are being run under the offices of the Executive District Education Officers (EDOs) throughout the Punjab province. However, mentoring facilities were not being extended to a huge number of private school teachers. Therefore, mentoring facilities may be provided to the teachers working in all private schools functioning under the administration of the Executive District Education Officers (EDOs) in Punjab province.

5.5 SUGGESTIONS FOR FURTHER RESEARCH

1. The conduction of present study was delimited to 12 districts of the Punjab Province. To get a bigger and clearer picture about the mentoring process, further studies may be launched in all the 36 districts of Punjab province.

2. Studies on the effects of mentoring process on the learning and achievement of primary school teachers may be conducted to evaluate their professional achievements under this mentoring programme.

3. The present study was a survey study where questionnaires and interviews were used as instruments of the study. Causal comparative and more preferably experimental studies may be launched to get more authentic evidence about the effectiveness of the mentoring process.

4. There was difference of opinion among the respondents about the role of mentoring in decreasing the professional stress of the Primary School Teachers. Therefore, further studies on the occupational stress of the Primary School Teachers may be carried out.

5. There is a need of developing a comprehensive model of mentoring for District Teacher Educators system in Punjab province. Therefore, future studies may be conducted to develop a model for mentoring of Primary School Teachers.

6. There is a need to conduct a comparative survey research to study the effectiveness of mentoring processes by comparing the opinions of Primary School Teachers, District Teacher Educators, Cluster Training and Support Centers heads and District Training and Support Centers heads.

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ANNEXURES

Responsibilities of District Training and Support Center (DTSC) Heads

1. To undertake Training Needs Assessment (TNA) of Primary, Elementary and Secondary School Teachers within the district.

2. To prepare action plan for the professional development activities with the collaboration of different stakeholders.

3. To organized the professional development activities at the district level.

4. To arrange the pre-service and in-service training programmes and courses for Primary, Elementary and Secondary School Teachers.

5. To give professional support to the Primary, Elementary and Secondary School Teachers.

6. To ensure the quality in training courses within the district under different CPD programmes.

7. To undertake Training Needs Assessment of the District Teacher Educators and other personnel involved in the mentoring process.

8. To prepare training materials for the teachers trainings in the district.

9. To collaborate with the Teacher Educators (TEs) in conducting training courses of PSTs and DTEs.

10. To provide a regular feedback and support to the District Teacher Educators in implementing the CPD programme (DTE Guide, 2011).

Responsibilities Of Cluster Training And Support Center (CTSCs Heads

1. To establish CTSCs at GCET or in a High or Higher Secondary School for CPD activities.

2. To make a cohesive cluster of 25 to 30 primary schools situated within the radius of 15-17 Kilometers.

3. To equip the each CTSCs with the essential physical, instructional and logistical resources for CPD activities.

4. To deploy at least two DTEs at each CTSC to commence, assist and coordinate the CPD activities for PSTs.

5. To provide mentoring and teacher training support to the Primary School Teachers through CTSC closer to the classroom teaching.

6. To provide training opportunities at a shorter travel time to the female Primary School Teachers.

7. To deemed the clustering as a cost-effective mechanism for professional trainings in the afternoons and weekends.

8. To undertake Training Needs Assessment (TNA) of Primary School Teachers.

9. To implement in-service training programmes and courses activities within the CPD framework.

10. To provide feedback, pedagogical support and mentoring facilities to the Primary School Teachers.

11. To coordinate with the stakeholders and local education officers for the implementation of CPD programmes.

12. To provide feedback and data to DTSCs and DSD.

Responsibilities Of District Teacher Educators (DTEs)

The responsibilities to be performed by the DTEs are divided into three major areas i.e. training, mentoring, and coordination.

Responsibilities of DTEs as a Trainer

Following are the major responsibilities which the DTE has to undertake as a trainer.

1. To evaluate TNA of Primary School Teachers within the cluster.

2. To commence in-service trainings for the Primary School Teachers as per identified needs in the overall CPD framework.

3. To coordinate with the head teachers to plan and organize school-based In-Service Training (INSET) and other Continue Professional Development (CPD) activities.

Responsibilities of DTEs as a Mentor

1. To prepare the Primary School Teachers to perform their professional responsibilities.

2. To provide pedagogical support to Primary School Teachers (PSTs).

3. To help the Primary School Teachers (PSTs) in identifying their classroom problems.

4. To set performance based standards for Primary School Teachers (PSTs) and help them to attain these standards.

5. To encourage collegiality among the Primary School Teachers (PSTs) and inspire them to share existing instructional resources.

6. To pinpoint the best performer from the Primary School Teachers (PSTs) and prepare them to become future mentors.

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7. To assist the teachers in using child centered teaching methods, in preparing and using of appropriate teaching support material, in checking the homework regularly.

8. To encourage the Primary School Teachers (PSTs) in applying the suitable assessment methods for timely feedback and learning assistance.

9. To confirm the students learning difficulties has been identified and appropriate help has been provided these students.

10. To make sure that every student is getting chance of learning in the class.

11. To make environment sympathetic so that the Primary School Teachers are willing to share their problems with the DTE (DSD, 2010).

Responsibilities of DTEs as a Coordinator

1. To coordinate with the local education authorities, Elementary Schools Heads, Cluster Training and Support Center (CTSC) heads and with the other concerning stakeholders of teacher education.

2. To arrange meetings of teachers in creating professional development associations where the Primary School Teachers discuss their professional development issues.

3. To assist the Primary and Elementary School heads in creating appropriate learning environment in the schools.

4. To provide the professional development support to one mentee per day. The second mentee will be covered only under the special instruction of the DTSC or CTSC heads.

5. To arrange the Professional Development (PD) Day for teaches at the CTSC where the District Teacher Educators will assess the activity of the whole

month. The District Teacher Educators will also present model lesson to PSTs for the professional development of Primary School Teachers.

6. To join the training sessions and other professional development activities arranged by the Directorate of the Staff Development (DSD) Lahore (DSD, 2013).

Selection Criteria of District Teacher Educators

1. Minimum requirement to become a District Teacher Educator (DTE) is Secondary School Teacher (SST) in the Basic Pay Scale (BPS-16).

2. Minimum qualifications required to become a District Teacher Educator (DTE) is BA/B.Ed. But, preference will be given to those who have MA/M.Ed.

3. Preference will also be given to the SST Science and Mathematics but where (SST) Science and Mathematics are not available SST (Arts) may also be recruited as a District Teacher Educator.

4. District Teacher Educators (DTEs) should have at least five years of teaching experience and priority will be given to those candidates who had taught at primary school level.

5. District Teacher Educators (DTEs) should be the resident (domicile) of the same Tehsil where the cluster center is located.

6. Teachers having more than 45 years of age shall not be eligible to apply for the post of District Teacher Educators.

7. Administrative position holders such as Head Teachers, Assistant Education Officers (AEOs) shall not be considered for appointment of DTE.

8. Whereas, teachers serving in high or higher secondary schools will be considered for District Teacher Educator (DTE) posts.

9. Where candidates fulfilling the above requirements are not available teachers serving in elementary or primary schools will also be considered for the appointment as DTE.

10. Teachers serving in private schools will not be considered for District Teacher Educator (DTE) positions.

11. Similarly, teachers working on contractual basis will also not qualify for the appointment as DTE (DSD, 2013).

Terms and Conditions for District Teacher Educators

1. District Teacher Educator is a fulltime duty. Once selected and appointed as a DTE, they will be relieved from their respective schools.

2. The District Teacher Educator (DTE) post will belong to the cadre of Provincial Government.

3. District Teacher Educators (DTEs) will initially be provided four weeks training and later they will subsidize in a long term training course.

4. The district education department will fill up the vacant posts left by the DTEs as per its own rules and procedures.

5. District Teacher Educators (DTEs) will get an incentive allowance of Rs. 3,000 per month in addition to their regular pay and allowances.

6. District Teacher Educators (DTEs) will also get a mobility allowance at the rate of Rs. 1,500 per month (DSD, 2010).

Quality Standards for District Teacher Educators (DTEs) Training

Training curriculum for District Teacher Educators (DTEs) has been developed through a devised needs assessment process.

1. The training curriculum has been finalized in consultation with all stakeholders.

2. Training materials and modules has been comprehensively piloted before the application procedure.

3. The curriculum based on specific competencies which will be attained at the end of training.

4. The curriculum recommends training delivery process, procedures, instructional materials and readings.

5. Training contents has been devised correctly and are significant to the participants needs (DSD, 2010).

Environment for District Teacher Educators (DTEs) Training

1. There are not more than thirty participants in one hall for one training group.

2. DTE will ensure that training norms and schedules are clear and communicated to the trainees well in time.

3. The environment of training is conducive physical and social conditions i.e. physical mean that room temperature, ventilation, light, noise and comfortable chairs and social mean that relationship between the trainer and trainees and amongst the trainees, mutual respect, and taking turns.

4. There is adequate space for the trainees in the training hall.

5. There is enough space each participant to sit and work together.

6. The seating arrangement in the hall is flexible and it allows teachers participate in various activities.

7. The work of trainees will be displayed in the classrooms or training halls.

INTERNATIONAL ISLAMIC UNIVERSITY ISLAMABAD
(Department of Education)

Dear Sir/Madam

Asslam-u-Alikum

Researcher is pursuing Ph.D studies under Registration No. 63-FSS/PHDEDU/F10, in the Department of Education, Faculty of Social Sciences of International Islamic University Islamabad. Presently researcher is working on PhD dissertation titled *"Effects of the Mentoring Process on the Professional Development of Teachers at Elementary Level in Punjab"*. In this regard researcher is enclosing a questionnaire; you are requested to fill up the same. All the provided information will be the accessible to the researcher only and it will be strictly kept confidential. Researcher shall be thankful for your cooperation.

Thanks

(MUHAMMAD AKHLAQ)

63-FSS/PHDEDU/F10
DEPARTMENT OF EDUCATION
INTERNATIONAL ISLAMIC UNIVERSITY
ISLAMABAD

QUESTIONNAIRE FOR PSTs and DTEs

Note: All the information regarding these questions will be kept strictly confidential. It will be accessible to the researcher and only used for research purpose. Please tick the relevant box.

PART-A Demographic Information:-

Name (Optional)									
Name of school									
Gender	Male					Female			
Age group	(21-25)		(26-30)		(31-35)		(35-40)		(above 40)
Academic Qualifications	Matric	FA	B.A	B.Sc	M.A	M.Sc	M.Phil	Others:	
Professional Qualifications	PTC		CT		BED		MED		Others
Teaching Experiences	(less than 10)		(11-15)		(16-20)		(21-25)		(above 25)
Marital Status	Single				Married		Divorced		

PART-B

Please tick (√) the mentoring area which is frequently applied to deliver the contents during teaching.

Sr.No.	Statements	Always	Often	Uncertain	Some	Never
1.	Taleemi Calendar					
2.	Lesson Planning					
3.	Activity Based Teaching and Learning					
4.	Use of Support Material					
5.	Interaction with Students					
6.	Classroom Management					
7.	Student Assessment					
8.	Home Work					

PART-C

Please read the following statements carefully and tick (√) the option you consider as

the best possible answer.

Responses	Abbreviation	Marks
Strongly Disagree	SDA	1
Disagree	DA	2
Uncertain	UNC	3
Agree	A	4
Strongly Agree	SA	5

Sr.No.	STATEMENTS	SA	A	UNC	DA	SDA
MENTORING AREA-1 TALEEMI CALENDAR						
1.	Mentoring helps in managing all the teaching activities according to the Taleemi Calendar.					
2.	Mentoring helps to manage teaching activities for the educational year in a realistic way.					

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3.	Mentoring helps in using Taleemi Calendar rigorously.					
4.	Mentoring helps to cover the backlogs of unseen days in an educational year.					
5.	Mentoring helps in achieving the pre set targets in advance.					
6.	Mentor helps in managing the leave or absent days of an educational year.					
7.	Mentoring provides regular feedback which contributes towards professional development of teachers.					
8.	Mentoring decreases the professional stress of the teacher.					

MENTORING AREA-II   LESSON PLANNING

9.	Mentoring helps in separating the contents into parts and specifying amount of time needed for each component.					
10.	Mentoring helps in separating learning activities into components while pacing the activities appropriately.					
11.	Mentoring helps in using lesson planning guide effectively.					
12.	Mentoring helps in obtaining the requisite lesson planning skills.					
13.	Mentoring helps in starting and reviewing the lesson.					
14.	Mentoring provides feedback about my instructional methodologies.					

MENTORING AREA-III   ACTIVITY BASED TEACHING AND LEARNING

15.	Through mentoring process, my teaching has become more effective.					
16.	Mentoring helps in eliminating the feelings of professional isolation.					
17.	Mentoring helps in developing positive attitude towards teaching.					
18.	Mentoring provide helps in assessing the student's learning.					

19.	Mentoring has deepened the understanding about teaching and learning.					
20.	Mentoring helps in organizing the curriculum related activities.					

MENTORING AREA-1V   USE OF SUPPORT MATERIAL

21.	Mentoring guides in searching and gathering teaching resources.					
22.	Mentoring helps in developing supporting material for classroom instructions.					
23.	Mentoring helps to utilize various kinds of instructional techniques to improve the student learning.					
24.	Mentoring helps in judging the appropriateness of supporting materials aligned with the contents.					
25.	Mentoring helps in preparing teacher made supporting material.					
26.	Mentor guides in preparing the cost-effective supporting material.					
27.	Mentoring helps in searching and preparing supporting material.					
28.	Mentoring helps in preparing the support material that matches with mental abilities of the students.					

MENTORING AREA-V INTERACTION WITH STUDENTS

29.	Mentoring helps in communicating with students effectively.					
30.	Mentoring provides me guidelines to encourage the students how to talk and share their ideas.					
31.	Mentoring helps in providing corrective feedback to the					

	students.						
32.	Mentoring has improved my questioning skills.						
33.	Mentoring helps in writing clear learning objectives for a lesson.						
34.	Mentoring provided opportunities to encouraged students to ask questions.						
35.	Mentoring provides guidelines, in responding the correct responses and incorrect responses of student.						

MENTORING AREA-VI CLASSROOM MANAGEMENT

36.	Mentoring helps in carrying out all the teaching activities in the classroom.					
37.	Mentoring helps in maintaining attractive and appropriate classroom environment for students.					
38.	Mentoring helps in improving my classroom management skills.					
39.	Mentoring helps in promoting desired behaviors among students.					
40.	Mentoring helps in identifying and dealing with potential behavioral problems before they develop.					
41.	Mentoring provides the guidelines in keeping the students on-task, during class.					

MENTORING AREA-VII STUDENT ASSESSMENT

42.	Mentoring helps in praising those students who are on task and in motivating those who do not complete their work.						
43.	Mentoring helps in evaluating the student performance in line to the objectives of the lesson plan.						
44.	Mentoring helps in monitoring the progress of students.						

45.	Mentoring provides a variety of ways to assess the students' achievement.					
46.	Mentoring helps in strengthening my assessment skills.					

MENTORING AREA-VIII HOME WORK

47.	Mentoring provides guideline in assigning home work to students.					
48.	Mentoring helps in providing guidelines to the students for the successful completion of home work.					
49.	Mentoring provides instructions in promoting creative thinking through home work.					
50.	Mentoring provides instructions in ensuring that assigned home work is according to the capabilities and potentials of the students.					

Please give your suggestions for the improvement of mentoring process, if any:----------------------------

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INTERNATIONAL ISLAMIC UNIVERSITY ISLAMABAD
(Department of Education)

Dear Sir/Madam

Asslam-u-Alikum

Researcher is pursuing Ph.D studies under Registration No. 63-FSS/PHDEDU/F10, in the Department of Education, Faculty of Social Sciences of International Islamic University Islamabad. Presently researcher is working on PhD dissertation titled *"Effects of the Mentoring Process on the Professional Development of Teachers at Elementary Level in Punjab"*. In this regard researcher is enclosing a questionnaire; you are requested to fill up the same. All the provided information will be the accessible to the researcher only and it will be strictly kept confidential. Researcher shall be thankful for your cooperation.

Thanks

(MUHAMMAD AKHLAQ)
REG. No. 63-FSS/PHDEDU/F10
DEPARTMENT OF EDUCATION
INTERNATIONAL ISLAMIC UNIVERSITY
ISLAMABAD

QUESTIONNAIRE FOR CTSCs HEADS and DTSCs HEADS
Note: All the information regarding these questions will be kept strictly confidential. It will be accessible to the researcher and only used for research purpose. Please tick the relevant box.

PART-A Demographic Information:

Name (Optional)						
Name of school						
Gender	Male				Female	
Age group	(25-30)	(31-35)			(35-40)	(above 40)
Academic Qualifications	B.A	B.Sc	M.A	M.Sc	Other:____	
Professional Qualifications	B.Ed/BSEd	M.Ed	Others:_____			
Experience in year	(less than 10)	(11-15)	(16-20)		(21-25)	(above 25)
Marital Status	Single		Married		Divorced	

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PART-B

Please tick (√) the mentoring areas mostly applied in the Schools of your CTSC and DTSC.

Sr.No..	Statements	Always	Often	Uncertain	Some	Never
1.	Taleemi Calendar					
2.	Lesson Planning					
3.	Activity Based Teaching and Learning					
4.	Use of Support Material					
5.	Interaction with Students					
6.	Classroom Management					
7.	Student Assessment					
8.	Home Work					

PART-C

Please read the following statements carefully and tick (√)the option you consider as the best possible answer.

Responses	Abbreviation	Marks
Strongly Disagree	SDA	1
Disagree	DA	2
Uncertain	UNC	3
Agree	A	4
Strongly Agree	SA	5

Sr. No.	STATEMENTS	SA	A	NAND	DA	SDA
MENTORING AREA-1TALEEMI CALENDAR						
1.	Mentor helps the mentees in managing their teaching activities according to the Taleemi Calendar.					
2.	Mentor helps the mentees to manage their teaching activities for the educational year in a realistic way.					
3.	Mentor helps the mentees in using the Taleemi Calendar rigorously.					

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4.	Mentor helps the mentees in to achieve their pre-set targets in advance.						
5.	Mentor guides the mentees to manage the leave or absent days of an educational year.						

MENTORING AREA-I1   LESSON PLANNING

6.	Mentor guides the mentees in separating the contents into parts and specifying amount of time needed for each component of the contents.						
7.	Mentor helps the mentees in separating learning activities into components while pacing the activities appropriately.						
8.	Mentor guides the mentees in obtaining the requisite lesson planning skills.						
9.	Mentoring helps in starting and reviewing the lesson.						
10.	Mentor provides feedback to the about the instructional methodologies they adopt during teaching.						

MENTORING AREA-III ACTIVITY BASED TEACHING AND LEARNING

11.	Mentor helps the mentees in eliminating their feelings of professional isolation.						
12.	Mentor helps the mentees in developing positive attitude towards teaching.						
13.	Mentor helps the mentees in assessing the learning needs of their student.						
14.	Mentor helps the mentees in organizing the curriculum related activities.						
15.	Mentor helps the mentees in designing new activities to clarify the concepts of their students						

MENTORING AREA-IV   USE OF SUPPORT MATERIAL

16.	Mentor helps the mentees in searching and gathering teaching resources.						

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No.	Statement					
17.	Mentor helps the mentees in developing supporting material for classroom instructions.					
18.	Mentor helps the mentees in utilizing various kinds of instructional techniques to improve the student learning.					
19.	Mentor helps the mentees in judging the appropriateness of supporting materials and it's aligned with the teaching contents.					
20.	Mentor helps the mentees in preparing teacher made supporting material.					

MENTORING AREA-V   INTERACTION WITH STUDENTS

No.	Statement					
21.	Mentor provides guidelines to mentees regarding encouragement to the students to talk and share their ideas.					
22.	Mentor helps to the mentees in providing corrective feedback to the students.					
23.	Mentor helps the mentees to improve their questioning skills.					
24.	Mentor helps the mentees in writing clear learning objectives for a lesson.					
25.	Mentor provides opportunities to the mentees in encouraging their students to ask questions.					

MENTORING AREA-VI   CLASSROOM MANAGEMENT

No.	Statement					
26.	Mentor helps the mentees in carrying out all the teaching activities in the classroom.					
27.	Mentor helps the mentees in maintaining appropriate classroom environment for students.					
28.	Mentor helps the mentees in improving their classroom management skills.					
29.	Mentor helps the mentees in promoting desired behaviors					

		among their students.					
	30.	Mentor helps the mentees in identifying potential behavioral problems of their students.					

MENTORING AREA-VII STUDENT ASSESSMENT

	31.	Mentor helps the mentees in praising those students who are on task and in motivating those who do not complete their work.					
	32.	Mentor helps the mentees in evaluating the student performance in line to the objectives of the lesson plan.					
	33.	Mentor helps to the mentees in monitoring the progress of students.					
	34.	Mentor helps the mentees in a variety of ways to assess their students' achievement.					
	35.	Mentor helps the mentees in strengthening their assessment skills.					

MENTORING AREA-VIIlHOME WORK

	36.	Mentor provides guideline to the mentees in assigning home work to their students.					
	37.	Mentor helps the mentees in providing guidelines to their students for the successful completion of homework.					
	38.	Mentor provides instructions to the mentees in promoting creative thinking through home work.					
	39.	Mentor provides instructions to the mentees in ensuring that assigned home work is according to the capabilities of their students.					
	40.	Mentor helps the mentees in evaluating the home work of their students.					

Please give your suggestions for the improvement of mentoring process, if any:-------------------------

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Observation of Model Lesson on Professional Development Day

OBSERVATION PERFORMA

Note: Researcher will immediately fill up the following information to keep accurate record and to reduce the human error factor.

Date of observation	
Name of institution	
Time	Started: Ended:
Interruption during observation	Yes: No:
If yes reasons	

Sr. No.	STATEMENTS	YES	NO
MENTORNG AREA-I TALEEMI CALANDER			
1.	Taleemi Calendar was available in the classroom.		

2.	Teaching activities were going on according to the Taleemi Calendar.	YES	NO

3.	Mentor taught the lesson to the mentees according to the Taleemi Calendar.	YES	NO

4.	Mentor taught to the mentees how to use Taleemi Calendar.	YES	NO
	-- --		

MENTORNG AREA-II   LESSON PLANNING

5.	Objectives of the lesson were available in the lesson plan.	YES	NO
	-- --		
6.	Contents of the lesson were according to the objectives of the lesson.	YES	NO
	-- --		
7.	All activities in the classroom are according to the lesson plan.	YES	NO
	-- --		
8.	Mentor guides how to make lesson attractive.(researcher will note down the explanation/ examples)	YES	NO
	-- --		

MENTORNG AREA-III   ACTIVITY BASED TEACHING

9.	Mentor gave activities from textbook.	YES	NO
	-- --		
10.	Activities were according to the lesson plan.	YES	NO

11.	Verbal activities other than lesson plan are given.	YES	NO

12.	Mentor provided guidelines how to develop teaching and learning activities.	YES	NO

13.	Mentor guided about preparation of individual and group activities.	YES	NO

MENTORNG AREA-IV   USE OF SUPPORT MATERIAL

14.	Mentor used handwritten/handmade material.	YES	NO

15.	Supporting material was according to objectives of the lesson.	YES	NO

16.	Mentor guides to the mentees how to search out supporting material.	YES	NO

17.	Mentor guided the mentees how to include the supporting material in the lesson plan.	YES	NO

MENTORNG AREA-V INTERACTION WITH STUDENTS

18.	Mentor guided the mentee how to ask question from students.	YES	NO
	--		
	--		
19.	Mentor guided how to start and conclude discussions among the students.	YES	NO
	--		
	--		
20.	Mentor guided the mentee how to invite the student feedback.	YES	NO
	--		
	--		
21.	Mentor provided guidelines to the mentees how to communicate with the students effectively.	YES	NO
	--		
	--		

MENTORNG AREA-VI CLASSROOM MANAGEMENT

22.	Mentor guided how to make proper seating arrangement.	YES	NO
	--		
	--		
23.	Mentor guided how to make proper space for movement and group work in the classroom.	YES	NO
	--		
	--		
24.	Mentor guided how to maintain cleanliness of classroom.	YES	NO

25.	Mentor guided how to properly display of materials, e.g. pictures/models, charts.	YES	NO

MENTORNG AREA-VII STUDENT'S ASSESSMENT

26.	Mentor guided about classroom test construction.(MCQ's and subjective tests)	YES	NO

27.	Mentor guided the mentees about marking of class tests of the students.	YES	NO

28.	Mentor guides to the mentees about preparation of results.	YES	NO

29.	Mentor guided the mentees about conduct of exams.	YES	NO

30.	Mentor guided the mentees about construction of test according the curriculum objectives.	YES	NO

MENTORNG AREA-VIII   HOME WORK

31.	Mentor guided the mentees how to assign home work.	YES	NO

32.	Mentor guided how to guide the students about the completion of homework.	YES	NO

33.	Mentor guided the mentees how to evaluate the home work of the students.	YES	NO

34.	Mentor guided the mentees how to determine the difficulty level of the homework before its assignment.	YES	NO

35.	Mentor guided the mentees how to match the home work with class work.	YES	NO

Interview Guide for DTEs/ PSTs/ CTSCs/ DTSCs

Note: researcher will develop rapport with the interviewee and ensure that all the information regarding this interview will be kept strictly confidential. It will be accessible to the researcher and only used for research purpose. With the consent of the interviewee the researcher will ensure to record the interview otherwise researcher will pen down all the answers/details.

PART-Demographic Information:-

NAME OF SCHOOL		
GENDER	Male	Female
DATE		
TIME	Time Started:	Time Ended:
DISTURBANCE IF		

1. To what extent mentoring is effective for the professional development of Primary School Teachers in your opinion?

   _____

   _____

2. There are eight mentoring areas e.g.*(1) Taleemi Calendar, (2) Lesson Planning, (3) Activity Based Teaching and Learning, (4) Use of Support Material, (5) Interaction With Students, (6) Classroom Management, (7) Students Assessment and (8) Home Work.* In your opinions which of mentoring areas are mostly focused in mentoring of Primary School Teachers?

   _____

   _____

3. May you like to tell about the problems, issues and challenges involved in the process of mentoring?

   _____

   _____

4. How do you see that the relationship between the mentors (DTEs) and mentees (PSTs) contributes for the professional development of Primary School Teachers?

_____

_____

5. Do you think that Mentoring Area-1 "Taleemi Calendar" helps out the Primary School Teachers to manage the backlogs in an educational year?

_____

_____

6. To what extent the existing mentoring process helps out the Primary School Teachers to improve their lesson planning skills?

_____

_____

7. How would you think that mentoring process facilitates the Primary School Teachers to adopt activity based learning in the classroom?

_____

_____

8. How would you comment that mentoring process guides the Primary School Teachers to search-out and use the supporting material during classroom instruction?

_____

_____

9. How would you comment the on Mentoring Area-5 "Interaction with Students" helps the Primary School Teachers in making creativity among the students?

_____

_____

10. How would you comment the on Mentoring Area-6 "Classroom Management" on the classroom management skills of Primary School Teachers?

_____

_____

11. Would you like to tell that to what extent mentoring helps out the Primary School Teachers in assigning and evaluating the students' homework?

_____

_____

Overall Reliability Co-Efficient of the Questionnaire of PSTs

1. **Reliability Co-Efficient of the Primary School Teachers (PSTs)**

Case Processing Summary

		N	%
Cases	Valid	380	99.7
	Excluded	01	0.3
	Total	381	100.0

List wise deletion based on all variables in the procedure.

RELIABILITY STATISTICS

Cronbach's Alpha	N of Items
.795	50

ITEM STATISTICS

Sr. No.	Statements	Mean	Std. Deviation	N
1.	Mentoring helps in managing all the teaching activities according to the Taleemi Calendar.	2.57	1.528	380
2.	Mentoring helps to manage teaching activities for the educational year in a realistic way.	3.04	1.530	380
3.	Mentoring helps in using Taleemi Calendar rigorously.	3.09	1.615	380
4.	Mentoring helps to cover the backlogs of unseen days in an educational year.	4.55	0.987	380
5.	Mentoring helps in achieving the pre set targets in advance.	3.29	1.659	380
6.	Mentor helps in managing the leave or absent days of an educational year.	3.90	1.319	380

7.	Mentoring provides regular feedback which contributes towards professional development of teachers.	3.56	1.476	380
8.	Mentoring decreases the professional stress of the teacher.	2.96	1.565	380
9.	Mentoring helps in separating the contents into parts and specifying amount of time needed for each component.	2.57	1.530	380
10.	Mentoring helps in separating learning activities into components while pacing the activities appropriately.	2.92	1.643	380
11.	Mentoring helps in using lesson planning guide effectively.	3.64	1.397	380
12.	Mentoring helps in obtaining the requisite lesson planning skills.	3.19	1.575	380
13.	Mentoring helps in starting and reviewing the lesson.	3.24	1.549	380
14.	Mentoring provides feedback about my instructional methodologies.	2.97	1.600	380
15.	Through mentoring process, my teaching has become more effective.	3.09	1.580	380
16.	Mentoring helps in eliminating the feelings of professional isolation.	2.84	1.588	380
17.	Mentoring helps in developing positive attitude towards teaching.	3.01	1.548	380
18.	Mentoring provides helps in assessing the student's learning.	3.11	1.600	380
19.	Mentoring has deepened the understanding about teaching and learning.	3.30	1.515	380
20.	Mentoring helps in organizing the curriculum related activities.	3.12	1.574	380

21. Mentoring guides in searching and gathering teaching resources.	3.40	1.479	380
22. Mentoring helps in developing supporting material for classroom instructions.	3.22	1.521	380
23. Mentoring helps to utilize various kinds of instructional techniques to improve the student learning.	3.31	1.567	380
24. Mentoring helps in judging the appropriateness of supporting materials aligned with the contents.	3.73	1.502	380
25. Mentoring helps in preparing teacher made supporting material.	3.17	1.584	380
26. Mentor guides in preparing the cost-effective supporting material.	3.59	1.451	380
27. Mentoring helps in searching and preparing supporting material.	3.47	1.486	380
28. Mentoring helps in preparing the support material that matches with mental abilities of the students.	3.09	1.620	380
29. Mentoring helps in communicating with students effectively.	3.09	1.591	380
30. Mentoring provides me guidelines to encourage the students how to talk and share their ideas.	3.61	1.543	380
31. Mentoring helps in providing corrective feedback to the students.	2.92	1.594	380
32. Mentoring has improved my questioning skills.	3.13	1.548	380
33. Mentoring helps in writing clear learning objectives for a lesson.	2.97	1.633	380
34. Mentoring provided opportunities to encouraged students to ask questions.	3.10	1.598	380

35. Mentoring provides guidelines, in responding the correct responses and incorrect responses of student.	3.19	1.553	380
36. Mentoring helps in carrying out all the teaching activities in the classroom.	3.08	1.616	380
37. Mentoring helps in maintaining attractive and appropriate classroom environment for students.	3.11	1.573	380
38. Mentoring helps in improving my classroom management skills.	3.13	1.550	380
39. Mentoring helps in promoting desired behaviors among students.	3.01	1.637	380
40. Mentoring helps in identifying and dealing with potential behavioral problems before they develop.	3.17	1.606	380
41. Mentoring provides the guidelines in keeping the students on-task, during class.	3.13	1.644	380
42. Mentoring helps in praising those students who are on task and in motivating those who do not complete their work.	3.17	1.626	380
43. Mentoring helps in evaluating the student performance in line to the objectives of the lesson plan.	2.96	1.555	380
44. Mentoring helps in monitoring the progress of students.	3.07	1.577	380
45. Mentoring provides a variety of ways to assess the students' achievement.	3.11	1.560	380
46. Mentoring helps in strengthening my assessment skills.	3.05	1.620	380
47. Mentoring provides guideline in assigning home work to students.	3.02	1.578	380
48. Mentoring helps in providing guidelines to the students for the successful completion of homework.	2.99	1.572	380

49.	Mentoring provides instructions in promoting creative thinking through home work.	3.14	1.592	380
50.	Mentoring provides instructions in ensuring that assigned home work is according to the capabilities and potentials of	3.19	1.609	380

ITEM-TOTAL STATISTICS

Sr. No.	Statement	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
1.	Mentoring helps in managing all the teaching activities according to the Taleemi Calendar.	157.24	528.576	.179	.791
2.	Mentoring helps to manage teaching activities for the educational year in a realistic way.	158.33	525.614	.154	.792
3.	Mentoring helps in using Taleemi Calendar rigorously.	158.28	533.676	.034	.796
4.	Mentoring helps to cover the backlogs of unseen days in an educational year.	157.98	503.409	.495	.782
5.	Mentoring helps in achieving the pre set targets in advance.	158.08	520.448	.206	.791
6.	Mentor helps in managing the leave or absent days of an educational year.	157.47	514.867	.371	.786
7.	Mentoring provides regular feedback which contributes towards professional development	157.81	515.041	.322	.787
8.	Mentoring decreases the professional stress of the teacher.	158.42	502.882	.477	.782
9.	Mentoring helps in separating the contents into parts and specifying amount of time needed	158.80	516.920	.281	.789

335

No.	Item				
10.	Mentoring helps in separating learning activities into components while pacing the	158.45	535.177	.012	.797
11.	Mentoring helps in using lesson planning guide effectively.	157.73	537.353	-.008	.797
12.	Mentoring helps in obtaining the requisite lesson planning skills.	158.18	531.607	.065	.795
13.	Mentoring helps in starting and reviewing the lesson.	158.13	529.643	.095	.794
14.	Mentoring provides feedback about my instructional methodologies.	158.41	528.722	.102	.794
15.	Through mentoring process, my teaching has become more effective.	158.28	537.034	-.010	.798
16.	Mentoring helps in eliminating the feelings of professional isolation.	158.53	521.722	.200	.791
17.	Mentoring helps in developing positive attitude towards teaching.	158.37	508.438	.400	.785
18.	Mentoring provides helps in assessing the student's learning.	158.26	529.522	.091	.795
19.	Mentoring has deepened the understanding about teaching and learning.	157.61	513.162	.373	.786
20.	Mentoring helps in organizing the curriculum related activities.	158.25	519.724	.231	.790
21.	Mentoring guides in searching and gathering teaching resources.	157.97	509.123	.412	.785
22.	Mentoring helps in developing supporting material for classroom instructions.	158.07	500.088	.527	.781

No.	Item				
23.	Mentoring helps to utilize various kinds of instructional techniques to improve the student	158.06	508.413	.395	.785
24.	Mentoring helps in judging the appropriateness of supporting materials aligned with the	157.64	503.002	.498	.782
25.	Mentoring helps in preparing teacher made supporting material.	158.20	498.880	.528	.781
26.	Mentor guides in preparing the cost-effective supporting material.	157.78	499.497	.573	.780
27.	Mentoring helps in searching and preparing supporting material.	157.90	505.673	.462	.783
28.	Mentoring helps in preparing the support material that matches with mental abilities of	158.28	510.519	.350	.786
29.	Mentoring helps in communicating with students effectively.	157.81	499.788	.536	.781
30.	Mentoring provides me guidelines to encourage the students how to talk and share	157.76	498.415	.551	.780
31.	Mentoring helps in providing corrective feedback to the students.	158.20	523.295	.194	.791
32.	Mentoring has improved my questioning skills.	158.24	504.564	.457	.783
33.	Mentoring helps in writing clear learning objectives for a lesson.	157.98	510.709	.362	.786
34.	Mentoring provided opportunities to encouraged students to ask questions.	158.27	533.455	.038	.796
35.	Mentoring provides guidelines, in responding the correct responses and incorrect responses	158.18	526.789	.134	.793

No.	Item				
36.	Mentoring helps in carrying out all the teaching activities in the classroom.	158.29	528.775	.100	.794
37.	Mentoring helps in maintaining attractive and appropriate classroom environment for	158.26	520.869	.215	.791
38.	Mentoring helps in improving my classroom management skills.	158.24	534.218	.030	.796
39.	Mentoring helps in promoting desired behaviors among students.	158.36	510.701	.343	.786
40.	Mentoring helps in identifying and dealing with potential behavioral problems before they	158.20	536.007	.003	.797
41.	Mentoring provides the guidelines in keeping the students on-task, during class.	158.24	537.493	-.019	.798
42.	Mentoring helps in praising those students who are on task and in motivating those who do not	158.20	521.179	.202	.791
43.	Mentoring helps in evaluating the student performance in line to the objectives of the	158.42	531.246	.071	.795
44.	Mentoring helps in monitoring the progress of students.	158.30	531.873	.061	.795
45.	Mentoring provides a variety of ways to assess the students' achievement.	158.27	529.436	.096	.794
46.	Mentoring helps in strengthening my assessment skills.	158.32	518.799	.235	.790
47.	Mentoring provides guideline in assigning home work to students.	158.35	534.349	.027	.796
48.	Mentoring helps in providing guidelines to the students for the successful completion of	158.38	538.874	-.035	.798

| 49. | Mentoring provides instructions in promoting creative thinking through home work. | 158.23 | 512.328 | .332 | .787 |
| 50. | Mentoring provides instructions in ensuring that assigned home work is according to the | 158.18 | 509.635 | .366 | .786 |

SCALE STATISTICS

Mean	Variance	Std. Deviation	N of Items
161.37	538.783	23.212	50

Overall Reliability Co-Efficient of the Questionnaire of DTEs

2. Reliability Co-Efficient of the Questionnaire of District Teacher Educators
(DTEs)

CASE PROCESSING SUMMARY

		N	%
	Valid	302	100.0
Cases	Excluded	0	.0
	Total	302	100.0

List wise deletion based on all variables in the procedure.

RELIABILITY STATISTICS

Cronbach's Alpha	N of Items
0.946	50

ITEM STATISTICS

Sr. No.	Statements	Mean	Std. Deviation	N
1.	Mentoring helps in managing all the teaching activities according to the Taleemi Calendar.	3.27	1.662	302
2.	Mentoring helps to manage teaching activities for the educational year in a realistic way.	3.00	1.577	302
3.	Mentoring helps in using Taleemi Calendar rigorously.	3.07	1.548	302
4.	Mentoring helps to cover the backlogs of unseen days in an educational year.	4.12	1.172	302
5.	Mentoring helps in achieving the pre set targets in advance.	3.07	1.629	302
6.	Mentor helps in managing the leave or absent days of an educational year.	3.22	1.549	302

7.	Mentoring provides regular feedback which contributes towards professional development of teachers.	3.24	1.493	302
8.	Mentoring decreases the professional stress of the teacher.	2.87	1.567	302
9.	Mentoring helps in separating the contents into parts and specifying amount of time needed for each component.	3.27	1.662	302
10.	Mentoring helps in separating learning activities into components while pacing the activities appropriately.	3.76	1.316	302
11.	Mentoring helps in using lesson planning guide effectively.	3.96	1.254	302
12.	Mentoring helps in obtaining the requisite lesson planning skills.	3.18	1.594	302
13.	Mentoring helps in starting and reviewing the lesson.	3.57	1.467	302
14.	Mentoring provides feedback about my instructional methodologies.	3.62	1.360	302
15.	Through mentoring process, my teaching has become more effective.	2.90	1.539	302
16.	Mentoring helps in eliminating the feelings of professional isolation.	3.09	1.527	302
17.	Mentoring helps in developing positive attitude towards teaching.	2.99	1.539	302
18.	Mentoring provides helps in assessing the student's learning.	3.66	1.344	302
19.	Mentoring has deepened the understanding about teaching and learning.	3.16	1.580	302

No.	Statement	Mean	SD	N
20.	Mentoring helps in organizing the curriculum related activities.	3.22	1.510	302
21.	Mentoring guides in searching and gathering teaching resources.	3.63	1.426	302
22.	Mentoring helps in developing supporting material for classroom instructions.	3.65	1.382	302
23.	Mentoring helps to utilize various kinds of instructional techniques to improve the student learning.	3.05	1.573	302
24.	Mentoring helps in judging the appropriateness of supporting materials aligned with the contents.	3.33	1.637	302
25.	Mentoring helps in preparing teacher made supporting material.	3.34	1.474	302
26.	Mentor guides in preparing the cost-effective supporting material.	3.39	1.595	302
27.	Mentoring helps in searching and preparing supporting material.	3.29	1.547	302
28.	Mentoring helps in preparing the support material that matches with mental abilities of the students.	3.06	1.602	302
29.	Mentoring helps in communicating with students effectively.	3.37	1.581	302
30.	Mentoring provides me guidelines to encourage the students how to talk and share their ideas.	3.30	1.516	302
31.	Mentoring helps in providing corrective feedback to the students.	3.52	1.572	302
32.	Mentoring has improved my questioning skills.	3.61	1.424	302

33.	Mentoring helps in writing clear learning objectives for a lesson.	3.07	1.604	302
34.	Mentoring provided opportunities to encouraged students to ask questions.	3.52	1.567	302
35.	Mentoring provides guidelines, in responding the correct responses and incorrect responses of student.	3.35	1.475	302
36.	Mentoring helps in carrying out all the teaching activities in the classroom.	2.99	1.618	302
37.	Mentoring helps in maintaining attractive and appropriate classroom environment for students.	3.50	1.509	302
38.	Mentoring helps in improving my classroom management skills.	3.40	1.567	302
39.	Mentoring helps in promoting desired behaviors among students.	3.10	1.593	302
40.	Mentoring helps in identifying and dealing with potential behavioral problems before they develop.	3.11	1.532	302
41.	Mentoring provides the guidelines in keeping the students on-task, during class.	3.66	1.442	302
42.	Mentoring helps in praising those students who are on task and in motivating those who do not complete their work.	3.02	1.545	302
43.	Mentoring helps in evaluating the student performance in line to the objectives of the lesson plan.	3.71	1.459	302
44.	Mentoring helps in monitoring the progress of students.	3.70	1.460	302
45.	Mentoring provides a variety of ways to assess the students' achievement.	3.27	1.469	302
46.	Mentoring helps in strengthening my assessment skills.	3.52	1.378	302

47.	Mentoring provides guideline in assigning home work to students.	3.22	1.514	302
48.	Mentoring helps in providing guidelines to the students for the successful completion of homework.	3.35	1.515	302
49.	Mentoring provides instructions in promoting creative thinking through home work.	3.55	1.515	302
50.	Mentoring provides instructions in ensuring that assigned home work is according to the capabilities and potentials of	3.19	1.538	302

ITEM-TOTAL STATISTICS

Sr. No.	Statements	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item
1.	Mentoring helps in managing all the teaching activities according to the Taleemi Calendar.	163.31	1507.742	.486	.945
2.	Mentoring helps to manage teaching activities for the educational year in a realistic way.	164.56	1540.414	.023	.948
3.	Mentoring helps in using Taleemi Calendar rigorously.	164.49	1525.732	.145	.947
4.	Mentoring helps to cover the backlogs of unseen days in an educational year.	163.86	1504.479	.384	.945
5.	Mentoring helps in achieving the pre set targets in advance.	164.49	1543.599	-.004	.948
6.	Mentor helps in managing the leave or absent days of an educational year.	164.34	1484.052	.497	.945
7.	Mentoring provides regular feedback which contributes towards professional development of teachers.	164.32	1469.839	.643	.944

8.	Mentoring decreases the professional stress of the teacher.	164.69	1525.563 .145	.947
9.	Mentoring helps in separating the contents into parts and specifying amount of time needed for each	164.29	1535.063 .060	.947
10.	Mentoring helps in separating learning activities into components while pacing the activities appropriately.	163.80	1498.107 .450	.945
11.	Mentoring helps in using lesson planning guide effectively.	163.60	1503.929 .413	.945
12.	Mentoring helps in obtaining the requisite lesson planning skills.	164.38	1544.735 -.013	.948
13.	Mentoring helps in starting and reviewing the lesson.	163.99	1492.153 .453	.945
14.	Mentoring provides feedback about my instructional methodologies.	163.94	1480.405 .606	.944
15.	Through mentoring process, my teaching has become more effective.	164.66	1463.528 .678	.944
16.	Mentoring helps in eliminating the feelings of professional isolation.	164.47	1542.795 .005	.948
17.	Mentoring helps in developing positive attitude towards teaching.	164.57	1475.754 .572	.944
18.	Mentoring provides helps in assessing the student's learning.	163.90	1471.056 .707	.944
19.	Mentoring has deepened the understanding about teaching and learning.	164.40	1536.753 .052	.947
20.	Mentoring helps in organizing the curriculum related activities.	164.34	1539.746 .031	.947

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21.	Mentoring guides in searching and gathering teaching resources.	163.93	1488.650	.500	.945
22.	Mentoring helps in developing supporting material for classroom instructions.	163.91	1472.604	.671	.944
23.	Mentoring helps to utilize various kinds of instructional techniques to improve the student learning.	164.51	1512.756	.249	.946
24.	Mentoring helps in judging the appropriateness of supporting materials aligned with the contents.	164.23	1461.700	.650	.944
25.	Mentoring helps in preparing teacher made supporting material.	164.22	1472.668	.626	.944
26.	Mentor guides in preparing the cost-effective supporting material.	164.17	1454.892	.725	.943
27.	Mentoring helps in searching and preparing supporting material.	164.26	1453.451	.762	.943
28.	Mentoring helps in preparing the support material that matches with mental abilities of the students.	164.50	1450.477	.760	.943
29.	Mentoring helps in communicating with students effectively.	164.19	1466.036	.637	.944
30.	Mentoring provides me guidelines to encourage the students how to talk and share their ideas.	164.26	1515.627	.235	.946
31.	Mentoring helps in providing corrective feedback to the students.	164.04	1468.978	.616	.944
32.	Mentoring has improved my questioning skills.	163.95	1464.842	.723	.943
33.	Mentoring helps in writing clear learning objectives for a lesson.	164.49	1451.081	.753	.943

34.	Mentoring provided opportunities to encouraged students to ask questions.	164.04	1452.367 .761	.943
35.	Mentoring provides guidelines, in responding the correct responses and incorrect responses of student.	164.21	1458.580 .754	.943
36.	Mentoring helps in carrying out all the teaching activities in the classroom.	164.57	1454.033 .722	.943
37.	Mentoring helps in maintaining attractive and appropriate classroom environment for students.	164.06	1456.395 .756	.943
38.	Mentoring helps in improving my classroom management skills.	164.16	1458.783 .706	.943
39.	Mentoring helps in promoting desired behaviors among students.	164.46	1521.705 .173	.947
40.	Mentoring helps in identifying and dealing with potential behavioral problems before they develop.	164.45	1466.196 .658	.944
41.	Mentoring provides the guidelines in keeping the students on-task, during class.	163.90	1475.110 .618	.944
42.	Mentoring helps in praising those students who are on task and in motivating those who do not complete their	164.54	1458.389 .720	.943
43.	Mentoring helps in evaluating the student performance in line to the objectives of the lesson plan.	163.85	1470.991 .649	.944
44.	Mentoring helps in monitoring the progress of students.	163.86	1470.140 .656	.944
45.	Mentoring provides a variety of ways to assess the students' achievement.	164.29	1520.493 .201	.946
46.	Mentoring helps in strengthening my assessment skills.	164.04	1482.587 .577	.944
47.	Mentoring provides guideline in assigning home work to students.	164.34	1462.603 .698	.943

48.	Mentoring helps in providing guidelines to the students for the successful completion of homework.	164.21	1458.571	.733	.943
49.	Mentoring provides instructions in promoting creative thinking through home work.	164.01	1461.096	.711	.943
50.	Mentoring provides instructions in ensuring that assigned home work is according to the capabilities and	164.37	1459.617	.713	.943

SCALE STATISTICS

Mean	Variance	Std. Deviation	N of Items
167.56	1545.702	39.315	50

Overall Reliability Co-Efficient of the Questionnaire of CTSCs

3. **Reliability Co-efficient of the Questionnaire of Cluster Training and Support Centers (CTSCs) Heads**

CASE PROCESSING SUMMARY

		N	%
Cases	Valid	186	100.0
	Excluded	0	.0
	Total	186	100.0

List wise deletion based on all variables in the procedure

RELIABILITY STATISTICS

Cronbach's Alpha	N of Items
.864	40

ITEM STATISTICS

Sr. No.	Statements	Mean	Std. Deviation	N
1.	Mentor helps the mentees in managing their teaching activities according to the Taleemi Calendar.	2.88	1.539	186
2.	Mentor helps the mentees to manage their teaching activities for the educational year in a realistic way.	2.84	1.541	186
3.	Mentor helps the mentees in using the Taleemi Calendar rigorously.	3.92	1.217	186
4.	Mentor helps the mentees in to achieve their pre-set targets in advance.	2.89	1.571	186
5.	Mentor guides the mentees to manage the leave or absent days of an educational year.	3.73	1.188	186
6.	Mentor guides the mentees in separating the contents into parts and specifying amount of time needed for each	2.82	1.575	186

7. Mentor helps the mentees in separating learning activities into components while pacing the activities appropriately.	4.03	1.037	186
8. Mentor guides the mentees in obtaining the requisite lesson planning skills.	4.03	1.148	186
9. Mentoring helps in starting and reviewing the lesson.	4.06	1.071	186
10. Mentor provides feedback to the about the instructional methodologies they adopt during teaching.	2.85	1.579	186
11. Mentor helps the mentees in eliminating their feelings of professional isolation.	4.10	.873	186
12. Mentor helps the mentees in developing positive attitude towards teaching.	4.10	.873	186
13. Mentor helps the mentees in assessing the learning needs of their student.	4.08	.838	186
14. Mentor helps the mentees in organizing the curriculum related activities.	3.99	.967	186
15. Mentor helps the mentees in designing new activities to clarify the concepts of their students	2.76	1.623	186
16. Mentor helps the mentees in searching and gathering teaching resources.	3.67	1.432	186
17. Mentor helps the mentees in developing supporting material for classroom instructions.	3.60	1.482	186
18. Mentor helps the mentees in utilizing various kinds of instructional techniques to improve the student learning.	3.92	1.117	186
19. Mentor helps the mentees in judging the appropriateness of supporting materials and it's aligned with the teaching	2.85	1.594	186

20. Mentor helps the mentees in preparing teacher made supporting material.	3.77	1.160	186
21. Mentor provides guidelines to mentees regarding encouragement to the students to talk and share their ideas.	3.09	1.404	186
22. Mentor helps to the mentees in providing corrective feedback to the students.	2.74	1.600	186
23. Mentor helps the mentees to improve their questioning skills.	4.15	1.048	186
24. Mentor helps the mentees in writing clear learning objectives for a lesson.	2.81	1.595	186
25. Mentor provides opportunities to the mentees in encouraging their students to ask questions.	4.11	1.087	186
26. Mentor helps the mentees in carrying out all the teaching activities in the classroom.	3.89	1.150	186
27. Mentor helps the mentees in maintaining appropriate classroom environment for students.	3.98	1.169	186
28. Mentor helps the mentees in improving their classroom management skills.	4.06	.868	186
29. Mentor helps the mentees in promoting desired behaviors among their students.	2.81	1.635	186
30. Mentor helps the mentees in identifying potential behavioral problems of their students.	3.12	1.656	186
31. Mentor helps the mentees in praising those students who are on task and in motivating those who do not complete	3.02	1.655	186
32. Mentor helps the mentees in evaluating the student performance in line to the objectives of the lesson plan.	2.96	1.645	186

33.	Mentor helps to the mentees in monitoring the progress of students.	3.89	1.363	186
34.	Mentor helps the mentees in a variety of ways to assess their students' achievement.	3.89	1.262	186
35.	Mentor helps the mentees in strengthening their assessment skills.	3.84	1.187	186
36.	Mentor provides guideline to the mentees in assigning home work to their students.	3.99	1.185	186
37.	Mentor helps the mentees in providing guidelines to their students for the successful completion of home work.	4.26	.935	186
38.	Mentor provides instructions to the mentees in promoting creative thinking through home work.	3.03	1.585	186
39.	Mentor provides instructions to the mentees in ensuring that assigned home work is according to the capabilities of	2.70	1.530	186
40.	Mentor helps the mentees in evaluating the home work of their students.	4.19	.989	186

ITEM-TOTAL STATISTICS

Sr. No.	Statements	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
1.	Mentor helps the mentees in managing their teaching activities according to the Taleemi	138.55	441.470	.030	.868
2.	Mentor helps the mentees to manage their teaching activities for the educational year	138.59	451.994	-.131	.872
3.	Mentor helps the mentees in using the Taleemi Calendar rigorously.	137.51	418.435	.519	.857
4.	Mentor helps the mentees in to achieve their pre-set targets in advance.	138.54	438.379	.075	.867

5.	Mentor guides the mentees to manage the leave or absent days of an educational year.	137.70	426.836	.357	.860
6.	Mentor guides the mentees in separating the contents into parts and specifying amount	138.61	444.780	-.023	.870
7.	Mentor helps the mentees in separating learning activities into components while	137.40	419.637	.590	.857
8.	Mentor guides the mentees in obtaining the requisite lesson planning skills.	137.40	414.122	.649	.855
9.	Mentoring helps in starting and reviewing the lesson.	137.37	418.927	.586	.857
10.	Mentor provides feedback to the about the instructional methodologies they adopt	138.58	444.311	-.016	.869
11.	Mentor helps the mentees in eliminating their feelings of professional isolation.	137.33	442.730	.062	.865
12.	Mentor helps the mentees in developing positive attitude towards teaching.	137.33	419.908	.701	.856
13.	Mentor helps the mentees in assessing the learning needs of their student.	137.35	423.158	.636	.857
14.	Mentor helps the mentees in organizing the curriculum related activities.	137.44	421.426	.589	.857
15.	Mentor helps the mentees in designing new activities to clarify the concepts of their	138.67	434.148	.133	.866
16.	Mentor helps the mentees in searching and gathering teaching resources.	137.76	409.360	.593	.855
17.	Mentor helps the mentees in developing supporting material for classroom	137.83	406.695	.617	.854
18.	Mentor helps the mentees in utilizing various kinds of instructional techniques to	137.51	418.532	.568	.857
19.	Mentor helps the mentees in judging the appropriateness of supporting materials and	138.58	433.402	.148	.866

20.	Mentor helps the mentees in preparing teacher made supporting material.	137.66	423.695	.434	.859
21.	Mentor provides guidelines to mentees regarding encouragement to the students to	138.34	447.524	-.063	.869
22.	Mentor helps to the mentees in providing corrective feedback to the students.	138.69	409.848	.515	.856
23.	Mentor helps the mentees to improve their questioning skills.	137.28	419.999	.574	.857
24.	Mentor helps the mentees in writing clear learning objectives for a lesson.	138.62	405.535	.587	.855
25.	Mentor provides opportunities to the mentees in encouraging their students to ask	137.32	417.223	.616	.856
26.	Mentor helps the mentees in carrying out all the teaching activities in the classroom.	137.54	414.714	.635	.855
27.	Mentor helps the mentees in maintaining appropriate classroom environment for	137.45	415.157	.614	.856
28.	Mentor helps the mentees in improving their classroom management skills.	137.37	420.482	.689	.856
29.	Mentor helps the mentees in promoting desired behaviors among their students.	138.62	440.616	.036	.869
30.	Mentor helps the mentees in identifying potential behavioral problems of their	138.31	437.967	.073	.868
31.	Mentor helps the mentees in praising those students who are on task and in motivating	138.41	439.206	.055	.868
32.	Mentor helps the mentees in evaluating the student performance in line to the	138.47	411.342	.475	.857
33.	Mentor helps to the mentees in monitoring the progress of students.	137.54	413.266	.553	.856
34.	Mentor helps the mentees in a variety of ways to assess their students' achievement.	137.54	408.585	.697	.853

35.	Mentor helps the mentees in strengthening their assessment skills.	137.59	410.060	.714	.854
36.	Mentor provides guideline to the mentees in assigning home work to their students.	137.44	416.594	.574	.856
37.	Mentor helps the mentees in providing guidelines to their students for the	137.17	420.576	.634	.857
38.	Mentor provides instructions to the mentees in promoting creative thinking	138.40	446.837	-.054	.870
39.	Mentor provides instructions to the mentees in ensuring that assigned home work is	138.73	440.771	.041	.868
40.	Mentor helps the mentees in evaluating the home work of their students.	137.24	421.057	.584	.857

SCALE STATISTICS

Mean	Variance	Std. Deviation	N of Items
141.43	445.760	21.113	40

Overall Reliability Co-Efficient of the Questionnaire of DTSCs

4. Reliability Co-efficient of the Questionnaire of District Training and Support Centers (DTSCs) Heads

CASE PROCESSING SUMMARY

		N	%
Cases	Valid	12	100.0
	Excluded	0	0.0
	Total	12	100.0

RELIABILITY STATISTICS

Cronbach's Alpha	N of Items
0.959	40

ITEM STATISTICS

Sr. No.	Statements	Mean	Std. Deviation	N
1.	Mentor helps the mentees in managing their teaching activities according to the Taleemi Calendar.	4.25	1.357	12
2.	Mentor helps the mentees to manage their teaching activities for the educational year in a realistic way.	3.58	1.443	12
3.	Mentor helps the mentees in using the Taleemi Calendar rigorously.	4.00	1.279	12
4.	Mentor helps the mentees in to achieve their pre-set targets in advance.	3.67	1.303	12
5.	Mentor guides the mentees to manage the leave or absent days of an educational year.	4.33	1.371	12
6.	Mentor guides the mentees in separating the contents into parts and specifying amount of time needed for each component of the contents.	4.50	.905	12

7. Mentor helps the mentees in separating learning activities into components while pacing the activities appropriately.	4.08	1.311	12
8. Mentor guides the mentees in obtaining the requisite lesson planning skills.	4.33	1.371	12
9. Mentoring helps in starting and reviewing the lesson.	4.33	1.371	12
10. Mentor provides feedback to the about the instructional methodologies they adopt during teaching.	3.67	1.557	12
11. Mentor helps the mentees in eliminating their feelings of professional isolation.	3.50	1.732	12
12. Mentor helps the mentees in developing positive attitude towards teaching.	4.42	1.165	12
13. Mentor helps the mentees in assessing the learning needs of their student.	4.17	1.528	12
14. Mentor helps the mentees in organizing the curriculum related activities.	4.08	1.505	12
15. Mentor helps the mentees in designing new activities to clarify the concepts of their students	3.83	1.586	12
16. Mentor helps the mentees in searching and gathering teaching resources.	3.75	1.138	12
17. Mentor helps the mentees in developing supporting material for classroom instructions.	4.00	1.477	12
18. Mentor helps the mentees in utilizing various kinds of instructional techniques to improve the student learning.	4.08	1.505	12
19. Mentor helps the mentees in judging the appropriateness of supporting materials and it's aligned with the teaching contents.	4.00	1.651	12

20. Mentor helps the mentees in preparing teacher made supporting material.	4.25	1.357	12
21. Mentor provides guidelines to mentees regarding encouragement to the students to talk and share their ideas.	4.67	.888	12
22. Mentor helps to the mentees in providing corrective feedback to the students.	3.75	1.545	12
23. Mentor helps the mentees to improve their questioning skills.	4.25	1.357	12
24. Mentor helps the mentees in writing clear learning objectives for a lesson.	3.75	1.545	12
25. Mentor provides opportunities to the mentees in encouraging their students to ask questions.	4.00	1.348	12
26. Mentor helps the mentees in carrying out all the teaching activities in the classroom.	4.33	1.371	12
27. Mentor helps the mentees in maintaining appropriate classroom environment for students.	4.08	1.505	12
28. Mentor helps the mentees in improving their classroom management skills.	4.25	1.357	12
29. Mentor helps the mentees in promoting desired behaviors among their students.	3.42	1.832	12
30. Mentor helps the mentees in identifying potential behavioral problems of their students.	4.25	1.357	12
31. Mentor helps the mentees in praising those students who are on task and in motivating those who do not complete their work.	4.08	1.505	12
32. Mentor helps the mentees in evaluating the student performance in line to the objectives of the lesson plan.	3.67	1.670	12

33. Mentor helps to the mentees in monitoring the progress of students.	4.00	1.651	12
34. Mentor helps the mentees in a variety of ways to assess their students' achievement.	4.33	1.371	12
35. Mentor helps the mentees in strengthening their assessment skills.	3.92	1.443	12
36. Mentor provides guideline to the mentees in assigning home work to their students.	4.25	1.357	12
37. Mentor helps the mentees in providing guidelines to their students for the successful completion of home work.	4.33	1.371	12
38. Mentor provides instructions to the mentees in promoting creative thinking through home work.	3.58	1.782	12
39. Mentor provides instructions to the mentees in ensuring that assigned home work is according to the capabilities of their	3.58	1.621	12
40. Mentor helps the mentees in evaluating the home work of their students.	4.25	1.545	12

ITEM-TOTAL STATISTICS

Sr. No.	Statement	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbch's Alpha if Item
1.	Mentor helps the mentees in managing their teaching activities according to the Taleemi Calendar.	157.33	1231.333	.634	.958
2.	Mentor helps the mentees to manage their teaching activities for the educational year in a realistic way	158.00	1229.818	.609	.958
3.	Mentor helps the mentees in using the Taleemi Calendar rigorously.	157.58	1248.265	.483	.959

4. Mentor helps the mentees in to achieve their pre-set targets in advance.	157.92	1243.902	.522	.959
5. Mentor guides the mentees to manage the leave or absent days of an educational year.	157.25	1214.568	.807	.957
6. Mentor guides the mentees in separating the contents into parts and specifying amount of time needed for	157.08	1234.083	.923	.957
7. Mentor helps the mentees in separating learning activities into components while pacing the activities	157.50	1230.455	.667	.958
8. Mentor guides the mentees in obtaining the requisite lesson planning skills.	157.25	1254.386	.384	.959
9. Mentoring helps in starting and reviewing the lesson.	157.25	1290.750	.009	.961
10. Mentor provides feedback to the about the instructional methodologies they adopt during	157.92	1310.629	-.173	.963
11. Mentor helps the mentees in eliminating their feelings of professional isolation.	158.08	1276.811	.111	.961
12. Mentor helps the mentees in developing positive attitude towards teaching.	157.17	1226.333	.807	.957
13. Mentor helps the mentees in assessing the learning needs of their student.	157.42	1221.720	.651	.958
14. Mentor helps the mentees in organizing the curriculum related activities.	157.50	1208.636	.790	.957
15. Mentor helps the mentees in designing new activities to clarify the concepts of their students	157.75	1325.114	-.295	.963
16. Mentor helps the mentees in searching and gathering teaching resources.	157.83	1237.606	.682	.958

17. Mentor helps the mentees in developing supporting material for classroom instructions.	157.58	1259.902	.300	.960
18. Mentor helps the mentees in utilizing various kinds of instructional techniques to improve the student	157.50	1205.182	.824	.957
19. Mentor helps the mentees in judging the appropriateness of supporting materials and it's	157.58	1279.902	.092	.961
20. Mentor helps the mentees in preparing teacher made supporting material.	157.33	1261.697	.311	.960
21. Mentor provides guidelines to mentees regarding encouragement to the students to talk and share their	156.92	1287.902	.076	.960
22. Mentor helps to the mentees in providing corrective feedback to the students.	157.83	1200.152	.850	.957
23. Mentor helps the mentees to improve their questioning skills.	157.33	1232.424	.622	.958
24. Mentor helps the mentees in writing clear learning objectives for a lesson.	157.83	1214.515	.712	.958
25. Mentor provides opportunities to the mentees in encouraging their students to ask questions.	157.58	1284.083	.079	.961
26. Mentor helps the mentees in carrying out all the teaching activities in the classroom.	157.25	1218.932	.760	.957
27. Mentor helps the mentees in maintaining appropriate classroom environment for students.	157.50	1205.182	.824	.957
28. Mentor helps the mentees in improving their classroom management skills.	157.33	1218.424	.774	.957
29. Mentor helps the mentees in promoting desired behaviors among their students.	158.17	1190.515	.788	.957

#	Item				
30.	Mentor helps the mentees in identifying potential behavioral problems of their students.	157.33	1218.970	.768	.957
31.	Mentor helps the mentees in praising those students who are on task and in motivating those who do not	157.50	1196.091	.914	.956
32.	Mentor helps the mentees in evaluating the student performance in line to the objectives of the lesson	157.92	1187.902	.894	.956
33.	Mentor helps to the mentees in monitoring the progress of students.	157.58	1190.265	.882	.957
34.	Mentor helps the mentees in a variety of ways to assess their students' achievement.	157.25	1209.295	.864	.957
35.	Mentor helps the mentees in strengthening their assessment skills.	157.67	1197.697	.938	.956
36.	Mentor provides guideline to the mentees in assigning home work to their students.	157.33	1207.152	.897	.957
37.	Mentor helps the mentees in providing guidelines to their students for the successful completion of home	157.25	1209.295	.864	.957
38.	Mentor provides instructions to the mentees in promoting creative thinking through home work.	158.00	1182.545	.880	.956
39.	Mentor provides instructions to the mentees in ensuring that assigned home work is according to the	158.00	1192.182	.882	.957
40.	Mentor helps the mentees in evaluating the home work of their students.	157.33	1203.515	.818	.957

SCALE STATISTICS

Mean	Variance	Std. Deviation	N of Items
161.58	1293.538	35.966	40

List of Experts

Sr. No.	Name of Expert	Designation	Area of Expertise	Experience in Years
1.	Col.(R) Dr. Manzoor Hussain Arif	Professor/ Consultant	Teacher Education	28 Years
2.	Dr. Fazal-ur-Rehman	Assistant Professor	Teacher Education	15 Years
3.	Dr. Tanveer Afzal	Assistant Professor	Teacher Education	7 Years
4.	Dr. Abdul Majeed	Assistant Professor	Teacher Education	7 Years
5.	Dr. Hukam Dad	Lecturer	Teacher Education	8 Years
6.	Dr. Saqib Shazad	Assistant Professor	Teacher Education	7 Years
7.	Dr. Islam Saddiq	Ex-Director Public Instructions	Administration/ Professional Development of Teachers	30 Years
8.	Syed Ibrar Hussain Shah	Adl. Director Public Instructions /Ex-DTSC	Professional Development of Teachers	20 Years
9.	Qazi Zahoor-ul-Haq	EDO (Edu)	Administration/ Professional Development of Teachers	32 Years
10.	Qazi Zahoor Hussain	EDO (Edu)	Administration/ Professional Development of Teachers	30 Years
11.	Miss Shakeela Kahtoon	Principal/DTSC	Professional Development of Teachers	20 Years
12.	Dr. Rafia Zareen	Principal/CTSC	Professional Development of Teachers	10 Years
13.	Dr. Sajid ur Rehman	Principal/CTSC	Professional Development of Teachers	8 Years
14.	Dr. Muhammad Naeem Ullah	Principal/CTSC	Professional Development of Teachers	7 Years
15.	Mr. Amjad Mehmood	Deputy DEO/TE/DTE	Professional Development of Teachers	15 Years
16.	Mr. Amjad Iqbal	DTE	Professional Development of Teachers	15 Years