IMPACT OF ADB ASSISTED TEACHER TRAINING PROJECT ON THE QUALITY OF TEACHER EDUCATION IN PAKISTAN

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A thesis submitted in partial fulfillment
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APPROVAL SHEET

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DEDICATION

THIS INTELLECTUAL WORK IS DEDICATED TO

MY BELOVED FATHER (LATE), MOTHER

AND

MY SWEETEST SON

MUHAMMAD WAHAJ KAYANI

WHOSE LOVE AND SPIRITUAL INSPIRATIONS

ENABLED ME TO ACHIEVE THIS

ACADEMIC EXCELLENCE

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LIST OF ABBREVIATIONS

Abbreviations	Description
ADB	Asian Development Bank
AIOU	Allama Iqbal Open, University
BCEEC	Bureau of Curriculum and Education Extension Center
B.Ed	Bachelor of Education
B.S.Ed	Bachelor of Science Education
CT	Certificate of Teaching
FCU	Federal Coordination Unit
GCET	Govt. College of Elementary Education
GCE	Govt. College of Education
GOP	Government of Pakistan
HSSC	Higher Secondary School Certificate
ICF	In-Country Fellowship
M.Ed	Master of Education
MoE	Ministry of Education
MoU	Memorandum of Understanding
NWFP	North Western Frontier Province
OFT	Overseas Fellowship Training
PED	Provincial Education Department
PITE	Provincial Institute of Teacher Education
PIU	Provincial Implementation Unit
PC-1	Planning Commission performa-1
PTC	Primary Teaching Certificate
RITE	Regional Institute of Teacher Education
SSC	Secondary School Certificate
TTI	Teacher Training Institution
TTP	Teacher Training Project
TO	Training Outpost
TPTE	Technical Panel on Teacher Education
UNESCO	United Nations Educational, Scientific and Cultural Organization

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ABSTRACT

Teacher and teacher education has an important role in any education system, both developed and developing countries. No doubt, the welfare, prosperity and security of a nation depend upon the quality of its education. In the present era the nations are competing in the field of knowledge only. The quality and level of excellence in education depend upon the quality and competence of teachers. If the teachers are knowledgeable, competent and committed, they can deliver well. A successful teacher is emotionally matured, user of different teaching techniques, facilitator for the students and an instrument of character building.

In 1990, the Asian Development Bank approved a Project Preparatory Technical Assistance to prepare a detailed proposal for a Teacher Training project in Pakistan. It aimed at upgrading the quality of teacher training, increasing the number of trained female teachers in the rural areas, strengthening the relevance of training curriculum, methodology and materials, and promoting efficiency and effectiveness in policy making, management and resource generation of the teacher education sub sector.

This study was aimed to investigate the Impact of Teacher Training Project on the Quality of Teacher Education in Pakistan.

The main objectives of the study were: 1) To assess the extent to which Teacher Training Project (TTP) objectives have been achieved, 2) To examine the impact of capacity expansion on the quantitative improvement of teacher education, 3) To investigate the impact of Teacher Training Project (TTP) on the qualitative improvement of human resource development in teacher education through In-Country Fellowship Programme, 4) To explore the outcomes of up gradation of management techniques under the Teacher Training Project, 5) To find out the effectiveness of Training Out-posts

(TOs) and their input in the improvement of training of teachers, and 6) To suggest measures for the improvement of Teacher Education in Pakistan.

The population of the study consisted of all the heads of Provincial Institute of Teacher Education, Govt. Colleges of Education and, the Govt. Colleges of Elementary Education, all teacher educators of Govt. Colleges of Education and, the Govt. Colleges of Elementary Education, all the heads/ masters trainers and trainee teachers of Training Outposts,(4 PITEs, 16 GCEs, 90 GCETs and 66 TOs),all the experts/ consultants and officers of Teacher Training Project (TTP) and all the officers of the Technical Panel on Teacher Education (TPTE).

A stratified random sampling technique was used for this study. The sample of the study was: a) 34 heads of PITEs, GCEs and GCETs, b) 145 teacher educators (ICF Training receivers), c) 150 teacher educators (ICF non-training receivers), d) 30 educational managers (Training receivers through Overseas Fellowship), e) 20 heads/ master trainers of Training Outposts (TOs), f) 100 trainee teachers (Training receivers through TOs) = 100 (from one TO i.e Ckakwal), g) 30 experts/consultants and officers of Teacher Training Project and TPTE.

After reviewing the related literature and all the official documents of Teacher Training Project, the research instruments for heads, teacher educators (ICF training receivers and non-training receivers), educational managers (Overseas Fellowship), heads/master trainers and trainee teachers of TOs were designed and used for data collection. Interview Schedule for the experts/consultants and officers of TTP and TPTE was also developed.

The instruments were developed keeping in view the various aspects of teacher education like office equipment, electronic media, furniture, teacher training, curriculum, management, competency/attitude of teachers, teaching methods and instructional material.

Data were collected through personal visits, with the help of research assistant and by mail from the different institutions.

Data were tabulated, analyzed and interpreted keeping in view the objectives of the study. For this purpose, Percentages, Mean, Chi Square and t Test were used.

The conclusions of the study were: a) Office equipment and furniture were sufficiently provided and maximum utilized, b) Electronic media was insufficiently provided, but it played a vital role in strengthening the teacher training in all the four provinces, c) Construction of four PITEs, one/ two rooms in GCEs, GCETs and TOs, enhanced the enrolment and facilitated the prospective teachers. The teacher educators – training receivers were practicing project method and simulation method more than the non-training receivers and were consulting reference books / latest books. Teacher educators' non-training receivers were adopting question answer and lecture method during their teaching and were following the textbooks for teaching.

The teacher educators who had received training, had more skills to use A.V. aids and modern technology during teaching as compared to the non training receivers. Set induction, classroom management and personal skills were developed in the trainee teachers of TOs. The objectives and the scheme of studies for Diploma in Education were well formulated. Textbooks for Diploma in Education were poorly developed and the contents were to some extent relevant and adequate. Diploma in Education was not a

successful programme. Educational managers/teachers were well trained through Overseas Fellowship training but after training they did not monitor the broad aims/ goals and teaching learning process in their institutions. The courses such as home food processing, family planning, environment and adult literacy were not taught during the training in Training Outposts. The Provincial Institute of Teacher Education and Training Outposts were not functioning according to the objectives formulated in Teacher Training Project and after completion of project Training Outposts were closed. The coordination was weak among the Federal Coordination Unit, Provincial Implementation Units and Technical Panel on Teacher Education. Professional attitude was developed in teacher educators and management techniques were improved through In-Country/Overseas Fellowship.

The recommendations of the study were: Electronic media may be provided in sufficient quantity and short term training courses may be arranged for imparting training to faculty in utilizing office equipment and electronic media. More rooms may be constructed in existing GCEs and GCETs to facilitate the prospective teachers. The teacher educators – training receivers and non training receivers may adopt project method, micro teaching and simulation method during teaching.

The non-training receivers may be trained to use the modern techniques like multi media, overhead projector etc. The Overseas Fellowship trainees may monitor all the tasks and activities of their institutions. They may also provide the rigorous managerial training to other managers. FCU, PIUs and TPTE may be revamped and strong coordination through electronic media may be established among them for an objective output. PITEs and TOs may be reactivated and in-service and pre-service training may be offered to teachers at all levels.

CHAPTER 1

INTRODUCTION

Education is a process through which a nation develops its self consciousness by developing the self consciousness of the individuals who compose it. It is not a mere public instruction; it is a social institution which provides mental, physical, ideological and moral training to the individuals of the nation so as to enable them to have full consciousness of their mission, of their purpose in life and equip them to achieve that purpose (Iqbal,1996).

Teaching and learning are fundamental characteristics of human beings. The desire and necessity to teach and learn are inherent in all human beings. All human beings, including children are teachers. In fact, the very survival of humanity depends on this ancient and noble undertaking (UNESCO, 2002).

The Commission on National Education (1959) recognized the need for academically qualified and professionally trained teachers as early as possible, which made the following recommendations in its report:

> "The teacher should be academically well trained in the subjects he teaches; he should have had sound professional training in how to teach his subjects and how to understand the children in his charge and he should possess a deep sense of professional honour" (Govt. of Pakistan, 1959).

Teachers have to share their decision-making and their responsibilities with other adult persons and with their pupils. There is a remarkable trend towards wider distribution of responsibility, democratization and establishment of representative organs at all educational levels. A new emphasis has to be laid upon developing the future

teachers' capability to cooperate with their pupils, their fellow educators and various groups of persons outside the school. This necessitates a placing of emphasis on behavioural sciences in teacher education curricula (Sharma, 1997).

Why Teacher Education? Teacher education is not teaching the teacher how to teach. It is to kindle his initiative, to keep it alive, to minimize the evils of the "hit and miss" process, and to save time, energy, money and trouble of the teacher and the taught. The necessity of the teacher to perceive that the course in Teacher Education would help him minimize his trouble, and to appreciate that it would save the children from much of the painful process through which he has himself passed. Teacher education is needed for developing a purpose and for formation of a positive attitude for the profession.

What is Teacher Education? It is that knowledge, skill and ability which is relevant to the life of "teacher as a teacher". A course in teacher education should seek to reshape the attitudes, remodel the habits and in a way to reconstitute the personality of a teacher (Iqbal, 2002).

In Pakistan, there are currently 1,356,802 teachers in the country; pre-primary (3,807), primary (399,517), middle (313,797), secondary (368,119), higher secondary/intermediate (65,376), degree colleges (43,978), Vocational/polytechnics (15,339), Mosque (22,603), Deeni Madaris (58,391), (Govt. of Pakistan, 2007) and teacher educators are 2,587 (Govt. of Pakistan, 2005).

National Education Policy (1998-2010) envisaged that the quality concerns of teacher education relate to policy formulation and planning, development and management of teacher education programmes, provision of adequate infrastructure to

training institutions, pre-service and continuous in-service education of teacher educators, regular enrichment of curriculum content, methods, evaluation techniques, teaching aids and other teacher related resources (Government of Pakistan, 1998).

National Plan of Action on Education for All (2001-2015) emphasized that quality education requires motivated and competent teachers at all levels. It was recommended that intake qualification of teachers at all levels be enhanced. Teacher training should be revamped to ensure output of devoted prospective teachers. The existing teachers should undergo intensive in-service training to improve their working efficiency. Management training will be mandatory for all future administrators of education from secondary school levels to higher education levels. Awards and medals will be given to hardworking and devoted teachers. The intake qualification of teachers will be raised as M.Phil degree for Postgraduate colleges, and Ph.D for universities (Government of Pakistan, 2003).

Teachers are in an extremely privileged position; educating other people's children is a critical and influential task in any society. But this job is made more complex in times of acute social, economic and political change (Dillon and Maguire, 1998).

The role, status and competence of teachers and the demand and expectations placed on them are inseparably linked with the nature and dynamics of Pakistani society. A number of factors can be underlined: high population growth rate, poverty, widespread illiteracy, deep- rooted gender inequality, persistent rural-urban gap, limited capacity and capability in matters relating to the formulation, execution and evaluation of public policy and as well as mobilization of effective use of available resources.

Despite these difficulties, the teaching profession has made significant progress in recent years. Efforts are also underway to put in place a series of legal and policy measures aimed at improving the role, status and competence of teachers, female teachers in particular, and at creating an environment in which teachers can discharge their duties with dedication and confidence. These include the Government of Pakistan' (GOP) initiative for improving service structure, the Education Sector Reform (ESR) Action Plan (2001-2005), particularly with regard to teacher training, the National Plan of Action for Education for All (2002-2015), the Perspective Development Plan (2001-2011), crash training programmes recently launched by Provincial governments, and a series of policy measures in support of girls' education in Pakistan. To improve educational objectives, policies, programmes, curricula, textbooks and infrastructure, the teacher remains the backbone of the system (UNESCO, 2002).

The dominant problem in teacher education was lack of quality in teachers, instructional skills and content –expertise. This was partly traced to deficiencies in the teacher education system: weak policy-formulation, research inputs and defective planning, coordination and communication in the sub sector; and at the institutional level, inadequate management, outdated training methodologies, lack of training materials and study aids. At the personal level, this was attributed to the teacher's low self-image of her/himself and lack of incentives and motivation for professional growth (ADB, 1992).

The Asian Development Bank's 1988 sector study on Education in Pakistan concluded that the lack of trained teachers is a major constraint on achieving the improvements required in the education sector (ADB, 1992a). In 1990, the Asian Development Bank approved a Project Preparatory Technical Assistance to prepare a detailed proposal for a Teacher Training Project in Pakistan. It aimed at upgrading the

quality of teacher training and performance, increasing the number of trained female teachers in the rural areas, strengthening the relevance of training curriculum, methodology and materials, and promoting efficiency and effectiveness in policy making, management and resource generation of the teacher education sub sector. The Project was based on the concept of open learning systems, which provide for multi-mode, ladderized, inter-active and strong networking among Teacher Training Institutions. This was because formal or conventional training was unable to meet both the quantitative and qualitative requirements for teachers, especially in Pakistan's' rural areas. Under this Project, this was the first time in Pakistan in which teacher education was approached as a sub sector unto itself, and not as a minor component of a sub sector program (ADB, 1992). In 1992, the Government adopted the New Education Policy, which provides the policy framework to guide the development of the education sector during the 1990s (ADB, 1992a).

The Teacher Training Project was approved in December 1992. ADB approved a loan of US $52.1 Million (Rs.1747.00 Million) for federal/ four provinces (Rs.1276.5 Million by ADB and Rs.470.00 Million by Government of Pakistan).The loan was declared effective in October 1993 by the ADB. Implementation for the Project was started in September 1994 for five years. The project was extended by the ADB for one year up to December 1999 and subsequently up to 31st December 2000 (Government of Pakistan, 2001a).

Quality of teacher education spells out the overall quality of education. There is an imperative need for quantitative expansion and qualitative improvement in teacher education. Like most developing countries, Pakistan is also confronted with the dual

challenges of quantitative expansion and qualitative improvement in teacher education. The existing teacher training institutions have limited in take/ out put capacity and for quality improvement of teachers innovative approaches/alternatives are indispensable. The Teacher Training Project was conceived, planned and implemented to meet the shortcomings of the teacher education programme. This study has been planned to see whether the objectives of the Teacher Training Project have been achieved or not if achieved then to determine the extent of it.

1.1 STATEMENT OF THE PROBLEM

The study aimed at investigating the Impact of ADB Assisted Teacher Training Project (TTP) on the quality of Teacher Education in Pakistan. The researcher analyzed the relevant documents published by Government of Pakistan and other International agencies. The questionnaires and interview schedule were constructed. Data were collected and analyzed.

1.2 OBJECTIVES OF THE STUDY

Following were the objectives of the study.

1. To assess the extent to which Teacher Training Project (TTP) objectives have been achieved.
2. To examine the impact of capacity expansion on the quantitative improvement of teacher education.
3. To investigate the impact of Teacher Training Project (TTP) on the qualitative improvement of human resource development in teacher education through In-Country Fellowship Programme.

4. To explore the outcomes of upgradation of management techniques under the Teacher Training Project.
5. To find out the effectiveness of Training Out-posts (TOs) and their input towards the improvement of training of teachers.
6. To suggest measures for the improvement of Teacher Education in Pakistan.

1.3 NULL HYPOTHESES

To achieve the above mentioned objectives, following null hypotheses were tested:

1. There is no significant difference between the opinions of teacher educators-training receivers and non training receivers regarding the provision and utilization of office equipment in the GCEs/GCETs.
2. There is no significant difference between the opinions of teacher educators – training receivers and non training receivers regarding the provision and utilization of A.V aids in the GCEs/GCETs.
3. There is no significant difference between the opinions of teacher educators - training receivers and non training receivers regarding the teaching methods in the GCEs/GCETs.
4. There is no significant difference between the opinions of teacher educators training receivers and non training receivers regarding the teacher educator's competencies in the GCEs/GCETs.
5. There is no significant difference between the opinions of teacher educator-training receivers and non training receivers regarding the teacher educators' skills in the GCEs/GCETs.

6. There is no significant difference between the opinions of teacher educators-training receivers and non training receivers regarding the aspects of the curriculum of Diploma in Education.
7. There is no significant difference between the opinions of teacher educators training receivers and non training receivers regarding the textbooks proposed for Diploma in Education.
8. There is no significant difference between the opinions of teacher educators training receivers and non training receivers regarding the contents selected for the training of teachers (Diploma in Education).
9. There is no significant difference between the opinions of master trainers and trainee teachers regarding the provision and utilization of A.V aids/training material in TOs.
10. There is no significant difference between the opinions of master trainers and trainee teachers regarding the community extension training courses.
11. There is no significant difference between the opinions of master trainers and trainee teachers regarding the provision of services at TOs.
12. There is no significant difference between the opinions of master trainers and trainee teachers regarding the development of skills through training.

1.4 SIGNIFICANCE OF THE STUDY

The study has immense importance for the educational planners and policy-makers because there is a dire need to revitalize teacher education on sound research findings, because the teacher education sub sector has been the neglected area in Pakistan. Teacher education is facing problems in both quantitative and qualitative terms.

The dominant problem in teacher education is lack of quality in teachers' instructional skills and content expertise. There is a great need to probe into this sub sector. Identification of weaknesses of Teacher Training Project will provide insights into the areas of concern planners about the project's design. It will also identify the factors that affect the quality of teacher education.

Moreover, the findings of this study may be helpful for the heads of Teacher Training Institutions, teacher educators, educational managers, master trainers and trainee teachers of Training Outposts to understand the problems in education system. The study will provide guidelines for improvement of various aspects of teacher education. The study will also provide guidelines to restructure the teacher training programmes. The research findings and recommendations of the study will provide strategic guidelines to the Govt. and donor agencies for devising and implementing new teacher training projects more effectively.

1.5 DELIMITATION OF THE STUDY

Keeping in view the limited time and resources and other constraints, the study was delimited to the following components of the TTP;

a. PITEs, GCEs and GCETs with reference to capacity expansion
b. In-Service training through In- Country Fellowship(ICF) programme
c. In-Service training in Training Out- posts (TOs)
d. In-Service training through Overseas Fellowship for educational managers

1.6 RESEARCH METHODOLOGY

1.6.1 Population

The population of the study consisted of all the heads of PITEs, GCEs and GCETs, all the teacher educators of GCEs and GCETs, all the heads/ masters trainers and trainee teachers of TOs, (4 PITEs, 16 GCEs, 90 GCETs and 66 TOs), all the experts/ consultants and officers of Teacher Training Project (TTP) and all the officers of the Technical Panel on Teacher Education (TPTE).

1.6.2 Sample

A Stratified Random Sampling technique was used for the selection of institutions.

The GCEs, GCETs/RITEs and TOs were selected on the basis of number of institutions in the provinces (50 % GCEs, 25 % GCETs/RITEs and 30 % TOs).

Federal/Province	PITEs	GCEs	GCETs/ RITEs	TOs	Total
Federal	----	01	----	----	**01**
Punjab	01	04	08	08	**21**
Sindh	01	02	06	04	**13**
NWFP	01	----	05	04	**10**
Balochistan	01	01	03	04	**09**
Total	**04**	**08**	**22**	**20**	**54**

Note: Due to non-availability of teacher educators- ICF training receivers, more GCETs/RITEs were included in the sample of the study i.e. 2 GCETs in Punjab, 4 GCETs in Sindh, 6 RITEs in NWFP and 4 GCETs in Balochistan. So total number of GCETs/RITEs were 38.

A Systematic Random Sampling technique was used for the selection of respondents. The sample of the respondents of the study was as follows:

S.No.	Respondents	Number
I	Heads of PITEs, GCEs and GCETs/ RITEs	34
Ii	Teacher educators (ICF training receivers)	145
Iii	Teacher educators (ICF non-training receivers)	150
Iv	Educational managers (Overseas fellowship training receivers)	30
V	Heads/ Master trainers of Training Out posts (TOs)	20
Vi	Trainee teachers (Training receivers through TOs) (Only from one TO)	100
Vii	Experts/consultants and officers of TTP and TPTE	30
Total respondents		**509**

1.6.3 Research Instruments

It was a descriptive study. Following research instruments were used:

i. **Questionnaire A** for Heads of PITEs, GCEs and GCETs/RITEs (Appendix-I).

ii. **Questionnaire B** for Teacher educators (ICF training receivers and ICF non training receivers) of GCEs and GCETs/RITEs (Appendix-II).

iii. **Questionnaire C** for Educational managers (Training receivers through Overseas Fellowship) (Appendix-III).

iv. **Questionnaire D** for Heads/Master trainers of TOs (Appendix-IV).

v. **Questionnaire E** for Teachers (Training receivers through TOs) (Appendix-V).

vi. **Interview Schedule** for the experts/consultants and officers of TTP and TPTE (Appendix-VI).

1.6.4 Data Collection

Data were collected through personal visits, with the help of a research assistant and by mail from respondents of the different institutions mentioned in the sample of the study.

1.6.5 Data Analysis

Data collected were tabulated, analyzed and interpreted keeping in view the objectives of the study. For the statistical purpose, Percentages, Mean, Chi Square and t Test, formulae were used.

CHAPTER 2

REVIEW OF RELATED LITERATURE

The major objective of the study was to investigate the impact of Teacher Training project on the quality of teacher education in Pakistan. The related literature was reviewed in this chapter.

It is rightly said that no system of education can rise above its teachers and no nation can rise above its system of education. The teacher is the echelon in the entire system of education. It is also stated that if any revolution is to be brought in education, that should be started from teachers.

In order to improve the quality of teachers and educational system, continuous learning is essential because the strength of an educational system must largely depend upon the quality of its teachers. Whatever, enlightened the aims, whatever, up-to-date and generous the equipment, whatever efficient the administration, the value of the children is determined by the teachers.

In the Words of H. G. Wells

> "Teacher is the maker of history. The history of a nation is written in its schools and the schools cannot be very different from the quality of their teachers".

R. N. Tagore has very rightly remarked

> "A teacher can never truly teach unless he is still learning himself. A lamp can never light another lamp unless it continues to burn its own flame. The teacher who has come to the end of his subject, who has no living traffic with his

knowledge, but merely repeats his lessons to his students, can only load their minds" (Rao and Rao, 2005).

2.1 DEFINITION OF QUALITY

The quality refers to the standard of excellence desired to contribute to high levels of student's achievement. It is seen as the level of the excellence of the facilities, training equipment, instructional materials, curriculum, teachers and management used in the education process to boost student learning. Quality measures the degree to which the resources and efforts used meet certain agreed standards, and it is, in some way, complementary to effectiveness (ADB, 1992).

. The standards usually refer to expected or actual student attainment in terms of grading of performance. Quality is used in an even broader manner and with much variability in meaning, and may refer to a number of things, including individual student performance, the student learning experience, the teaching provided etc.

The concept of quality can be sub-divided into several categories, as Harvey, Burrows and Green demonstrated, including:

- **Quality as excellence** – the traditional (often implicit) academic view which aims to demonstrate high academic standards.
- **Quality as 'zero errors'** – most relevant in mass industry where detailed product specifications can be established and standardized measurements of uniform products can show conformity to them, but in higher education might be applied, e.g. to learning materials.

- **Quality as 'fitness for purposes'** – focuses on 'customers' (or stakeholders) 'needs' (e.g. of students, employers, the academic community, government, or society), and / or as defined by the stated aims and learning outcomes of a programme of study. In the last decade, in the UK, this has been the dominant usage of the word 'quality'.
- **Quality as enhancement** – emphasizes continuous improvement.
- **Quality as transformation** – applies either to students' behaviour and goals changing as a result of their studies or to socio-political transformation achieved through higher education.
- **Quality as threshold** – refers to meeting a minimum standard, as in subject benchmarking. Minimum standards are defined in most European higher education system to enable a minimum, objective comparability of units or programmes (Fry, Ketteridge and Marshall, 2004).

2.2 PROFESSIONAL DEVELOPMENT

The need for professional development is rooted in the changing role of education practitioners. The culture of schools is also changing.

Professional development opportunities are the result of collaboration, participation and negotiation. A teacher's professional career should be viewed as a continuum with a right to support at any and every point within it. Such an approach, wider than simply succession planning for posts of senior management, requires a detailed analysis of the needs and aspirations of the profession in order to meet them as fully as possible. A prerequisite for effective schools is, therefore, professional

development. The purpose of professional development can be summarized as the development of knowledge, understanding, skills and abilities that will enable staff to:

a. develop and adapt their range of practice;
b. reflect on their experience, in order to meet pupil needs, collectively and individually;
c. contribute to the professional life of the school;
d. interact with the school community and external agencies as a professional practitioner;
e. keep in touch with current educational thinking in order to maintain and develop good practice;
f. consider educational policy, in particular how to raise standards;
g. have a wider understanding of society, in particular information, communication and technology (ICT).

Professional development is the development of teachers and support staff to enhance their knowledge and understanding, and their skills and abilities to improve the quality of teaching and learning. In practice, development is a term encompassing any experience or process which helps to bring out an individual's full potential. Development embraces both individual and school improvement (Blandford, 1998).

Competencies and professional skills are the very heart of the programme of teacher education. For this purpose, the following operations are needed to be taken.

1. Providing professional educated entrants to the profession in adequate numbers.

2. Maintaining or increasing the quality of entrants for the profession to satisfy society's needs whereas the first aim is quantitative, the second one is qualitative (Veer, 2004).

2.3 EDUCATION VIS - A- VIS TRAINING

A distinction can be made in training and education on the basis of two criteria- (a) the degree of specificity of objectives. (b) minimizing vs. maximizing individual differences. Training has more specific objectives and attempts to minimize individual differences while educational objectives are more general and it maximizes the individual differences, it means when people are educated the difference among them are increased and when they are trained, differences are minimized (Rao and Rao, 2005).

2.4 TEACHER TRAINING

The term 'teacher training' is used interchangeably with 'teacher education'. Teacher training refers to the professional academic discipline and the corresponding bachelors' and advanced degree programmes. Training is short term, specific and keyed to a set of identified and measurable skills, knowledge, orientations and experiences. On the other hand, education is considered as being academic and theoretical in its orientation concerned with the development of the complete man (ADB, 1992).

2.5 TRAINING METHODS

Noe (2000) broadly classifies training methods into two categories (i) traditional training methods and (ii) new training methods. Methods are "traditional" in the sense that they do not require new technology.

2.5.1 Traditional Training Method

Traditional training methods are organized into three broad categories: (i) presentation methods (ii) hands-on-methods and (iii) group building methods. Presentation methods (such as lecture) are effective for efficiently communicating information (knowledge) to a large number of trainees. Presentation methods need to be supplemented with opportunities for the trainees to practice, discuss and receive feedback to facilitate learning. Hands-on methods get the trainee directly involved in learning. Hands-on methods are ideal for developing skills and behaviour. Hand-on methods include on the job training, simulations, self directed learning, business games, case studies, role-play and behaviour modeling. These methods can be expensive to develop but incorporate the conditionals needs for learning and enable the transfer of training to occur. Group building methods such as team training, action learning and adventure learning focus on helping teams increase the skills needed for effective teamwork. (e.g. self-awareness, conflict resolution, coordination) and help to build team cohesion and identity. Group building techniques may include the use of presentation methods as well as exercises during which team members interact and communicate with each other.

2.5.2 New Training Methods

New training methods include the World Wide Web, distance learning and virtual reality resulting from recent technology advances.

2.5.3 Choosing a Training Method

The first step in choosing a method is to identify the type of learning outcome that you want training to influence. Those outcomes include verbal information, intellectual skills, cognitive strategies, attitudes and motor skills. Training methods may influence

several learning outcomes. Once you have identified a learning method, the next step is to consider the extent to which the method facilities learning and transfer of training, the costs related to development and use of the method, and its effectiveness. The training budget for developing training methods can influence the method chosen (Noe, 2000).

2.6 TYPES OF TRAINING

The process of building individuals' job and work capabilities can take a variety of forms. For instance, internal training may be offered by the organizations in which trainees work; external training may be provided by outside agencies and institutions. Pre-service training may be offered to new recruits or existing personnel on the promotion ladder when preparing them for new positions; in-service training aims at the provision of training for those already in defined occupational positions and performing clear functions within three organizations. From a locational position of view too, training may take different forms:

a. In-country training (where trainees are located)
b. Overseas – training (normally where the training institutions are located.
c. Third country training (for trainees from various countries in a given geographical reason.

Training programmes also very significantly according to the mode of delivery adopted or the medium through which they reach participants. Three main forms of training in this regard are outline and discussed below.

2.6.1 Pre-designed Formal Training

Probably the most common form of formal training, this consist of offering through a number of integrated and "packaged" learning modules to interested and qualified participants.

Many such programmes are offered by universities and other higher educational institutions, training centers within government agencies and ministries, as well as by the private sector.

2.6.2 Custom-Tailored Formal Training

Rarely do the skills and new knowledge offered by pre-designed training programs match closely the trainees' job and vocational performance needs. Periodically, this has given rise to more emphasis on tailoring the contents of learning to individual trainees' need or their organizations' training and development objectives.

This is normally achieved by suitably modifying and adapting the contents and methods of training to take account of the specific conditions in which it is delivered. For instance, training for agriculture and rural development can be customized through the development and teaching of relevant case studies which relate to the regions from which trainees come from, and/or draw from sectors and areas of work that bear on the participants' interest and professional experience.

2.6.3 Distance training

Distance education and training are based on the principle of self-instruction, i.e. the process whereby an individual learns without direct contact with the tutor or trainer. This requires the development of structured and guided study material which can be delivered in a variety of media ranging from printed work to audio video tapes and television and radio broadcasts.

Distance learning removes, or at least ceases the barriers imposed by time and place in formal learning processes. Its principal advantage is thus in its ability to reach large number of individuals, and to minimize a high rate of information loss that is normally associated with learning in face-to-face contact mode (Hakimian and Teshome, 1993).

2.7 THE IMPORTANCE OF THE QUALITY OF TEACHING

The importance of the quality of teaching, and therefore of teachers, cannot be overemphasized. It is at an early stage of basic education that the principal attitudes toward learning as well as the self-image of the learner are formed. The role of the teacher at this stage is crucial. The greater the handicaps the children coming to school have to overcome -in terms of poverty, difficult social environment or physical impairments, the greater the demands on the teacher. He or she, to be effective, must draw upon a broad range of teaching skills, as well as on the human qualities of empathy, patience and humility, as a complement to authority. When a child's or adult's first teacher is poorly trained and poorly motivated, the very foundations on which all subsequent learning is likely to be built, will be unsound. The Commission feels that reasserting the importance of teachers in basic education and improving teachers' qualifications are tasks to which all governments must address themselves. The measures needed to recruit future teachers from among the most motivated students, improve their training and encourage the best among them to take on the most difficult posts need to be determined in relation to the specific circumstances of each country but such measures must be taken, since, without them, it is unlikely that there will be significant

improvement in quality where they are most needed. Thus, improving the quality and motivation of teachers must be a priority in all countries (UNESCO, 1998).

2.8 THE MEANING OF IN-SERVICE TEACHER EDUCATION

In-service teacher-education has variously been defined by different Education theorists;

According to M.B. Buch, a former Director of the department of field services, "In-service education is a programme of activities aiming at the continuing growth of teachers and educational personnel in-service**."**

It may be regarded as the sponsoring and pursuing of activities which will bring new insight, growth, understanding, and co-operative practices to the' members of teaching profession and arouse them to action to improve themselves in every possible manner.

In other words, it may be regarded as including all activities and experiences participated by the educational personnel in education during their services. These activities are planned and organized by various agencies to help the educators to improve as persons and to mature as professionals.

Rao and Rao, (2005) quoted that Cane (1969) summed up to define In-service Teacher-education as "all those activities and courses which aim at enhancing and strengthening the professional knowledge, interest and skills of serving teachers."

This definition has the following significant components:

(1) Professional knowledge.

(2) Skill aspect.

(3) Attitude towards profession.

(4) A code of conduct on ethics of profession.

(5) Professional skills, such as administrative skills, management skills, organizing skills, leadership skills, etc.

(6) Interest towards teaching profession.

(7) Course refers to the provision of such experiences based on sound pedagogical and empirical considerations as well as related to research findings (Rao and Rao, 2005).

2.9 THE NEED FOR IN-SERVICE EDUCATION

In-service education of teachers becomes all the more necessary and teachers have to acquaint themselves with new development. Besides there are experiments and innovations in the field of pedagogy which ought to be brought to the notice of the teachers and if necessary required skills to adopt the innovative practices need to be developed. Periodical adoption of new educational policies and consequent changes in the curricula and instructional materials also necessitate in-service education program for teachers in order to enable them to handle the new material with ease and effectiveness.

A teacher can make his teaching more interesting and effective with help of teaching aids. He needs to be trained and retrained periodically in the production and use of appropriate audio-video aids.

In-service teacher education program should further equip the teachers with necessary skills to handle children suffering from various kinds of deprivations. In-service education brings into focus the desirability of a teacher to always remain a learner during his professional life, thus avoiding obsolescence, focalization and irrelevance. (www.nctein.org/pub/policy/part2_2.htm)

2.10 ASPACTS OF IN-SERVICE EDUCATION

The Organization for Economic Co-operation and Development (OECD) Project concentrated on seven main aspects of In Service Training (INSET):

i. Teachers as adult learners
ii. School focused INSET and teachers' centers
iii. Evaluation
iv. INSET materials
v. Training the trainers
vi. Costs and resources
vii. Teacher participation (Singh and Sudershan, 2005).

2.11 TEACHER TRAINING IN THE PERSPECTIVES OF EDUCATIONAL PLANS AND POLICIES

At the time of independence in 1947, Pakistan inherited an education system with very small number of teacher training institutions. Recognizing the importance and need for a well developed education system, the then government set priorities and developed plans and policies for action.

2.11.1 The Pakistan Education Conference - 1947

The Pakistan Educational Conference (1947) was convened in Karachi from the 27th November to 1st December, 1947 which narrates that a properly trained and reasonably well paid teaching profession was essential to the building up of a great State. It, therefore suggested that the Provinces should take necessary steps to ensure (i) the proper training of teachers and (ii) adequate scales of salary. The committee noted that

the introduction of free and compulsory education would require an army of teachers and suggested that the provinces should adopt special measures to meet this need. In this connection they suggested the adoption of short-term courses for their training. In particular, the committee stressed the desirability of adding research departments to training institutions for the study of special problems relating to teaching (Government of Pakistan, 1947).

2.11.2 The Commission on National Education (1959)

The Commission on National Education (1959) emphasized that no system of education is better than its teachers. We have stressed throughout the report their pivotal role, and we need only to say here, though we say it with force and without reservation that none of the reforms we are proposing will succeed unless we are able to recruit to be the teaching profession at all levels men and women of the highest abilities, and can train them and those already in service to the same standards as are expected in other countries, and give them that status in our society which their national importance warrants. Teachers, like engineers, are potential nation builders.

It is essential for a successful teacher to have the following characteristics: he should be academically well trained in the subjects he teaches; he should have had sound professional training in how to teach his subjects and understand the children in his charge and he should possess a deep sense of professional honour. It is also essential for him to have a security of tenure and a scale of pay commensurate with his status; he should work in an environment which honours him for the contribution he makes to society (Government of Pakistan, 1959).

2.11.3 Report of the Commission on the students' problems and welfare (1966)

The Commission was headed by Hamood-ur-Rahman, its report was published in 1966 which recommended that teachers should be given better pay and status so that they may live in the society in a decent and befitting manner. They should also be provided with better training facilities (Government of Pakistan, 1966).

2.11.4 The New Education Policy (1970)

The New Education Policy (1970**)** indicated that the preparation of teachers in Pakistan leaves much to be desired.. The programme envisaged for the Fourth Five Year Plan under the New Education Policy makes provision for the preparation of about 128,000 new teachers and in-service training of 150,000 teachers. With a view to ensuring their adequate preparation, it has been proposed that the teachers for Class I-V should posses at least a Secondary Certificate, teachers for Class VI-VIII, an intermediate Certificate and teachers for Class IX-X a Bachelor's Degree, followed by professional training.

The need for training a large number of teachers should call for a comprehensive teacher training programme, including the expansion of the normal programme of teacher education and a crash programme of condensed training on an emergency basis. During the Fourth Five Year Plan it will be necessary to launch emergency training programme of the duration of 2 to 6 months in teachers training colleges, general colleges and technical institutions. Introduction of pedagogy as a subject at the intermediate and Degree levels and Technical institutions should also be considered as a means of meeting the demand for additional teachers. These training programmes are intended to supplement the facilities of training under the normal programmes of teacher education (Government of Pakistan, 1970).

2.11.5 The Education Policy (1972-1980)

The Education Policy announced in March 1972 aimed at ensuring active participation of teachers, students and representatives of parents and community at large in educational affairs. In order to meet the massive requirement of teachers at all stages, facilities for teachers' education will be increased by re-organizing teacher education programmes and by introducing innovative techniques. The policy envisaged an academy for teachers and educational planners/ administrators will be set up on the lines of similar academies existing for the Civil Service and the Finance Service (Government of Pakistan, 1972).

2.11.6 National Education Policy and Implementation Programme (1979)

The National Education Policy and Implementation programme (1979), recognized teacher as a pivot of the entire education system. It emphasized consolidation and qualitative improvement through up-gradation and enrichment of the teacher education programmes. It proposes to evaluate the curricula of the pre-service teacher education programmes of PTC, CT, B.Ed. and M.Ed. and subsequent suitable modifications. It also suggests that teacher education should be brought inline with Islamic faith and ideology of Pakistan. The policy also aimed that "An Academy of Educational Planning and Management will be established to provide suitable in-service training facility to vast number of administrators and supervisors working at different levels of education system. This academy will be established at national level at Islamabad" (Government of Pakistan, 1979).

2.11.7 National Education Policy (1992)

National Education Policy (1992) depicts that;

i) A separate unit for organizing Teacher Training shall be set up by each provincial Education Department and at the Federal level.

ii) Teacher Training Institutions will be equipped and strengthened, and their faculty will be provided training to update their knowledge and skill.

iii) A regular in-service training programme will be launched for teachers at all levels. Distance education methods will be used for in-service training. Computer education will be a compulsory component of all teachers training programme.

iv) A system of incentives will be created to encourage teachers to undergo in-service training. Special awards will be instituted for inventions and creative work.

v) A national commission for teachers will be set up for examining the problems of teachers and for suggesting ways and means for their solution

(Government of Pakistan, 1992).

The national Education Policy-1992, views changing articulate role of teachers with the changes in curricula, text books, teaching methods and evaluation techniques. It emphasizes as under;

"The training of teachers will emphasize the acquisition of practical skills. The role of teacher will be redefined. A system of punishment and rewards for teachers, based on performance evaluation shall be introduced. The teaching learning process will be strengthened through various types of inputs such as delivery of educational services will be improved by re-examination and training of personnel on the use of instructional resources" (Shami, 2005).

2.11.8 National Education Policy (1998-2010)

In the National Education Policy 1998-2010 objectives of teacher education are mentioned as under;

a. To create a matching relationship between demand and supply of teachers.
b. To increase the effectiveness of the system by institutionalizing in-service training of teachers, teacher trainers and educational administrators.
c. To upgrade the quality of pre-service teacher training programs by introducing parallel programs of longer duration at post-secondary and post degree levels.
d. To make the teaching profession attractive for the young talented graduates, by institutionalizing a package of incentives.
e. To develop a viable framework for policy planning and development of teacher education programs, both in-service and pre-service.
f. To provide management training of educational administrators at various levels (Government. of Pakistan, 1998).

2.11.9 First Five Year Plan (1955-60)

In the First Five Year Plan it was proposed that the number of institutions imparting training to secondary school teachers doubled from eleven to twenty-two. In-service training should be given to those teachers who have had no training and to those who have not passed the matriculation examination.

The First Five Year Plan allocated 19.9 percent of the total investment in the public sector to social services, from which education received 6.2 percent and teacher education received 6.6 percent of the proposed allocation for education sector which was

the lowest under the plan. Out of it only 23 percent was actually spent and that too on training of graduate teachers for secondary level. During the plan period no new primary teacher training institution could be opened against the target of 25, rather the number of primary teacher training institutions decreased from 97 to 75 during the plan period (Government of Pakistan, 1957).

2.11.10 Second Five Year Plan (1960-65)

The Second Five Year Plan (1960-65) was realistic and technically better designed. It had the advantage of profiting by the experience of the First plan. The Second Five Year Plan emphasized that the role of the teacher is a pivotal one in raising the standards of education at all levels.

During the Plan period only two new teacher training colleges and one primary training institute were opened. Post-graduate courses in education were introduced at the teacher training colleges at Lahore, Karachi and Dacca and a department of education was opened at the University of Rajshahi.

The Plan provided provision for the in-service training of educational administrators, inspectors, headmasters and specialized teacher through the education extension centers now being developed at Dacca and Lahore. Other in-service programmes will be operated through the teacher training colleges and selected primary training institutes (Government of Pakistan, 1960).

2.11.11 Third Five Year Plan (1965-70)

The Third Five Year Plan (1965-70) was formulated within the framework of the long term perspective plan (1965-70). The long term objective was to raise the minimum educational qualifications of primary school teachers.

The Third Five Year Plan stated that a vigorous programme of in-service training will be initiated for the existing teachers. Arrangement will be made for them to attend specially designed courses, for a period of at least three months, preferably followed by further training in the succeeding year. During the interval, they will work in schools under the supervision of master teachers. Successful completion of the in-service training should be accompanied by suitable increments in salary (Government of Pakistan, 1965).

2.11.12 Forth Five Year Plan (1970-75)

The Forth Five Year Plan (1970-75) was prepared in the light of the recommendations of the New Education Policy -1970. In the Fourth Five year plan recognized the importance of quality and crucial role of teacher in raising the standards of instruction. Facilities for in-service training of senior level administrators and planning officers were planned to be provided during the plan period.(Govt of Pakistan,1970) However due to tragic event of dismemberment of East Pakistan in 1971, the Forth Five Year Plan was abandoned (UNESCO, 1991).

2.11.13 Non-Plan Period (1971-78)

Like other sectors of the economy, allocations for the education were now to be made on a year to year basis keeping in view the programmes pursued by the Government. The expenditure incurred during the six year period 1972-78 on

programmes of education and training, Teacher education attained steady increase in their development expenditure i.e.3.6 percent in 1972-73, 2.9 percent in 1973-74 and 1974-75, 3 percent in 1975-76 and 2.6 percent in 1976-77 and 5.2 percent in 1977-78 (Jabeen, 1990).

2.11.14 Fifth Five Year Plan (1978-83)

In the Fifth Five Year Plan, it was recognized that; to increase the supply of primary and middle school teachers, to introduce an education stream at the intermediate level particularly in girls' colleges and those passing intermediate in education stream shall be qualified to teach I-V111. The Fifth plan will expand arrangements for in-service training of teachers of all categories. During the plan period for the additional requirements of teachers, the existing training institutions were sufficient. So, no new institution was planned (Government of Pakistan, 1978).

2.11.15 Sixth Five Year Plan (1983-88)

The Sixth Five Year Plan envisaged that training institutions for male teachers are functioning at about 20 - 30 percent of the capacity. To meet the shortage of trained primary school teachers, untrained matriculates are being recruited as teachers. It was proposed that Provinces/Regions facing such a situation introduce a modified system of teacher training under which teachers may be placed for training after recruitment (Government of Pakistan, 1983).

Sixth Five Year Plan 1983-88 for educational development to some extent emphasizes improvement in teacher training programmes and suggests crash training

programmes to meet the needs. The corresponding Sixth Five Year Plan could not achieve the set targets (Shami, 2005).

2.11.16 Seventh Five Year Plan (1988-93)

Seventh Five Year Plan (1988-93) emphasized that during this plan teacher efficiency will be improved by:

- Gradually raising the qualifications of fresh entrants;
- Revitalizing the teacher training programmes through structural and curricular changes and improved management of teacher training institutions; and
- Providing better career prospects and continuous in-service education, weeding out in efficient persons and providing incentives for good performance in the form of increments/ awards, etc. (Government of Pakistan, 1988)

The Seventh Five Year Plan does reflect rephrasing earlier plans and targets. However, the practices held that until serious issues of upgrading teacher education are addressed, the qualitative change and improvement in the education system at large is not likely to be materialized (Shami, 2005).

2.11.17 Eighth Five Year Plan (1993-98)

The Eighth Five Year Plan recognizes that the teacher has a pivotal role in improving the quality and efficiency of education system. The quality of pre-service training for most of the teacher training institutions is out-mode and of low standards. There is an urgent need to update the knowledge and skills of master trainers engaged in teacher's training. The Eighth Five Year Plan programme will review and reform the

curricula and training methodology of the teacher institutions at all levels. A variety of approaches will be adopted for in-service training. These approaches will include distance learning through non formal education, establishment of teacher resource centers at selected places, mobile teacher training programmes particularly for the female teachers in rural areas and on the job training through learning coordinators etc. Innovative programmes of teacher training such as modular approach and audio/video cassettes containing training lessons will also be used (Government of Pakistan, 1993).

2.11.18 Ninth Five Year Plan (1998-2003)

The major objectives of the Ninth Five Year Plan (1998-2003) were; 1) to find out the optimal use of inputs of educational institutions through good governance, 2) to create appropriate teaching and research environment in higher education institutions.

The Plan emphasized to enhance the internal and external efficiency of the education system through involvement of local community. It also depicted that salary structure of teachers will be reviewed (Government of Pakistan, 1998).

2.11.19 Education Sector Reforms (2001-2006)

Education Sector Reforms (2001-06) programme was cast in the long term perspective of National Education Policy (1998-2010) and the Ten Year Perspective Development Plan (2001-2011) .The main objective of Education Sector Reforms was improvement in the quality of education through better teachers, reformed curriculum and efficient examination system (Government of Pakistan, 2001). Education Sector Reforms (ESR) was fully integrated with relevant Millennium Development Goals (MDGs). It aimed at achieving the sub-sector targets by 2005-06: Literacy from 49 % in 2000-01 to

60 % by 2005-06 and increase in gross and net enrolment at primary, middle, secondary and higher education levels (Government of Pakistan, 2004).

During 2007-08, government has taken several substantial initiatives for teachers' education and professional development. Government has trained 20,660 elementary school teachers and 3,726 university teachers in the country (Government of Pakistan, 2008).

In conclusion, the general assumptions and expectations underlying quality teacher education as communicated in various documents remain as under;

a. A broad based and organized programme of learning experiences to produce an overall well oriented professionals, teachers and educationists.
b. The teacher education programme should contribute and enhance necessary required personal growth and professional competencies and skills among prospective teachers.
c. The teacher education should contribute to develop mastery of the subject matter.
d. The teacher education programme should provide opportunities and experiences of working with various groups of children and in variety of situations.
e. The training programme should develop competencies in the management of a variety of services and activities.
f. The programme should inculcate positive attitudes and commitment towards teaching as profession and continued professional growth.
g. The center of interest of the training should be the children of corresponding age group and desired change in the behaviours (set aims and objectives) with special reference to surrounding realities.

All the polices certainly realize that quality of education depends on the quality of teachers and deliberate on the measures both qualitative and quantitative imperative of teacher education such as development and management teacher education programmes, provision of infrastructure, pre-service and in-service education of teachers and teacher educators, curriculum contents and methods. These policies express a wide range of issues and concerns. However, the teacher education in vogue is being considered inadequately responsive to the demands for quality education in the education system. The profession of teaching has been flocked with non–committed and unmotivated teachers. Various policies ensure improvement of in-service structures and offers incentive but not tangible results are achieved. The quality of teacher training programmes has an imbalance as they lack harmony with the school system. However, there is no effective relationship between the demand and supply of teachers as it is being carried out without a viable planning (Shami, 2005).

2.12 TEACHER EDUCATION IN THE 21ST CENTURY

There is no denying the fact that teacher occupies the most crucial position in the entire spectrum of educational activities. It is nobody else except the teacher who influences the future personal, social and economic lives of people. The availability of a good number of academically and professionally trained teachers, therefore, poses the greatest challenge for teacher training programmers to cope with the challenges of the 21st century. In this century, schools are going to be clearly different from teachers who are working in those schools. Teachers will need to be thinking differently and performing differently. Accordingly, teacher education programs will be improved. In this new era of the 21st century all fields of life have been increasingly changed particularly much diversity such as intelligence, learning styles, learning disability,

giftedness and cultural differences are viewed in education. The question arises whether those diversities are being considered important in our teacher education programmes or not (AIOU, 2002).

In the Workshop Report, it was emphasized that curriculum of teacher education should be revised and training courses should be designed according to the changing needs of the 21st century. Computer learning should be essential component of all teachers training programmes. Training needs should be properly assessed. Refresher courses 3-5 years should be made obligatory and linked with promotion. In order to ensure maximum impact, the system of effective and regular follow-up should be introduced (Frontier Education Foundation, 2006).

2.13 TEACHER EDUCATION IN PAKISTAN

Teacher is considered the most crucial factor in implementing all educational reforms at the grass root level. It is a fact that the academic qualifications, knowledge of subject matter, competency and skills of teaching and the commitment of teacher have effective impact on teaching learning. Recognizing the deteriorating quality of education at various levels, efforts need to be intensified to accord adequate priority to the effectiveness of teacher education programmes in the country. With our recent focus on ensuring massive access to “Education for All”, the teacher education system has quantitatively expanded to keep a reasonable equilibrium in the demand and supply situation. On the contrary, the qualitative dimension of teacher education programmes has received only marginal attention resulting in mass production of teachers with shallow understanding of both the content and methodology of education (Government of Pakistan, 1998).

In Pakistan, different programmes of training are being offered in collages/Institutes/Departments of education for the training of primary and secondary school teachers and supervisors (Farooq, 1994).

The following institutions were offering various teacher training programmes in Pakistan.

Programs and Institutions	**Punjab**	**Sindh**	**NWFP**	**Balochistan**	**Federal**	**Total**
PTC/CT (G.C.E.Ts)	34	24	18	10	04	90
B.Ed/B.S.Ed (Colleges of Education)	08	04	02	01	01	16
M.Ed/M.A (Ed) IERs/ Univ. Deptts. of Education	04	02	02	01	-	09
Extension/Staff Development (in-service Education) P.I.T.Es	01	01	01	01	-	04
P.I.T.Es	01	01	01	01	-	04

Source: Iqbal and Safiana, 2005

Institutions, which prepare primary school teachers, are known as Government Colleges of Education for Elementary Teachers (GCETs). These institutions were 94 throughout Pakistan having an average capacity of only 250 students each and a combined output of 23500 per annum (UNESCO, 2000).

For secondary school teachers, there are 16 Colleges of Education, offering graduate degrees in education, and there are 9 university departments which train teachers at the master's level. There are only 4 institutions which offer in-service teacher training. Besides, the Allama Iqbal Open University, Islamabad offers a very comprehensive teachers' training programme, based on distance learning (Mukhtar, 2002).

After obtaining Secondary School Certificate (SSC) a student can join Colleges of Education for Elementary Teachers for Primary Teaching Certificate (PTC), which is of one-year duration and enables him/her to teach at primary level. After HSSC one can also

opt for one-year programme leading to Certificate of Teaching (CT), which enables teachers to teach at middle school level. Now both the programmes are being replaced by Diploma in Education that is of three years duration after SSC. Bachelor of Education (B.Ed) is a one-year programme after B.A/B.Sc. being offered by Colleges of Education and its successful completion enables him/her to be a secondary school teacher. An alternate three years degree course in science education leads to the Bachelor of Science Education (B.S.Ed.). The Master of Arts in Education (M.A) programme is of two years after the first degree and Master of Education (M.Ed.) programme is one year after B.Ed. Pakistan now has a university of Education for catering special needs. 178 institutions offer certificate and degree programmes in education (Shami, 2006).

Unfortunately, the majority of the teacher education programs in Pakistan are designed, executed, and assessed in an orthodox manner strengthening the status quo by focusing least on educational change. In Pakistan, there are a number of teacher training colleges engaged in imparting teacher education but the number of these colleges is not sufficient to meet the demands of the required number of teachers. The problem, however, is not just the inaccessibility but also the quality of teacher education (Siddiqui, 2007).

Teachers in Pakistan can be reflective about their teaching if given the opportunity and equipped with the skills to do so. The teacher attributed numerous benefits to their involvement in reflective dialogue, which were not only manifested in their classroom practice, but also on their personalities. Hence, it can be suggested that in the absence of sufficient reflective ability, the teacher will not be able to bring his or her knowledge to the appropriate professional level. The reflective coach, in turn needs to

consider structures that need to be put in place to assist the practice of reflection, as well as carefully analyzing the professional and social contexts in which teachers work and in which they are expected to engage in reflective dialogue (Rarieya, 2005).

2.14 IN-SERVICE TEACHER TRAINING IN OTHER COUNTRIES

In-service training is an integral part of professional development of teachers. Every country is providing in-service training in different ways; some countries provide training during school time while others arrange them after school hours, during the weekends or the summer vacations.

2.13.1 China

In-service training programmes for teachers at secondary and primary schools are provided through correspondence education programmes, evening schools, satellite TV education and examinations for self directed learners.

Teacher training institutions and colleges of different kinds and levels have educated thousands of qualified teachers for secondary and primary schools and have trained thousands of teachers through in-service means.

The trainings are mainly on strengthening political thoughts, ethics and educational theories and teaching abilities for those in-service teachers to obtain teachers' certificates (www.ilo.org/public/english/employment/skills/hrdr/init/chn 7 .htm).

2.13.2 Japan

In Japan, local education boards develop in-service training programmes suitable to local needs and conditions. For in-service teacher training, the commonly found goal is

upgrading the level of competence of teachers to have higher level of quality education in many countries is a big plus for teacher training.

A step-by-step in-service training programme for beginning teachers was introduced. It had two parts, part one was apprenticeship training in schools (70 days in a year) and part two, lecture courses (34 days in a year) covered subject matter, teaching techniques and educational goals (mathforum.org/pcmi/int2002report/page42.html).

2.13.3 India

In-service trainings of various duration and frequency are offered in India. The training emphasizes on recognition and thinking of new teaching methods, recognition of different levels of expertise, application of new approaches and more attention on pedagogical skills like group work, multi-grade teaching and class assessment etc. (www. Un.org.in/JANSHALA/aprjun01/teachtrn.htm)

In India, in-service trainings are provided in institutions through evening courses, short term courses, sandwich courses, distance education, seminars, refresher courses, vocational literature and holding workshops (Rao and Rao, 2004).

2.13.4 Sri Lanka

INSET programmes in the country are the result of close collaboration of Government and universities. Need for in service teacher training has been highlighted through curriculum revision, orientation of teacher educators, computer literacy, curricular activities, community development and establishment of resource centers. Three years in-service training programme at under graduate level, are organized by teacher training colleges and Open University of Sri Lanka also provides two years Diploma in Education to on the job in-service graduate teachers. The Sri Lankan Ministry

of Education promotes a large number of school-based in-service programmes (waheed, 2007).

2.13.5 Guinea

In 1991 the international Rescue Committee (IRC) initiated a programme of support for self-help refugee education programme in Guinea. The programme covers all levels, from ABC Kindergarten to higher secondary and in-service teacher training. An outstanding feature of the programme is the development of human resources trough continuous teacher training and guidance. The initial training is not extensive: a workshop lasting five days. The strength of the system lies in the education co-ordinators, a group of field based, mobile advisors. Each education co-ordinator is assigned a zone consisting of eight to thirteen schools depending on size and distances. The co-ordinators monitor teacher performance and provide professional in-service training and assistance by way of one-to-one 'conferences' or mini –workshops for teachers in their own schools as necessary. They also assess training needs and communicate and enforce IRC policies (UNESCO, 2006).

2.15 DEFINITIONS OF EDUCATIONAL MANAGEMENT

Educational management is a field of study and practice concerned with the operations of educational organizations. There is no single generally accepted definition of the subject because its development has drawn heavily on several more firmly established disciplines including sociology, political science and economics (Bush, 1986).

Educational management is the process of relating resources to objectives required in organization which explicitly exists to provide education (Namita, 2001).

2.16 MANAGEMENT OF EDUCATION SYSTEM

The country is a Federation of four provinces, each with a parliamentary system – Punjab, Sindh, NWFP and Balochistan, and other territories ICT, Federally Administered Northern Areas (FANA) and Federally Administrated Tribal Areas (FATA). The divisions of responsibilities of the Federation and provinces have been defined as follows:

Education is primarily a concerned subject. However, the legislation is under taken jointly by both federal and provincial government. The federal government is responsible for policy-making, coordinating, and advisory authority on education. The educational institutions located in the federal capital territory, the Centers of excellence, the Area Study Centers and other institutions in various parts of the country are administrated by the MOE. Universities located in various provinces are administered by the provincial government, but are funded by the Federal Government through the Higher Education Commission, which has been established to reform higher education.

The executive authority in the Ministry of Education, headed by the Minister, is vested with the Secretary who ensures' implementation of policies in close collaboration with counter-parts in provincial education departments. The Provincial Education Departments are headed by the Education Ministers of the respective provinces and the executive authority is vested with the respective Education Secretary.

Each province is divided into districts for administrative purposes. Districts Governments have been established across the country under the devolution ordinance 2001. The department of education in each district is headed by Executive District

Officer (EDO). Education up to secondary level has been devolved to district governments which have been entrusted educational planning management and implementation of education in the respective areas in line with Federal Government's Education Policies and priorities.

Universities are autonomous bodies supervised and controlled by their own syndicates. A Vice Chancellor who is the academic and administrative head of the university heads the syndicate. The Governors of the respective province are the Chancellors of the public universities under their domains. Universities located in the Federal Area have the President of Pakistan as ex-officio Chancellor. Higher Education Commission is a federal body that coordinates and looks after the interests of universities. New administrative reforms in the universities are in progress under the auspices of Higher Education Commission (Shami, 2006).

2.17 EVALUATION

In the context of education, the term evaluation is referred to a careful and rigorous examination of an educational project, programme, curriculum, institution, organizational variable or policy (Walberg and Haertel,1990).

Evaluation is the systematic collection and analysis of data needed to make decisions, a process in which most well-run programs engage from the outset. Here are just some of the evaluation activities that are already likely to be incorporated into many programs or that can be added easily:

- Pinpointing the services needed for example, finding out what knowledge, skills, attitudes, or behaviors a program should address;

- Establishing program objectives and deciding the particular evidence (such as the specific knowledge, attitudes, or behavior) that will demonstrate that the objectives have been met. A key to successful evaluation is a set of clear, measurable, and realistic program objectives. If objectives are unrealistically optimistic or are not measurable, the program may not be able to demonstrate that it has been successful even if it has done a good job;
- Developing or selecting from among alternative program approaches for example, trying different curricula or policies and determining which ones best achieve the goals;
- Tracking program objectives for example, setting up a system that shows who gets services, how much service is delivered, how participants rate the services they receive, and which approaches are most readily adopted by staff; or
- Trying out and assessing new program designs determining the extent to which a particular approach is being implemented faithfully by school or agency personnel or the extent to which it attracts or retains participants.

Through these types of activities, those who provide or administer services determine what to offer and how well they are offering those services. In addition, evaluation in education can identify program effects, helping staff and others to find out whether their programs have an impact on participants' knowledge or attitudes (www.ed.gov/offices/OUS/PES/primer1.html).

2.18 PROJECT EVALUATION

A project is a specific activity, on which money is spent in the expectation of return. There is therefore, a specific starting point, a specific end point and it is intended

to achieve a specific objective. In addition a project has a specific geographic location and will serve a group of population. The project will have specific authority to implement it (Pitale, 1987).

2.19 CHARACTERISTICS OF PROJECT EVALUATION

A good project evaluation should have the following characteristics:

a. It should be realistic and relevant to decision-making, i.e. it takes into consideration the source of evaluation and brings out fully the implications to the decisions to be taken.

b. It is the context of expectation or objectives, assumptions, and specific projected measures of change.

c. It visualizes both the immediate and long-term conditions of success.

d. It is credible (based on evaluator's technical competence and the past reputation independent appraisal).

e. It is scientific (involving collection of facts and their systematic interpretations).

f. It is supported by qualitative analysis and full statistical information as a basis for modifying hypotheses.

g. It has healthy skepticism, i.e. all aspects of project appraisal have been looked into with specific expertise.

h. It is continuous and forward looking (Farooq, 1994a).

2.20 STUFFLEBEAM MODEL (CIPP)

Prominent among those writing about evaluation towards the end of the 1960s was Stufflebeam, who strengthened the relationship, made earlier by Cronbach, between

evaluation and decision making. In 1969, he spelt out the need for the evaluation to help in planning, programming, implementing and recycling decision. This led Stufflebeam to propose four types of evaluation, each particularly suited to his categorization of decision types:

i. Planning decision would be best served by context evaluation which, by analyzing the situation and attempting to relate actual and desired conditions, would provide a rationale for objectives.

ii. Programming decisions would be better served by input evaluations on the availability and use of resources, and on such matters as the design of the programme.

iii. Implementing decisions, as the name suggests, require the kind of information that indicates how things work and what might go wrong. This was called process evaluation.

iv. Finally, product evaluation would help in making decisions related to the worth or success of, for example, a new programme related to considerations of whether to recycle, modify or reject.

CIPP became the short and familiar title of this context input, process and product approach to evaluation types. Project evaluation, in general, may be delineated into four types, namely; context, input, process and product.

a. Context evaluation: context evaluation serves decision making for the planning of an ongoing programme. In continued planning of such a programme, decisions have to be made in the context of the programme's goals, the needs and target groups to be served

by a programme and the behavioral objectives of the programme. Context evaluation is diagnostic in nature and attempts to discover any discrepancies between programme goals and objectives and the programmer's actual impact, so that planning decisions can be made or changed to produce greater correspondence between the intended and the actual outcomes. The end products of the context evaluation are programme changes which presumably will result in smaller discrepancies between intended and actual outcomes.

This is the most basic type of evaluation. It has the following functions:

- Serves in the determination of objectives.
- Describes the boundaries of the system to be evaluated.
- Defines its relevant environment
- Delineates the actual and the desired conditions.
- Identifies unmet needs and unused opportunities
- Diagnoses and analyzes problems
- Monitors the system to maintain a current baseline of information and provides a basis for widespread communication and control
- Looks for new emerging value orientation

b. Input evaluation: serves decision-making concerned with making the programme goals operational, where the goals were previously identified and clarified by context evaluation. Input evaluation provides information about the means necessary and available to reach the ends (goals of the programme). It describes the resources available and determines the best use of those resources in terms of costs and benefits, resulting in a design to meet the goals. As a result of input evaluation, programme goals may be

deemed unrealistic in terms of available resources therefore, it may be necessary to redefine programme goals and objectives.

The purpose of this type of evaluation is to provide information for determining how to use resources to meet programme goals through identifying and assessing the following:

- Relevant capabilities of the responsible agency
- Strategies for achieving goals
- Designs for implementing selected strategy

It also provides information on whether outside assistance is required, how the objectives be stated operationally, what strategy be adopted and what operational plan be employed to implement that strategy.

c. Process evaluation: Process evaluation serves the day-to-day decision-making needs required to carry out a programme. It provides feedback to the producers and managers of a programme, so that they can monitor the operations and detect and predict potential programmes in design or implementation. The focus of process evaluation may include assessment of interpersonal relationship, logistics, and adequacy of staff performance and facilities.

A second function of process evaluation is to help programme directors make decision during the course of a programme. Long-term goals are usually specified before this stage is reached, but decisions leading to the implementation of long-term goals may

have to be made during the programme itself. As an example, a programme may plan to use local people for in-service training sessions, but the actual choice of personnel, location of the sessions, and topics may have to be delayed until other aspects of the programme have been made final. Naturally, the clearer and more specific the input evaluation decisions, the easier will be the task of the process evaluation.

Another purpose of process evaluation is the recording of events through regular data collection. In this way project outcomes can be interpreted with a better understanding of what occurred during the programme period. Once implementation has started, this type of evaluation comes into provision of feedback for the following variables:

Objectives

- To detect or predict defects in the procedural design or in its implementation
- To provide information for programmed decisions
- To maintain a record of the procedure as it occurs

Strategies

- Identifying and monitoring continually potential sources of failure in a project.
- Projecting and servicing programmed decisions to be made by project managers during the implementation of the project
- Notifying the main features of the project design and describing what is actually taking place.

It is essential to have continuous feedback about the project so that process evaluation can perform a vital function. Information is delineated, obtained, and reported as often as required – daily, if necessary – especially during the early stages of a project.

d. Product evaluation: The purpose of product evaluation is to measure and interpret attainments not only at the end of a project cycle, but as often as necessary during the project term. The methods are:

- Devising operational definition of objectives.
- Measuring criteria associated with the objectives of the activity.
- Comparing these measurements with predetermined absolute or relative standards.
- Making rational interpretation of the outcomes using the recorded context, input, and process information

The consequences of a product evaluation may include decisions to terminate a programme to refine and continue it, or to modify it (Farooq, 1994a).

2.21 DEFINING THE PROJECT

Project is a process that starts when the idea of a project is first conceived, and does not end until the last piece of information has been filed to describe the project in its finished 'as-built' condition (Kimber, *et al*, 1997).

A project is an extensive task purposely and collectively undertaken by group or individuals to apply knowledge and skills toward a targeted goal which will result in a product, within a certain timeframe. It is a set of related tasks, which have a specific goal, often requiring concerted effort. A project normally has strictly defined organization

scheme, budget, and time schedule. It is often financed by one funding source. (http://www.google.com/search?hl=en&rlz=1T4ADBF_enPK282PK282&pwst=1&defl=en&q=define:project&sa=X&oi=glossary_definition&ct=title)

2.22 OBJECTIVES OF THE TEACHER TRAINING PROJECT (TTP)

a. To improve the quality of teacher education through institution building and other programmes.
b. Raising the effectiveness of policy making and ensuring its implementation through the establishment of Technical Panel on Teacher Education (TPTE)
c. Strengthening Teacher Training institutions and Teacher Training Programme at Federal and Provincial level.
d. Mobilizing eminent educationists and teacher educators.
e. To attract talented people towards teaching profession.
f. To obtain loan from ADB and its disbursement to provinces for implementation of the project.
g. Master trainers, managers, heads and administrators to be trained throughout the country and abroad.
h. Providing instructional material, library books and lab facilities.
i. To increase teacher training opportunities for rural areas and disadvantage groups including women through the establishment of Open Learning Colleges (OLC) and Training Outposts (TOs) and use of distance education and non-formal education. (Govt. of Pakistan, 1992a)

2.23 COMPONENTS OF THE TEACHER TRAINING PROJECT

Following were the components of the project;

i. Capacity expansion through upgrading 49 existing Govt Colleges of Elementary Teachers (GCETs), 10 Government Colleges of Education (GCEs), and establishment of 4 new Provincial Institutes of Teacher Education (PITEs) and 2 new GCETs for females in Punjab.

ii. Greater equity in access through the establishment of 66 Training Out posts (TOs) by upgrading facilities at 66 selected high schools to operate TOs in Balochistan, NWFP, Punjab and Sindh in rural areas.

iii. Quality improvement through major revision of Teacher Training Curricula, supply of instructional materials and library books, training of trainers, in-service training and domestic and overseas fellowships.

iv. Improvement of management and coordination of Teacher training through the establishment of a Technical Panel for Teacher Education (TPTE), training of Principals and staff of the Ministry of Education (MOE), Provincial Education Departments (PEDs), and the Bureau of Curriculum and Education Extension centers (BCEECs). (Govt of Pakintan,2001)

2.24 ACHIEVEMENTS OF THE TEACHER TRAINING PROJECT

1. Capacity expansion through provision of two rooms construction in each of 49 existing Government College of Elementary Teacher (GCETs)

2. Provision of one room construction in each of 10 Government Colleges of Education (GCEs).

3. Provincial Institutes of Teacher Education (PITEs) established in each Province as an apex body of Teacher Education.
4. Construction of 2 new GCETs for Females in Punjab (Vehari and Talagang).
5. Greater equity in access through the establishment of 66 Training Outposts (TOs) in the rural areas of Balochistan, NWFP, Punjab and Sindh.
6. Quality improvement through curricula reforms of pre-service teacher education replacing PTC/CT by Diploma in Education (3 years programme) and revision of course for B.Ed/M.Ed.
7. Supply of instructional material and library books, furniture, electronic/lab equipment. Conducted of In-Country Fellowship for 2500 teachers/trainers.
8. In-service training programme implemented for 118000 teachers/trainers at National/Provincial level.
9. Overseas Fellowship/training programme for 92 teachers, trainers, IT Instructor and Management personnel (Phase-I completed in December 1998).
10. Completion of 28 research and evaluation studies in the TE sub-sector through private/firms/universities. A national seminar was organized for dissemination of the findings of the research (17-21 May 1999) in Islamabad.
11. Establishment of Technical Panel on Teacher Education (TPTE) at Federal level to coordinate/supervise academic/curricula development activities among PITEs, Curriculum Wing, Provincial Bureaus of Curriculum.
12. Out of 21 textbooks for Diploma in Education, 12 have been printed/ delivered to PIUs and remaining are at different stages of completion.

13. Scheme of Studies for Bridging Courses of six months duration for in-service PTC/CT teachers approved and developed to bring them at par with Diploma in Education.
14. Admission policy of Bridging courses prepared/approved.
15. Questionnaire for pilot testing of Dip-Edu (10+3 mode) approved. (Government of Pakistan, 2001a)

2.25 TEACHER TRAINING PROJECT OUTPUTS

2.25.1 Capacity Expansion

This included establishing a PITE in four provinces and two new model GCETs for female in Punjab; upgrading of eight GCETs to model GCETs; establishing 66 TOs; and providing 157 classrooms, equipment, furniture, vehicles and consultancy services.

2.25.2 `1ncreased Accessibility

This increased access mainly for women and rural areas by establishing 66 TOs in Punjab, Sindh, NWFP and Balochestan.

2.25.3 Quality Improvement

This improved the quality of curricula, including the development and provision of instructional materials, supply of library reference books, overseas and local fellowship, and training for training for trainers.

The new 3-years Diploma in Education is a silent “quality revolution”, which is expected to replace the PTC and CT and significantly upgrade in-service and pre-service teacher training.

Approximately, 138,500 managers and staff of project-related institutions, master trainers, teachers and administrates have completed needs-based training, in the country and abroad.

In NWFP, 14,612 got in-service training; 1,038 completed in-country fellowships; 179 master trainers underwent advance training; and 18 senior staff completed their overseas training. In Punjab, pre-service training programme (Diploma in Education) developed by PITE was pilot tested in four GCETs. Furthermore, 93,130 teachers got in-service training; 400 completed in-country fellowships; 678 master trainers had undergone advance training; and 33 senior staff was trained abroad. In Balochistan, 8,000 teachers got in-service training; 226 completed In-Country Fellowship; 226 master trainers underwent advance training; and 14 received fellowship abroad. In Sindh, 19,465 teachers completed in-service training; 256 finished in-country fellowships; 440 master trainers got advance training; and 21 Fellowships abroad.

Of the 21 text books to be prepared, 12 for Diploma in Education were completed during the project and remaining after the project. More than 200 modules were printed including 50 modules in Punjab ;(for Science, English and Mathematics); 11 in NWFP: 27 in Sindh; and 121 in Balochistan.

All 28 planned research projects were satisfactorily completed.

2.25.4 Improved Management and Coordination

This component improved teacher training management and coordination of TTIs by establishing a TPTE, FCU in Islamabad, and PIUs in the four provinces and training principles and staff of MOE, PEDs and BCEECs. Capacity building was generally satisfactory in terms of PIUs direct responsibilities, including in-service training, library and reference books, research and evaluation studies and staff development. (ADB, 2002)

2.26 LATEST STATUS OF THE TEACHER TRAINING PROJECT

The project was closed on 31-12-2000. Account closing date of the project was March 31, 2001 for payment of liabilities etc. After March 31, 2001 the ADB did not make any disbursement, nevertheless, the bridge financing of the project was considered by the Bank till the commencement of the second phase of the project in 2002. By June 2001, the PIUs of all the four provinces sent their Project Completion Report while up to 31st August 2001, the Consolidated Project Completion Report was sent to the Bank. CDWP in its meeting approved GOP share to the extent of Rs. 15.00 million. The amount allocated/demanded was not released due to the query raised by Deputy Financial Adviser (DFA Education) Mr. Suhrab Malik. A mid Term Review Mission from ADB for the Second Girls Primary Education project held a meeting with the Minister for Education and the Education Secretary on 8th March, 2001. The meeting of the Mid Term Review Mission was followed by visit of ADB delegation (April 16-27, 2001) led by Dr. Motilal Sharma, Senior Educational Specialist, Manila Philippines. An MOU was signed on April 27, 2001 by the Joint Education Advisor (Curriculum Wing)/Project Director (TTP) on behalf of Government of Pakistan and Dr. Motilal Sharma, Senior Educational Specialist, Manila Philippines on behalf of the ADB with regard to capacity building of the institutions of PITEs in provinces (Govt of Pakistan, 2001a).

2.27 PHASE-II BACKGROUND OF TEACHER TRAINING PROJECT

The following essential activities which were not completed in Teacher Training Project Phase-I, warrant to be included and materialized in Phase-II as there is a dire need for launching and completing these activities in Phase-II, so that quality components are realized in letter and spirit at the conclusion of the Project. All confronting issues will be

resolved and all required actions will be accomplished in Phase-II of the project to achieve the desired results of the project.

The ADB in its programme for next three year 1999-2002 has indicated to launch TTP Phase-II in 2002 and planned a PPTA for this follow up project for 2001 in time for project approval in 2002. As the Phase-I of project was completed in December 2000 and Phase-II is scheduled was to start in year 2002 it is, therefore, proposed that the scheduled PPTA for the follow-up project (Phase-II) may be advanced, so that this new phase is launched during last quarter of the year 2001, thereby bridging the gap between the two phases (Govt of Pakistan, 2001a).

2.28 REMAINING ACTIVITIES OF THE PHASE-I AND JUSTIFICATION IN TTP FOR PHASE-II

1. Evaluation and monitoring of Diploma in Education 10+3 years programme.
2. Launching of 12+1 ½ year programme of Diploma in Education.
3. Launching of bridging courses for in-service PTC/CT teachers to bring them par with Diploma holders.
4. PITEs as apex institutions to be activated.
5. Instructional Material Development.
6. Establishment of Audio/Video studios in four PITEs and TPTE.
7. Procurement of electronic media equipment package VII which is not procured in Phase-I.
8. Accessories required for equipment already imported in Phase-I.
9. Overseas Fellowship Phase-II implementation.
10. Establishment of computer laboratories in four PITEs and TPTE.

11. In-service and in country training.
12. Institutional networking between PITEs and 66 TOs located comparatively in remote areas of the country to be developed.
13. Establishment of Teacher Resource Center at Federal level to support PITEs and TOs for formal/non-formal and Distance Education programme under the supervision of Technical Panel on Teacher Education (TPTE).
14. Staffing of all PITEs and TOs is required for skilled specific training.
15. Since there will be a gap of two years between the two phases, hence the phase-II may be started in advance.
16. This gap will adversely affect continuity of project activities, especially quality component, undermining the sustainability aspect of the efforts.
17. For Phase-II new project staff would have to be recruited, hence, the present staff may be adjusted for Phase-II as the recruitment of new staff, mostly untrained, would take sufficient time thereby.
18. Delaying start of implementation of the Phase-II would adversely affect the achievements of the Project.
19. It may be noted that present trained staff both at FCU and PIUs would be an asset to the Phase-II ensuring its immediate start after approval of the project (Govt of Pakistan,2001a).

2.29 REVIEW OF RESEARCH STUDIES CONDUCTED UNDER TEACHER TRAINING PROJECT (TTP)

2.29.1 An In-depth Study of Emergence of Teacher Education in Sindh

Objectives of the Study

The study was designed with the following specific objectives:

1) To study the trends and practices of Teacher education in the historical perspectives, especially in the context of Sindh. 2)To study and analyze the process of the institutional development of the teacher training institutions in Sindh. 3) To study the existing teacher training system in Pakistan and the process of curriculum development and suggest improvements which may enhance the quality of teacher education in Sindh as well as in Pakistan.

Conclusions and Recommendations

The teacher training is a complex discipline. Emergence of teacher training and related issues to the present situation was studied through this research. Based on the summary of the research findings, the following recommendations were made:

The Teachers Training curriculum should focus on learning rather than teaching, with the learner at the center of the learning process and show the linkages between different concepts across the curriculum (integration)

Teacher education materials should be highly interactive and learner-centered and include situation from reality

The government should establish policy guidelines for in-service training programmes to be need-based, practical, decentralized (district and cluster-based), and cost-effective, and Utilize trainers who are themselves primary teachers who participate in regular training to Upgrade their skills (KZR Associates, 1998).

2.29.2 To Study the Existing Physical/Instructional Facilities in Teacher Training Institutions in Balochistan and their Actual Utilization

Objectives of the Study

The major objectives of the study were:

1) To know about the present position of available physical/ instructional facilities..2) To know about the extent of the use of available facilities. 3) To know about the training and competence of the teacher-educators to use the available facilities.

Conclusions

Majority of the respondents reported the availability of physical/ instructional aids to some extent. The training was useful for the teachers. Majority of the respondents confirmed the use of A.V. aids during training and the teacher educators were competent enough to utilize the instructional facilities available. Incompetence of the teacher educators in the process of curriculum development and implementation was reported by majority of the respondents. In-service training was favoured and reported to be appropriate and useful by majority of the respondents.

Recommendations

Adequate quantity of A.V. aids should be provided in teacher training institutions. Practical work by the trainees should be encouraged during training. Teacher Resource Centers (TRC) should be established to provide proper guidance to the teachers.In service training programmes for teacher educators be arranged frequently to make them aware of the latest developments in training strategies. Teacher education curriculum should be revised to meet the challenges of the 21st century (Searat, 1998a).

2.29.3 Study of the Required Competencies Of Elementary Teachers, Secondary Teachers and Teacher Trainers and Development of Programme Evaluation Instruments

Objectives of the Study

The major objectives to be achieved through this study were:

1) To know what were the required competencies of elementary teachers, secondary teachers and teacher educators. 2) To identify the personal and professional competencies of teachers which were considered indispensable by the respondents for effective teaching.

Conclusions

Following findings are drawn on the basis of the analysis and interpretation of data: The respondents considered: “Caring”, “Tolerant”, “Knowledge of the subject matter”, Relationship with parents”, “Patriot”, “Clear voice”, “Impressive appearance”, Curious to learn”, “Optimistic”, “Adaptable/Flexible”, “Fair in dealing”, “Relationship with students”, “Relationship with parents”, and “Credibility” as indispensable personal competencies required for teachers and teacher trainers. They also considered “Self assurance”, “Relationship with colleagues”, “Board scholarship”, “Excited for work”, “Speech fluency”, “Encouraging and supportive”, “Warmth and humor”, and “High expectations for success” as desirable personal competencies required for teachers.

The respondents considered: “Diagnosis of learners”, “Monitoring student’s progress”, “Planning and preparation of lesson”, “Introduction of the lesson”, and “Time management” as indispensable professional competencies required of teachers

The respondents also reported that “Consider alternative ideas to his own”, Skillful in solving the problems, Attend to students’ suggestions, Adjusts and accommodate students’ suggestions, as desirable professional competencies required for teachers.

Recommendations

Teacher is a role model for students; the students are influenced most from the teacher’s actions rather than his sayings. To be neat and clean is not only important due

to fact that it has pleasant effect on the aesthetics but it also helps in healthy living and avoiding many decease (MM Pakistan, 1999).

2.29.4 Comparative study of Modern and Indigenous Methods of Teaching and Development of an Integrated Model of Instruction

Objectives of the study

The objectives of the study were as under:

1) To identify the modem methods of teaching being used in the modern schools. 2) To bring in to light the indigenous methods of teaching being used in religious institutions. 3) To develop a useful, workable and psychologically sound integrated model of instruction.

Conclusions

Teaching strategies adopted in indigenous classrooms were not very much different from those adopted by the teachers in modern classrooms. Classroom interaction and class room management in modern classrooms seem to be more compatible with norms of today's standard classroom. While moreover, indigenous classroom teachers seem better in respect of teaching as compared to modern classroom teachers.

Recommendations

Good points derived out of teaching practices in indigenous classrooms be incorporated in modern classrooms and vice versa. Programmes may be devised under which modern classroom teachers visit deeni madaris to observe teaching in these institutions. Likewise, indigenous classroom teachers may be given opportunities to visit exemplary modern schools to learn from the experiences of their teachers. Integrated

model of instruction may be used as a basis of programme for in-service and preserves training of teachers in the modern school system (Search, 1999).

2.29.5 Determination of Criteria/ Instruments for Assessment Competencies of Teachers at Primary Level

Objectives of the study

The specific objectives of the study were:

1) To identify the competencies required of a successful/effective primary school teacher in Balochistan. 2) To carry out a survey of the competencies being developed through training programme for primary school teachers in the Province. 3) To develop and administer an object instrument/instruments for the assessment of competencies of teachers in Balochistan.

Conclusions

Primary school Teachers in Balochistan were very poor in content competencies. Self rating by the teachers on all the competencies pertaining to professional knowledge, professional/pedagogical skills and ideological/cultural field was very high showing that teachers attach much importance to these competencies for a successful/effective teacher. Results of the classroom observation schedule showed that although teachers consider the competencies very important but their actual classroom teaching performance was some what different from their perception.

Recommendations

It is recommended that primary school teachers should be given fair chances of content up-gradation through different strategies of In-service training. Pre-service program should include strong component of content preparation. Admission to GCETs

should be on the basis of entry test assessing the prior academic level of candidates. Provision of supplementary materials for teachers and academic support is also recommended through academic societies under the umbrella of neighboring high schools (Hussain, 1998).

2.29.6 Evaluation of Present In Service Training Programmes for Teachers and Development of More Cost Effective Methods of INSET at Various Levels

Objectives of the study

The objectives of the study were as below:

1) To study the present system and structure of in-service teacher education. 2) To estimate the effectiveness of the various training programmes organized at all levels. 3) To assess the impact of these training programmes on the performance level of teachers. 4) To make a comparative study of the systems of in-service training in some of the developing countries.

Conclusions

The system was non –participatory; the whole programme was designed and operated without the involvement of teachers, heads of institutions and district education officers. Training plans, targets and objectives were not shared even with those involved directly in administration of training. No formal need assessment was made in consultation with teachers, heads and district officers prior to development of courses. There are considerable variations in course delivery from year to year, course to course, centre to centre, and instructor to instructor. Course instructors are not adequately supported by well-designed instructional material including transparencies and videos.

Recommendations

At any point of time, the programme should cover all teachers from institution in a locality to have any impact. All concerned with the school should be directly involved in identifying school problem, devising solution, identifying indicators of improvement, and selecting activities to be undertaken. At the apex, there should be a policy making organization responsible for administration and funding. There should be an organization at the top, responsible for academic support of the system through training of key personnel and development of instructional material, both print and electronic and professional supervision and monitoring of the system (Pakistan Education Foundation, 1999).

2.29.7 A Critical Evaluation On Teachers Training Institutions in Sindh

Objectives of the study

This study intended to realize the following objectives pertaining to the Teacher Training instructions in Sindh:

1) To determine the status of the various components in each of the institutions in terms of staffing and physical facilities. 2) To ascertain the worth of and recommend the measures for improving relevance of a) existing curriculum b) methods used for teaching c) Quality of teaching practice. 3) To establish the state of the existing system of follow-up of successful trainees and then suggest ways to make improvement upon it

Conclusions

The study found contradictions and inconsistencies among a multitude to luminary related directly or indirectly to the teacher training programme. Envisioned through this multitude of varyingly luminous segments of society, it glomerated a variety

of factors responsible for it the present morass in education system in terms of (a) existing curriculum (b) teaching practice, (c) methods used for teaching and (d) textbooks and reading material. And then, last but not the least, it conglomerated measures paving way to (i) a new teacher training model, (ii) need of a follow-up system and, (iii) means to attract female teachers to work in rural areas, to enhance educational achievement and to improve moral conduct stunning the political pressures / influences.

Recommendations

The recommendations were as under;

Appointments and / or promotions must be made without even a slight tinge of political interplay. A system of award of merit certificates for those clinching good results should be initiated and their promotions be strictly based on these certificates as a basic criterion. Follow up programmes be introduced to evaluate whether the teachers use the pedagogy they were trained for. Islamic values given in the Holy Qur'an should be embedded in training program. There should be a Diploma course for Primary School Teachers and Junior School Teachers of longer duration (2 years). Advanced technology should be introduced in the wharf and web of the teacher education programmes (NCA, 1998).

2.29.8 Factors Affecting Development of Female Education in NWFP: Issues and Problems in Development of Female Teacher Education and their Retention in the Teaching Profession

Objectives of the Study

The study was based on the following objectives.

1) To study analytically the female education in rural and urban areas of NWFP in the light of social, cultural, economic, religious and political factors. 2) To collect, analyze and interpret data from all teacher training institutions in NWFP which are catering the

needs of female teachers of all levels. 3) To study and analyze the efforts made by the Government, Foreign-aided projects and NGOs for motivating the girls and their parents for the improvement of female education. 4) To propose measures to motivate qualified girls to adopt teaching profession and retain their profession.

Conclusions

Uneducated parents were least motivated for the education of their children. Low income might be a cause of least interest in the education of the children, especially of the girls. Parents were sending their sons to schools but they were not sending their daughters to schools due to customs, un-affordable expenses and domestic work. Most of the parents had televisions, refrigerators and washing machines. It was proposed that motivational campaign using electronic media could attract females to this profession. Female education was proposed to be made free. Duration of pre-service training reported to be adequate. Marriage, religious factors long distance and poor teaching practices were reported to be the reasons of dropout by majority of the respondent. Experts reported that foreign-aided projects had helped in spreading female education. All the teacher training institutions were found with adequate physical facilities but majority of the heads were not satisfied with the strength of the faculty. Main hindrances in continuing teaching job were reported to be domestic responsibilities, posting at far flung areas, non cooperation from in laws and frequent transfers of female teachers.

Recommendations

Motivational campaign should be started using print and audio-visual media to make the parents aware of the importance and benefits of female education. Some incentives should also be given to poor parents like stipends, free books and prize bonds. The

Islamic verdict of equality of sons and daughters should be popularized through electronic media and religious obligation of female education be ensured. The skill-oriented and vocational female education should be introduced in general stream of education. The Income Economics component of agro-tech scheme should be re-strengthened in schools. Mohallah schools, trade schools, community schools and mosque schools should be operationalized by taking different measures through school management committees by involving local people who are interested in welfare activities. Formal and non-formal, both the modes may be utilized to ensure universal primary education within next five years (Farooq *et al*, 1999).

2.29.9 Strategies for Strengthening the Teacher Training Institutions Established in Urban and Rural Areas of NWFP

Objectives of the Study

The study was designed with the following objectives:

1) To gain full knowledge about the existing physical and institutional facilities available in Teacher Training Institutes in NWFP. 2) To know and assess the effective utilization of these facilities. 3) To know about the standards and norms of Teacher Training institutions different inputs. 4) To gain knowledge about the innovative and improved strategies for strengthening the Government Colleges of Elementary Teachers in Rural and Urban areas of NWFP.

Conclusions

1) Most TTIs are located in urban areas. 2) Only one GCET with CT level is available to female trainees in rural area. 3) During the last four years, the enrolment at PTC and CT level has decreased by almost 25 %. 4) Teacher educators are not being satisfied with the prevailing conditions. 5) Generally financial input is either not available or quite scarce.

6) Rational distribution of human resource among GCETs is not found.

Recommendations

1) Despite the fact that most GCETs are located in urban centers, it is not advisable to establish more GCETs in rural areas. 2) It is suggested that those GCETs which are presently offering only PTC course may be upgraded by adding CT level courses. 3) Efforts must be made to check continuous decline in the enrolment. 4) Teacher educators not being satisfied with the prevailing conditions have suggested introduction of semester system with continuous assessment procedures. 5) Generally, financial input is either not available or quite scarce. Provision of adequate annual allocation would certainly improve the conditions prevailing. Continuous monitoring of lab utilization by the principals is the fundamental requirement. 6) Rational distribution of human resource among GCETs is essential for its optimal utilization (KZR Associates, 1999).

2.30 REVIEW OF RELATED RESEARCH STUDIES

2.30.1 Comparative effectiveness of teacher training in enhancing the professional attitudes of B.Ed. students admitted in institutes of education and research, NWFP, College of Education Islamabad and Allama Iqbal Open University, Islamabad

The purpose of the study was to investigate and compare the effectiveness of teacher training in enhancing the professional attitudes of school teachers admitted in institutes of education and research in NWFP, college of education, Islamabad and Allama Iqbal Open University Islamabad.

Hypotheses were formulated in order to find out:

(a) The significant difference of professional attitudes of every institution before and after the training (b) The significant difference of eight categories of every institution (male, female, science graduates, arts graduates, male science graduates, female science graduates, male arts graduates and female arts graduates) before and after training (c) Institution-wise significant difference among professional attitudes before and after the training, (d) Significant difference of all the B.Ed. students admitted to all the four institutions before and after training, (e) The significant difference between males and females, science and arts graduates, male science and female science graduates and male arts and female arts graduates.

Main findings of the study were as follows:

(a) B.Ed. students of all the four institutions entered the teacher training institutions with same level of professional attitudes. (b) All the B.Ed. students were successful in promoting their professional attitudes through teacher training institutions. (c) Male B.Ed. students and science graduates developed different levels of professional attitudes. (d) All the four institutions were successful in developing professional attitudes to their student teachers. As regards the overall development of professional attitudes of B.Ed. students admitted in all the institutions, significant difference was found at pre-test and post-test. It means that teacher training had a positive impact in development of professional attitudes. Moreover, it was found that female B.Ed. students entered teacher training institutions with comparatively better professional attitudes than found between science and arts graduates at pre-test and post-test. It means that science and arts graduates entered the teacher training with the same pace. Regarding male and female science graduates no significant difference was found at pre-test and post-test. Female

arts graduates entered the teacher institutions with better professional attitudes than their male counterparts and kept the same pace during teacher training.

The recommendations were:

1) Need and interest of the students may be given due importance for effective teaching. 2) The teachers may incorporate suitable responses and ideas of students in his/her instructions. 3) The teacher may make all efforts for his/her professional growth by participating in refresher courses. 4) A comparison of students with one another in their academic achievement may be made for the purpose of motivation in learning (Shah, 2002).

2.30.2 A study of the effectiveness of in-service training provided to primary school teachers in district Nowshera (NWFP) during Last five years (1996-2001)

The objectives of the study were to assess the policy initiatives of the Government on the development of teacher education, to determine the nature of in-service training provided to teachers, its effectiveness at planning and organizational levels and more particularly to assess its effectiveness in the teaching learning process in the classroom.

The training programmes arranged in various courses by PITE had been highly appreciated. However, there were certain problems which have been affecting the programmes, such as there was lack of coordination between the Federal Coordination Unit and Provincial Coordination Unit and between PITE and Education Department NWFP.

The training programme arranged for teachers in teaching of English was beneficial for the teachers. It was arranged in time by the institute. It solicited the support of all organizations related to training of teachers. The resource persons were properly

selected, but such training was not intensive in nature to develop the 'basic skills' of English language in children at primary level. The teaching-learning situation and process were based on traditional pattern. Audio-visual aids related to content, were not extensively used. It was recommended that for effective launching of the training programme, a well equipped resource center for Teaching of English" should be established (Waheed, 2003).

2.30.3 Evaluation of effectiveness of in-service teacher training programme offered to University teachers in the staff training institute (STI), University of Peshawar, NWFP

The objectives of the study were to evaluate the effectiveness of outcomes of STI programme in term of raising the professional competence of teachers, to identify deficiencies and weaknesses of the programme and to put forward suggestions for improvement in programme as organized for university teachers.

Main findings and conclusions were: The participants joined this training programme for diverse purposes like raising their professional competence, getting advance increments and availing foreign scholarships etc. Most of the courses were found helpful; however, some subjects needed revision and improvement. Majority of participants suggested complete one academic year for such training. Only traditional methods and teaching aids were used in the programme. Important teaching skills like lesson planning, communication, preparation of teaching aids, designing of courses and students evaluation were not practiced in the training programme. Non pedagogical resource persons were selected on temporary basis. Lack of physical facilities and interests on the part of trainees, trainers, authority and absence of adequate fund were the

major problems of the programme. The Staff Training Institute (STI) has not fully realized its objectives. STI should play dynamic role in the capacity and competence building of the young teachers of universities both academically and in the areas of teaching and research.

In view of the findings and conclusions, the following recommendations be taken in future:

Staff training institute (STI) may be up graded on the pattern of full fledge teacher training academy and it may be made mandatory for all newly selected teachers in the university.

Courses related with preparation and presentation of lecture, research methodology and application of computer in education may be included in the programme. More extensive and participatory approach may be used by the resource persons for the training of University teachers. An element of evaluation may be included to determine its effectiveness and relevance of the training programme (Ali, 2005).

2.30.4 An experimental analysis of two in-service teacher education programs

This paper presents an experimental analysis of two in-service teacher education programs at the Institute of Education Development of the Agha Khan University in Karachi. The paper discusses the main design principles for the program and challenges some of the basic assumptions regarding in-service teacher education programs, especially those related to the reliability of the teacher education insights in different contexts. It also questions the effectiveness of traditional programs and provides suggestions for increasing their efficacy. While developed and used at the IED with

teachers from its cooperating schools, the model proposed here might easily be adapted for school-based in-service. Currently one primary school in Karachi is being tested to assess the efficiency of conducting professional development activities in a total school environment. Thus the study could be of use to those involved in preparing teachers with effective skills and a realization of the moral purpose of teaching teachers who see education as a means of social change, and creating a just world.

The existing practice which could be compared to moving within a static circle which defines what, when and how to teach. The teachers rarely see that this circle is stagnating, it is deficient and is politically contrived to turn them into the instruments of conformist pedagogy, who actually work against their wisdom, their emotions and feelings as the executioners of the imposed curriculum to help them to break education and training program. Then the circle turns into a spiral led, shaped by the teachers themselves, liberating and humanizing the patterns of attitudes and relationships in their classrooms, schools and society. We do not claim that the courses we have organized were perfect and every thing went well. We faced a number of problems, tensions and dilemmas as we progressed through the program. However, the suggested principles examples and thoughts that were expressed in this paper speak the language of possibility and optimism. It is also imperative to mention that the principles are interconnected, complementary and their effectiveness and efficiency depends on the consistency of the designers of the program in accepting the challenge and overcoming it.

The most important aspect of the course was that, one never felt stressed, although we had set goals and deadlines to meet. The course was conducted in a pleasant, friendly, success promoting and encouraging manner. It helped to develop my

confidence. It taught me to critically question and examine every aspect of teaching and learning to reflect on the current practices, syllabus and make decisions to bring about a change for the betterment of the society by developing critical citizens (Yasmin, 1997).

2.30.5 A Comparative study of teacher education systems of United States of America and Pakistan

The study entitled, "A Comparative study of teacher education systems of United States of America and Pakistan" was conducted to ascertain the admission policies, education facilities, scheme of studies, commonalties and differences of teacher education programs for pre-service training of secondary school teachers in United States of America and Pakistan.

The study revealed that in USA, the prospective teachers were admitted to teacher education programs on the basis of academic qualification. Teaching was not their final choice. They were aware of teacher education objectives and course outline was provided to them. A.V aids were used during their training, most of teaching methods were used, teaching practice period was enough, skills like stimulus variation, classroom management, silence and nonverbal cues, reinforcement of student participation, questioning – answering and effective communication were developed more than prospective teachers of Pakistan.

American teacher educators have attended more conferences, seminars and workshops in foreign countries than the teacher educators in Pakistan. The objectives of teacher education were achieved during training by American teacher educators. The evaluation of model lessons, final lessons and teaching practice was proper. The facilities like library, laboratory, A.V aids, transportation, research, co-curricular activities and furniture were found in adequate in America.

On the other hand, in Pakistan, the prospective teachers were admitted on the basis of qualification and interview. They considered teaching as their final choice. They were less aware of the objectives of teacher education and course outline was not provided to them. During training A.V aids were least used, lecture method was mostly used and supervisor evaluated the teaching practice. The skills like maintaining discipline, using A.V aids, to make the summary of lesson and lecturing developed through teaching practice were more developed than those of the USA. The evaluation by internal, external or both was significant in Pakistan. Training achieved fewer objectives; model lessons, final lessons and teaching practice were monitored and evaluated better in Pakistan. Time ratio between theory and practice was inadequate. The duration of teacher education programs at bachelor and master level was not adequate in Pakistan.

On the basis of the findings of the research, the following programs of teacher education for secondary school teacher are proposed:

i. B.Ed. (14+2, 12+4)

ii. M.A Education (14+3)

The admission to these programs would be based on qualification, aptitude test and interview. Curriculum should be revised and subjects like computer literacy, research techniques and comparative education be introduced as core subjects. Semester system with equal weightage to external and internal should be introduced for the evaluation of the teacher education programs. Research work in education should be revolutionized (Ramzan, 2002).

2.30.6 Comparative study of teaching practice in formal and non-formal systems and development of a model

The major objectives of the study were (i) to define the formal and non-formal system of education, (ii) to compare the teaching practices in formal and non-formal

systems of education, (iii) to dig out the differences and similarities in manual, procedure, supervision, implementation of methods and techniques in both systems (iv) to find out the problems, faced by the prospective teachers and supervisors/educators in both systems, (v) to make the recommendations/suggestions for improvement and uplift of the teaching practices in formal and non-formal education system of Pakistan (vi) to develop the model of teaching practice that is applicable to both the systems.

Analysis of data revealed that in both systems teaching practice in the teachers training programme was considered to be least important. Therefore, it is recommended that there is need to enrich all segments of teaching practice for producing quality teachers and to meet the new challenges (Murtaza, 2005).

2.30.7 Need assessment and designing a model for professional development of college teachers in Pakistan

Following were the main objectives of this study: a) to examine the different training programmes, which were already being run for professional development of college teachers in Pakistan, (b) to analyze the institutional policies and projects for professional development of college teachers, (c) to examine the principal's attitude and encouragement for professional development of his teachers, (d) to analyze the competencies of the college teachers, (e) to evaluate the skills-cognitive, effective and psychomotor for teaching purposes (f) to develop a model of professional development for improving the teacher's performance and knowledge at college level in Pakistan. For choosing the sample from this population cluster sampling technique was used.

The main conclusions drawn from the analysis of the data were as: (i) training for professional development of teachers was considered necessary, (ii) teachers did not use examples, illustrations and visuals to clarify their lessons, (iii) teachers did not use

motivation techniques and attention gaining devices in classrooms, (iv) teachers did not use instructional technology and modern teaching methods to enhance learning, (v) teachers were not aware of educational objectives mentioned in education policies and curriculum documents, (vi) college teachers did not focus their attention on character building and thinking and critical skills of the students, (vii) teachers did not use different evaluation techniques.

The main recommendations of the study were as follows: (i) curriculum should be revised by eliminating deficiencies of textbooks, guidebooks, and equipment, (ii) teachers should be trained in evaluation and measurement techniques, (iii) teachers should be prepared for performing different roles, (iv) action researches should be encouraged in classes, (v) national council for professional teaching standards should be established, (vi) AIOU should start in-service training of college teachers, (vii) training for professional development should include print, audio, video media, computer skills and face-to-face teaching. (Sultana, 2004)

2.30.8 Evaluation of teacher training project, ADB assisted, loan no. 1210 Pak (SF), Ministry of Education, Islamabad (Rehman, 2004)

The main objectives of the study were to assess the extent to which project objectives have been achieved and to devise strategy for future projects in teacher education sub-sector.

The study was delimited to the Federal Coordination Unit (FCU) and Technical Panel on Teacher Education (TPTE).

Findings include that project could not achieve targets due to lack of managerial leadership, absence of coordination between FCU, TPTE, ABD and other government agencies and lack of necessary training for the project staff.

It was found that targets of the project were realistic and schedule of the implementation was appropriate. Further, the project accounts were maintained as per codal procedure. It was also found that there were flaws in the PC-I of the project and TORs of the consultants were also incomplete. It was also revealed that research studies conducted by the project have no significant impact on teaching learning process as the recommendations of the studies were not implemented. It was also found that delay in the purchase of electronic equipment was due to the discrepancies in the bidding document, delay in scrutiny of bids, procurement procedure of the ADB, lack of necessary skills by members of the purchase committee and lack of consensus among the members of the purchase committee on the award of contract.

Salient conclusions include that TPTE could not play its role as policy formulation body due to lack of administrative leadership, heavy workload, scarcity of staff and lack of technical assistance by the consultants. It was further revealed that the performance of the consultants was not satisfactory.

In the recommendations, it was suggested that there should be complete coordination between sponsoring agency and implementing agency. Project may be provided trained staff with full time project director (Rehman, 2004).

2.30.9 A study to develop a model for in-service training of teachers in Pakistan

The research aimed at studying the experiences of in-service teacher training in Pakistan and to develop a model for in-service training of teachers in future. For this purpose, the primary teacher in-service training programmes were studied with respect to their objectives, contents, and methodology. A questionnaire was developed on the basis of the study of literature on these in-service teacher-training programmes. This questionnaire was administered to 240 teacher trainers who were engaged in the formal

and non-formal in-service training of Primary School Teachers. These teacher trainers were selected through cluster sampling. The data collected from these teacher trainers were discussed in the seminars held with 40 experts in 12 cities for the purpose of the development of model. A seminar was held with 22 in-service teacher trainers in Rawalpindi in order to validate the model. In this way the model INSTOP was developed with clear objectives-general and specific. The specific objectives were again classified as cognitive, psychomotor and effective. The contents have the academic as well as practical basis. The model INSTOP has been designed on the lines of CIPP (context-input-process-product) and has been illustrated at the end of the study (Bukhari, 2002).

2.30.10 Effectiveness of in-service training imparted through Teacher Training Project

The particular study was designed to investigate the "effectiveness of in-service training imparted through Teacher Training Project".

The training of PTC teachers was in the subjects of General Science, Mathematics, English and General Pedagogical Skills, and the training of secondary school teachers in the subjects of English and Mathematics.

The study revealed that there was a significant difference between the achievement of the students of experimental group and control group. The performance of experimental group was better than students of the control group. The analysis further disclosed that there was no difference between the attitude and behaviour of experimental group teachers and control group teachers. It was reported that nominations for in-service training were not made in time; the participants of training were satisfied with the performance of master trainers and with the facilities provided to them at the training centers. It was also divulged that the instructional materials were not supplied on regular

basis; however, the supplied materials had relevance with the contents of the training. The participants demanded to increase the duration of the training and also linked the successful completion of training with some monetary benefits. They also recommended that after a need survey the needy teachers should be nominated for training. The opinions of male and female teachers in all the above cases were almost the same (Mahmood, 1999).

2.30.11 Impact of INSET Imparted through Asian Development Bank (ADB) Assisted Project in Pakistan

This article sheds light on the in-service training imparted through Asian Development Bank (ADB) Teacher Training Project (TTP) in the Punjab province of Pakistan. About 62000 primary school teachers (both male and female) availed of training opportunities in four subjects: Science, Mathematics, English and Pedagogy. The study was carried out on a sample of 240 teachers with an equal proportion of both sexes. The effectiveness of INSET was measured through two self-constructed research instruments: (i) Observation Schedule for the students and (ii) Opinnionaire for the teachers. The results indicated that there was no significant difference between the classroom behavior of the teachers of both experimental and control groups regarding the use of teaching skills / qualities imparted through in-service training. Majority of the teachers had the opinion that in-service training imparted through TTP was effective as a whole and they had learnt much from the training (Mahmood *et al*, 2003).

2.30.12 Some problem areas of teacher education in Pakistan

The major focus of this paper is to review some problems of teacher education in Pakistan. Teacher education occupies the most important place in education system of a

country. A country gains quality education only if it has gained quality in teacher education. Some alarming problems in teacher education in Pakistan are the short duration of teacher education programmes and teaching practice, out dated curriculum, no established criteria for the selection of teacher educators and lack of research in the field of teacher education. For achieving quality education, it is essential to gain, first of all, quality education teacher. Quality teacher education can be achieved by taking sound policy measures for the solution of these problems in teacher education.

During an analysis of the available literature and documents, the following conclusions were drawn: 1) Teaching is a skill and an art, which cannot be mastered, in a short period of learning and practicing. 2) Changes in teacher education are happing all over the world but in Pakistan, still out-dated curricula are taught. Curriculum for teacher education programmes does not match the needs of the society and the modern world. 3) Teacher trainers do not have sufficient qualification, training experience to teach trainee teachers as there is a specific criterion for selection of teacher educator. 4) Because of lack of research, no improvement in any area in teacher education could be brought about. 5) Objective of quality education could not be achieved due to the poor quality of teacher education programmes.

The following recommendations were hereby cited as a consequence of analysis of conclusions: 1) Overall duration of teacher education programmes and teaching practice should be extended. 2) Trainee teachers should be made familiar with modern teaching techniques and methodologies 3) Teacher educators should provide guidance to trainee teachers in actual class environment about how to teach through different teaching methods, how to gain attention of students, how to start a lesson, how to create interest in

lesson, how to deal with learners of different nature 4) In national gross product (GNP) grant for education should be increased upto at least 4% and special funds and grants for teacher education should be preserved. 5) The teaching profession should be made so charming like central superior service so that most brilliant and talented people of the country are attracted to teaching profession. 6) Problem-solving project method and use of other innovative approaches may be adopted during training. 7) Community participation can make the situation better in the field of teacher education (Iqbal and sufiana, 2005).

2.30.13 Development of a Manual for In-service Training of Heads of Public Secondary Schools in Punjab.

The objectives of the study were as follows:

1) To assess the needs of the heads of the secondary schools in educational management.

2) To evaluate the scope and system of present in-service training of the heads. 3) To develop a training manual for enhancing the competencies, knowledge and different skills of the heads of secondary schools.

The main conclusions drawn from the study were that in-service training for the heads of secondary schools was necessary. The training needs manual which covers guidance and materials. The training was required in rules and regulations relating to budget, pension, leave, efficiency and discipline and management techniques. It was recommended that a manual for training should be prepared and provided to all schools for guidance and use. The need for training was recognized by the majority of the heads of secondary schools (Iqbal, 2007).

2, 30.14 Effectiveness of Teacher Training in Developing Professional Attitude of Prospective Secondary School Teachers.

The objectives of the study were; 1) To develop a reliable and valid scale to measure the professional attitude of prospective secondary school teachers; (2) to measure the development of professional attitude of prospective secondary school teachers of various teacher training institutions in Punjab. (3) To assess the effectiveness of teacher training in developing professional attitude of prospective secondary school teachers. (4) to compare the effectiveness of teacher training institutions in developing attitude of prospective secondary school teachers towards the teaching profession. (5) To suggest suitable measures to improve teacher training in Pakistan.

In the light of the comparison undertaken, it was found that the teacher training institutions were not successful in developing the professional attitude of prospective secondary school teachers. The trend in the development of attitude among female students was slightly greater than the male students. Three years teacher training programme (12+3) was more successful than one year (14+1) and two years (14+2) programme. The parents' profession had no effect on the development of attitude. The arts and science graduates exhibited no significant difference in the development of attitude.

Teacher training programmes needed reevaluation and reorganization to remove the drawbacks. The teaching staff of teacher training institutions needs to reevaluate their own attitudes towards the teaching profession as well as their overt behaviour towards the prospective teachers. The traditional selection criterion for admission to teacher training should be changed. The aptitude test should be conducted for admission by the teacher training institutions to identify those students who are inclined towards teaching profession.

The duration of teacher training should be lengthened to develop a favourable attitude of student teachers towards teaching profession (Hussain, 2004).

2.30.15 Consultation Outcome as a Result of In-Service Resource Teacher Training

This study was based on a Ph.D. dissertation done at the University of North Carolina-Chapel Hill. In this study the effects of learning disabilities teacher training for consultation with classroom teachers were investigated. Twelve learning disabilities resource teachers and 60 elementary school classroom teachers within one school system served as subjects. Four learning disabilities resource teachers received communication skills training and four resource teachers received conceptual assumptions training. In addition, four resource teachers served as a control group for the study. Each resource teacher conducted three 20- to 30-minute conferences with each of five elementary school teachers. Following the third conference, information was collected concerning: (a) classroom teacher ratings of satisfaction with services, (b) joint ratings of the child's progress toward goals set during the first conferences, (c) the percentage of recommendations implemented, and (d) classroom teacher ratings of joint responsibility, and of resource teacher respect, empathy, and congruence. There were three findings in this study. First, no differences resulting from either type of training were found at posttest for classroom teacher respect, resource teacher congruence, joint responsibility, or joint ratings of the child's progress. Second, training resource teachers in communication skills resulted in significantly higher classroom teacher ratings of resource teacher empathy. Finally, significant differences due to resource teacher experiences prior to this study were noted with classroom teacher ratings of the child's

progress, and the number of recommendations implemented (White and Pryzwansky, 2006).

2.30.16 Comparative Analysis of Expectancies of Efficacy in In-Service and Prospective Teachers.

This study examined the beliefs about effective teaching in student teachers and in- service teachers. The reseachers constructed a measurement composed of an adaptation in Spanish of the Gibson and Dembo's (1984. Teacher efficacy: A construct validation. "Journal of Educational Psychology", 76, 569-582). Teacher Efficacy Scale and of the items included in Emmer and Hickman's (1991). Teacher efficacy in classroom management and discipline. "Educational and Psychological Measurement", 51, 755-765) "classroom management/discipline efficacy" dimension. A total of 339 participants took part in the study. The factor analysis carried out of the results obtained showed three principal factors: classroom management/discipline efficacy, personal teaching efficacy and general teaching efficacy. Analyses which compared efficacy expectancies showed significant differences in the management and discipline dimension in favour of the group of working teachers, whereas an opposite pattern emerged in the general teaching dimension. In addition, there were differences in the management/discipline dimension in terms of the number of years' experience in the group of in-service teachers. The interpretation of the results is expressed in terms of the Bandura's perceived self-efficacy theory. We also indicate some implications that the analysis of these expectancies may have for the training and professional development of teachers, and we suggest lines for future research (Cruz, *et al,* 2007).

2.30.17 Information and Communications Technology In-service Training for Teachers: Cyprus in perspective

In-service education and training (INSET) is considered a crucial issue for the implementation and institutionalisation of new information and communication technologies (ICT) in educational systems worldwide. A pilot programme for ICT implementation has been running since 1994 in a number of Cypriot primary schools. The provision of INSET in relation to this particular programme appears problematic. Therefore, two studies were independently conducted in 1996 and 1998 to highlight teachers' training background and needs. The second study also aimed to investigate the content and form of ICT INSET provision in terms of the categories of professional development identified by McDougall & Squires (1997). Both studies indicate that the majority of teachers are shown to lack an ICT training background while the approach to training appears piecemeal, focused mostly on off-site training and oriented towards the acquisition of basic computer skills. However, teachers report that they prefer school-based courses, as well as courses that focus on the pedagogical dimension of ICT integration. Based on the outcomes, a national plan for teacher training in ICT is proposed, focusing on coherence, availability, efficiency and diversification (Kyriacos and Yiasemina, 2002).

CHAPTER 3

RESEARCH METHODOLOGY

This study was intended to investigate the impact of ADB assisted teacher training project on the quality of teacher education in Pakistan. This was a descriptive survey study. The research design envisaged collection of data from different sources: heads of the institutions, teacher educators training receivers through In Country Fellowship programme and non training receivers, master trainers of TOs, trainee teachers of TOs, Overseas Fellowship trainees and educational experts/consultants selected from TTP. The following procedure and methods were used for the completion of this study.

3.1 POPULATION

The population of the study consisted of all the heads of PITEs GCEs and GCETs, all the teacher educators of GCEs and GCETs, all the heads/ masters trainers and trainee teachers of TOs, (4-PITEs, 16-GCEs, 90- GCETs and 66- TOs), all the experts/ consultants and officers of Teacher Training Project (TTP) and all the officers of the Technical Panel on Teacher Education (TPTE).

3.2 SAMPLE

A Stratified Random Sampling technique was used for the selection of institutions.

The GCEs, GCETs/ RITEs and TOs were selected on the basis of number of institutions in the provinces (50 % GCEs, 42 % GCETs/ RITEs and 30 % TOs).

Federal/Province	PITEs	GCEs	GCETs/ RITEs	TOs	Total
Federal	----	01	----	----	**01**
Punjab	01	04	10	08	**23**
Sindh	01	02	10	04	**17**
NWFP	01	----	11	04	**16**
Balochistan	01	01	07	04	**13**
Total	**04**	**08**	**38**	**20**	**70**

Note: Due to non-availability of teacher educators- ICF training receivers, more GCETs/RITEs were included in the sample of the study i.e. 2 GCETs in Punjab, 4 GCETs in Sindh, 6 RITEs in NWFP and 4 GCETs in Balochistan. So total number of GCETs/RITEs were 38.

A Systematic Random Sampling technique was used for the selection of respondents in the institutions. The sample of the respondents of the study was as follows:

S.No.	Respondents	Number
i	Heads of PITEs, GCEs and GCETs/ RITEs	34
Ii	Teacher educators (ICF training receivers)	145
iii	Teacher educators (ICF non-training receivers)	150
Iv	Educational managers (Overseas fellowship training receivers)	30
V	Heads/ Master trainers of Training Out posts (TOs)	20
Vi	Trainee teachers (Training receivers through TOs) (Only from one TO)	100
vii	Experts/consultants and officers of Teacher Training Project and TPTE	30
Total respondents		**509**

3.3 RESEARCH INSTRUMENTS

After reviewing PC-1 and all the official documents related to ADB assisted Teacher Training Project, the research studies conducted under TTP and other relevant literature; the following research instruments were designed and used for data collection.

i) **Questionnaire A** for Heads of PITEs, GCEs and GCETs/ RITEs (Appendix-I)

ii). **Questionnaire B** for Teacher educators (ICF training receivers and ICF non-raining receivers) of GCEs and GCETs/ RITEs. (Appendix-II)

iii) **Questionnaire C** for Educational managers (Overseas Fellowship training receivers). (Appendix-III)

iv) **Questionnaire D** for Heads/Master trainers of TOs**.** (Appendix-IV)

v) **Questionnaire E for** Teachers (Training receivers through TOs). (Appendix-V)

vi) **Interview Schedule** for the Experts/consultants and officers of TTP and TPTE. (Appendix-VI)

The instruments contained questions on the various aspects of teacher education like office equipment, electronic media, furniture, teacher training, curriculum, management, competency/attitude of teachers, teaching methods and instructional material.

3.3.1 Pilot Testing

A pilot testing of the research instruments was carried out prior to actual study in the Federal area and Punjab province, to determine the validity and reliability of items and sample. The questionnaires were distributed to three Overseas Fellowship trainees, three heads and 10 teacher educators (five ICF training receivers and five ICF non-

raining receivers) of GCEs and GCETs in the cities of Islamabad, Rawalpindi and Lahore, two master trainers and five trainee teachers of TO in district Chakwal.

For the purpose of pilot testing of interview schedule, three experts/ consultants were selected from the Teacher Training Project. The researcher used the technique of eliciting responses both in written as well as recorded form. An interview guide was prepared after pilot testing. Three educational experts' opinions were also solicited on all the instruments. (Appendix-XI)

On the basis of feedback received from pilot testing, the researcher modified the instruments.

3.4 DATA COLLECTION

The procedure of data collection described by Best and Kahn (1996) was followed for the preparation of questionnaire and covering letter, pilot testing and modification, obtaining permission and follow-up activities.

The procedure prescribed by Gay (1997) was followed for conducting the interviews, i-e. defining the problem, construction of interview guide, selection of interviewees, obtaining their cooperation, pilot research and modification in the light of the experience thus gained, establishing rapport, conducting the interviews personally, data recording and analysis.

Data were collected for the study through questionnaires and interviews by personal visits, with the help of research assistant and by mails. An intensive training was given to a research assistant (who had a master degree in education) for the collection of data. Data were gathered from TPTE, PITEs, GCEs, GCETs/ RITEs and TOs and interviews were

conducted from the sample of the study from all the four provinces and at federal level. Data were also collected from official documents and records.

The process of data collection was started in January, 2007 from the Sindh province. The process of collection of data personally from different cities and remote rural areas of Sindh was a lengthy and a time taking process. GCE, F.B. Area Karachi and GCE Sukkhar, were selected for the study, but unfortunately the principal and teachers educators of GCE Sukkhar, did not agree to provide data. So GCE Malir, Karachi was selected for this purpose. Six GCETs were selected for the study to get data from ICF training receivers under TTP and non training receivers, but it was not possible due to non- availability of ICF training receivers. The number of institutions had therefore, to be increased to complete the set target of 80 teacher educators. Some respondents of TTP had retired from the job. An effort had to be made to contact them for collection of data. This strategy was also adopted in other three provinces due to the same problems

In February, 2007 Balochistan province was visited. Being a hard area, collection of data was quite difficult, but with the help of some resource persons, (i.e. Directors/ Deputy.Directors of Curriculum Bureau, Quetta) different institutions were visited for gathering data and holding interviews. TOs were located in remote rural areas but with the help of research assistant, the data were collected from those hard areas.

In March 2007, the researcher visited NWFP province. TOs in NWFP province were also located in remote rural areas and conditions in the areas were disturbed but with the help of research assistant and by mail, data were collected.

In April, 2007, the researcher visited the Punjab province for gathering data. In May, 2007 the researcher visited TPTE and Federal College of Education, Islamabad. For the purpose of interviews, a list of respondents, who were actively involved in the project, was prepared. Contacts were made and their willingness obtained. Appointment for interviews was obtained through telephone calls. Each interview was conducted in at least two sittings. Initially, during each interview, a reasonable time had to be spent in establishing rapport and highlighting the purpose of the study. It was a very time consuming and exasperating experience but turned up to be a success in almost each case.

3.5 DATA ANALYSIS

Data were entered into computer, tabulated, analyzed and interpreted keeping in view the objectives of the study. For the statistical analysis Percentages, Mean, Chi Square and t Test were used.

Scoring procedure:

The Scoring procedure for likert scale as described by Best and Kahn (1997) was adopted. The questionnaires for heads of PITEs, GCEs and GCETs/ RITEs, Teacher educators of GCEs and GCETs/ RITEs, educational managers, heads/master trainers of TOs and Teachers (Training receivers through TOs) were analyzed on five and three point scale. The waightage given to each point of the rating scale was as under;

Strongly agree – 5 Agree = 4 Undecided = 3 Disagree = 2 Strongly disagree – 1

Sufficient – 3 Short = 2 Not at all = 1

Maximum = 3 To some extent – 2 Not at all = 1

Weightage given to each point was multiplied by the respondents to get the score.

The formulae used in the study are as under;

$$\text{Percentage} = \frac{\text{Response}}{\text{Total Number}} \times 100$$

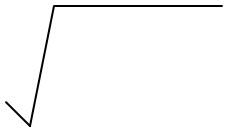
$$\text{Mean} = \frac{\sum f X}{N} \qquad \text{(Garrett, 1997)}$$

$$SD = \sqrt{\frac{\sum f X^2}{N}} \qquad \text{(Garrett, 1997)}$$

$$SE = \sqrt{\frac{SD^2}{N_1} + \frac{SD^2}{N_2}}$$

$$\text{t Test/Critical ratio} = \sqrt{\frac{X_1 - X_2}{\frac{SD^2}{N_1} + \frac{SD^2}{N_2}}} \qquad \text{(Khan, !990)}$$

$$\chi^2 = \sum \left[\frac{(fo - fe)^2}{fe} \right] \qquad \text{(Garrett, 1997)}$$



Whereas;

SD= Standard Deviation

SE= Standard error of Mean

χ^2= Chi Square

fo= Observed Frequency

fe= Expected Frequency

CHAPTER 4

ANALYSIS AND PRESENTATION OF DATA

The major purpose of the study was to investigate the impact of Teacher Training Project on the quality of teacher education in Pakistan. This chapter deals with the tabulation, analysis and interpretation of the data, through different instruments keeping in view the objectives of the study.

The chapter is divided into following five sections, based on the information gathered from the different categories of respondents;

4.1 Analysis of data on heads of institutions

4.2 Analysis of data on teacher educators

4.3 Analysis of data on educational managers

4.4 Analysis of data on master trainers and trainee teachers

4.5 Analysis of data on educational experts / consultants

4.1 ANALYSIS OF DATA ON HEADS OF INSTITUTIONS (PITEs/GCEs/GCETs)

Table 1: Designation of heads of institutions

Provinces	Designations		Total
	Director General/ Director (PITEs)	Principals (GCEs/GCETs/RITEs)	
Punjab	01 (07.14%)	13 (92.86%)-	14 (100%)
NWFP	01 (16.67%)	05 (83.33%)	06 (100%)
Sindh	01 (11.11%)	08 (88.89%)	09 (100%)
Balochistan	01 (20%)	04 (80%)	05 (100%)
Total	04 (11.76%)	30 (88.23%)	34 (100%)

Table 1 shows that;

Most (88.23 percent) of the heads of the institutions (GCEs and GCETs) had designation as Principal whereas 11.76 percent heads of PITEs had designation as

Director General/Director. It is evident from the data that most of the heads of the institutions were Principals.

Table 2: Academic qualification of heads of institutions

Provinces	Academic Qualification			Total
	M.A/ M.Sc.	M.Phil.	Ph.D	
Punjab	11 (78.57%)	01 (7.14%)	02 (14.30%)	14 (100%)
NWFP	06 (100%)	-	-	06 (100%)
Sindh	09 (100%)	-	-	09 (100%)
Balochistan	05 (100%)	-	-	05 (100%)
Total	31 (91.14%)	01 (2.94%)	02 (5.88%)	34 (100%)

Table 2 indicates that;

Most (91.14 percent) of the respondents held M.A/M.Sc. degree, 5.88 percent of the respondents held Ph.D. degree and 2.94 percent held M.Phil. degree. The data show that most of the heads held M.A/M.Sc. degree as their academic qualification.

Table 3: Professional qualification of heads of institutions

Provinces	Professional Qualification			Total
	B.Ed	M.Ed.	None	
Punjab	02 (14.29%)	10 (71.43%)	02 (14.29%)	14 (100%)
NWFP	-	06 (100%)	-	06 (100%)
Sindh	-	09 (100%)	-	09 (100%)
Balochistan	-	02 (40%)	03 (60%)	05 (100%)
Total	02 5.88%)	27 (79.41%)	05(14.70%)	34 (100%)

Table 3 shows that;

Most (79.41 percent) of the heads of the institutions held M.Ed. degree, 5.88 percent heads held B.Ed. degree whereas 14.70 percent of them had no professional qualification. It leads to the conclusion that most of the heads held M.Ed. degree as professional qualification.

Table 4: Administrative experience of heads of institutions (in years)

Provinces	0-5 Years	6-10 Years	11-15 Years	16-20 Years	21 years and above	Total
Punjab	-	02 (14.29%)	01 (7.14%)	05 (37.71%)	06 (42.86%)	14 (100%)
NWFP	01 (16.67%)	-	02 (33.33%)	01 (16.67%)	02 (33.33%)	06 (100%)
Sindh	-	01 (11.11%)	03 (33.33%)	02 (22.22%)	03 (33.33%)	09 (100%)
Balochistan	01 (20%)	-	-	03 (60%)	01 (20%)	05 (100%)
Total	02 (5.88%)	03 (8.82%)	06 (17.64%)	11 (32.35%)	12 (35.29%)	34 (100%)

Table 4 reveals that;

Thirty five percent of heads of the institutions had administrative experience of 21 years or more, 32.35 percent 16-20 years, 17.64 percent 11-15 years, 8.82 percent 6-10 years and 5.88 percent 0-5 years. The data show that most (67.64 percent) of the heads of the institution had more than 15 years of experience as administrator in the field of education. It shows that they were experienced heads of the institutions.

From the above discussion (tables 1-4), it was concluded that most of the heads of the institutions were Principals. They held M.A/M.Sc. degree as their academic qualification and M.Ed. degree as professional qualification. They were also found experienced heads of the institutions.

Table 5: Provision and utilization of office equipment

S.No.	Equipments	Provision/ Utilization	Punjab	NWFP	Sindh	Balochistan	Mean score of four Provinces*
i.	**Photocopier**	Provision	2.14	1.83	2.56	1.80	**2.08**
		Utilization	2.21	1.83	2.78	1.60	**2.11**
ii.	**Desktop computer**	Provision	1.79	1.67	2.33	1.40	**1.80**
		Utilization	1.79	1.67	2.44	1.40	**1.83**
iii.	**Printer**	Provision	1.86	1.67	2.33	2.00	**1.97**
		Utilization	1.79	2.00	2.56	2.00	**2.09**
iv.	**Typewriter**	Provision	2.29	1.83	2.00	2.00	**2.03**
		Utilization	1.64	2.00	2.22	2.00	**1.97**

*On three point Scale: Sufficient/ Maximum, Short/ To some extent, Not at all

Table 5 indicates that;

i. Photocopier:

The mean score for the provision of photocopiers was found to be 2.08 and, for utilization was 2.11 (four provinces). It is evident that the provision of the photocopiers was rated as ‘Sufficient’ and utilization as ‘Maximum’.

ii. Desktop computers:

The mean score for the provision of desktop computers was found to be 1.80 and, for utilization was 1.83 (four provinces). It reflects that the provision of desktop computers was rated as ‘Short’ and utilization as ‘To some extent’.

The data also indicate that desktop computers were not provided. Therefore, the question of utilization did not arise in the case of Balochistan province.

iii. Printer:

The mean score for the provision of printers was found to be 1.97and, for utilization was 2.09 (four provinces). It implies that the provision of printers was rated as ‘Sufficient’ and utilization as ‘Maximum’.

iv. Typewriter:

The mean score for the provision of typewriters was found to be 2.03 and, for utilization was 1.97 (four provinces). It shows hat the provision of typewriters was rated as ‘Sufficient’ and utilization as ‘Maximum’.

From the above discussion it was concluded that in the opinion of most of the heads, photocopiers, printers and typewriters were provided in sufficient quantity and those were maximum utilized. But desktop computers were insufficiently provided and to some extent utilized.

Table 6: Provision and utilization of furniture

S.No.	Name of furniture Item	Provision/ Utilization	Punjab	NWFP	Sindh	Balochistan	Mean score of four Provinces*
i.	**Classroom Tablet Chair**	Provision	2.50	1.83	2.56	2.00	**2.22**
		Utilization	2.64	1.83	3.00	2.00	**2.37**
ii.	**Mono Desk**	Provision	1.57	1.17	2.00	1.60	**1.59**
		Utilization	1.64	1.00	2.56	1.60	**1.70**
iii.	**Rostrum**	Provision	1.93	1.67	1.67	1.60	**1.72**
		Utilization	1.93	1.67	1.78	1.60	**1.75**
iv.	**Tables for classrooms**	Provision	2.43	1.67	2.67	2.20	**2.24**
		Utilization	2.36	1.67	3.00	2.60	**2.41**
v.	**Armed chairs**	Provision	2.00	1.67	2.56	2.00	**2.06**
		Utilization	2.29	1.83	3.00	2.00	**2.28**
vi.	**Revolving chairs**	Provision	1.64	1.50	2.00	1.40	**1.64**
		Utilization	1.86	1.50	2.44	1.20	**1.75**
vii.	**Officer Tables**	Provision	2.14	1.67	2.67	1.40	**1.97**
		Utilization	2.14	1.67	3.00	1.80	**2.15**
viii.	**Stenographer Table**	Provision	1.93	1.67	2.11	1.20	**1.73**
		Utilization	1.93	1.67	2.44	1.20	**1.81**
ix.	**Office Chairs**	Provision	2.43	1.83	2.44	2.20	**2.23**
		Utilization	2.50	1.83	2.78	1.60	**2.18**
x.	**Office Tables**	Provision	2.36	1.83	2.44	2.20	**2.21**
		Utilization	2.43	1.83	2.78	1.60	**2.16**
xi.	**Tables for Practical**	Provision	2.43	1.67	2.78	2.40	**2.32**
		Utilization	2.36	1.83	3.00	2.40	**2.40**
xii.	**Stools for Labs.**	Provision	2.36	1.67	2.67	1.80	**2.13**
		Utilization	2.29	1.67	3.00	2.00	**2.24**
xiii.	**Showcase/steel Almirah**	Provision	2.50	1.67	2.44	1.60	**2.05**
		Utilization	2.50	1.67	2.78	1.60	**2.14**
xiv.	**Library Chairs**	Provision	2.57	1.67	2.33	2.00	**2.14**
		Utilization	2.57	1.83	2.56	2.00	**2.24**
xv.	**Library Tables**	Provision	2.57	1.67	2.33	2.00	**2.14**
		Utilization	2.57	1.83	2.56	2.00	**2.24**
xvi.	**Librarian Chair**	Provision	2.57	1.67	2.67	1.80	**2.18**
		Utilization	2.57	2.00	2.78	1.60	**2.24**
xvii.	**Library Catalog**	Provision	2.21	1.50	2.44	1.80	**1.99**
		Utilization	2.14	1.50	2.78	1.80	**2.06**
xviii.	**Librarian Counter**	Provision	2.36	1.50	2.56	2.00	**2.11**
		Utilization	2.36	1.50	2.78	2.00	**2.16**

*On three point Scale: Sufficient/Maximum, Short/To some extent, Not at all

Table 6 shows that;

i. Classroom tablet chairs:

The mean score for the provision of classroom tablet chairs was found to be 2.22 and, for utilization was 2.37 (four provinces). It implies that the provision of classroom tablet chairs was rated as ‘Sufficient’ and utilization as ‘Maximum’.

ii. Mono desk:

The mean score for the provision of mono desks was found to be 1.59 and, for utilization was 1.70 (four provinces). It reflects that the provision of mono desks was rated as ‘Short’ and utilization as ‘To some extent’.

It is also evident from the data that mono desks were not provided in the NWFP.

iii. Rostrum:

The mean score for the provision of rostrums was found to be 1.72 and, for utilization was 1.75 (four provinces). It shows that the provision of rostrum was rated as ‘Short’ and utilization as ‘To some extent’.

iv. Tables for classrooms:

The mean score for the provision of tables for classrooms was found to be 2.24 and, for utilization was 2.41 (four provinces. It implies that the provision of tables for classrooms wa rated as ‘Sufficient’ and utilization as ‘Maximum’.

v. Armed chairs:

The mean score for the provision of armed chairs was found to be 2.06 and, for utilization was 2.28 (four provinces)**.** It reflects that the provision of armed chairs was rated as ‘Sufficient’ and utilization as ‘Maximum’.

vi. Revolving chairs:

The mean score for the provision of revolving chairs was found to be 1.64 and, for utilization was 1.75 (four provinces). It indicates that the provision of revolving chairs was rated as 'Short' and utilization as 'To some extent'.

The data also reflect that the revolving chairs were not provided in Balochistan province.

vii. Officer Tables:

The mean score for the provision of officer tables was found to be 1.97 and, for utilization was 2.15 (four provinces). It shows that the provision of officer tables was rated as 'Sufficient' and utilization as 'Maximum'.

viii. Stenographer Table:

The mean score for the provision of stenographer tables was found to be 1.73 and, for utilization was 1.81 (four provinces). It indicates that the provision of stenographer tables was rated as 'Short' and utilization as 'To some extent'.

ix. Office chairs:

The mean score for the provision of office chairs was found to be 2.23 and, for utilization was 2.18 (four provinces**).** It reflects that the provision of office chairs was rated as 'Sufficient' and utilization as 'Maximum'.

x. Office Tables:

The mean score for the provision of office tables was found to be 2.21 and, for utilization was 2.16 (four provinces). It is evident that the provision of office tables was rated as 'Sufficient' and utilization as 'Maximum'.

xi. Tables for Practical:

The mean score for the provision tables for practical was found to be 2.32 and, for utilization was 2.40 (four provinces). It reflects that the provision of tables for practical was rated as ‘Sufficient’ and utilization as ‘Maximum’.

xii. Stools for Labs:

The mean score for the provision of stools for labs was found to be 2.13 and, for utilization was 2.24 (four provinces). It reflects that the provision of stool for labs was rated as ‘Sufficient’ and utilization as ‘Maximum’.

xiii. Showcase/steel almirah:

The mean score for the provision of showcase/steel almirah was found to be 2.05 and, for utilization was 2.14 (four provinces). It shows that the provision of showcase/ steel almirah was rated as ‘Sufficient’ and utilization as ‘Maximum’.

xiv. Library chairs:

The mean score for the provision of library chairs was found to be 2.14 and, for utilization was 2.24 (four provinces). It implies that the provision of library chairs was rated as ‘Sufficient’ and utilization as ‘Maximum’.

xv. Library Tables:

The mean score for the provision of library tables was found to be 2.14 and for, utilization was 2.24 (four provinces). It reflects that the provision of library tables was rated as ‘Sufficient’ and utilization as ‘Maximum’.

xvi. Librarian chairs:

The mean score for the provision of librarian chairs was found to be 2.18 and, for utilization was 2.24 (four provinces). It is evident that the provision of librarian chairs was rated as ‘Sufficient’ and utilization as ‘Maximum’.

xvii. Library Catalog:

The mean score for the provision of library catalog was found to be 1.99 and, for utilization was 2.06 (four provinces). It shows that the provision of library catalogs was rated as ‘Sufficient’ and utilization as ‘Maximum’.

xviii. Librarian Counter:

The mean score for the provision of librarian counters was found to be 2.11 and, for utilization was 2.16 (four provinces). It implies that the provision of librarian counters was rated as ‘Sufficient’ and utilization as ‘Maximum’.

From the above discussion, it was concluded that in PITEs, GCEs and GCETs classroom tablet chairs, tables for classrooms, armed chairs, officer tables, office chairs, office tables, tables for practical, stools for labs, show case / steel almirah, library chairs, library tables, librarian chairs/catalogue/counters were provided in sufficient quantity and those items were maximum utilized. Mono desks, rostrums, revolving chairs, stenographer tables were provided short in supply and those items were not being properly utilized.

Table 7: Provision and utilization of electronic media

S.No.	Name of Electronic media	Provision/ Utilization	Punjab	NWFP	Sindh	Balochistan	Mean score of four Provinces*
i.	**VCR/VCP**	Provision	2.29	1.83	2.11	2.00	**2.06**
		Utilization	2.07	1.67	2.33	2.00	**2.02**
ii.	**T.V. Set**	Provision	2.21	1.83	2.44	2.20	**2.17**
		Utilization	2.14	1.67	2.56	2.20	**2.14**
iii.	**Video Camera**	Provision	1.79	1.83	1.89	1.60	**1.78**
		Utilization	1.57	1.67	1.00	1.60	**1.46**
iv.	**Public Address System**	Provision	1.00	1.50	1.22	1.00	**1.18**
		Utilization	1.00	1.50	2.22	1.00	**1.43**
v.	**Radio/Tape Player**	Provision	2.14	1.83	2.44	1.40	**1.95**
		Utilization	2.14	1.83	2.78	1.60	**2.09**
vi.	**Overhead Projector**	Provision	2.43	1.83	2.56	2.00	**2.21**
		Utilization	2.29	1.67	2.78	2.00	**2.19**
vii.	**Slide Projector**	Provision	1.86	1.67	2.56	1.60	**1.92**
		Utilization	1.86	1.83	2.89	1.80	**2.10**
viii.	**35 mm Camera**	Provision	1.21	1.33	1.44	1.20	**1.30**
		Utilization	1.00	1.33	1.22	1.20	**1.19**
ix.	**Audio/Video tapes/ consumables**	Provision	2.14	1.83	2.33	1.60	**1.98**
		Utilization	2.00	1.67	2.56	1.60	**1.96**
x.	**Tele Classroom cum studio**	Provision	1.00	1.00	1.00	1.00	**1.00**
		Utilization	1.00	1.00	1.00	1.00	**1.00**
xi.	**Printing facilities**	Provision	1.56	1.47	1.54	1.40	**1.49**
		Utilization	1.71	1.47	1.44	1.40	**1.50**

*On three point Scale: Sufficient/Maximum, Short/To some extent, Not at all

Table 7 indicates that;

i. Video Cassette Recorder /Player:

The mean score for the provision of video cassette recorders /players was found to be 2.06 and, for utilization was 2.02 (four provinces)**.** It is evident that the provision of video cassette recorders /players was rated as ‘Sufficient’ and utilization as ‘Maximum’.

ii. T.V. Set:

The mean score for the provision of T.V. sets was found to be 2.17 and, for utilization was 2.14 (four provinces). It reflects that the provision of T.V. sets was rated as 'Sufficient' and utilization as 'Maximum'.

iii. Video Camera:

The mean score for the provision of video cameras was found to be 1.78 and, for utilization was 1.46 (four provinces). It shows that the provision of video cameras was rated 'Short' and utilization as 'To some extent'.

iv. Public Address System:

The mean score for the provision of public address system was found to be 1.18 and, for utilization was 1.43 (four provinces). It is evident that the provision and utilization of public address system was rated as 'Not at all'.

v. Radio/Tape Player:

The mean score for the provision of radio/tape players was found be1.95and, for utilization was 2.09 (four provinces). It implies that the provision of radio/tape players was rated as 'Sufficient' and utilization as 'Maximum'.

vi. Overhead Projector:

The mean score for the provision of overhead projectors was found to be 2.21 and, for utilization was 2.19 (four provinces). It reflects that the provision of overhead projectors was rated as 'Sufficient' and utilization as 'Maximum'.

vii. Slide Projector:

The mean score for the provision of slide projectors was found to be 1.92 and, for utilization was 2.10 (four provinces). It reflects that the provision of slide projectors was rated as 'Short' and utilization as 'Maximum'

viii. 35 mm Camera:

The mean score for the provision of 35 mm cameras were found to be 1.30 and, for utilization was 1.19 (four provinces). It is evident that the provision and utilization of 35 mm cameras was rated as 'Not at all'.

ix. Audio/Video tapes/ consumables:

The mean score for the provision of audio/video tapes/ consumables was found to be 1.98 and, for utilization was 1.96 (four provinces). It reflects that the provision of audio/video tapes/ consumables was rated as 'Sufficient' and utilization as 'Maximum'.

x. Tele Classroom cum studio:

The mean score for the provision tele classroom cum studio was found to be 1.00 and, for utilization was 1.00 (four provinces). It is evident that the provision and utilization of tele classroom cum studio was rated as 'Not at all'.

xi. Printing facilities:

The mean score for the provision of printing facilities was found to be 1.49 and, for utilization was 1.50 (four provinces). It reflects that the provision of printing facilities was rated as 'Short' and utilization as 'To Some Extent'.

From the above discussion, it was concluded that in PITEs, GCEs and GCETs, video cassette recorders /players, T.V. sets, radio/tape players, overhead projectors and audio/video tapes/ consumables were provided in sufficient quantity and maximum utilized. Video cameras and printing facilities were provided in short supply and utilized to some extent. Slide projectors were provided in short supply but utilized as maximum. Whereas public address system, 35 mm cameras and tele classroom cum studio were not provided, therefore, the question of utilization did not arise.

Table 8: Comfort with the provision of office equipment

Provinces		Maximum	To some extent	Not at all	Mean
Punjab	**Frequency**	08	03	03	**2.57**
	Score	24	09	03	
NWFP	**Frequency**	-	03	03	**1.50**
	Score	-	06	03	
Sindh	**Frequency**	06	03	-	**2.67**
	Score	18	06	-	
Balochistan	**Frequency**	02	03	-	**2.40**
	Score	06	06	-	

Table 8 depicts that;

Most of heads of the institutions in Punjab (mean score 2.57), Sindh (mean score 2.67) and Balochistan (mean score 2.40) felt comfortable with the provision of office equipment. Whereas the heads of the institutions in NWFP (mean score 1.50) were of the opinion that they felt, to some extent, comfortable with the provision of office equipment. It leads to the conclusion that most of the heads of the institutions felt comfortable with the provision of office equipment in the three provinces other than NWFP.

Table 9: Facilitation by furniture for the administrative/teaching staff

Provinces	Frequency/ Score	Maximum	To some extent	Not at all	Mean
Punjab	**Frequency**	05	04	05	**2.00**
	Score	15	08	05	
NWFP	**Frequency**	02	01	03	**1.83**
	Score	06	02	03	
Sindh	**Frequency**	04	05	-	**2.44**
	Score	12	10	-	
Balochistan	**Frequency**	02	02	01	**2.20**
	Score	06	04	01	

Table 9 shows that;

Most of the heads of the institutions in Sindh (mean score 2.44), Balochistan (mean score2.20) and Punjab (mean score 2.00) narrated that furniture provided by TTP maximum facilitated the administrative/ teaching staff whereas the heads of the institutions in NWFP (mean score 1.83) indicated that furniture provided by TTP, facilitated the administrative/ teaching staff, to some extent. It reveals that furniture provided by TTP maximum facilitated the administrative/teaching staff in the three provinces other than NWFP.

Table 10: Facilitation by furniture for the students

Provinces	Frequency / Score	Maximum	To some extent	Not at all	Mean
Punjab	**Frequency**	05	04	05	**2.00**
	Score	15	08	05	
NWFP	**Frequency**	02	01	03	**1.50**
	Score	04	02	03	
Sindh	**Frequency**	04	05	-	**2.44**
	Score	12	10	-	
Balochistan	**Frequency**	02	02	01	**2.20**
	Score	06	04	01	

Table 10 shows that;

Most of the heads of the institutions in Sindh (mean score 2.44), Balochistan (2.20 mean score) and Punjab (mean score 2.00) narrated that furniture provided by TTP maximum facilitated the students whereas the heads of the institutions in NWFP (mean score 1.50) indicated that furniture provided by TTP, to some extent, facilitated the students. It reveals that furniture provided by TTP maximum facilitated the students in the three provinces other than NWFP.

Table 11: Role of electronic media in strengthening the teacher training

Provinces	Frequency/ Score	Maximum	To some extent	Not at all	Mean
Punjab	**Frequency**	07	05	02	**2.35**
	Score	21	10	02	
NWFP	**Frequency**	04	02	-	**2.67**
	Score	12	04	-	
Sindh	**Frequency**	06	03	-	**2.66**
	Score	18	06	-	
Balochistan	**Frequency**	01	03	01	**2.00**
	Score	03	06	01	

Table 11 reflects that;

Most of the heads of the institutions in Punjab (mean score 2.35), NWFP (mean score 2.67), Sindh (mean score 2.66) and Balochistan (2.00 mean score) were of the opinion that the electronic media played a vital role in strengthening the teacher training in all the four provinces. Information provided by the heads, revealed that electronic media provided by TTP played a vital role in strengthening the teacher's training in all the four provinces.

Table 12: Provision of science equipment in science labs

Provinces	Frequency/ Score	Sufficient	Short	Not at all	Mean
Punjab	**Frequency**	08	03	03	**2.35**
	Score	24	06	03	
NWFP	**Frequency**	02	04	--	**2.33**
	Score	06	08	--	
Sindh	**Frequency**	03	05	01	**2.22**
	Score	09	10	01	
Balochistan	**Frequency**	01	03	01	**2.00**
	Score	03	06	01	

Table 12 reveals that;

Most of the heads of the institutions were of the view that science equipment in Punjab (mean score 2.35), NWFP (mean score 2.33), Sindh (mean score 2.22), and

Balochistan (mean score 2.00) was sufficiently provided. It leads to the conclusion that science equipment in science labs was sufficiently provided in all the four provinces.

Table 13: Enrichment by the Science equipment for the teaching of science

Provinces	Frequency/ Score	Maximum	To some extent	Not at all	Mean
Punjab	**Frequency**	04	07	03	**2.07**
	Score	12	14	03	
NWFP	**Frequency**	01	02	03	**1.66**
	Score	03	04	03	
Sindh	**Frequency**	04	04	01	**2.33**
	Score	12	08	01	
Balochistan	**Frequency**	01	02	02	**1.80**
	Score	03	04	02	

Table 13 shows that;

Most of the heads of the institutions of Sindh (mean score 2.33) and Punjab (mean score 2.07) narrated that science equipment provided by TTP enriched the teaching of science, whereas the heads of the institutions in Balochistan (mean score 1.80) and NWFP (mean score 1.66) indicated that science equipment provided by TTP, to some extent, enriched the teaching of science. It leads to the conclusion that the heads were of the view that science equipment provided by TTP enriched the teaching of science in the two provinces

Table 14: Provision of books in the libraries

Provinces	Frequency/ Score	Sufficient	Short	Not at all	Mean
Punjab	**Frequency**	05	07	02	**2.21**
	Score	15	14	02	
NWFP	**Frequency**	03	01	02	**2.16**
	Score	09	02	02	
Sindh	**Frequency**	03	04	02	**2.11**
	Score	09	08	02	
Balochistan	**Frequency**	01	01	03	**1.60**
	Score	03	02	03	

Table 14 indicates that;

Most of the heads of the institutions were of the opinion that books in the libraries (mean score 2.21) in Punjab, (mean score 2.16), NWFP and (mean score 2.11), Sindh were sufficiently provided. However, the heads of the institutions in Balochistan (mean score 1.60) indicated that books in the libraries were insufficiently provided. It shows that books were sufficient provided in the libraries in three provinces as a whole.

Table 15: Support of library books for teaching and learning

Provinces	Frequency/ Score	Maximum	To some extent	Not at all	Mean
Punjab	**Frequency**	07	05	02	**2.35**
	Score	21	10	02	
NWFP	**Frequency**	03	02	01	**2.33**
	Score	09	04	01	
Sindh	**Frequency**	03	05	01	**2.22**
	Score	09	10	01	
Balochistan	**Frequency**	01	02	02	**1.80**
	Score	03	04	02	

Table 15 indicates that;

Most of the heads of the institutions were of the opinion that library books provided by TTP maximum supported the teaching and learning in Punjab (mean score 2.35), NWFP (mean score 2.33) and Sindh (means score 2.22). However, the heads of the institutions in Balochistan (mean score 1.80) indicated that library books, to some extent, supported the teaching and learning. It was observed on the basis of information provided by heads that library books maximum supported the teaching and learning in the three provinces. (Punjab, NWFP and Sindh)

Table 16: Construction of rooms in GCEs and GCETs

Provinces		Maximum	To some extent	Not at all	Mean
Punjab	**Frequency**	06	05	03	**2.21**
	Score	18	10	03	
NWFP	**Frequency**	02	02	02	**2.00**
	Score	06	04	02	
Sindh	**Frequency**	02	06	01	**2.11**
	Score	06	12	01	
Balochistan	**Frequency**	02	02	01	**2.20**
	Score	06	04	01	

Table 16 shows that;

Most of the heads of the institutions in Punjab (mean score 2.21), NWFP (mean score 2.00), Sindh (mean score 2.11 and Balochistan (mean score 2.20)) were of the opinion that construction of 1 or 2 rooms in the existing GCEs and GCETs enhanced the students' enrollment. It leads to the conclusion that construction of 1 or 2 rooms in the existing GCEs and GCETs enhanced the students' enrollment in all the four provinces.

4.2 ANALYSIS OF DATA ON TEACHER EDUCATORS TRAINING RECEIVERS AND NON RECEIVERS OF GCEs AND GCETs

Table 17: Designation of teacher educators

Provinces	TR/ NTR	Designation				Total
		SST(BPS 16) SS/Instructor/ Lecturer-BPS-17	SSS/Instructor/ Assistant Prof. BPS-18	SSS/Associate Prof. BPS-19	Principal BPS-20	
Punjab	**TR**	10 (15.38%)	24 (36.92%)	30(46.15%)	01(1.53%)	65 (100%)
	NTR	34 (52.30%)	26 (40.00%)	05 (7.69%)	-	65 (100%)
NWFP	**TR**	04 (20.00%)	16 (80.00%)	-	-	20 (100%)
	NTR	10 (40.00%)	15 (60.00%)	-	-	25 (100%)
Sindh	**TR**	15 (37.50%)	24 (60.00%)	01 (2.5%)	-	40 (100%)
	NTR	26 (65.00%)	13 (32.5%)	01 (2.5%)	-	40 (100%)
Balochistan	**TR**	7+4 SST =11 (55.00%)	08 (40.00%)	-	01(5.00%)	20 (100%)
	NTR	9+1 SST =10 (50.00%)	10 (50.00%)	-	-	20 (100%)
Grand Total	**TR**	36+4=40 (27.58%)	72 (49.65%)	31(21.37%)	02(1.37%)	145(100%)
	NTR	79+1=80 (53.33%)	64 (42.66%)	06 (4.00%)	-	150(100%)

TR- Training receivers TR- Non-Training receivers

Table 17 shows that;

Punjab:

In Punjab, 46.15 percent teacher educators - training receivers had the designation of Senior Subject Specialist /Associate Professor (BPS-19) whereas most (52.30 percent) of the teacher educators – non training receivers had the designation of Subject Specialist /Lecturer (BPS-17).

NWFP:

In the NWFP, most (80 percent) of the teacher educators- training receivers and most (60.00 percent) of the teacher educators- non training receivers had the designation of Senior Subject Specialist/ Instructor/ Assistant Professor (BPS-18).

Sindh:

Most (60 percent) of the teacher educators- training receivers had the designation of Senior Subject Specialist / Assistant Professor (BPS-18) whereas most (65 percent) of the teacher educators- non training receivers had the designation of Subject Specialist /Lecturer (BPS-17) in the Sindh province.

Balochistan:

Most (55 percent) of the teacher educators - training receivers had the designation of Secondary School Teacher/Subject Specialist /Lecturer (BPS-17) whereas 50 percent teacher educators – non training receivers had the designation of Senior Subject Specialist /Assistant Professor (BPS-18) in Balochistan province.

It leads to the conclusion that most (71.03 percent) teacher educators- training receivers had the designation of Senior Subject Specialist /Instructor /Assistant Professor and Associate Professor (BPS-18 and 19) and most (53.33 percent) of the teacher

educators-non training receivers had the designation of Subject Specialist/Instructor/ Lecturer (BPS-17) in all the four provinces.

Table 18: Academic qualification of teacher educators

Provinces	TR/ NTR	Academic Qualification			Total
		M.A/ M.Sc.	M.Phil.	Ph.D	
Punjab	**TR**	62 (95.38%)	02 (3.07%)	01 (1.53%)	65 (100%)
	NTR	61 (93.84%)	04 (6.14%)	-	65 (100%)
NWFP	**TR**	20 (100%)	-	-	20 (100%)
	NTR	22 (88.00%)	03 (12.00%)	-	25 (100%)
Sindh	**TR**	38 (95.00%)	02 (5.00%)	-	40 (100%)
	NTR	38 (95.00%)	-	02 (5.00%)	40 (100%)
Balochistan	**TR**	20 (100%)	-	-	20 (100%)
	NTR	20 (100%)	-	-	20 (100%)
Total	**TR**	120 (82.75%)	24 (16.55%)	01 (0.68%)	145 (100%)
	NTR	121 (80.66%)	27 (18.00%)	02 (1.33%)	150 (100%)

TR= Training receivers NTR= Non training receivers

Table 18 indicates that;

Punjab:

Most of the teacher educators - training receivers (95.38 percent) and non training receivers (93.84 percent) had M.A/M.Sc degrees as academic qualification in the Punjab.

NWFP:

All the teacher educators - training receivers (100 percent) and non training receivers (88 percent) had M.A/M.Sc degrees as academic qualification in the NWFP.

Sindh:

Most of the teacher educators - training receivers (95 percent) and non-training receivers (95 percent) had M.A/M.Sc degrees as academic qualification in the Sindh.

Balochistan:

All the teacher educators - training receivers and non training receivers (100 percent) had M.A/M.Sc degrees as academic qualification in the Balochistan province.

It leads to the conclusion that most of the teacher educators - training receivers (82.75 percent) and non training receivers (80.66 percent) had M.A/M.Sc degrees as academic qualification in all the four provinces.

Table 19: Professional qualification of teacher educators

Provinces	TR/ NTR	Professional qualification			Total
		B.Ed.	M.Ed.	None	
Punjab	**TR**	12 (18.46%)	48 (73.85%)	05 (7.69%)	65 (100%)
	NTR	12 (18.46%)	49 (75.39%)	04 (6.15%)	65 (100%)
NWFP	**TR**	07 (35%)	13 (65%)	-	20 (100%)
	NTR	12 (48%)	12 (48%)	01 (4%)	25 (100%)
Sindh	**TR**	12 (30%)	27 (67.5%)	01 (2.5%)	40 (100%)
	NTR	08 (20%)	32 (80%)	-	40 (100%)
Balochistan	**TR**	02 (10%)	17 (85%)	01 (5%)	20 (100%)
	NTR	04 (20%)	16 (80%)	-	20 (100%)
Total	**TR**	33 (22.45%)	105 (71.43%)	7 (6.12%)	145 (100%)
	NTR	36 (24%)	109 (72.66%)	5 (3.33%)	150 (100%)

TR= Training receivers NTR= Non training receivers

Table 19 reveals that;

Punjab:

Most of the teacher educators - training receivers (73.85 percent) and non-training receivers (75.39 percent) had M.Ed. degree as professional qualification in the Punjab province.

NWFP:

Most of the teacher educators - training receivers (65 percent) and non-training receivers (48 percent) had M.Ed. degree as professional qualification in the NWFP province.

Sindh:

Most of the teacher educators - training receivers (67.5 percent) and non-training receivers (80 percent) had M.Ed. degree as professional qualification in Sindh province.

Balochistan:

Most of the teacher educators - training receivers (85 percent) and non-training receivers (80 percent) had M.Ed. degree as professional qualification in Balochistan province.

It is evident from the analysis that most of the teacher educators - training receivers (71.43 percent) and non-training receivers (72.66 percent) had M.Ed. degree as professional qualification in all the four provinces.

Table 20: Experience of teacher educators (in years)

Provinces	TR / NTR	0-5	6-10	11-15	16-20	21-25	26-above	Total
Punjab	**TR**	-	-	11 (16.92%)	29 (44.62%)	15 (23.08%)	10 (15.38%)	65 (100%)
	NTR	-	03 (4.62%)	12 (18.46%)	38 (58.46%)	07 (10.77%)	05 (7.69%)	65 (100%)
NWFP	**TR**	-	-	02 (10%)	04 (20%)	04 (20%)	10 (50%)	20 (100%)
	NTR	01 (4%)	01 (4%)	07 (28%)	05 (20%)	02 (8%)	09 (36%)	25 (100%)
Sindh	**TR**	-	01 (2.5%)	13 (32.5%)	09 (22.5%)	06 (15%)	11 (27.5%)	40 (100%)
	NTR	-	12 (30%)	10 (25%)	09 (22.5%)	07 (17.5%)	02 (5%)	40 (100%)
Balochistan	**TR**	-	-	01 (5%)	03 (15%)	04 (20%)	12 (60%)	20 (100%)
	NTR	01 (5%)	01 (5%)	-	04 (20%)	08 (40%)	06 (30%)	20 (100%)
Total	**TR**	-	01 (0.69%)	27 (18.62%)	45 (31.03%)	29 (20%)	43 (29.66%)	145 (100%)
	NTR	02 (1.4%)	17 (12.14%)	29 (20.71%)	45 (31.03%)	24 (17.14%)	23 (16.42%)	150 (100%)

TR= Training receivers NTR= Non training receivers

Table 20 indicates that;

Punjab:

Most of the teacher educators- training receivers (83.08 percent) and non training receivers (76.92 percent) had more than 15 years teaching experience in the Punjab.

NWFP:

Most of the teacher educators - training receivers (90 percent) and non training receivers (64 percent) had more than 15 years teaching experience in the NWFP.

Sindh:

Most of the teacher educators- training receivers (65 percent) had more than 15 years teaching experience and non training receivers (55 percent) had less than 16 years teaching experience in Sindh province.

Balochistan:

Most of the teacher educators- training receivers (80 percent) and non training receivers (70 percent) had more than 20 years teaching experience in Balochistan..

It leads to the conclusion that most of the teacher educators- training receivers (80.69 percent) and non training receivers (64.59 percent) had more than 15 years teaching experience.

H_o: There is no significant difference between the opinions of teacher educators-training receivers and non training receivers regarding the provision and utilization of office equipment in the GCEs/GCETs

Table 21: Provision and utilization of office equipment

Items	Provision/ Utilization	TR/ NTR	N	Mean	SD	SE	t-value
i. Photocopier	**Provision**	**TR**	145	1.88	0.79	0.091	1.578**
		NTR	150	1.74	0.76		
	Utilization	**TR**	145	1.75	0.78	0.090	0.797**
		NTR	150	1.68	0.76		
ii. Desktop Computer	**Provision**	**TR**	145	1.85	0.72	0.089	3.909*
		NTR	150	1.50	0.82		
	Utilization	**TR**	145	1.50	0.76	0.087	1.112**
		NTR	150	1.59	0.73		
iii. Printer	**Provision**	**TR**	145	1.45	0.62	0.083	1.059**
		NTR	150	1.53	0.75		
	Utilization	**TR**	145	1.50	0.73	0.082	0.605**
		NTR	150	1.45	0.68		
iv. Type writer	**Provision**	**TR**	145	1.57	0.79	0.088	0.216**
		NTR	150	1.55	0.73		
	Utilization	**TR**	145	1.49	0.69	0.079	1.217**
		NTR	150	1.39	0.67		

* Significant ** Insignificant Table value at 0.05=1.96 TR= Training receivers NTR= Non training receivers

Table 21 depicts that;

i. Photocopier:

The calculated t value for the provision of photocopier was found to be 1.578 and for the utilization was 0.797, which is less than the table value. Hence null hypothesis is accepted, and there is no significant difference between the mean scores of teacher educators-training receivers and non-training receivers regarding the provision and utilization of photocopiers. It shows that photocopiers were insufficiently provided and, to some extent, utilized.

ii. **Desktop computer:**

The calculated t value for the provision of desktop computers was found to be 3.909 which is greater than the table value. Hence null hypothesis is rejected and there is significant difference between the mean scores of teacher educators - training receivers and non training receivers regarding the provision of desktop computers. The calculated t value for the utilization of desktop computers was found to be 1.112, which is less than the table value. Hence null hypothesis is accepted and there is no significant difference between the mean scores of teacher educators - training receivers and non training receivers regarding the utilization of desktop computers. It leads to the conclusion that in the opinion of the teacher educator training receivers, the desktop computers were sufficiently provided, whereas teacher educators training receivers and non training receivers indicated that the desktop computers were, to some extent, utilized.

iii. Printer:

The calculated t value for the provision of printers was found to be 1.059 and for the utilization was 0.605, which is less than the table value. Hence null hypothesis is accepted, and there is no significant difference between the mean scores of teacher educators - training receivers and non training receivers regarding the provision and utilization of printers. It was concluded that the printers were insufficiently provided and, to some extent, utilized.

iv. Typewriter:

The calculated t value for the provision of typewriters was found to be 0.216 and for the utilization was 1.217, which is less than the table value. Hence null hypothesis is accepted, and there is no significant difference between the mean scores of teacher

educators - training receivers and non training receivers regarding the provision and utilization of typewriters. It implies that the typewriters were insufficiently provided and, to some extent, utilized.

From the above discussion it was concluded that photocopiers, printers and typewriters were insufficiently provided and those were not properly utilized. Desktop computers were provided in sufficient quantity but those were utilized to some extent.

H_o: There is no significant difference between the opinions of teacher educators - training receivers and non training receivers regarding the provision and utilization of A.V aids in the GCEs/GCETs

Table 22: Provision and utilization of electronic media

Items	Provision/ Utilization	TR/ NTR	N	Mean	SD	SE	t-value
i. VCR/VCP	**Provision**	**TR**	145	1.70	0.77	0.086	0.114**
		NTR	150	1.69	0.71		
	Utilization	**TR**	145	1.68	0.82	0.092	0.609**
		NTR	150	1.63	0.76		
ii. TV Set	**Provision**	**TR**	145	1.65	0.73	0.083	1.022**
		NTR	150	1.73	0.70		
	Utilization	**TR**	145	1.63	0.78	0.086	0.838**
		NTR	150	1.70	0.70		
iii. Video Camera	**Provision**	**TR**	145	1.58	0.76	0.086	0.547**
		NTR	150	1.63	0.73		
	Utilization	**TR**	145	1.53	0.77	0.083	0.698**
		NTR	150	1.47	0.64		
iv. Public Address System	**Provision**	**TR**	145	1.00	0.00	0.00	0.00**
		NTR	150	1.00	0.00		
	Utilization	**TR**	145	1.00	0.00	0.00	0.00**
		NTR	150	1.00	0.00		
v. Radio / Tap Player	**Provision**	**TR**	145	1.86	0.75	0.091	0.464**
		NTR	150	1.82	0.81		
	Utilization	**TR**	145	1.83	0.82	0.092	0.876**
		NTR	150	1.75	0.77		
vi. Overhead Projector	**Provision**	**TR**	145	1.86	0.75	0.091	0.464**
		NTR	150	1.82	0.81		
	Utilization	**TR**	145	1.83	0.82		
		NTR	150	1.75	0.77	0.092	0.876**

Continued

Table' Page 2

ITEMS	Provision/ Utilization	TR/ NTR	N	Mean	SD	SE	t-value
vii. Slide Projector	Provision	TR	145	1.83	0.76	0.088	1.146**
		NTR	145	1.73	0.75		
	Utilization	TR	150	1.68	0.73	0.079	2.061*
		NTR	145	1.52	0.62		
viii. 35mm Camera	Provision	TR	150	1.24	0.47	0.054	1.142**
		NTR	145	1.18	0.45		
	Utilization	TR	150	1.21	0.50	0.050	1.867**
		NTR	145	1.12	0.34		
ix. Audio / Video tapes / Consumables	Provision	TR	150	1.66	0.71	0.080	2.111*
		NTR	145	1.49	0.66		
	Utilization	TR	150	1.57	0.72	0.081	1.881**
		NTR	145	1.41	0.67		
x. Tele Classroom cum studio	Provision	TR	150	1.00	0.00	0.00	0.00**
		NTR	145	1.00	0.00		
	Utilization	TR	150	1.00	0.00	0.00	0.00**
		NTR	145	1.00	0.00		
xi. Printing Facilities	Provision	TR	150	1.37	0.60	0.061	3.035*
		NTR	145	1.19	0.44		
	Utilization	TR	150	1.33	0.59	0.057	3.693*
		NTR	145	1.12	0.36		

* Significant ** Insignificant Table value at 0.05=1.96 TR= Training receivers NTR= Non training receivers

Table 22 indicates that;

i. VCR/VCP:

The calculated t value for the provision of VCR/VCP was found to be 0.114 and for the utilization was 0.609, which is less than the table value. Hence null hypothesis is accepted, and there is no significant difference between the mean scores of teacher educators - training receivers and non training receivers regarding the provision and utilization of VCR/VCP. It was concluded that VCRs/VCPs were insufficiently provided and, to some extent, utilized.

ii. Television Set:

The calculated t value for the provision of T.V set was found to be 1.022 and for the utilization was 0.838, which is less than the table value. Hence, null hypothesis is

accepted, and there is no significant difference between the mean scores of teacher educators - training receivers and non training receivers regarding the provision and utilization of T.V sets. It leads to the conclusion that the T.V sets were insufficiently provided and, to some extent, utilized.

iii. Video Camera:

The calculated t value for the provision of video cameras was found to be 0.547 and for the utilization was 0.698, which is less than the table value. Hence, null hypothesis is accepted, and there is no significant difference between the mean scores of teacher educators - training receivers and non training receivers regarding the provision and utilization of video cameras. It shows that the video cameras were insufficiently provided and, to some extent, utilized.

iv. Public Address System:

The calculated t value for the provision of public address system was found to be 0.00 and for the utilization also was 0.00 which is less than the table value. Hence, null hypothesis is accepted, and there is no significant difference between the mean scores of teacher educators - training receivers and non training receivers regarding the provision and utilization of public address system. It shows that public address system was not provided, therefore, the question of utilization did not arise.

v. Radio /Tap- Player:

The calculated t value for the provision of radio / tap- players was found to be 0.464 and for the utilization was 0.876 which is less than the table value. Hence, null

hypothesis is accepted, and there is no significant difference between the mean scores of teacher educators - training receivers and non training receivers regarding the provision and utilization of radio / tap- players. It implies from the analysis that radio / tap- players were insufficiently provided and, to some extent, utilized.

vi. Overhead Projector:

The calculated t value for the provision of overhead projectors was found to be 0.464and for the utilization was 0.876 which is less than the table value. Hence, null hypothesis is accepted, and there is no significant difference between the mean scores of teacher educators - training receivers and non training receivers regarding the provision and utilization of overhead projectors. It leads to the conclusion that overhead projectors were insufficiently provided and, to some extent, utilized

vii. Slide Projector:

The calculated t value for the provision of slide projectors was found to be 1.146 which is less than the table value. Hence, null hypothesis is accepted and there is no significant difference between the mean scores of teacher educators - training receivers and non training receivers regarding the provision of slide projectors. The calculated t value for the utilization of slide projectors was found to be. 2.061 which is greater than the table value. Hence null hypothesis is rejected and there is significant difference between the mean scores of teacher educators - training receivers and non training receivers regarding the utilization of slide projectors. It leads to the conclusion that in the opinion of teacher educators – training receivers and non training receivers, the slide

projectors were insufficiently provided whereas teacher educators –training receivers had opinion that slide projectors were more utilized.

viii. 35mm Camera:

The calculated t value for the provision of 35mm cameras was found to be 1.142 and for the utilization was 1.867, which is less than the table value. Hence, null hypothesis is accepted, and there is no significant difference between the mean scores of teacher educators - training receivers and non training receivers regarding the provision and utilization of 35m m cameras. It leads to the conclusion that the 35mm cameras were not provided, therefore, the question of utilization did not arise.

ix. Audio / Video Tapes / Consumables:

The calculated t value for the provision of audio / video tapes / consumables was found to be 2.111 which is greater than the table value. Hence, null hypothesis is rejected and there is significant difference between the mean scores of teacher educators - training receivers and non training receivers regarding the provision of audio / video tapes / consumables. The calculated t value for the utilization of audio / video tapes / consumables was found to be 1.881, which is less than the table value. Hence, null hypothesis is accepted and there is no significant difference between the mean scores of teacher educators - training receivers and non training receivers regarding the utilization of audio / video tapes /consumables. It was observed on the basis of information provided by teacher educators training receivers that audio / video tape/ consumables were more provided. However, teacher educators - training receivers and non training receivers both were of the view that the audio / video tapes / consumables were, to some extent, utilized.

x. Tele Classroom cum Studio:

The calculated t value for the provision of tele classroom cum studios was found to be 0.00 and for the utilization was also 0.00 which is less than the table value. Hence, null hypothesis is accepted, and there is no significant difference between the mean scores of teacher educators - training receivers and non training receivers regarding the provision and utilization of tele classroom cum studio. It leads to the conclusion that tele classroom cum studios were not provided, therefore, the question of utilization did not arise.

xi. Printing Facilities:

The calculated t value for the provision of printing facilities was found to be 3.035 which is greater than the table value. Hence, null hypothesis is rejected and there is significant difference between the mean scores of teacher educators - training receivers and non training receivers regarding the provision of printing facilities. The calculated t value for the utilization of printing facilities was found to be. 3.693 which is greater than the table value. Hence, null hypothesis is rejected and there is significant difference between the mean scores of teacher educators - training receivers and non training receivers regarding the utilization of printing facilities. It reveals that in the opinion of teacher educators - training receivers, printing facilities were, to some extent, provided whereas teacher educators- non training receivers reported that printing facilities were not provided. Regarding utilization teacher educators - training receivers had view that printing facilities were, to some extent, utilized and non training receivers indicated that printing facilities were not utilized, therefore, the question of utilization did not arise.

It was concluded that printing facilities were provided in short supply and to some extent utilized.

From the above discussion, it was concluded that in GCEs and GCETs, video cassette recorders/players, T.V. sets, video cameras, radio/tape players, overhead projectors and printing facilities were provided in short supply and to some extent utilized. Slide projectors were provided in short supply but utilized as maximum. . Audio/video tapes/ consumables were more provided but utilized to some extent. Whereas public address system, 35 mm cameras and tele classroom cum studio were not provided, therefore, the question of utilization did not arise.

H_o: There is no significant difference between the opinions of teacher educators - training receivers and non training receivers regarding the teaching methods in the GCEs/GCETs

Table 23: Teaching methods used by teacher educators

Teaching Methods	TR/ NTR	N	Mean	SD	SE	t-value
i. Project method	**TR**	145	1.89	0.64	0.080	2.021*
	NTR	150	1.72	0.74		
ii. Question-answer method	**TR**	145	2.48	0.64	0.070	2.337*
	NTR	150	2.64	0.56		
iii. Discussion method	**TR**	145	2.54	0.65	0.074	0.933**
	NTR	150	2.61	0.61		
iv. Lecture method	**TR**	145	2.69	0.53	0.055	2.436*
	NTR	150	2.83	0.41		
v. Demonstration method	**TR**	145	1.83	0.77	0.085	1.315**
	NTR	150	1.95	0.69		
vi. Micro teaching	**TR**	145	1.74	0.75	0.083	1.823**
	NTR	150	1.59	0.67		
vii. Team teaching	**TR**	145	1.61	0.73	0.080	1.085**
	NTR	150	1.53	0.65		
viii. Simulation	**TR**	145	1.41	0.66	0.068	2.365*
	NTR	150	1.25	0.49		

* Significant ** Insignificant Table value at 0.05=1.96 TR= Training receivers NTR= Non training receivers

Table 23 reveals that;

i. Project method:

The calculated t value for the project method is found to be 2.021, which is greater than table value. Hence, null hypothesis is rejected, and there is significant difference between the mean scores of teacher educators-training receivers and non training receivers regarding the project method. It indicates that teacher educators-training receivers were adopting project method more during teaching than the non training receivers.

ii. Question-answer method:

The calculated t value for the question-answer method was found to be 2.337, which is greater than table value. Hence, null hypothesis is rejected, and there is significant difference between the mean scores of teacher educators-training receivers and non training receivers regarding the question-answer method. It provokes that teacher educators- non training receivers were using question-answer method during teaching more than the training receivers.

iii. Discussion method:

The calculated t value for the discussion method was found to be 0.933, which is less than table value. Hence, null hypothesis is accepted, and there is no significant difference between the mean scores of teacher educators-training receivers and non training receivers regarding the discussion method. It was concluded that teacher

educators - training receivers and non training receivers were adopting discussion method during their teaching.

iv. Lecture method:

The calculated t value for the lecture method was found to be 2.436, which is greater than table value. Hence, null hypothesis is rejected, and there is significant difference between the mean scores of teacher educators-training receivers and non training receivers regarding the lecture method. It leads to the conclusion that teacher educators- non training receivers were adopting lecture method more than training receivers during their teaching.

v. Demonstration method:

The calculated t value for the demonstration method was found to be 1.315, which is less than table value. Hence, null hypothesis is accepted, and there is no significant difference between the mean scores of teacher educators-training receivers and non training receivers regarding the demonstration method. It reveals that teacher educators-training receivers and non training receivers were to some extent adopting demonstration method during their teaching.

vi. Micro teaching:

The calculated t value for the micro teaching was found to be 1.823, which is less than table value. Hence, null hypothesis is accepted, and there is no significant difference between the mean scores of teacher educators-training receivers and non training receivers regarding the micro teaching. It leads to conclusion that teacher educators -

training receivers and non training receivers were, to some extent, adopting micro teaching during their teaching.

vii. Team teaching:

The calculated t value for the team teaching was found to be 1.085, which is less than table value. Hence, null hypothesis is accepted, and there is no significant difference between the mean scores of teacher educators-training receivers and non training receivers regarding the team teaching. It was concluded that teacher educators - training receivers and non training receivers were, to some extent, adopting team teaching during their teaching.

viii. Simulation:

The calculated t value for the simulation was found to be 2.365, which is greater than table value. Hence, null hypothesis is rejected, and there is significant difference between the mean scores of teacher educators-training receivers and non training receivers regarding the simulation. It provokes that teacher educators training receivers were adopting simulation more than the non training receivers during their teaching.

From the above discussion, it was concluded that teacher educators-training receivers were adopting project method and simulation more during teaching than the non training receivers whereas teacher educators-non training receivers were adopting more question-answer method and lecture method. Teacher educators-training receivers and non training receivers were adopting discussion method frequently and demonstration method, micro teaching and team teaching to some extent, during their teaching.

H_o: There is no significant difference between the opinions of teacher educators training receivers and non training receivers regarding the teacher educator's competencies in the GCEs/GCETs

Table 24: Teacher educator's competencies

Competencies	TR/ NTR	N	Mean	SD	SE	t-value
i. Arriving in the class on-time	TR	145	4.22	0.83	0.093	0.851**
	NTR	150	4.30	0.76		
ii. Maintaining discipline in the class	TR	145	4.20	0.70	0.088	1.292**
	NTR	150	4.31	0.80		
iii. Informing the students about the objectives of the lesson	TR	145	3.83	1.01	0.111	0.889**
	NTR	150	3.93	0.90		
iv. Providing reliable information to the students	TR	145	4.06	0.78	0.083	0.502**
	NTR	150	4.01	0.65		
v. Having command on the subjects being taught	TR	145	4.03	0.87	0.097	0.886**
	NTR	150	4.12	0.79		
vi. Listening to students' problems	TR	145	3.89	0.93	0.102	0.626**
	NTR	150	3.95	0.81		
vii. Encouraging the students to hold discussion in the class	TR	145	4.09	0.90	0.099	0.703**
	NTR	150	4.02	0.79		
viii. Following the text books for teaching	TR	145	3.90	0.95	0.100	2.426*
	NTR	150	4.15	0.76		
ix. Following the already prepared notes	TR	145	3.63	0.98	0.10 8	0.631**
	NTR	150	3.57	0.86		
x. Following the reference books / latest books / material for teaching	TR	145	4.10	1.04	0.113	2.444*
	NTR	150	3.82	0.90		
xi. Following the web based learning material for teaching	TR	145	3.55	1.32	0.140	1.276**
	NTR	150	3.37	1.06		
xii. Following new techniques for teaching the subjects	TR	145	4.05	1.02	0.115	2.384*
	NTR	150	3.77	0.96		
xiii. Completing the course on time	TR	145	4.10	0.82	0.096	1.285**
	NTR	150	3.97	0.83		
xiv. Leaving the class after completion of period's time	TR	145	4.19	0.81	0.087	0.157**
	NTR	150	4.21	0.67		
xv. Maintaining working relationship with the head of institution	TR	145	3.94	0.82	0.094	0.655**
	NTR	150	4.01	0.80		
xvi. Arranging the field trips (visit to the educational institutions)	TR	145	3.52	1.16	0.127	1.081**
	NTR	150	3.38	1.01		

* Significant ** Insignificant Table value at 0.05=1.96 TR= Training receivers NTR= Non training receivers

Table 24 indicates that;

i. Arriving in the class on time:

The calculated t value for the arriving in the class on time was found to be 0.851, which is less than table value. Hence, null hypothesis is accepted, and there is no significant difference between the mean scores of teacher educators-training receivers and non training receivers regarding arriving in the class on time. It leads to conclusion that the teacher educators training receivers and non training receivers arrived in the class on time.

ii. Maintain discipline in the class:

The calculated t value for maintaining discipline in the class was found to be 1.292, which is less than table value. Hence, null hypothesis is accepted, and there is no significant difference between the mean scores of teacher educators-training receivers and non training receivers regarding maintaining discipline in the class. It reveals that the teacher educators training receivers and non training receivers maintained discipline in the class.

iii. Objectives of the lesson:

The calculated t value for the informing the students about the objectives of the lesson was found to be 0.889, which is less than table value. Hence, null hypothesis is accepted, and there is no significant difference between the mean scores of teacher educators-training receivers and non training receivers regarding informing the students about the objectives of the lesson. It shows that the teacher educators training receivers and non training receivers informed the students about the objectives of the lesson.

iv. Provision of reliable information:

The calculated t value for providing reliable information to the students was found to be 0.502, which is less than table value. Hence null hypothesis is accepted, and there is no significant difference between the mean scores of teacher educators-training receivers and non training receivers regarding the provision of reliable information to the students. It implies that the teacher educators - training receivers and non training receivers provided reliable information to the students.

v. Commands on the subjects:

The calculated t value for the having command on the subjects being taught was found to be 0.886, which is less than table value. Hence, null hypothesis is accepted, and there is no significant difference between the mean scores of teacher educators-training receivers and non training receivers regarding having command on the subjects being taught. It leads to conclusion that the teacher educators-training receivers and non training receivers had command on the subjects being taught.

vi. Listening to students' problems:

The calculated t value for listening to students' problems was found to be 0.626, which is less than table value. Hence, null hypothesis is accepted, and there is no significant difference between the mean scores of teacher educators-training receivers and non training receivers listening to students' problems. It implies that the teacher educators-training receivers and non training receivers listened student's problems.

vii. Discussion in the class:

The calculated t value for encouraging the students to hold discussion in the class was found to be 0.703, which is less than table value. Hence, null hypothesis is accepted, and there is no significant difference between the mean scores of teacher educators-training receivers and non training receivers regarding encouraging the students to hold discussion in the class. It was observed on the basis of information that the teacher educators- training receivers and non training receivers were encouraging the students to hold discussion in the class.

viii. Textbooks for teaching:

The calculated t value for following the textbooks for teaching was found to be 2.426, which is greater than table value. Hence, null hypothesis is rejected, and there is significant difference between the mean scores of teacher educators-training receivers and non training receivers regarding following the textbooks for teaching. It was concluded that the non training receivers were using the textbooks for teaching more than the training receivers.

ix. Already prepared notes for teaching:

The calculated t value for following already prepared notes for teaching was found to be 0.631, which is less than table value. Hence, null hypothesis is accepted, and there is no significant difference between the mean scores of teacher educators-training receivers and non training receivers regarding already prepared notes for teaching. It

leads to conclusion that the teacher educators- training receivers and non training receivers were following already prepared notes for teaching.

x. Reference books for teaching:

The calculated t value for following the reference books for teaching was found to be 2.444, which is greater than table value. Hence, null hypothesis is rejected, and there is significant difference between the mean scores of teacher educators-training receivers and non training receivers regarding following the reference books. It reveals that the teacher educators- training receivers were using the reference books for teaching more than the non training receivers.

xi. Web based material for teaching:

The calculated t value for following web based learning material for teaching was found to be 1.276, which is less than table value. Hence, null hypothesis is accepted, and there is no significant difference between the mean scores of teacher educators-training receivers and non training receivers regarding web based learning material for teaching. It leads to conclusion that the teacher educators- training receivers and non training receivers were following web based learning material for teaching.

xii. New techniques for teaching:

The calculated t value for following the new techniques for teaching was found to be 2.384, which is greater than table value. Hence, null hypothesis is rejected, and there is significant difference between the mean scores of teacher educators-training receivers and non training receivers regarding following the new techniques for teaching the subjects. It was concluded that the teacher educators- training receivers were adopting

new techniques for teaching more than the non training receivers.

xiii. Completing course on time:

The calculated t value for completing the course on time was found to be 1.285, which is less than table value. Hence, null hypothesis is accepted, and there is no significant difference between the mean scores of teacher educators-training receivers and non training receivers regarding completing the course on time. It shows that the teacher educators-training receivers and non training receivers were of the view that they completed the course on time.

xiv. Leaving the class after period's time:

The calculated t value for leaving the class after completion of period's time was found to be 0.157, which is less than table value. Hence, null hypothesis is accepted, and there is no significant difference between the mean scores of teacher educators-training receivers and non training receivers regarding leaving the class after completion of period's time. It leads to conclusion that the training receivers and non training receivers left the class after completion of period's time.

xv. Relationship with the head:

The calculated t value for the maintaining working relationship with the heads of institutions was found to be 0.655, which is less than table value. Hence, null hypothesis is accepted, and there is no significant difference between the mean scores of teacher educators-training receivers and non training receivers maintaining working relationship with the heads of institutions. It can be concluded that the training receivers and non

training receivers maintained working relationship with the heads of institution.

xvi. Arranging the field trips:

The calculated t value for arranging the field trips (visits to the educational institutions) for the students to see the actual scenario of the education system was found to be 1.081, which is less than table value. Hence, null hypothesis is accepted, and there is no significant difference between the mean scores of teacher educators-training receivers and non training receivers regarding arranging the field trips (visits to the educational institutions) for the students to see the actual scenario of the education system. It was observed, on the basis of information, that the training receivers and non training receivers, to some extent, arranged the field trips for the students to see the actual scenario of the education system.

From the above discussion it was concluded that teacher educators- training receivers and non training receivers had the same competencies i-e. arriving in the class on time, maintaining discipline in the class, informing the students about the objectives of the lesson, providing reliable information to the students, had command on the subjects being taught, listening to students' problems, encouraging the students to hold discussion in the class, following already prepared notes for teaching, following web based learning material for teaching, new techniques for teaching, completing the course on time, leaving the class after completion of period's time, maintaining working relationship with the heads of institution and arranging the field trips for the students to see the actual scenario of the education system. Teacher educators- training receivers were consulting the reference books for teaching whereas teacher educators- non training receivers were using the textbooks for teaching.

H_o: There is no significant difference between the opinions of teacher educator-training receivers and non training receivers regarding the teacher educators' skills in the GCEs/GCETs

Table 25: Teacher educator's skills

Skills	TR/ NTR	N	Mean	SD	SE	t-value
i. Set induction statement (introduction of the lesson)	**TR**	145	4.04	0.84	0.091	0.045**
	NTR	150	4.00	0.71		
ii. Presentation of the lesson	**TR**	145	4.17	0.77	0.086	1.074**
	NTR	150	4.08	0.70		
iii. Use of A.V aids	**TR**	145	4.19	0.82	0.096	2.365*
	NTR	150	3.97	0.82		
iv. Effective questioning	**TR**	145	4.02	0.87	0.092	1.382**
	NTR	150	3.89	0.70		
v. Motivating the students towards studies	**TR**	145	4.09	0.94	0.096	1.558**
	NTR	150	3.93	0.74		
vi. Involvement of the students	**TR**	145	4.08	0.90	0.096	1.558**
	NTR	150	3.93	0.74		
vii. Use of modern technology (Multimedia, OHP, internet etc)	**TR**	145	3.70	1.10	0.118	2.520*
	NTR	150	3.40	0.91		
viii. Skills of closure (closing the lesson)	**TR**	145	3.81	0.97	0.103	0.067**
	NTR	150	3.80	0.79		
ix. Re-designing the lesson	**TR**	145	3.23	1.18	0.126	1.841**
	NTR	150	3.46	0.98		
x. Communication skills	**TR**	145	3.90	0.98	0.106	0.030**
	NTR	150	3.91	0.83		
xi. Classroom management skills	**TR**	145	4.14	0.85	0.098	3.582*
	NTR	150	3.79	0.83		
xii. Evaluation skills	**TR**	145	3.98	1.01	0.107	1.620**
	NTR	150	3.81	0.80		
xiii. Skills of non-verbal cues and silence	**TR**	145	3.53	1.10	0.114	0.449**
	NTR	150	3.48	0.83		
xiv. Information management skills	**TR**	145	3.81	1.09	0.108	1.301**
	NTR	150	3.67	0.72		
xv. Personal skills (time management, personal responsibility and the ability to continue to learn)	**TR**	145	4.19	0.84	0.097	2.871*
	NTR	150	3.91	0.83		

* Significant ** Insignificant Table value at 0.05=1.96 TR= Training receivers NTR= Non training receivers

Table 25 depicts that;

i. Set induction Statement:

The calculated t value for the set induction statement (introduction of the lesson) was found to be 0.045, which is less than table value. Hence, null hypothesis is accepted, and there is no significant difference between the mean scores of teacher educators-training receivers and non training receivers regarding the set induction statement (introduction of the lesson). It leads to conclusion that the training receivers and non training receivers had the skill of set induction statement (introduction of the lesson).

ii. Presentation of the lesson:

The calculated t value for the presentation of the lesson was found to be 1.074, which is less than table value. Hence, null hypothesis is accepted, and there is no significant difference between the mean scores of teacher educators-training receivers and non training receivers regarding the presentation of the lesson. It reveals that the teacher educators-training receivers and non training receivers had the skill of presentation of lessons.

iii. Use of A.V aids:

The calculated t value for the use of A.V aids was found to be 2.365, which is greater than table value. Hence, null hypothesis is rejected, and there is significant difference between the mean scores of teacher educators-training receivers and non training receivers regarding the use of A.V aids. It shows that the teacher educators-training receivers had more skill to use the A.V aids as compared to teacher educators-non training receivers

iv. Effective questioning:

The calculated t value for the effective questioning was found to be 1.382, which is less than table value. Hence, null hypothesis is accepted, and there is no significant

difference between the mean scores of teacher educators-training receivers and non training receivers regarding the effective questioning. It was concluded that the training receivers and non training receivers had the skill to ask effective questions.

v. Motivating the students:

The calculated t value for the motivating the students towards studies was found to be 1.558, which is less than table value. Hence, null hypothesis is accepted, and there is no significant difference between the mean scores of teacher educators-training receivers and non training receivers regarding motivating the students towards studies. It leads to conclusion that the teacher educators-training receivers and non training receivers had the skill to motivate the students towards studies.

vi. Involvement of the students:

The calculated t value for the involvement of the students was found to be 1.558, which is less than table value. Hence, null hypothesis is accepted, and there is no significant difference between the mean scores of teacher educators-training receivers and non training receivers regarding the involvement of the students. It implies that the teacher educators-training receivers and non training receivers had the skill to involve the students.

vii. Use of Modern technology:

The calculated t value for the skills to use modern technology (multimedia, OHP, internet etc) was found to be 2.520, which is greater than table value. Hence, null hypothesis is rejected, and there is significant difference between the mean scores of teacher educators-training receivers and non training receivers regarding the skill to use modern technology. It was concluded that the teacher educators-training receivers had

more skill to use modern technology as compared to teacher educators- non training receivers.

viii. Skills of closure:

The calculated t value for the skills of closure (closing the lesson) was found to be 0.067, which is less than table value. Hence, null hypothesis is accepted, and there is no significant difference between the mean scores of teacher educators-training receivers and non training receivers regarding the skills of closure. It leads to conclusion that the training receivers and non training receivers had the skill of closure.

ix. Re-designing the lesson:

The calculated t value for the re-designing the lesson was found to be 1.841, which is less than table value. Hence, null hypothesis is accepted, and there is no significant difference between the mean scores of teacher educators-training receivers and non training receivers regarding the re-designing lessons. It reveals that the training receivers and non training receivers had the skills, to some extent, to re-design lessons.

x. Communication skills:

The calculated t value for the communication skills was found to be 0.030, which is less than table value. Hence, null hypothesis is accepted, and there is no significant difference between the mean scores of teacher educators-training receivers and non training receivers regarding the communication skills. It shows that the teacher educators-training receivers and non training receivers had the communication skills.

xi. Classroom management skills:

The calculated t value for the classroom management skills was found to be 3.582, which is greater than table value. Hence, null hypothesis is rejected, and there is significant difference between the mean scores of teacher educators-training receivers

and non training receivers regarding the classroom management skills. It leads to conclusion that the teacher educators-training receivers had more classroom management skills as compare to the teacher educators-non training receivers.

xii. Evaluation skills:

The calculated t value for the evaluation skills was found to be 1.620, which is less than table value. Hence, null hypothesis is accepted, and there is no significant difference between the mean scores of teacher educators-training receivers and non training receivers regarding the evaluation skills. It was concluded that the teacher educators-training receivers and non training receivers had the evaluation skills.

xiii. Non-verbal cues and silence:

The calculated t value for the skills of non-verbal cues and silence was found to be 0.449, which is less than table value. Hence, null hypothesis is accepted, and there is no significant difference between the mean scores of teacher educators-training receivers and non training receivers regarding the skills of non-verbal cues and silence. It was concluded that the teacher educators-training receivers and non training receivers had, to some extent, skills of non-verbal cues and silence.

xiv. Information management skills:

The calculated t value for the information management skills was found to be 1.301, which is less than table value. Hence, null hypothesis is accepted, and there is no significant difference between the mean scores of teacher educators-training receivers and non training receivers regarding the information management skills. It leads to conclusion that the teacher educators-training receivers and non training receivers had information management skills.

xv. Personal skills:

The calculated t value for the personal skills was found to be 2.871, which is greater than table value. Hence, null hypothesis is rejected, and there is significant difference between the mean scores of teacher educators-training receivers and non training receivers regarding the personal skills. It implies from the analysis that the teacher educators-training receivers had more personal skills as compared to the teacher educators-non training receivers.

From the above discussion it was concluded that teacher educators- training receivers and non training receivers possessed the same skills i-e. set induction statement, presentation of the lesson, effective questioning, motivating the students towards studies, involvement of the students, skills of closure, communication skills, evaluation skills, non-verbal cues and silence and information management skills. Teacher educators-training receivers had more skills to use the A.V.aids, use of modern technology, class management skills and personal skills as compared to non training receivers whereas teacher educators- training receivers and non training receivers had, to some extent, skills to re-design the lesson.

Table 26: Satisfaction with present job

Respondents	**Yes**	**No**	**Total**
Training Receivers	139 (95.86%)	06 (4.13%)	145 (100%)
Non- Training Receivers	140 (93.33%)	10 (6.66%)	150 (100%)

Table 26 indicates that;

Most of the teacher educators – training receivers (95.86 percent) and non training receivers (93.33 percent) were of the view that they were satisfied with the

present job whereas teacher educators – training receivers (4.13 percent) and teacher educators – non training receivers (6.66 percent) were not satisfied with the present job. It shows that the teacher educators- training receivers and non training receivers were satisfied with the present job.

An Open ended question was asked about the reasons of satisfaction/dissatisfaction with the present job. The responses were as follows

Satisfaction with the present job: (N=279)

i. Teaching is respectable profession. (26 %)

ii. It's a prophetic profession so I feel immense satisfaction. (19 %)

iii. It's a good and noble profession so I like it. (14 %)

iv. It's a profession which provides opportunities to learn more and more and polish the skills of teaching according to present needs of the day. (12 %)

v. My father was a teacher and he advised me to become a teacher. (9 %)

vi. It's beneficial for moral, spiritual and mental growth. . (8 %)

vii. It's according to my aptitude. (6 %)

viii. Teaching is a process to produce and transfer the knowledge to others. (3 %)

ix. This profession provides the opportunities of character building of the nation. (3 %)

Dissatisfaction with the present job: (N= 16)

i. Due to lack of facilities and incentives in the institutions. (52 %)

ii. Old manual is repeated in the teacher training and teachers feel boredom. They wanted new things but the authorities failed to provide innovative approaches. (27 %)

iii. Promotion in the teacher educator cadre is slow. (13 %)

iv. Low economic status of teachers in the society. (8 %)

Table 27. Satisfaction with present salary

Respondents	Yes	NO	Total
Training Receivers	105 (72.41%)	40 (27.51%)	145 (100%)
Non- Training Receivers	119 (79.31%)	31 (20.61%)	150 (100%)

Table 27 indicates that;

Most of the teacher educators - training receivers (72.41 percent) and non training receivers (79.31 percent) were of the view that they were satisfied with the present salary whereas teacher educators – training receivers (27.51 percent) and non training receivers (20.61 percent) reported that they were not satisfied with the present salary. It was observed on the basis of information that both the teacher educators training receivers and non- training receivers were satisfied with the present salary.

In the questionnaire, an open ended question was asked about the lack of satisfaction with the present salary and the responses given by the teacher educators were as under:

Lack of satisfaction with the present salary: (N=71)

i. The salary is not suitable to meet the current cost of living. (47 %)

ii. The present salary does not fulfill the expenditure for the whole family.(32 %)

iii. Residence allowance is low especially to meet the needs of big cities. (15 %)

iv. The salary is not compatible with the bankers and army personnel. (6 %)

Table 28. Likeness towards the teaching profession

Respondents	Yes	NO	Total
Training Receivers	145 (100%)	---	145 (100%)
Non- Training Receivers	150 (100%)	---	150 (100%)

Table 28 indicates that;

All the teacher educators – training receivers and non training receivers were of the view that they liked the teaching profession. It shows that both the teacher educators– training receivers and non training receivers liked the teaching profession.

In the questionnaire, an open ended question was asked about the future plan and the responses given by the teacher educators were as under:

Future plan of the teacher educators:

i. To continue further studies and do Ph.D. (49 %)

ii. To increase professional competence, skills and knowledge. (31 %)

iii. To manage and supervise the educational institutions. (13 %)

iv. To do action research in the field of education. (4 %)

v. To establish an educational institution after retirement. (2 %)

vi. To help and support the needy people who want to get education and have thrust for education. (1 %)

Table 29. Professional attitude developed in the students

Respondents	Excellent	Good	Fair	Poor	Total
Training Receivers	29 (20%)	87 (60%)	27 (18.60%)	02 (1.38%)	145 (100%)
Non- Training Receivers	25 (16.66%)	97 (64.60%)	27 (18.00%)	01 (0.66%)	150 (100%)

Table 29 narrates that;

Most of teacher educators-training receivers (60 percent) and non training receivers (64.60 percent) were of the view that they developed good professional attitude in their students. Teacher educators-training receivers (20 percent) and non training

receivers (16.66 percent) reported that they developed excellent professional attitude in their students. Teacher educators-training receivers (18.60 percent) and non training receivers (18.00 percent) had the opinion that they developed fair professional attitude in their students. A few teacher educators-training receivers (1.38 percent) and non training receivers (0.66 percent) had view that they developed poor professional attitude in their students. It was observed on the basis of information that teacher educators-training receivers and non training receivers developed good professional attitude in their students.

Table 30. Professional aptitude developed in the students

Respondents	Excellent	Good	Fair	Poor	Total
Training Receivers	28 (19.31%)	74 (51.03%)	33 (22.76%)	10 (6.89%)	145 (100%)
Non- Training Receivers	20 (13.33%)	90 (60%)	35 (23.33%)	05 (3.34%)	150 (100%)

Table 30 indicates that;

Most of teacher educators-training receivers (51.03 percent) and non training receivers (60 percent) were of the view that they developed good professional aptitude in their students. Teacher educators-training receivers (22.76 percent) and non training receivers (23.33 percent) were of the opinion that they developed fair professional aptitude in their students. 19.31 percent teacher educators- training receivers and 13.33 percent of non training receivers had the opinion that they developed excellent professional aptitude in their students whereas a few teacher educators -training receivers (6.89 percent) and non training receivers (3.34 percent) had the view that they developed poor professional aptitude in their students. It shows that teacher educators-training

receivers and non training receivers developed good professional aptitude in their students

H_o: There is no significant difference between the opinions of teacher educators-training receivers and non training receivers regarding the aspects of the curriculum of Diploma in Education

Table 31. Aspects of the curriculum of Diploma in Education

Statements		N	Mean	SD	SE	t-value
i. The objectives of Diploma in Education are according to the need of the time to meet the international standard	**TR**	145	3.43	1.14	0.126	0.893**
	NTR	150	3.55	0.94		
ii. The selection scheme of studies is according to the objectives of the Diploma in Education	**TR**	145	3.60	1.04	0.115	0.871**
	NTR	150	3.50	0.86		
iii. The textbooks for Diploma in Education are easy to understand	**TR**	145	3.34	1.23	0.132	0.005**
	NTR	150	3.34	0.95		
iv. The textbooks are written in a way that the students are involved into studies	**TR**	145	3.21	1.29	0.140	0.756**
	NTR	150	3.31	1.00		

* Significant ** Insignificant Table value at 0.05=1.96 TR= Training receivers NTR= Non training receivers

Table 31 shows that;

i. Objectives of Diploma in Education:

The calculated t value for the objectives (Diploma in Education) are according to the need of the time to meet the international standard was found to be 0.893, which is less than table value. Hence, null hypothesis is accepted, and there is no significant difference between the mean scores of teacher educators-training receivers and non training receivers regarding the objectives of Diploma in Education. It leads to conclusion that teacher educators training receivers and non training receivers indicated that the objectives of Diploma in Education were according to the need of the time to meet the international standard.

ii. Selected scheme of the studies:

The calculated t value for the scheme of studies is according to the objectives of the Diploma in Education and it was found to be 0.871, which is less than table value. Hence, null hypothesis is accepted, and there is no significant difference between the mean scores of teacher educators-training receivers and non training receivers regarding the scheme of studies is according to the objectives of the Diploma in Education. It reveals that the teacher educators-training receivers and non training receivers narrate that scheme of studies was according to the objectives of the Diploma in Education.

iii. Textbooks for Diploma in Education:

The calculated t value for the textbooks (Diploma in Education) are easy to understand was found to be 0.005, which is less than the table value. Hence, null hypothesis is accepted, and there is no significant difference between the mean scores of teacher educators-training receivers and non training receivers regarding the textbooks are easy to understand. It leads to conclusion that in the opinion of teacher educators training receivers and non training receivers, the textbooks are, to some extent, easy to understand.

iv. Textbooks and students:

The calculated t value for the textbooks are written in a way that the students are involved in studies was found to be 0.756, which is less than table value. Hence, null hypothesis is accepted, and there is no significant difference between the mean scores of teacher educators-training receivers and non training receivers regarding the textbooks involved the students in studies. It was concluded that in the opinion of teacher educators training receivers and non training receivers, the textbooks were written in a way that the students were, to some extent, involved in studies.

From the above analysis it was concluded that the objectives of Diploma in Education were according to the need of the time to meet the international standard, scheme of studies was according to the objectives of the Diploma in Education, the textbooks are, to some extent, easy to understand and the textbooks were written in a way that the students were, to some extent, involved in studies.

H_o: There is no significant difference between the opinions of teacher educators training receivers and non training receivers regarding the textbooks proposed for Diploma in Education

Table 32. Textbooks proposed for Diploma in Education

Statement		N	Mean	SD	SE	t-value
i. Well formulated	**TR**	145	3.54	1.10	0.123	1.477**
	NTR	150	3.36	0.93		
ii. Have latest information	**TR**	145	3.72	1.06	0.118	2.108*
	NTR	150	3.48	0.89		
iii. Have latest teaching techniques	**TR**	145	3.51	1.01	0.111	1.299**
	NTR	150	3.36	0.81		
iv. According to the needs and demands of the society / country	**TR**	145	3.36	1.09	0.120	0.597**
	NTR	150	3.29	0.89		

* Significant ** Insignificant Table value at 0.05=1.96 TR= Training receivers NTR= Non training receivers

Table 32 indicates that;

i. Textbooks-well formulated:

The calculated t value for the textbooks (Diploma in Education) well formulated was found to be 1.477, which is less than table value. Hence, null hypothesis is accepted, and there is no significant difference between the mean scores of teacher educators-training receivers and non training receivers regarding the textbooks were well formulated. It was observed, on the basis of information, that teacher educators-training

receivers and non training receivers were of the opinion that the textbooks were well formulated.

ii. Textbooks-latest information:

The calculated t value for latest information in the textbooks was found to be 2.108, which is greater than table value. Hence, null hypothesis is rejected, and there is significant difference between the mean scores of teacher educators-training receivers and non training receivers regarding the latest information in the textbooks for Diploma in Education. It shows that teacher educators-training receivers reported that the textbooks for Diploma in Education had latest information.

iii. Textbooks and latest teaching techniques:

The calculated t value for the latest teaching techniques in the textbooks was found to be 1.299, which is less than table value. Hence, null hypothesis is accepted, and there is no significant difference between the mean scores of teacher educators-training receivers and non training receivers regarding latest teaching techniques in the textbooks for Diploma in Education. It leads to conclusion that teacher educators- training receivers and non training receivers were of the view that latest teaching techniques were present in text books of Diploma in Education.

iv. Textbooks-according to the need and demand:

The calculated t value for the textbooks according to the need and demand of the society/country was found to be 0.597, which is less than table value. Hence, null hypothesis is accepted, and there is no significant difference between the mean scores of teacher educators-training receivers and non training receivers regarding the textbooks according to the needs and demand of the society/country. It implies from the analysis that teacher educators-training receivers and non training receivers were of the view that

the textbooks were, to some extent, according to the need and demand of the society/country.

From the above discussion it was concluded that the textbooks were well formulated, had latest information, latest teaching techniques and the textbooks were, to some extent, according to the need and demand of the society/country.

H_0: There is no significant difference between the opinions of teacher educators-training receivers and non training receivers regarding the contents selected for the training of teachers (Diploma in Education)

Table 33. The contents selected for the training of teachers (Diploma in Education)

Statement		N	Mean	SD	SE	t-value
i. Appropriate	**TR**	145	3.63	1.03	0.110	1.002**
	NTR	150	3.52	0.76		
ii. Relevant	**TR**	145	3.41	1.10	0.123	0.331**
	NTR	150	3.45	0.99		
iii. Adequate	**TR**	145	3.34	1.00	0.118	1.012**
	NTR	150	3.22	0.93		

* Significant ** Insignificant Table value at 0.05=1.96 TR= Training receivers NTR= Non training receivers

Table 33 shows that;

i. Appropriateness of Contents

The calculated t value for the appropriateness of contents was found to be 1.002, which is less than table value. Hence, null hypothesis is accepted, and there is no significant difference between the mean scores of teacher educators-training receivers and non training receivers regarding the appropriateness of contents. It implies that teacher educators training receivers and non training receivers had the opinion that the contents selected for the training of teachers (Diploma in Education) were appropriate.

ii. Relevance of Contents

The calculated t value for the relevance of contents was found to be 0.331, which is less than table value. Hence, null hypothesis is accepted, and there is no significant difference between the mean scores of teacher educators-training receivers and non training receivers regarding the relevance of contents. It indicated that teacher educators training receivers and non training receivers were of the opinion that the contents selected for the training of teachers were, to some extent, relevant.

iii. Adequacy of Contents

The calculated t value for the adequacy of contents was found to be 1.012, which is less than table value. Hence, null hypothesis is accepted, and there is no significant difference between the mean scores of teacher educators-training receivers and non training receivers regarding the adequateness of contents. It is evident from the analysis that teacher educators-training receivers and non training receivers reported that the contents selected for the training of teachers were, to some extent, adequate.

From the above analysis it was concluded that the contents selected for the training of teachers (Diploma in Education) were appropriate but those were found to some extent, relevant and adequate.

4.3 ANALYSIS OF DATA ON EDUCATIONAL MANAGERS/ TEACHER EDUCATORS (OVERSEAS FELLOWSHIP TRAINING)

Table 34. Academic qualification of Overseas Fellowship trainees

Respondents	Academic Qualification			Total
	M.A/ M.Sc.	M.Phil	Ph.D	
OFT Trainees	27 (90.0%)	02 (6.66%)	01 (3.33%)	30 (100%)

Table 37 indicates that;

Most (90 percent) of the respondents had M.A/M.Sc. degree, 6.66 percent of the respondents had M.Phil degree whereas 3.33 percent had Ph.D degree as academic qualification. It was concluded that most of the respondents had M.A/M.Sc. degree as academic qualification.

Table 35. Professional qualification of Overseas Fellowship trainees

Respondents	Professional Qualification			Total
	B.Ed	M.Ed.	None	
OFT Trainees	03 (10%)	19 (63.33%)	08 (26.66%)	30 (100%)

Table 35 shows that;

Most (63.33 percent) of the Overseas Fellowship trainees were found with qualification of M.Ed. degree, 10 percent were B.Ed. degree and 26.66 percent were not professionally qualified. It leads to the conclusion that most of the Overseas Fellowship trainees had M.Ed. degree as professional qualification.

Table 36. Experience of Overseas Fellowship trainees (In years)

Respondents	0-5	6-10	11-15	16-20	21 and above	Nil	Total
As Administrator	05 (16.66%)	05 (16.66%)	06 (20%)	04 (13.33%)	04 (13.33%)	06 (20%)	30 (100%)
As Teacher	-	06 (20%)	07 (23.33%)	07 (23.33%)	10 (33.33%)	-	30 (100%)

Table 36 shows that;

Most (53.33 percent) of the respondents had less than 16 years administrative experience whereas, 56.66 percent respondents had more than 15 years teaching experience. It was concluded that most of the Overseas Fellowship trainees had less than 16 years experience as administrator and more than 15 years experience as teacher.

Table 37. Name of the country for Overseas Fellowship

S. No.	Country name	Responses
1.	Malaysia	04 (13.33%)
2.	Philippine	17 (56.66%)
3.	Thailand	01 (3.33%)
4.	Australia	05 (13.66)
5.	Singapore	03 (10.00%)
Total		30 (100%)

Table 37 indicates that;

Most (56.66 percent) of the Overseas Fellowship trainees attended training in Philippine. 13.66 percent Overseas Fellowship trainees attended training in Australia. 13.33 percent Overseas Fellowship trainees attended training in Malaysia. 10 percent Overseas Fellowship trainees attended training in Singapore and 3.33 percent attended training in Thailand.

Table 38. Duration of training

Weeks	2 weeks	3 weeks	4 weeks	Total
Responses	-	07 (23.33%)	23 (76.66%)	30 (100%)

Table 38 reveals that;

Most (76.66 percent) of the trainees reported that they attended four weeks training abroad, whereas 23.33 % trainees reported that they attended three weeks training abroad.

Table 39. Area in which Overseas Fellowship training received

S. No.	Course name	Responses
1.	Curriculum development	09 (30.0%)
2.	Material development	02 (6.66%)
3.	Educational technology	03 (10.0%)
4.	Non-formal education	02 (6.66%)
5.	Introduction/use/development of A.V aids	03 (10.0%)
6.	Institutional/project management	09 (30.0%)
7.	Use of A.V aids and educational technology	02 (6.66%)
Total		30 (100%)

Table 39 shows that;

Most (60 percent) of the Overseas Fellowship trainees attended training in the areas of curriculum development and institutional / project management. 20 percent Overseas Fellowship trainees attended training in the areas of educational technology and introduction/use/development of A.V aids, whereas 20 percent Overseas Fellowship trainees attended training in the areas of material development, non-formal education and educational technologies. It was observed on the basis of information that most of the trainees attended training in curriculum development and institutional / project management.

Table 40. Objectives of Overseas Fellowship training were achieved.

Opinions	Strongly agree	Agree	Undecided	Disagree	Strongly disagree	χ^2
Frequency	7	20	0	3	0	46.33*

* Significant df = 4 P = 0.05 Table value at 0.05 = 9.49

Table 40 depicts that;

The calculated value of χ^2 was found to be 46.33, which is greater than the table value 9.49 at df 4. The difference, therefore, is significant. Hence, the statement "the objectives of Overseas Fellowship training were achieved" is accepted.

Table 41. Objectives of Overseas Fellowship training and the need of the country.

Opinions	Strongly agree	Agree	Undecided	Disagree	Strongly disagree	χ^2
Frequency	6	17	2	5	0	29.00*

* Significant df = 4 P = 0.05 Table value at 0.05 = 9.49

Table 41 depicts that;

The calculated value of χ^2 was found to be 29.00, which is greater than the table value 9.49 at df 4. The difference, therefore, is significant. Hence, the statement "objectives of Overseas Fellowship training were according to the need of the country" is accepted.

Table 42. The modules provided during training were understandable and Adequate.

Opinions	Strongly agree	Agree	Undecided	Disagree	Strongly disagree	χ^2
Frequency	13	11	1	5	6	22.67*

* Significant df = 4 P = 0.05 Table value at 0.05 = 9.49

Table 42 shows that;

The calculated value of χ^2 was found to be 22.67, which is greater than the table value 9.49 at df 4. The difference, therefore, is significant. Hence, the statement "The modules provided during training were understandable and adequate" is accept

Table 43. The modules provided during training were according to the need of the educational managers.

Opinions	Strongly agree	Agree	Undecided	Disagree	Strongly disagree	χ^2
Frequency	8	11	6	5	0	11.00*

* Significant df = 4 P = 0.05 Table value at 0.05 = 9.49

Table 43 indicates that;

The calculated value of χ^2 was found to be 11.00, which is greater than the table value 9.49 at df 4. The difference, therefore, is significant. Hence, the statement "the modules provided during training were according to the need of the educational managers" is accepted.

Table 44. Holistic nature of the modules provided during training.

Opinions	Strongly agree	Agree	Undecided	Disagree	Strongly disagree	χ^2
Frequency	5	10	10	5	0	11.67*

* Significant df = 4 P = 0.05 Table value at 0.05 = 9.49

Table 44 depicts that;

The calculated value of χ^2 was found to be 11.67, which is greater than the table value 9.49 at df 4. The difference, therefore, is significant. Hence, the statement "the

modules provided during training covered every aspect of the management" is accepted.

Table 45. The institutions selected for Overseas Fellowship training provided adequate instructional material.

Opinions	Strongly agree	Agree	Undecided	Disagree	Strongly disagree	χ^2
Frequency	8	20	0	2	0	48.00*

* Significant df = 4 P = 0.05 Table value at 0.05 = 9.49

Table 45 depicts that;

The calculated value of χ^2 was found to be 48.00, which is greater than the table value 9.49 at df 4. The difference is significant. Hence, the statement "the institutions selected for Overseas Fellowship training provided adequate instructional material" is accepted.

Table 46. Competence of the master trainers of Overseas Fellowship training.

Opinions	Strongly agree	Agree	Undecided	Disagree	Strongly disagree	χ^2
Frequency	13	15	2	0	0	36.33*

* Significant df = 4 P = 0.05 Table value at 0.05 = 9.49

Table 46 shows that;

The calculated value of χ^2 was found to be 36.33, which is greater than the table value 9.49 at df 4. The difference is significant. Hence the statement "the master trainers of Overseas Fellowship training were competent" is accepted.

Table 47. The trainees were aware of the management styles before receiving Training.

Opinions	Strongly agree	Agree	Undecided	Disagree	Strongly disagree	χ^2
Frequency	8	15	5	2	0	23.00*

* Significant df = 4 P = 0.05 Table value at 0.05 = 9.49

Table 47 depicts that;

The calculated value of χ^2 was found to be 23.00, which is greater than the table value 9.49 at df 4. The difference is significant. Hence, the statement "the trainees were aware of the management styles before receiving training" is accepted.

Table 48. The Overseas Fellowship training was according to the job requirement of the trainees.

Opinions	Strongly agree	Agree	Undecided	Disagree	Strongly disagree	χ^2
Frequency	11	14	3	2	0	25.00*

* Significant df = 4 P = 0.05 Table value at 0.05 = 9.49

Table 48 depicts that;

The calculated value of χ^2 was found to be 25.00, which is greater than the table value 9.49 at df 4. The difference is significant. Hence, the statement "the Overseas Fellowship training was according to the job requirement of the trainees" is accepted.

Table 49. The Overseas Fellowship training helped educational managers in the development of conducive environment in their organization.

Opinions	Strongly agree	Agree	Undecided	Disagree	Strongly disagree	χ^2
Frequency	6	19	2	3	0	28.33*

* Significant df = 4 P = 0.05 Table value at 0.05 = 9.49

Table 49 indicates that;

The calculated value of χ^2 was found to be 28.33, which is greater than the table value 9.49 at df 4. The difference is significant. Hence, the statement "the Overseas Fellowship training helped educational managers in the development of conducive environment in their organization" is accepted

Table 50. The Overseas Fellowship training helped educational managers to solve the administrative problems in their organization.

Opinions	Strongly agree	Agree	Undecided	Disagree	Strongly disagree	χ^2
Frequency	3	13	7	7	0	16.00*

* Significant df = 4 P = 0.05 Table value at 0.05 = 9.49

Table 50 depicts that;

The calculated value of χ^2 was found to be 16.00, which is greater than the table value 9.49 at df 4. The difference is significant. Hence, the statement "the Overseas Fellowship training helped educational managers to solve the administrative problems in their organization" is accepted.

Table 51. The educational managers applied the theoretical concepts of management taught to them during Overseas Fellowship training in their organization.

Opinions	Strongly agree	Agree	Undecided	Disagree	Strongly disagree	χ^2
Frequency	3	16	6	5	0	24.33*

* Significant df = 4 P = 0.05 Table value at 0.05 = 9.49

Table 51 depicts that;

The calculated value of χ^2 was found to be 24.33, which is greater than the table value 9.49 at df 4. The difference is significant. Hence, the statement "the educational managers applied the theoretical concepts of management taught to them during Overseas Fellowship training in their organization" is accepted.

Table 52. The efficiency of work improved after receiving Overseas Fellowship Training.

Opinions	Strongly agree	Agree	Undecided	Disagree	Strongly disagree	χ^2
Frequency	4	21	5	0	0	50.33*

* Significant df = 4 P = 0.05 Table value at 0.05 = 9.49

Table 52 depicts that;

The calculated value of χ^2 was found to be 50.33, which is greater than the table value 9.49 at df 4. The difference is significant. Hence, the statement "the efficiency of work improved after receiving Overseas Fellowship training" is accepted.

Table 53. The subordinates` benefited from the Overseas Fellowship training receivers.

Opinions	Strongly agree	Agree	Undecided	Disagree	Strongly disagree	χ^2
Frequency	5	15	3	7	0	21.33*

* Significant df = 4 P = 0.05 Table value at 0.05 = 9.49

Table 53 depicts that;

The calculated value of χ^2 was found to be 21.33, which is greater than the table value 9.49 at df 4. The difference is significant. Hence, the statement "the subordinates took benefit from the Overseas Fellowship training receivers" is accepted.

Table 54. The official work is streamlined after receiving Overseas Fellowship Training.

Opinions	Strongly agree	Agree	Undecided	Disagree	Strongly disagree	χ^2
Frequency	5	12	6	7	0	12.33*

* Significant df = 4 P = 0.05 Table value at 0.05 = 9.49

Table 54 depicts that;

The calculated value of χ^2 was found to be 12.33, which is greater than the table value 9.49 at df 4. The difference is significant. Hence, the statement "the official work is streamlined after receiving Overseas Fellowship training" is accepted.

Table 55. Overseas Fellowship training modified the behavior/attitude of educational mangers about management of the institution / organization.

Opinions	Strongly agree	Agree	Undecided	Disagree	Strongly disagree	χ^2
Frequency	7	18	4	1	0	35.00*

* Significant df = 4 P = 0.05 Table value at 0.05 = 9.49

Table 55 depicts that;

The calculated value of χ^2 was found to be 35.00, which is greater than the table value 9.49 at df 4. The difference is significant. Hence, the statement "overseas fellowship training modified the behavior/attitude of educational mangers about management of the institution / organization" is accepted.

Table 56. Educational managers were exposed to new ideas of management.

Opinions	Strongly agree	Agree	Undecided	Disagree	Strongly disagree	χ^2
Frequency	10	15	4	1	0	27.00*

* Significant df = 4 P = 0.05 Table value at 0.05 = 9.49

Table 56 indicates that;

The calculated value of χ^2 was found to be 27.00, which is greater than the table value 9.49 at df 4. The difference is significant. Hence, the statement "educational managers were exposed to new ideas of management" is accepted.

Table 57. Educational managers were well aware of personal and organization values.

Opinions	Strongly agree	Agree	Undecided	Disagree	Strongly disagree	χ^2
Frequency	5	18	6	1	0	34.33*

* Significant df = 4 P = 0.05 Table value at 0.05 = 9.49

Table 57 depicts that;

The calculated value of χ^2 was found to be 34.33, which is greater than the table value 9.49 at df 4. The difference is significant. Hence, the statement "educational managers were well aware of personal and organization values" is accepted.

Table 58. Overseas Fellowship training improved the effective decision making ability of the educational managers.

Opinions	Strongly agree	Agree	Undecided	Disagree	Strongly disagree	χ^2
Frequency	7	18	3	2	0	34.33*

* Significant df = 4 P = 0.05 Table value at 0.05 = 9.49

Table 58 depicts that;

The calculated value of χ^2 was found to be 34.33, which is greater than the table value 9.49 at df 4. The difference is significant. Hence, the statement "Overseas Fellowship training improved the effective decision making ability of the educational managers" is accepted.

Table 59. Overseas Fellowship training improved skill for the development of budget of the organization/ institution.

Opinions	Strongly agree	Agree	Undecided	Disagree	Strongly disagree	χ^2
Frequency	4	10	12	1	3	15.00*

* Significant df = 4 P = 0.05 Table value at 0.05 = 9.49

Table 59 depicts that;

The calculated value of χ^2 was found to be 15.00, which is greater than the table value 9.49 at df 4. The difference is significant. Hence, the statement "Overseas Fellowship training improved skill for the development of budget of the organization/ institution" is accepted.

Table 60. Educational managers monitor the institution's broad aims and Objectives.

Opinions	Maximum	To some extent	Not at all	χ^2
Frequency	10	15	5	5.00**

** Insignificant df = 2 P = 0.05 Table value at 0.05 = 5.99

Table 60 indicates that;

The calculated value of χ^2 was found to be 5.00, which is less than the table value 5.99 at df 2. The difference is insignificant. Hence, the statement "educational managers monitor the institution's broad aims and objectives" is rejected.

Table 61. Educational managers monitor the institutions' written strategic plan.

Opinions	Maximum	To some extent	Not at all	χ^2
Frequency	8	15	7	3.80**

** Insignificant df = 2 P = 0.05 Table value at 0.05 = 5.99

Table 61 depicts that;

The calculated value of χ^2 was found to be 3.80, which is less than the table value 5.99 at df 2. The difference is insignificant. Hence, the statement "educational managers monitor the institutions' written strategic plan" is rejected.

Table 62. Educational managers monitor the library/resource center

Opinions	Maximum	To some extent	Not at all	χ^2
Frequency	10	14	6	3.20**

** Insignificant df = 2 P = 0.05 Table value at 0.05 = 5.99

Table 62 depicts that;

The calculated value of χ^2 was found to be 3.20, which is less than the table value 5.99 at df 2. The difference is insignificant. Hence, the statement "educational managers monitor the library/resource center" is rejected.

Table 63. Educational managers monitor the open access to learning resource.

Opinions	Maximum	To some extent	Not at all	χ^2
Frequency	8	15	7	3.80**

** Insignificant df = 2 P = 0.05 Table value at 0.05 = 5.99

Table 63 shows that;

The calculated value of χ^2 was found to be 3.80, which is less than the table value 5.99 at df 2. The difference is insignificant. Hence, the statement "educational managers monitor the open access to learning resources" is rejected.

Table 64. Educational managers monitor the open access to computer facilities.

Opinions	Maximum	To some extent	Not at all	χ^2
Frequency	5	17	8	7.80*

* Insignificant df = 2 P = 0.05 Table value at 0.05 = 5.99

Table 64 depicts that;

The calculated value of χ^2 was found to be 7.80, which is greater than the table value 5.99 at df 2. The difference is significant. Hence, the statement "educational managers monitor the open access to computer facilities" is accepted.

Table 65. Educational managers monitor the opportunities for students to organize the academic activities.

Opinions	Maximum	To some extent	Not at all	χ^2
Frequency	6	17	7	7.40*

* Insignificant df = 2 P = 0.05 Table value at 0.05 = 5.99

Table 65 indicates that;

The calculated value of χ^2 was found to be 7.40, which is greater than the table value 5.99 at df 2. The difference is significant. Hence, the statement "educational managers monitor the opportunities for students to organize the academic activities" is accepted.

Table 66. Educational managers monitor the building, the classrooms and the labs upkeep.

Opinions	Maximum	To some extent	Not at all	χ^2
Frequency	12	12	6	2.40**

** Insignificant df = 2 P = 0.05 Table value at 0.05 = 5.99

Table 66 depicts that;

The calculated value of χ^2 was found to be 2.40, which is less than the table value 5.99 at df 2. The difference is insignificant. Hence, the statement "educational managers monitor the building, the classrooms and the labs upkeep" is rejected.

Table 67. Educational managers monitor the well planned and organized learning environment.

Opinions	Maximum	To some extent	Not at all	χ^2
Frequency	12	8	10	0.80**

** Insignificant df = 2 P = 0.05 Table value at 0.05 = 5.99

Table 67 shows that;

The calculated value of χ^2 was found to be 0.80, which is less than the table value 5.99 at df 2. The difference is insignificant. Hence, the statement "educational managers monitor the well planned and organized learning environment" is rejected.

Table 68. Educational managers monitor the teaching and learning strategies.

Opinions	Maximum	To some extent	Not at all	χ^2
Frequency	8	12	10	0.80**

** Insignificant df = 2 P = 0.05 Table value at 0.05 = 5.99

Table 68 indicates that;

The calculated value of χ^2 was found to be 0.80, which is less than the table value 5.99 at df 2. The difference is insignificant. Hence, the statement "educational managers monitor the teaching and learning strategies" is rejected.

Table 69. Educational managers monitor the review and evaluation system in the institutions.

Opinions	Maximum	To some extent	Not at all	χ^2
Frequency	7	15	8	3.80**

** Insignificant df = 2 P = 0.05 Table value at 0.05 = 5.99

Table 69 shows that;

The calculated value of χ^2 was found to be 3.80, which is less than the table value 5.99 at df 2. The difference is insignificant. Hence, the statement "educational managers monitor the review and evaluation system in the institutions" is rejected.

Table 70. Writing a report on the Overseas Fellowship training on their return

Response	Yes	No	Total
Educational Managers	21 (70%)	09 (30%)	30 (100%)

Table 70 shows that;

Most (70 percent) of the respondents reported that they wrote a report on the Overseas Fellowship training their return whereas 30 percent respondents reported that they did not write any report on their return. It reveals that most of the trainees wrote a report on Overseas Fellowship training on their return.

In the questionnaire, an open ended question was asked about the report on the Overseas Fellowship training and the responses were as under:

Main points of the reports: (N=21)

1) A multi-dimensional approach should be used so that development covers not only education but also other facts such as health, nutrition, sanitation, environment,

income generation, literacy, human rights and gender consideration. (43 %)

2) The education department should promote activities which may ensure quality of education in all educational institutions. (24 %)
3) All educational institutions should be equipped with modern equipment and media. (13 %)
4) In order to face the challenges of the coming century, the use of educational technologies be promoted in all educational institutions. (10 %)
5) Computer lab facility should be provided to all educational institutions. (5 %)
6) All subject specialists, lecturers and teachers should be trained in the use and maintenance of computer. Desk top publishing unit be provided to all Model Teachers Training Colleges to develop the necessary material. (3 %)
7) More emphasis should be given on the use of library books. (2 %)

Table 71. Providing training to the other managers after receiving Overseas Fellowship training

Responses	Yes	No	Total
Educational Managers	08 (26.67%)	22 (73.33%)	30 (100%)

Table 71 indicates that;

Most (73.33 percent) of the respondents reported that they did not conduct any training for the educational managers after their return, whereas, 26.67 percent respondents were of the view that they conducted training for the educational managers after their return from abroad. It is evident from the analysis that most of the educational managers who received overseas fellowship training did not conduct any training for educational managers after their return from aboard.

4.4 ANALYSIS OF DATA ON MASTER TRAINERS AND TRAINEE TEACHERS OF TRAINING OUTPOSTS (TOs)

Table 72. Designation of master trainers and trainee teachers

Responses	Designations					Total
	PTC	SV	EST	HST/SST	HM	
Master trainers				18 (90%)	02 (10%)	20 (100%)
Trainee teachers	90 (90%)	06 (06%)	04 (04%)			100 (100%)

Table 72 shows that;

Most (90 percent) of the master trainers had the designation of Secondary School Teacher/High School Teacher, whereas 10 percent master trainers had the designation of head master/ head mistress. Most (90 percent) of the trainee teachers had the designation of Primary Teaching Certificate. 06 percent trainee teachers had the designation of SV whereas 04 percent trainee teachers had the designation of Elementary School Teacher. It leads to the conclusion that most of the master trainers had designation SST/HST and most of the trainee teachers had designation PTC.

Table 73. Academic qualification of master trainers and trainee teachers

Responses	Academic Qualification				Total
	SSC	FA/F.Sc	BA/B.Sc	MA/M.Sc	
Master trainers			01 (05%)	19 (95%)	20` (100%)
Trainee teachers	29 (29%)	22 (22%)	45 (45%)	04 (04%)	100 (100%)

Table 73 indicates that;

Most (95 percent) of the master trainers had academic qualification MA/M.Sc

whereas 05 percent master trainers had academic qualification BA/B.Sc. 45 percent trainee teachers had academic qualification BA/B.Sc, 29 percent trainee teachers had academic qualification SSC, 22 percent trainee teachers had academic qualification FA/F.Sc. whereas 04 percent trainee teachers had academic qualification M.A/M.SC. It leads to the conclusion that most of the master trainers had academic qualification MA/M.Sc and trainee teachers had academic qualification BA/B.Sc.

Table 74. Professional qualification of master trainers and trainee teachers

Responses	Professional Qualification					Total
	SV	PTC	CT	B.Ed/ BS.Ed	MEd	
Master trainers				01 (05%)	19 (95%)	20 (100%)
Trainee teachers	02 (02%)	65 (65%)	20 (20%)	13 (13%)		100 (100%)

Table 74 shows that;

Most (95 percent) of the master trainers had professional qualification M.Ed. whereas 05 percent master trainers had professional qualification B.Ed.. Most (65 percent) of the trainee teachers had professional qualification PTC, 20 percent trainee teachers had professional qualification CT, 13 percent trainee teachers had professional qualification B.Ed. whereas 02 percent trainee teachers had professional qualification SV. It leads to the conclusion that most of the master trainers had professional qualification M.Ed. and most of the trainee teachers had professional qualification PTC.

Table 75. Experience of master trainers and trainee teachers

Responses	Experience					Total
	0-5	6-10	11-15	16-20	21-above	
Master trainers	---		05 (25%)	10 (50%)	05 (25%)	20 (100%)
Trainee teachers	---	05 (05%)	35 (35%)	37 (37%)	23 (23%)	100 (100%)

Table 75 shows that;

Most (75 percent) of the master trainers had teaching experience more than 15 years whereas 25 percent master trainers had teaching experience less than 16 years. Most (60 percent) of the trainee teachers had teaching experience more than 15 years whereas 40 percent trainee teachers had teaching experience less than 16 years. It shows that most of the master trainers and the trainee teachers had teaching experience more than 15 years.

Table 76. Construction of two rooms in TOs (N=20)

Responses	Yes	No	Total
Master trainers	20 (100%)	---	20 (100%)

Table 76 shows that;

In all (100 percent) the sample Training Outposts (TOs), two rooms were constructed by the TTP.

Table 77. Construction of two rooms in TOs in a specific year (N=20)

Responses	1995-96	1996-97	1997-98	Total
Master trainers	04 (20%)	08 (40%)	08 (40%)	20 (100%)

Table 77 shows that;

In most (80 percent) of the sample Training Outposts (TOs), two rooms were constructed in 1996-1998 and only in some (20 percent) of the sample Training Outposts (TOs), two rooms were constructed in 1995-1996.

Table 78. Provision and utilization of furniture in TOs (N=20)

Responses	Provision/ Utilization	Yes	No	Total
Master trainers	**Provision**	20 (100%)	---	20 (100%)
	Utilization	20 (100%)	---	20 (100%)

Table 78 shows that;

In all (100 percent) the sample Training Outposts (TOs) proper furniture was provided and utilized.

Table 79. In-service training courses (N=20)

Responses	None	1 - 2	3 - 4	5 - 6	7 - 8	9 - 10	11 - above	Total
Attended as participant during TTP	---	08 (40%)	08 (40%)	---	01 (05%)	---	03 (15%)	20 (100 %)
Conducted as master trainers during TTP	---	01 (05%)	03 (15%)	08 (40%)	03 (15%)	03 (15%)	02 (10%)	20 (100 %)
Conducted as master trainers after TTP	18 (90%)	02 (10%)	----	----	----	----	----	20 (100 %)

Table 79 indicates that;

Most (80 percent) of the master trainers attended one to four in-service training courses as participant, whereas only 20 percent of the master trainers attended five and above in-service training courses as participant conducted by Teacher Training Project.

Most (70 percent) of the master trainers conducted five to ten in-service training courses as master trainers whereas only 20 percent of the master trainers conducted one to four in-service training courses, as master trainers conducted by Teacher Training Project.

Most (90 percent) of the master trainers did not conduct in-service training courses as master trainers whereas only 10 percent of the master trainers conducted one to two in-service training courses, as master trainers after the completion of TTP.

H_o: There is no significant difference between the opinions of master trainers and trainee teachers regarding the provision and utilization of A.V aids/training material in TOs.

Table 80. Provision and utilization of A.V aids/training material

ITEMS			N	Mean	SD	SE	t-value
i. Photo copier	**Provision**	**MT**	20	1.10	0.44		
		TT	100	1.00	0.00	0.097	1.030**
	Utilization	**MT**	20	1.10	0.44		
		TT	100	1.00	0.00	0.097	1.030**
ii. Audio cassette tapes	**Provision**	**MT**	20	1.05	0.22		
		TT	100	1.00	0.00	0.049	1.020**
	Utilization	**MT**	20	1.05	0.22		
		TT	100	1.00	0.00	0.049	1.020**
iii. Video cassette tapes	**Provision**	**MT**	20	1.05	0.22		
		TT	100	1.0	0.00	0.049	1.020**
	Utilization	**MT**	20	1.05	0.22		
		TT	100	1.0	0.00	0.049	1.020**
iv. Video tape cassette player	**Provision**	**MT**	20	1.1	0.44		
		TT	100	1.0	0.00	0.097	1.030**
	Utilization	**MT**	20	1.00	0.00		
		TT	100	1.0	0.00	0.00	0.00**
v. Slide projector with tap cassettes synchronizer	**Provision**	**MT**	20	2.10	0.94		
		TT	100	1.97	0.48	0.216	0.601**
	Utilization	**MT**	20	1.30	0.56		
		TT	100	1.50	0.70	0.143	1.400**
vi. 50x50 screen	**Provision**	**MT**	20	2.10	0.94		
		TT	100	1.87	0.52	0.217	1.058**
	Utilization	**MT**	20	1.30	0.56		
		TT	100	1.42	0.65	0.140	0.854**
vii. Type writer	**Provision**	**MT**	20	1.95	0.92		
		TT	100	2.05	0.41	0.210	0.476**
	Utilization	**MT**	20	1.75	0.83		
		TT	100	1.91	0.83	0.203	0.788**
viii. Printed books and guides	**Provision**	**MT**	20	2.25	0.77		
		TT	100	1.0	0.00	0.171	7.293*
	Utilization	**MT**	20	1.75	0.77		
		TT	100	1.23	0.53	0.179	2.90*
ix.Correspondence text books	**Provision**	**MT**	20	1.35	0.65		
		TT	100	1.0	0.00	0.146	2.394*
	Utilization	**MT**	20	1.15	0.36		
		TT	100	1.0	0.00	0.080	1.879**
x. A set of library/ reference books	**Provision**	**MT**	20	2.40	0.86		
		TT	100	2.14	0.47	0.198	1.313**
	Utilization	**MT**	20	1.75	0.70		
		TT	100	1.31	0.64	0.169	2.606*
xi. Information packages (by PITEs & AIOU)	**Provision**	**MT**	20	1.0	0.00		
		TT	100	1.0	0.00	0.00	0.00**
	Utilization	**MT**	20	1.0	0.00		
		TT	100	1.0	0.00	0.00	0.00**

* Significant ** Insignificant Table value at 0.05=1.96 MT= Master trainer TT= Trainee teacher

Table 80 indicates that;

i. Photocopier:

The calculated t value for the provision of photocopier was found to be 1.030 and for the utilization was 1.030, which is less than the table value. Hence, null hypothesis is accepted, and there is no significant difference between the mean scores of master trainers and trainee teachers regarding the provision and utilization of photocopiers. It reveals that the photocopiers were not provided, therefore, the question of utilization did not arise.

ii. Audio cassette tapes:

The calculated t value for the provision of audio cassette tapes was found to be 1.020 and for the utilization was 1.020, which is less than the table value. Hence, null hypothesis is accepted, and there is no significant difference between the mean scores of master trainers and trainee teachers regarding the provision and utilization of audio cassette tapes. It leads to the conclusion that the audio cassette tapes were not provided, therefore, the question of utilization did not arise.

iii. Video cassette tapes:

The calculated t value for the provision of video cassette tapes was found to be 1.020 and for the utilization was 1.020, which is less than the table value. Hence, null hypothesis is accepted, and there is no significant difference between the mean scores of master trainers and trainee teachers regarding the provision and utilization of video cassette tapes. It shows that the video cassette tapes were not provided, therefore, the question of utilization did not arise

iv. Video tape cassette player:

The calculated t value for the provision of video tape cassette players was found to be 1.030 and for the utilization was 0.00, which is less than the table value. Hence, null

hypothesis is accepted, and there is no significant difference between the mean scores of master trainers and trainee teachers regarding the provision and utilization of video tape cassette players. It leads to the conclusion that the video tape cassette players were not provided, therefore, the question of utilization did not arise

v. Slide projector with tap cassettes synchronizer:

The calculated t value for the provision of slide projectors with tap cassettes synchronizer was found to be 0.601 and for the utilization was 1.400, which is less than the table value. Hence, null hypothesis is accepted, and there is no significant difference between the mean scores of master trainers and trainee teachers regarding the provision and utilization of slide projectors with tap cassettes synchronizer. It reveals that the slide projectors with tap cassettes synchronizer were maximum provided but, to some extent, utilized.

vi. 50x50 screens:

The calculated t-value for the provision of 50x50 screens was found to be 1.058 and for the utilization was 0.854, which is less than the table value. Hence, null hypothesis is accepted, and there is no significant difference between the mean scores of master trainers and trainee teachers regarding the provision and utilization of 50x50 screens. It indicates that the 50x50 screens were provided in short supply but those were not utilized.

vii. Type writer:

The calculated t value for the provision of type writers was found to be 0.476 and for the utilization was 0.788, which is less than the table value. Hence, null hypothesis is accepted, and there is no significant difference between the mean scores of master trainers and trainee teachers regarding the provision and utilization of type writers. It

reveals that the type writers were maximum provided but, to some extent, utilized.

viii. Printed books and guides:

The calculated t value for the provision of printed books and guides was found to be 7.293 which is greater than the table value. Hence, null hypothesis is rejected and there is significant difference between the mean scores of master trainers and trainee teachers regarding the provision of printed books and guides. The calculated t value for the utilization of printed books and guides was found to be 2.900, which is greater than the table value. Hence, null hypothesis is rejected and there is significant difference between the mean scores of master trainers and trainee teachers regarding the utilization of printed books and guides. It leads to the conclusion, that in the opinion of master trainers printed books and guides were provided in excess and, to some extent, utilized whereas trainee teachers were of the view that the printed books and guides were not provided therefore, the question of utilization did not arise

ix. Correspondence textbooks:

The calculated t value for the provision of correspondence textbooks was found to be 2.394 which is greater than the table value. Hence, null hypothesis is rejected and there is significant difference between the mean scores of master trainers and trainee teachers regarding the provision of printed books and guides. The calculated t value for the utilization of printed books and guides was found to be 1.879, which is less than the table value. Hence, null hypothesis is accepted and there is no significant difference between the mean scores of master trainers and trainee teachers regarding the utilization of correspondence textbooks. It reveals that in the opinion of master trainers, correspondence textbooks were provided in short supply and, trainee teachers were of the view that the correspondence textbooks were not provided whereas master trainers and

trainee teachers both agreed that the correspondence textbooks were not utilized.

z. Library/reference books:

The calculated t value for the provision of a set of library/reference books was found to be 1.313, which is less than the table value. Hence, null hypothesis is accepted, and there is no significant difference between the mean scores of master trainers and trainee teachers regarding the provision and utilization of a set of library/reference books. The calculated t value for the utilization of a set of library/reference books was found to be2.606, which is greater than the table value. Hence, null hypothesis is rejected and there is significant difference between the mean scores of master trainers and trainee teachers regarding the utilization of library/reference books. It shows that master trainers and trainee teachers agreed that library/reference books were more provided but regarding utilization, master trainers indicated that the library/reference books were, to some extent, utilized whereas trainee teachers were of the view that the library/reference books were not utilized.

xi. Information packages:

The calculated t value for the provision of information packages (by PITEs and AIOU) was found to be 0.00 and for the utilization was 0.00, which is less than the table value. Hence, null hypothesis is accepted, and there is no significant difference between the mean scores of master trainers and trainee teachers regarding the provision and utilization of information packages (by PITEs and AIOU). It is evident from the analysis that the information packages (by PITEs and AIOU) were not provided therefore, the question of utilization did not arise.

From the above analysis it was concluded that the photocopiers, audio cassette tapes, video cassette tapes, video tape cassette players and information packages (by PITEs and AIOU) were not provided whereas type writers and slide projectors with tap cassettes synchronizers were provided maximum but utilized to some extent. Correspondence textbooks and 50x50 screens were provided in short supply but those were not utilized whereas printed books and guides and library/reference books were provided maximum but those were not utilized.

Table 81. Preparation as master trainer (N=20)

Responses	Max	TSE	NAA	Total
Master trainers	14 (70%)	06 (30%)	----	20 (100%)

Table 81 indicates that;

Most (70 percent) of the master trainers were of the view that the training provided to them prepared them as master trainers whereas some (30 percent) of them had opinion that the training, to some extent, prepared them as master trainers.

Table 82. Preparation for teaching (N=100)

Responses	Max	TSE	NAA	Total
Trainee teachers	68 (68%)	32 (32%)	----	100 (100%)

Table 82 indicates that;

Most (68 percent) of the trainee teacher were of the view that the training provided to them prepared them for teaching whereas some (32 percent) of them had opinion that the training, to some extent, prepared them for teaching. .

Table 83. Provision of objectives of the training course

Responses	Yes	No	Total
Master trainers	20 (100%)	-	20 (100%)
Trainee teachers	94 (94%)	06 (06%)	100 (100%)

Table 83 indicates that;

All (100 percent) the master trainers and most (94 percent) of the trainee teachers were of the view that the objectives of the training were provided to the trainee teachers but 6 percent trainee teachers reported that objectives of the training were not provided to the trainee teachers. It is evident from the analysis that in the beginning of the training, the objectives of the training were provided to the trainee teachers.

Table 84. Provision of time table

Responses	Yes	No	Total
Master trainers	20 (100 %)	---	20 (100 %)
Trainee teachers	92 (92 %)	08 (08 %)	100 (100 %)

Table 84 depicts that;

All (100 percent) of the master trainers and most (92 percent) of the trainee teachers were of the view that the time table of the training was provided to the trainee teachers whereas only eight percent trainee teachers reported that time table was not provided to them. It shows that in the beginning of the training, the time table of the training was provided to the trainee teachers.

Table 85. Compliance of time table

Responses	Yes	No	Total
Master trainers	20 (100 %)	---	20 (100 %)
Trainee teachers	85 (85 %)	15 (15 %)	100 (100 %)

Table 85 shows that;

All (100 percent) the master trainers and most (85 percent) of the trainee teachers were of the view that the subjects were taught according to the time table of the training and 15 percent of them reported that the subjects were not taught according to the given time table. It can be concluded that the subjects were taught according to the given time table of the training programme.

Table 86. Conduct of pre-test before the training

Responses	Yes	No	Total
Master trainers	20 (100 %)	---	20 (100 %)
Trainee teachers	100 (100 %)	---	100 (100 %)

Table 86 reveals that;

All (100 percent) the master trainers and all (100 percent) the trainee teachers agreed that the pre-test of the trainee teachers was conducted before the training.

Table 87. Conduct of post-test after the training

Responses	Yes	No	Total
Master trainers	20 (100 %)	---	20 (100 %)
Trainee teachers	100 (100 %)	---	100 (100 %)

Table 87 indicates that;

All (100 percent) of the master trainers and all (100 percent) of the trainee teachers were of the view that the post-test of the trainee teachers was conducted after the training.

Table 88. Difference between pre-test and post-test

Statements	Frequency
The trainees were able to read, write and speak English after the post-test.	04 (20 %)
The performance on post-test was better than pre-test	10 (50 %)
Knowledge was increased and trainee get confidence after post test	06 (30 %)

Table 88 shows that;

Most (50 percent) of the master trainers had opinion that the performance of the trainee teachers was better in post-test.

Table 89. Regularity of the trainee teachers

Responses	Yes	No	Total
Master trainers	20 (100 %)	---	20 (100 %)
Trainee teachers	93 (93 %)	07 (07 %)	100 (100 %)

Table 89 depicts that;

All (100 percent) of the master trainers and most (93 percent) of the trainee teachers were of the view that the trainee teachers were regular during training programme but only seven percent of them had opinion that trainee teachers were not regular during training programme. It shows that the trainee teachers attended the training programme regularly.

Table 90. Attendance of the trainee teachers during the training (in percentage)

Responses	71-80 %	81-90 %	91-100 %
Master trainers	---	---	20

Table 90 depicts that;

Attendance of the trainee teachers was found to be 91 to 100 percent.

Table 91. Provision of Pre-service training to female teachers in TOs

Responses	Yes	No	Total
Master trainers	---	20 (100 %)	20 (100 %)

Table 91 indicates that;

All (100 percent) of master trainers were of the view that pre-service training was not provided in TOs under TTP.

Table 92. Appointment of the Staff in TOs

Responses	Yes	No	Total
Two full time teachers	20 (100)	----	20 (100%)
One administrative assistant	02 (10%)	18 (90%)	20 (100%)
One LDC	01 (05%)	19 (95%)	20 (100%)
One peon	05 (25%)	15 (75%)	20 (100%)

Table 92 depicts that;

All (100 percent) the master trainers were of the view that two full time teachers (master trainers) were appointed in TOs. Ninety five percent master trainers indicated that one LDC was not appointed whereas 90 percent master trainers had opinion that administrative assistants were not appointed .Seventy five percent master trainers had the opinion that peons were not appointed. It is evident from the analysis that only two full time teachers (master trainers) were appointed in TOs.

Table 93. Interest and motivation of training teachers

Responses	Max	TSE	NAA	Total
Trainee teachers	15 (75 %)	05 (25 %)	----	20 (100 %)
Trainee teachers	20 (20 %)	72 (72 %)	08 (08 %)	100 (100 %)

Table 93 depicts that;

Most (75 percent) of the master trainers were of the view that the trainee teachers were maximum interested and motivated for the training programme, whereas most (72 percent) of the trainee teachers had opinion that the trainee teachers were, to some extent, interested and motivated for the training programme. Eight percent trainee teachers reported that the trainee teachers were not interested and motivated for the training programme. It leads to the conclusion that most of the trainee teachers were, to some extent, interested and motivated for the training programme.

Table 94. Training through non formal system

Responses	Max	TSE	NAA	Total
Trainee teachers	----	----	20 (100 %)	20 (100 %)
Trainee teachers	----	----	100 (100 %)	100 (100 %)

Table 94 narrates that;

All (100 percent) of the master trainers and all (100 percent) the trainee teachers were of the view that non formal system of education was not offered in the training outposts.

H_o: There is no significant difference between the opinions of master trainers and trainee teachers regarding the community extension training courses.

Table 95. Community extension training courses

Courses		N	Mean	SD	SE	t-value
i. Home food processing	**MT**	20	1.00	0.00	0.00	0.00**
	TT	100	1.00	0.00		
ii. Family planning	**MT**	20	1.10	0.30	0.067	1.491**
	TT	100	1.00	0.00		
iii. Environment Protection	**MT**	20	1.10	0.30	0.067	1.491**
	TT	100	1.00	0.00		
iv. Adult literacy	**MT**	20	1.10	0.30	0.067	1.491**
	TT	100	1.00	0.00		

* Significant ** Insignificant Table value at 0.05=1.96 MT= Master trainer TT= Trainee teacher

Table 95 shows that;

i. Home food processing:

The calculated t value was found to be 0.00, which is less than the table value. Hence, null hypothesis is accepted, and there is no significant difference between the mean scores of master trainers and trainee teachers regarding the home food processing course. It is evident that the course of home food processing was not offered in TOs.

ii. Family planning:

The calculated t value was found to be 1.491, which is less than the table value. Hence, null hypothesis is accepted, and there is no significant difference between the mean scores of master trainers and trainee teachers regarding the family planning course. It indicates that the course of family planning was not offered in TOs.

iii. Environment protection:

The calculated t value was found to be 1.491, which is less than the table value. Hence, null hypothesis is accepted, and there is no significant difference between the mean scores of master trainers and trainee teachers regarding the environment protection course. It shows that the course of environment protection was not offered in TOs.

iv. Adult literacy:

The calculated t value was found to be 1.491, which is less than the table value. Hence, null hypothesis is accepted, and there is no significant difference between the mean scores of master trainers and trainee teachers regarding the adult literacy course. It indicates that the course of adult literacy was not offered in TOs.

From the above analysis it was concluded that the home food processing, family planning, environment protection and adult literacy courses not offered in TOs.

H_o: There is no significant difference between the opinions of master trainers and trainee teachers regarding the provision of services at TOs.

Table 96. Provision of services at TOs

Services		N	Mean	SD	SE	t-value
i. Guidance and counseling	**MT**	20	1.90	0.77	0.187	0.107**
	TT	100	1.92	0.74		
ii. Tutorials	**MT**	20	1.95	0.74	0.180	0.111**
	TT	100	1.97	0.70		
iii. Co-curricular activities	**MT**	20	2.05	0.80	0.198	0.556**
	TT	100	1.94	0.82		
iv. Information services	**MT**	20	1.55	0.67	0.163	1.845**
	TT	100	1.85	0.64		
v. Study loans	**MT**	20	1.00	0.00	0.00	0.00**
	TT	100	1.00	0.00		

* Significant ** Insignificant Table value at 0.05=1.96 MT= Master trainer TT= Trainee teacher

Table 96 depicts that;

i. Guidance and counseling:

The calculated t value was found to be 0.107, which is less than the table value. Hence, null hypothesis is accepted, and there is no significant difference between the mean scores of master trainers and trainee teachers regarding the services of guidance and counseling. It proves that the services of guidance and counseling were, to some extent, provided in TOs.

ii. Tutorials:

The calculated t value was found to be 0.111, which is less than the table value. Hence, null hypothesis is accepted, and there is no significant difference between the mean scores of master trainers and trainee teachers regarding the services of tutorials. It shows that the services of tutorials were maximum provided in TOs.

iii. Co-curricular activities:

The calculated t value was found to be 0.556, which is less than the table value. Hence, null hypothesis is accepted, and there is no significant difference between the mean scores of master trainers and trainee teachers regarding the co-curricular activities. It indicates that the services of co-curricular activities were maximum provided in TOs.

iv. Information services:

The calculated t value was found to be 1.845, which is less than the table value. Hence, null hypothesis is accepted, and there is no significant difference between the mean scores of master trainers and trainee teachers regarding the information services. It was concluded that the information services were, to some extent, provided in TOs.

v. Study loans:

The calculated t value was found to be 0.00, which is less than the table value. Hence, null hypothesis is accepted, and there is no significant difference between the mean scores of master trainers and trainee teachers regarding the study loans. It proves that the services of study loans were not provided in TOs.

From the above discussion it was concluded that services of tutorials and services of co-curricular activities were maximum provided whereas guidance and counseling and information services were provided, to some extent in TOs. But it is evident from the analysis that the services of study loans were not provided in TOs.

Table 97. Mobile training vans

Responses	Max	TSE	NAA	Total
i. Plying PITES' subject specialists/ lecturer to TOs	01 (05%)	02 (10%)	17 (85%)	20 (100 %)
ii. Monitored, supervised and evaluated the performance of TOs	01 (05%)	11 (55%)	08 (40%)	100 (100 %)

Table 97 reveals that;

i. Plying PITES' subject specialists/lecturer to TOs

Most (85 percent) of the master trainers were of the view that PITEs were not connected with TOs through their mobile training vans to bring the subject specialists/lecturer of PITEs to TOs. It indicates that PITEs were not connected with TOs through the mobile training vans to bring the PITEs' subject specialists/lecturer to the TOs.

ii. Monitoring, supervision and evaluation of TOs

Most (55 percent) master trainers were of the view that mobile training vans were to some extent used to monitor supervise and evaluate the performance of TOs. It leads to the conclusion that mobile training vans were, to some extent, used for monitoring, supervising and evaluating the performance of TOs.

H_o: There is no significant difference between the opinions of master trainers and trainee teachers regarding the development of skills through training.

Table 98. Development of skills through training

Skills		N	Mean	SD	SE	t-value
i. Set induction statement (introduction of the lesson)	**MT**	20	4.55	0.50	0.135	1.113**
	TT	100	4.40	0.76		
ii. Presentation of the lesson	**MT**	20	4.50	0.50	0.140	2.647*
	TT	100	4.13	0.84		
Iii, Use of A.V aids	**MT**	20	4.20	0.51	0.140	5.918*
	TT	100	3.37	0.82		
iv. Effective questioning	**MT**	20	4.40	0.58	0.145	3.305*
	TT	100	3.92	0.64		
v. Motivating the students towards studies	**MT**	20	4.40	0.58	0.159	4.151*
	TT	100	3.74	0.91		
vi. Involvement of the students	**MT**	20	4.50	0.59	0.149	4.626*
	TT	100	3.81	0.69		
vii. Skills to use modern technology (multimedia, OHP, internet etc)	**MT**	20	3.20	1.25	0.300	0.700**
	TT	100	2.99	1.09		
viii. Skills of closure (closing the lesson)	**MT**	20	3.90	0.89	0.220	1.908**
	TT	100	3.48	0.95		
ix. Re-designing the lesson	**MT**	20	3.70	1.04	0.256	1.290**
	TT	100	3.37	1.06		
x. Communication skills	**MT**	20	3.90	1.04	0.254	2.203*
	TT	100	3.34	1.01		
xi. Classroom management skills	**MT**	20	4.10	0.94	0.224	0.402**
	TT	100	4.01	0.75		
xii. Evaluation skills	**MT**	20	4.20	0.60	0.152	2.499*
	TT	100	3.82	0.72		
xiii. Skills of non-verbal cues and silence	**MT**	20	3.85	0.73	0.195	4.350*
	TT	100	3.00	1.09		
xiv. Information management skills	**MT**	20	3.85	0.73	0.195	4.463*
	TT	100	2.98	1.08		
xv. Personal skills (time management, responsibility and ability to continue to learn)	**MT**	20	4.25	0.72	0.173	0.868**
	TT	100	4.10	0.66		

* Significant ** Insignificant Table value at 0.05=1.96 MT= Master trainer TT= Trainee teacher

Table 98 indicates that;

i. Set induction statement:

The calculated t value was found to be 1.113, which is less than the table value. Hence, null hypothesis is accepted, and there is no significant difference between the mean scores of master trainers and trainee teachers regarding the set induction statement (introduction of the lesson).It reveals that master trainers developed the skills of set induction statement (introduction of the lesson) in trainee teachers.

ii. Presentation of the lesson:

The calculated t value was found to be 2.647, which is greater than the table value. Hence, null hypothesis is rejected, and there is significant difference between the mean scores of master trainers and trainee teachers regarding the presentation of the lesson. It indicates that in the opinion of master trainers, the skills of presentation of the lesson were developed effectively in the trainee teachers whereas trainee teachers were of the view that the skills of presentation of the lesson were not developed effectively in the trainee teachers.

iii. Use of A.V. aids:

The calculated t value was found to be 5.918, which is greater than the table value. Hence, null hypothesis is rejected, and there is significant difference between the mean scores of master trainers and trainee teachers regarding the use of A.V aids. It reveals that in the opinion of master trainers, the skills of use of A.V aids were well developed in the trainee teachers whereas trainee teachers were of the opinion that those skills use of A.V.aids were not developed well in the trainee teachers.

iv. Effective questioning:

The calculated t value was found to be 3.305, which is greater than the table value. Hence, null hypothesis is rejected, and there is significant difference between the mean scores of master trainers and trainee teachers regarding the effective questioning. It reveals that in the opinion of master trainers, the skills of effective questioning were developed well in the trainee teachers whereas trainee teachers had the opinion that the skills of effective questioning were not developed well in the trainee teachers.

v. Motivating the students towards studies:

The calculated t value was found to be 4.151, which is greater than the table value. Hence, null hypothesis is rejected, and there is significant difference between the mean scores of master trainers and trainee teachers regarding motivating the students towards studies. It leads to the conclusion that in the opinion of master trainers, the skills of motivating the students towards studies were developed well in the trainee teachers whereas trainee teachers had the opinion that the skills of motivating the students towards studies were not developed well in the trainee teachers.

vi. Involvement of the students:

The calculated t value was found to be 4.626, which is greater than the table value. Hence, null hypothesis is rejected, and there is significant difference between the mean scores of master trainers and trainee teachers regarding the involvement of the students. It indicates that in the opinion of master trainers, the skills of involvement of the students were developed well in the trainee teachers whereas trainee teachers had the opinion that the skills of involvement of the students were not developed well in the trainee teachers.

vii. Skills to use modern technology:

The calculated t value was found to be 0.700, which is less than the table value. Hence, null hypothesis is accepted, and there is no significant difference between the mean scores of master trainers and trainee teachers regarding the skills to use modern technology (multimedia, OHP, internet etc). It shows that master trainers, to some extent, developed the skills to use modern technology in the trainee teachers.

viii. Skills of closure:

The calculated t-value was found to be 1.908, which is less than the table value. Hence, null hypothesis is accepted, and there is no significant difference between the mean scores of master trainers and trainee teachers regarding the skills of closure (closing the lesson). It reveals that master trainers developed the skills of closure (closing the lesson) in trainee teachers.

ix. Re-designing the lesson:

The calculated t value was found to be 1.290, which is less than the table value. Hence, null hypothesis is accepted, and there is no significant difference between the mean scores of master trainers and trainee teachers regarding the re-designing of the lesson. It implies that master trainers developed the skills of re-designing the lesson in the trainee teachers.

x. Communication skills:

The calculated t value was found to be 2.203, which is greater than the table value. Hence, null hypothesis is rejected, and there is significant difference between the mean scores of master trainers and trainee teachers regarding the communication skills. It

leads to the conclusion that in the opinion of master trainers, the communication skills were developed well in the trainee teachers whereas trainee teachers had the opinion that the communication skills were developed, to some extent, in the trainee teachers.

xi. Classroom management skills:

The calculated t value was found to be 0.402, which is less than the table value. Hence, null hypothesis is accepted, and there is no significant difference between the mean scores of master trainers and trainee teachers regarding the classroom management skills. It shows that master trainers developed the classroom management skills in the trainee teachers.

xii. Evaluation skills:

The calculated t value was found to be 2.499, which is greater than the table value. Hence, null hypothesis is rejected, and there is significant difference between the mean scores of master trainers and trainee teachers regarding the evaluation skills. It reveals that in the opinion of master trainers, the evaluation skills were developed well in the trainee teachers whereas trainee teachers had the opinion that the evaluation skills were developed less in the trainee teachers.

xiii. Skills of non-verbal cues and silence:

The calculated t value was found to be 4.350, which is greater than the table value. Hence, null hypothesis is rejected, and there is significant difference between the mean scores of master trainers and trainee teachers regarding the skills of non-verbal cues and silence. It indicates that in the opinion of master trainers, the skills of non-verbal cues and silence were well developed in the trainee teachers whereas trainee teachers had the opinion that the skills of non-verbal cues and silence were developed, to some extent, in

the trainee teachers.

xiv. Information management skills:

The calculated t value was found to be 4.463, which is greater than the table value. Hence, null hypothesis is rejected, and there is significant difference between the Mean scores of master trainer and trainee teacher regarding the information management skills. It shows that in the opinion of master trainers, the information management skills were well developed in the trainee teachers whereas trainee teachers had the opinion that the information management skills were developed, to some extent, in the trainee teachers.

xv. Personal skills:

The calculated t value was found to be 0.868, which is less than the table value. Hence, null hypothesis is accepted, and there is no significant difference between the mean scores of master trainers and trainee teachers regarding the personal skills (time management, personal responsibility and the ability to continue to learn). It leads to the conclusion that master trainers developed the personal skills (time management, personal responsibility and the ability to continue to learn) in the trainee teachers.

From the above discussion it was concluded that master trainers developed the following skills in the trainee teachers. i-e. set induction statement, redesign the lesson, class management, skills of closure and personal skills. Presentation of the lesson, skills to use the A.V.aids, effective questioning, motivating the students towards studies, involvement of the students and evaluation skills were not developed well in the trainee teachers whereas communication skills, information management skills, non-verbal cues

and silence and use of modern technology skills were to some extent, developed in the trainee teachers.

Table 99. Functioning of TOs after the completion of TTP

Responses	Max	TSE	NAA	Total
Trainee teachers	02 (10%)	06 (30%)	12 (60%)	20 (100 %)

Table 99 indicates that;

Most (60 percent) of the master trainers were of the view that the TOs were not functioning after the completion of Teacher Training Project. 30 percent master trainers had opinion that the TOs were functioning, to some extent, after the completion of the Teacher Training Project whereas 10 percent master trainers indicated that the TOs were maximum functioning after the completion of the Teacher Training Project. It shows that the TOs were not functioning after the completion of Teacher Training Project.

4.5 ANALYSIS OF DATA ON EDUCATION EXPERTS/CONSULTANTS

Table 100. Academic qualification of the educational experts/consultants

Academic Qualification			Total
M.A/ M.Sc.	M.Phil	Ph.D	
24 (80.00%)	02 (6.66%)	04 (13.33%)	30 (100%)

Table 100 indicates that;

Most (80.00 percent) of the respondents had M.A/M.Sc. degree, 13.33 percent of the respondents had Ph.D. degree, whereas 6.66 percent had M.Phil degree as academic qualification. It leads to the conclusion that most of the educational experts/consultants had M.A/M.Sc. degree.

Table 101. Professional qualification of the educational experts/consultants

Professional Qualification				Total
None	Post-gratuate Dip	B.Ed	M.Ed	
07 (23.33%)	02 (6.66%)	01 (3.33%)	20 (66.66%)	30 (100%)

Table 101 shows that;

Most (66.66 percent) of the educational experts/consultants had M.Ed degree, 3.33 percent educational experts/consultants had B.Ed degree, 6.66 percent educational experts/consultants had Post-graduate Diploma in education whereas 23.33 percent were not professionally qualified. It shows that most of the educational experts/consultants had M.Ed degree as professional qualification.

Table 102. Teaching experience of the educational experts/consultants (In Years)

0-5	6-10	11-15	16-20	21-25	26 and above	Total
---	03 (10%)	06 (20%)	06 (20%)	04 (13.33%)	11 (36.66%)	30 (100%)

Table 102 reveals that;

Most (50 percent) educational experts/consultants had 21 years and above teaching experience, 20.00 percent of them had 16-20 years teaching experience, 20.00 percent of them had 11-15 years teaching experience and 10.00 percent of them had 6-10 years teaching experience. Therefore, the data reflected that most (50.00percent) educational experts/consultants had more than 20 years experience as teacher in the field of education, which leads to the conclusion that they were found well experienced educational experts/consultants.

Table 103. Total experience of the educational experts/consultants (In years)

0-5	6-10	11-15	16-20	21-25	26 and above	Total
---	---	03 (10%)	02 (6.66%)	05 (16.66%)	21 (70%)	30 (100%)

Table 103 reveals that;

Most (70.00 percent) of the educational experts/consultants had 26 years and over experience, 16.66 percent of them had 21-25 years experience, 10.00 percent of them had 11-15 years experience, 6. 66 percent of them had 16-20years experience. Therefore, the data reflected that most (70.00percent) educational experts/consultants had more than 26years experience in the field of education, which shows that they were found well experienced educational experts/consultants.

Table 104. The objectives of the TTP according to the need and demand of the country

Opinions	Yes	To some extent	No	Total
Frequency	22 (73.33%)	05 (16.66%)	03 (10.00%)	30 (100%)

Table 104 depicts that;

Most (73.33%) of experts/consultants were of the view that objectives of the teacher training project were framed according to the need and demand of the country. 16.66 percent respondents reported that the objectives of TTP were framed, to some extent, according to the need and demand of the country, whereas 10 percent of them stated that objectives were not framed according to the need and demand of the country. They also narrated that objectives were over ambitious and short of vision and a proper

need assessment should be carried out which would be to set objectives of teacher education in general.. It leads to the conclusion that most of the respondents agreed that objectives of TTP were framed according to the need and demand of the country.

Table105. Qualification and competence of the foreign consultants (TTP)

S. No.	Opinions	Frequency
1.	Well qualified and competent	16 (53.33%)
2.	Well qualified but not competent	05 (16.66%)
3.	Qualified and competent to some extent	06 (20.00%)
4.	Not well qualified and competent	03 (10.00%)
Total		30 (100%)

Table 105 narrates that;

Most (53.33 percent) of the foreign consultants were well qualified and competent. Five percent experts were of the view that consultants were well qualified but not competent. They explained that they didn't have relevant experience and specific context, 20 percent experts had the opinion that consultants were, to some extent, qualified and competent. They stated that all the consultants were not well qualified and competent but 40 percent of them performed satisfactorily. Only 10 percent respondents said that foreign consultants were not well qualified and competent. They said that foreign consultants were competent in computer education but not in teacher education and the consultants were generalists rather than the specialists.

It was concluded that most of foreign consultants were well qualified and competent.

Table 106. Qualification and competence of the local consultants (TTP)

S. No.	Opinions	Frequency
1.	Well qualified and competent	20 (66.66%)
2.	Well qualified but not competent	02 (6.66%)
3.	Well qualified and competent to some extent	03 (10.00%)
4.	Not well qualified and competent	05 (16.66%)
Total		30 (100%)

Table 106 indicates that;

Most of (66.66 percent) experts/consultants reported that local consultant were well qualified and competent, 6.66 percent respondents were of the view that local consultants were well qualified but not competent. They explained that in most cases the local consultants were not eligible to become consultants, hence they became assistants. Ten percent experts/consultants responded that local consultants were well qualified and competent to some extent. Whereas 5 percent respondents had opinion that local consultants were not well qualified and competent. It is evident from the analysis that most of local consultants were well qualified and competent.

Table 107a. Adequacy of in-service training

S. No.	Opinions	Frequency
1.	Adequate	27 (90.00%)
2.	Adequate to some extent	02 (6.66%)
3.	Inadequate	01 (3.33%)
Total		30 (100%)

Table 107b. Aspects emphasized during in-service training

S. No.	Opinions	Frequency
1.	Subject based training	13 (43.33%)
2.	Pedagogical skills	13 (43.33%)
3.	Development of material	04 (13.33%)
Total		30 (100%)

Table 107a indicates that;

Most (90 percent) of the experts/consultants were of the view that in- service training provided by TTP was adequate, 3.33 percent respondents narrated that in- service training was inadequate whereas 6.66 percent of them were of the opinion that it was adequate to some extent.

Table 107b depicts that;

In the opinion of 43.33 percent of the experts/consultants, in-service training was subject based, 43.33 percent respondents were of the view that in the training, the aspect of pedagogical skills was emphasized whereas 13.33 percent respondents stated that the aspect of development of material was emphasized.

It is analyzed from the above discussion that in-service training provided by TTP was adequate and the aspects of subject based training and pedagogical skills were emphasized in the in-service training provided by TTP.

Table 108a. Adequacy of the strategies adopted to achieve the objectives/targets

S. No.	Opinions	Frequency
1.	Adequate	22 (73.33%)
2.	Adequate to some extent	02 (6.66%)
3.	Inadequate	06 (20.00)
Total		30 (100%)

Table 108b. Adopted strategies to achieve the objectives/targets

S. No.	Opinions	Frequency
1.	Training of teachers/master trainers/Overseas Fellowship/ In Country Fellowship	12 (40 %)
2.	Establishment of PITEs, TOs, FCU, PIUs and up-gradation of GCEs/ GCETs as model colleges	10 (33.33%)
3.	Development of instructional material	04 (13.33%)
4.	Conduct of need based research studies	02 (6.66%)
5.	Revision of curricula and introduction of Diploma in Education	01 (3.33%)
6.	Provision of physical facilities	01 (3.33%)
Total		30 (100%)

Table 108a shows that;

Most (73.33 percent) of the experts/consultants agreed that strategies adopted to achieve the objectives were adequate, 6.66 percent of them were of the opinion that the strategies adopted to achieve the objectives were adequate, to some extent whereas 20 percent respondents were of the view that strategies adopted to achieve the objectives were inadequate.

Table 108b narrated that;

Forty percent experts/consultants narrated that training of teachers/ master trainers / Overseas Fellowship training and In Country Fellowship training were given during the project, 33.33 percent respondents were of the opinion that four PITEs and 66 TOs were established to provide in-service and pre-service training. FCU was established as coordination unit at Federal level, and PIUs were established as implementation unit in all the four provinces. Ten GCEs and 49 GCETs were also up-graded as model colleges, 13.33 percent respondents reported that strategies to achieve the desired objectives, 28

need based research studies were conducted whereas 3.33 percent respondents stated that curricula of CT B.Ed. B.S.Ed. and M.Ed. were revised and an innovative approach Diploma in Education (10+3 and 12+ 1 ½ models) was introduced replacing by C.T and PTC to meet the international standard. 33.3 percent respondents indicated that physical facilities were provided in all the four provinces to achieve the objectives of TTP.

Therefore, it was concluded that strategies adopted to achieve the objectives were adequate.

Table 109a. Organization of the Teacher Training Project

S. No.	Opinions	Frequency
1.	Well organized	16 (53.33%)
2.	Organized to some extent	05 (16.66%)
3.	Not organized	09 (30.00%)
Total		30 (100%)

Table 109b. Elements of Organization

S. No.	Opinions	Frequency
1.	FCU, PIUs and TPTE	12 (40 %)
2.	Management of the project (the project staff and secretary etc.)	11 (36.66 %)
3.	Consultant's services	07 (23.33 %)
Total		30 (100 %)

Table 109a indicates that;

Most (53.33 percent) of experts were of the view that the project was well organized, 26.66 percent of them were of the opinion that the project was, to some extent organized whereas 30.00 percent of them narrated that the project was not well organized.

Table 109b depicts that;

Forty percent experts/ consultants narrated that, the elements of organization were FCU and PIUs and TPTE, 36.88 percent of them were of the view that elements of organization were management of the project (project staff and secretary etc) whereas 23.33 percent educational experts / consultants had the opinion that consultants' services were the elements of the organization.

It was concluded that the project was well organized but it is inferred from the data that in the opinion of some educational experts / consultants, project was not well organized.

Table 110. Qualification and competence of the Teacher Training Project's staff

S. No.	Opinions	Frequency
1.	Well qualified and competent	16 (53.33%)
2.	Qualified and competent to some extent	05 (16.66%)
3.	Well qualified but not competent	05 (16.66%)
d.	Not well qualified and competent	04 (13.33%)
Total		30 (100 %)

Table 110 indicates that;

Most (53.33 percent).of the respondents were of the opinion that staff of the project was well qualified and competent, 16.66 percent respondents were of the view that staff of the project was well qualified and competent to some extent, whereas 16.66 percent respondents had opinion that staff of the project was well qualified but not competent. Some (13.33 percent) of the experts / consultants were of the opinion that staff of the project was not well qualified and competent.

It leads to the conclusion that staff of the project was well qualified and competent but it is inferred from the data that in the opinion of some respondents, the staff of project was not well qualified and competent.

Table 111a. Provision of consultants' best services for the project (TTP)

S. No.	Opinions	Frequency
1.	Consultant provide their best services	17 (56.66%)
2.	Consultants provide services to some extent	07 (23.33%)
3.	Consultants did not provide their best services	06 (20.00%)
Total		30 (100 %)

Table 111b. Main contribution of the consultants

S. No.	Opinions	Frequency
1.	Revision and development of curricula/ material for pre-service and In-service training programme	02 (6.66%)
2.	Research studies	01 (3.33%)
3.	Training of teachers/ master trainers	02 (6.66%)
d.	All the above	25 (83.33%)
Total		30 (100 %)

Table 111a depicts that;

Most (56.66 percent) of the experts/ consultants were of the view that the consultants provided their best services. Whereas, 23.33 percent respondents were of the view that consultants provided services to some extent. Twenty percent experts/ consultants reported that the consultants did not provide their best services.

Table 111b shows that;

Most (83.33 percent) of the experts / consultants reported that the main contribution of consultants was in the areas of revision and development of curricula/ material for pre-service and in-service training programme, conduct of research studies and training of teachers / master trainers.

It was observed, on the basis of information that most of the experts/ consultants provided their best services but it is inferred from the data that some of the experts/consultants indicated that consultants did not provide their best services.

Table 112a. Coordination between FCU, PIUs and TPTE

S. No.	Opinions	Frequency
1.	Strong coordination between FCU, PIUs and TPTE	14 (46.66%)
2.	Weak coordination between FCU, PIUs and TPTE	09 (30.00%)
3.	No coordination between FCU, PIUs and TPTE	07 (23.33%)
Total		30 (100 %)

Table 112b. Establishment of coordination

S. No.	Opinions	Frequency
1.	Through frequent meetings	23 (76.66%)
2.	Through telecommunication	04 (13.33%)
3.	Through mail	03 (10.00%)
Total		30 (100 %)

Table 112a depicts that;

Forty seven percent educational experts / consultant were of the view that there was strong coordination between FCU, PIUs and TPTE, 30.00 percent experts reported that there was weak coordination, whereas 23.33 percent experts/consultants were of the view that there was no coordination between FCU, PIUs and TPTE.

Table 112b elaborates that;

Most (76.66 percent) of the respondents had the opinion that the coordination was established through frequent meetings, 13.33 percent respondents narrated that the coordination was established through telecommunication whereas 10 percent experts/ consultant reported that the coordination was established through mail.

It was concluded from the above discussion that 53 percent respondents reported there was weak or no coordination between FCU, PIUs and TPTE. It shows that there was a weak coordination between FCU, PIUs and TPTE.

Table 113. In-Country Fellowship programme and professional attitude

S. No.	Opinions	Frequency
1.	Emphasized on teaching methods, skills and competence and introduced new techniques	17 (56.66 %)
2.	Through hard work of master trainers, learning materials, training modules and conducive environment	04 (13.33 %)
3.	Not played a vital role in the development of the professional attitude	09 (30.00 %)
Total		30 (100 %)

Table 113 indicates that;

Most (56.66 percent) educational experts/ consultants had the opinion that In-Country Fellowship programme played a vital role in the development of professional attitude by emphasizing on teaching methods, skills and competence and introduction of new techniques Thirty percent educational experts/consultants reported that the In Country Fellowship programme did not play a vital role in the development of the professional attitude whereas 13.33 percent educational experts/ consultants narrated that

In-Country Fellowship programme played a vital role through hard work of master trainers, learning material, training modules and conducive environment. It was concluded that In-Country Fellowship programme played a vital role in the development of professional attitude by emphasizing on teaching methods, skills and competence and introduction of new techniques.

Table 114a. Functioning of the PITEs according to the objectives formulated in the PC-I of the TTP

S. No.	Opinions	Frequency
1.	The PITEs are functioning according to the objectives formulated in PC-I	02 (6.66%)
2.	The PITEs are functioning to some extent according to the objectives formulated in PC-I	10 (33.33%)
3.	The PITEs are not functioning according to the objectives formulated in PC-I	18 (60.00%)
Total		30 (100 %)

Table 114b. Main functions being performed

S. No.	Opinions	Frequency
1.	In service training of master trainers / teachers	20 (66.66%)
2.	Preparation of training material	04 (13.33%)
3.	Pre-service training programme	03 (10.00%)
4.	Research studies	03 (10.00%)
Total		30 (100 %)

Table 114a shows that;

Most (60 percent) of the respondents were of the view that PITEs were not functioning according to the objectives formulated in PC-I of the TTP, 33.33 percent of the respondents reported that PITEs were to some extent functioning according to the objectives formulated in PC-I. Whereas 6.66 percent educational experts/consultants had

the opinion that PITEs were functioning according to the objectives formulated in PC-I of the TTP.

Table 114b depicts that;

Most (66.66 percent)of the respondents were of the view that the main function of PITEs was in-service training of master trainers/ teachers,13.33 percent respondents had the opinion that the main function of PITEs was preparation of training material. Ten percent educational experts / consultants reported that pre-service programmes were the main functions of the PITEs, whereas 10 percent respondents were of the view that the main function of PITEs was to conduct research studies.

It leads to the conclusion that PITEs as the apex bodies were not established in true spirit due to political circumstances, so PITEs are functioning but not according to the objectives formulated in PC-I of the TTP.

Table 115a. Functioning of the TOs according to the objectives formulated in the PC-I of the TTP

S. No.	Opinions	Frequency
1.	TOs were functioning according to the objectives formulated in PC-I	02 (6.66%)
2.	TO's were functioning to some extent according to the objectives formulated in PC-I	03 (10.00%)
3.	TO's were not functioning according to the objectives formulated in PC-I	25 (83.33%)
Total		30 (100 %)

Table 115b. Main functions being performed

S. No.	Opinion	Frequency
1.	In-service training	30 (100%)
Total		30 (100%)

Table 115a narrates that;

Most (83.33 percent) of the respondents were of the view that TOs were not functioning according to the objectives formulated in PC-I, 10.00 percent educational experts/ consultants reported that TOs were functioning, to some extent according to the objectives formulated in PC-I whereas 6.66 percent educational experts / consultants reported that TOs were functioning according to the objectives formulated in the PC-I.

Table 115b depicts that;

The main functions of the TOs were to provide in-service training to primary and secondary school teachers. It is evident from the analysis that educational experts/ consultants were of the view that TOs were not functioning according to the objectives formulated in the PC-I.

Table 116. Improvement of the management techniques through Overseas Fellowship/In-Country Fellowship

S. No.	Opinions	Frequency
1.	The management techniques improved through Provision of training material, modules and discussion	20 (66.66%)
2.	The management techniques **t**o some extent improved	05 (16.66%)
3.	The management techniques not improved because right persons were not selected	05 (16.66%)
Total		30 (100 %)

Table 116 shows that;

Most (66.66 percent) of the respondents in the sample were of the view that management techniques were improved through Overseas Fellowship and In-Country Fellowship programme, 16.66 percent respondents reported that management techniques were, to some extent, improved through Overseas Fellowship and In-Country Fellowship

programme, whereas16.66 percent respondents were of the opinion that management techniques were not improved through Overseas Fellowship and In-Country Fellowship programme. It leads to the conclusion that management techniques were improved through In-Country Fellowship/ Overseas Fellowship training programme with the provision of training material, modules and discussion.

Table117. Curricula reforms of pre-service teacher education (Diploma in Education) programme

S. No.	Opinions	Frequency
1.	Diploma in Education was an innovative approach, including the knowledge skills, and latest teaching techniques	13 (43.32%)
2.	It was implemented in N.W.F.P and Balochistan and not implemented in Punjab in its true spirit whereas it was not introduced in Sindh	09 (30.00%)
3.	It was not successful due to the improper provision of grades for jobs	08 (26.66%)
Total		30 (100 %)

Table 117 shows that;

Forty three percent educational experts /consultants provokes that Diploma in Education was an innovative approach, including the knowledge, skills and latest teaching techniques. Thirty percent experts /consultants narrated that it was implemented in N.W.F.P and Balochistan. In Punjab it was not implemented in its true spirit whereas it was not introduced in Sindh. Twenty seven percent respondents were of the view that it was not successful due to improper provision of grades for jobs. It was observed on the basis of information that Diploma in Education was a good programme. It was implemented in Punjab, NWFP and Balochistan provinces but it was not successful due to improper provision of grades for jobs to the graduates of Diploma in Education.

THE WEAKNESSES OF TEACHER TRAINING PROGRAMMES IN PAKISTAN

In the questionnaires (Heads, teacher educators, Overseas Fellowship trainees masters trainers and trainee teachers of TOs) and interview schedule (experts/ consultants) an open ended question was asked about the weaknesses of the training programmes in Pakistan and the responses given by the heads, teacher educators, Overseers Fellowship trainees, master trainers and trainee teachers were as under:

1. Lack of trained and highly qualified staff, science apparatus/computers in the labs, latest books in the libraries and physical facilities in the institutions. Electronic media is neither appropriately provided nor utilized (23 %).
2. During the Teacher Training Project, the main problem was release of funds by the Asian Development Bank, which sometimes affected the smooth functioning of the Teacher Training Project. The maximum budget could not be obtained. Improper implementation of activities, as planned in the Teacher Training Project (15 %).
3. The teachers are posted as managers/ administrators in the educational institutions without management training. Improper attitude of the administrators towards staff members. The heads of institutions are neither cooperative with the staff nor committed and devoted towards the development of education (10 %).
4. The training programs are not well organized and objectives of the program are not clear and not applied in actual situation. Objectives of the teacher education are not formulated in consultation with concerned teachers. Training centers for in-service training are not adequate with respect to

training material. Master trainers are not qualified and trained enough (8 %).

5. External pressure/ political interference in the recruitment, posting and transfer affect the soul and spirit of educational system (6 %).
6. Irrational distribution of budget and financial problems are also present in educational management system (6 %).
7. Lack of innovative approaches adopted in policy formulation and lack of quality assurance which is vital for the improvement in any education system. The present programs of teacher education are not up to date and the present curriculum is not functional and not related to the market demand. (5 %)
8. Lack of coordination among different tiers of hierarchy of education department. Weak monitoring system and lack of follow-up in the training program. Without follow up teacher training program remained fruitless whereas, the project personnel worked devotedly. (5 %)
9. The duration of the training is too short. Master trainers did not inculcate the appropriate teaching skills in the trainee teachers due to short duration of training programme. There is a lack of interest among the trainee teachers. Training programs are attended only to receive TA/DA (4 %).
10. Implementation of the project was a great challenge. Purchase of equipment could not be made and qualified persons could not be appointed due to bureaucratic hurdles and red-tapism. Electronic equipment provided by TTP for the training of teachers had been taken back after the completion of the project from the PITE in Sindh. Buildings were constructed but could not be made functional according to the project objectives (4 %).

11. Training was not in conformity with the needs of market and ground realities, moreover, the training programmes failed to meet the individual needs of the trainees (4 %).
12. Nomination of the teachers for the training was not made timely (3 %).
13. More emphasis is given on theory then on practical work and teaching practice is not given due weightage (2 %).
14. Government is not providing good salaries to teachers. Transport, official residence and medical facilities are not provided to the teachers (2 %).
15. The concept of utilization of low cost material and A.V.aids was not practiced and instructional material development component was not fully implemented during Teacher Training Project (2 %).
16. The findings of the research studies could not be applied due to delay in the execution of research studies (1 %). .

SUGGESTIONS FOR IMPROVEMENT OF THE TEACHER TRAINING PROGRAMMES IN PAKISTAN

In the questionnaires, (Heads, teacher educators, Overseas Fellowship trainees, masters trainers, trainee teachers of TOs) and interview schedule (experts/consultants) an open ended question was asked about suggestions for the teachers' training programmes in Pakistan and the responses given by them were as under:

1. All the required facilities should be provided to the teachers. The training centers must be equipped with the proper physical facilities. (17 %)
2. Nomination of the teachers for the training should be based on specialization and aptitude test, so that relevant knowledge may be gained and practiced in the

classroom. The training programs should be creative, thought provoking and applicable in the actual classroom situation. Teachers should be trained to use latest methods of teaching, computer and A.V aids skills. All the in- service training programs should be organized with the help of universities. Professional computer training should be given to all the teachers and managers so that they become competent in the use of computer (12 %).

3. There should be need based planning for capacity building, staff availability and provision of opportunities, training needs, budget availability, over working of schools, administration, textbook board and the policy makers and planners of the training program must be educationists. (11 %)
4. Transport facilities should be provided to the teachers to solve their problems related to the training (9 %).
5. All the training programs should be conducted in their true spirit. competent and dedicated master trainers who can use modern technologies should be appointed for the training programs. The assignment of the follow-up may be given to the master trainers.In service training should be imparted to the master trainers and incentives should be given to the training receivers. (7 %).
6. The curricula of the training program must be tailored according to the need of the trainees. (7 %)
7. Management training should be made compulsory and should be linked with the promotion packages. Every educational manager must be given training at the Academy of Educational Planning and Management, Islamabad. The training of the supervision may be provided to the teachers for better supervision (6 %).
8. All political activities involving teachers should be banned. External pressure on

the managers be reduced and merit should be emphasized in all operational strategies. (5 %)

9. Heads of the institutions should be devoted and committed to their job. Sufficient budget should be provided to the institutions and authority should be given to the heads of institutions e.g. of finance/budget allocation/appointment of the teachers/ funds for educational materials and equipment and hold balance in supply and demand. (4 %)
10. Involve active participation of the managers in the process of policy making and implementation process should be ensured and they should be of academic worth regarding education. Different management technologies should be introduced to the managers for better management. (4 %)
11. Sufficient library books and low cost material should be provided. (4 %)
12. Following features need considerations: (i) Teacher's role is to be redefined. (ii) Modes and means of training are to be updated. (iii) An expert pool at National level for TE needs should be developed. (iv) Bureaucratic grip on education needs to be removed. (v) Development budget in the area of education needs should be enhanced. (4 %)
13. Every province should have at least one university of education in quality teacher education through research work. (i) More and more teacher educators should be sent abroad to acquire knowledge and latest trends about teacher education. (ii) To attract genius persons towards the field of education is also a vital need of the country. (iii) The teacher making in the field of teacher education should be encouraged to frequently write on teacher education so as to share their experience with their colleagues in the uplift of teacher education

in general (3 %)

14. .The trainer should be selected on the basis of their competence as well as aptitude and no compromise on merit. (i) The salary structure of the teacher trainers should be made attractive (ii) continued up gradation of curricula and textbooks development. (iii) Up gradation of teacher trainers capabilities through in-country workshops and seminars as well as overseas training. (iv) Use of latest technologies of training in the teacher training institutions. (3 %)
15. Training should be arranged according to the demand and ground realities, the specific needs of teachers and the needs of the curriculum should be keep in mind. The major objective of training should be to bring improvements not only to utilize the funds but the training should be target oriented. (2 %)
16. The continuity of project experience should be guaranteed. It is no use to for experimentation every time when funds are made available by the donors. Previous experiences should be used for conceiving any new project / program. (2 %)

CHAPTER 5
SUMMARY, FINDINGS, CONCLUSIONS AND RECOMMENDATIONS

5.1 SUMMARY

The main objective of the study was to investigate the impact of ADB assisted Teacher Training Project on the quality of teacher education in Pakistan. It was a descriptive survey study. The major objectives of the study were:

a) To assess the extent to which Teacher Training Project (TTP) objectives have been achieved. b) To examine the impact of capacity expansion on the quantitative improvement of teacher education. c) To investigate the impact of Teacher Training Project (TTP) on the qualitative improvement of human resource development in teacher education through In-Country Fellowship Programme. d) To explore the outcomes of up gradation of management techniques under the Teacher Training Project. e) To find out the effectiveness of Training Out-posts (TOs) and their input towards the improvement of training of teachers. f) To suggest measures for the improvement of teacher education in Pakistan.

The study was delimited to the following components of the TTP: a) PITEs, GCEs and GCETs with reference to capacity expansion. b) In-service training through In-Country Fellowship (ICF) programme. c) In-service training in Training Out posts (TOs). d) In-service training through Overseas Fellowship for educational managers

The population of the study consisted of all the heads of PITEs GCEs and GCETs, all the teacher educators of GCEs and GCETs, all the heads/ masters trainers and trainee teachers of TOs,(4-PITEs, 16-GCEs, 90- GCETs and 66- TOs),all the experts/ consultants and officers of Teacher Training Project (TTP) and all the officers of the

Technical Panel on Teacher Education (TPTE).

The sample of the study consisted of 70 institutions, 34 heads of PITEs, GCEs and GCETs, 145 teacher educators training receivers of the In- Country Fellowship programme and 150 teacher educators' non-training receivers, 30 Overseas Fellowship trainees, 100 trainee teachers (selected from Chakwal District) and 20 master trainers of TOs and 30 educational experts/ consultants selected from Teacher Training Project. Instruments were developed keeping in view the educational indicators and various aspects of teacher training such as physical facilities, office equipment, electronic media, furniture, building, teaching methods, teachers competence/attitude/skills, curriculum, management and instructional material.

Five questionnaires and one structured interview schedule were developed for the following clientele: i) Heads of GCEs and GCETs ii) Teacher educators iii) Educational managers iv) Master trainers of TOs v) Trainee teachers of TOs vi) Educational experts/consultants selected from TTP. The PC -1 of the Teacher Training Project, official documents, research studies conducted under TTP and related literature were studied before devising the instruments. The significance of the study was also given in this chapter.

In the review of related literature, different concepts of teacher education, teachers' training, educational management, evaluation, CIPP model of evaluation, concept and background of the Teacher Training Project, review of research studies conducted under TTP and review of related researches were included. All the instruments were pilot tested and modified appropriately, in the light of given suggestions. Data were collected by personal visits as well as with the help of research assistant and by mail. The data were collected from federal area and all the four provinces i-e Punjab, Sindh,

Balochistan and NWFP. All the TOs were located in remote rural areas; however, an attempt was made to access those hard areas for collection of data. The structured interview was conducted to the selected persons of the project. For this purpose, contacts were made with the experts/consultants by obtaining prior appointment.

The data collected through these instruments were entered into computer using SPSS software. It was tabulated, analyzed and interpreted keeping in view the objectives of the study to reach the findings. In the light of the findings of the study, conclusions were drawn and recommendations were made to improve the quality of teacher education in Pakistan.

5.2 FINDINGS

1) Ninety one percent heads of the institutions, 83 percent teacher educators-training receivers, 81 percent teacher educators-non-training receivers, 90 percent Overseas Fellowship trainees, 95 percent master trainers (TOs) and 80.00 percent educational experts/ consultants had M.A/M.Sc. degree as academic qualification, whereas 45 percent trainee teachers (TOs), had BA/B.Sc. degree as academic qualification. Seventy nine percent heads of institutions, 71 percent teacher educators-training receivers, 73 percent teacher educators-non-training receivers, 63 percent Overseas Fellowship trainees, 95 percent master trainers (TOs) and 67 percent educational experts/consultants had M.Ed. professional qualification, whereas 65 percent of the trainee teachers (TOs) had PTC. professional qualification.

2) Sixty eight percent heads of the institutions had more than 15 years whereas 53 percent Overseas Fellowship trainees had less than 16 years experience as

administrator. Eighty one percent teacher educators-training receivers, 65 percent teacher educators non-training receivers, 57 percent Overseas Fellowship trainees, 75 percent master trainers (TOs) and 60 percent trainee teachers had more than 15 years whereas 53 percent educational experts/consultants had more than 20 years teaching experience and 70 percent educational experts/consultants had more than 25 years experience.

3) Heads (PITEs, GCEs and GCETs) reported that photocopiers, printers, typewriters, VCRs/VCPs, T.V. sets, radio/tape players, audio/video tapes/consumables and OHPs were provided in sufficient quantity and their utilization was reported as maximum.It is evident from the data that they felt comfortable with the provision of office equipment.

4) Heads (PITEs, GCEs and GCETs) reported that desktop computers, video cameras and printing facilities were found short in supply with marginal utilization. Teacher educators (training receivers and non receivers) indicated that photocopiers, printers, typewriters, desktop computers, VCRs/VCPs, T.V. sets, radio/tape players, over head projectors and video cameras were provided short in supply and these items were used, to some extent.

5) Heads (PITEs, GCEs and GCETs) and teacher educators (training receivers and non receivers) indicated that public address system, 35 mm cameras and tele classroom cum studio were not provided. Master trainers and trainee teachers (TOs) were of the view that photocopiers, audio/video tapes, video tape cassette players and information packages (by PITEs and AIOU) were not provided, therefore, the question of utilization did not arise.

6) Teacher educators (training receivers and non receivers) indicated that slide

projectors were provided in short supply but their utilization was reported as maximum. Teacher educators-training receivers pointed out that, audio/video tapes/consumables were sufficiently provided but regarding utilization teacher educators (training receivers and non receivers) were of the view that audio-video tapes/consumables were used, to some extent. Teacher educators-training receivers indicated that printing facilities were provided in short supply and their utilization was reported as, to some extent. Teacher educators-non-training receivers indicated that printing facilities were not provided, therefore, the question of utilization did not arise. Master trainers and trainee teachers (TOs) were agreed that slide projectors and typewriters were sufficiently provided but these items were used, to some extent. 50x 50 screens were provided in short supply but utilization of this item was not reported. It was observed, on the basis of information, that electronic media played a vital role in the strengthening of teacher training in all the four provinces.

7) Heads (PITEs, GCEs and GCETs) indicated that books in the libraries were provided in sufficient quantity and their utilization supported the teacher education in three provinces (Punjab, NWFP and Sindh) but it was being reported, to some extent in Balochistan province. Master trainers and trainee teachers (TOs) indicated that set of library/reference books were sufficiently provided and utilization of library/reference books was reported, to some extent by master trainers and according to trainee teachers those were not utilized. Master trainers (TOs) indicated printed books and guides were sufficiently provided but the printed books and guides were being utilized to

some extent whereas trainee teachers had the opinion that printed books and guides were not provided, therefore, the question of utilization did not arise. Master trainers (TOs) indicated that correspondence textbooks were, to some extent, provided but regarding utilization, master trainers and trainee teachers agreed that those were not utilized.

8) In PITEs, GCEs and GCETs classroom tablet chairs, tables for classrooms, armed chairs, officer tables, office chairs, office tables, tables for practical, stools for labs, show case / steel almirah, library chairs, library tables, librarian chairs/catalogue/counters were provided in sufficient quantity and the use of these items was reported to be maximum. Mono desks, rostrums, revolving chairs, stenographer tables were provided short in supply and these items were not being properly utilized. It was also observed, on the basis of information, that furniture provided by Teacher Training Project, facilitated the administrative/teaching staff and students in three provinces (Punjab, Sindh and Balochistan) but in NWFP province it was being reported, to some extent. Heads/master trainers (TOs) reported that furniture was provided in sufficient quantity in TOs and the utilization was reported as maximum.

9) Science equipment in science laboratories was sufficiently provided in all the four provinces. It was observed, on the basis of information, that science equipment maximum enriched the teaching of science in two provinces, i.e. Punjab and Sindh but science equipment provided in NWFP and Balochistan provinces, to some extent, enriched the teaching of science.

10) Heads (PITEs, GCEs and GCETs) were of the view that the students' enrolment was enhanced in all the four provinces with the construction of

one/ two rooms in the existing GCEs and GCETs by TTP. All the master trainers reported that one/two rooms constructed in (TOs) facilitated the training programme.

11) The teacher educators-training receivers were more adopting the contemporary methods for teaching i.e. project and simulation method. They were also consulting reference books/latest books/ material and new techniques for teaching. Whereas most of the teacher educators-non training receivers were more adopting traditional methods for teaching i.e. question answer and lecture method and following text books for teaching.

12) Majority of teacher educators-training receivers and non training receivers possessed following competencies: arriving in the class on time, maintaining discipline in the class, informing the students about the objectives of the lesson, providing reliable information to the students, having command on the subjects being taught, listening to students' problems, encouraging the students to hold discussion, following the already prepared notes, following the web based learning material for teaching, completing the course on time, leaving the class after completion of period's time, maintaining working relationship with the heads of institutions and arranging the field trips.

13) Teacher educators-training receivers had more skills to use the A.V aids, use the modern technology (multimedia, overhead projectors, internet etc), classroom management skills and personal skills (time management, personal responsibility and ability to continue to learn) as compared to teacher educators-non training receivers. Most of the teacher educators-training receivers and non training receivers had skills of set induction statement

(introduction of the lesson), presentation of the lesson, effective questioning, motivating the students towards studies, involvement of the students, skills of closure (closing the lesson), non-verbal cues and silence, communication skills, evaluation skills, information management skills, whereas teacher educators-training receivers and non training receivers had, to some extent, skills to re-design the lesson.

14) The master trainers and trainee teachers reported that the skills of set induction statement (introduction of the lesson), class room management skills, redesign the lesson, skills of closure and personal skills were developed in the trainee teachers. Skills of presentation of the lesson, skills to use the A.V.aids, effective questioning, motivating the students towards studies, involvement of the students and evaluation skills were not developed well in the trainee teachers whereas communication skills, information management skills, non-verbal cues and silence and use of modern technology skills were developed, to some extent in the trainee teachers

15) Behaviour of teacher educators – training receivers and non training receivers was found to be satisfactory about the present job, salary and their likeness was also reported about the teaching profession.

16) Behaviour of teacher educators – training receivers and non training receivers was reported be positive and they developed and displayed good professional attitude and aptitude among their students.

17) Teacher educators – training receivers and non training receivers reported that the objectives of Diploma in Education were found according to the need of the time to meet the international standard. The selected scheme of studies

was according to the objectives of the Diploma in Education. It was also observed, on the basis of information, that the textbooks for Diploma in Education were found to some extent, easy to understand, involving the students in studies. Those were well formulated and had latest teaching techniques. The books for Diploma in Education were to some extent, according to the need of the society and country. Teacher educators -training receivers were of the view that textbooks had latest information whereas non training receivers indicated that those had to some extent, latest information.

18) Teacher educators-training receivers and non training receivers reported that the contents selected for the training of teachers (Diploma in Education) were found appropriate whereas the contents selected were, to some extent, relevant and adequate.

19) Seventy seven percent Overseas Fellowship trainees reported that they attended four weeks training abroad. Sixty percent Overseas Fellowship trainees received training in the areas of curriculum development and institutional / project management, 73 percent Overseas Fellowship trainees reported that they did not conduct any training programme for the educational managers after return. Eighty percent master trainers (TOs) attended one to four in-service training courses as participant and 70 percent master trainers conducted five to ten in-service training courses as master trainers during the project. However, 90 percent master trainers did not conduct in-service training courses as master trainers after the completion of Teacher Training Project. Seventy percent master trainers were of the view that the training was provided to properly prepare them as master trainers.

20) Majority of the Overseas Fellowship trainees agreed that the objectives of Overseas Fellowship training were according to the need of the country and were achieved.

21) Majority of the Overseas Fellowship trainees reported that the modules provided during training were found understandable and adequate, according to the needs of the educational managers and covered the every aspect of the management. They also reported that adequate instructional material was provided by the institutions which were selected for the training and the master trainers of Overseas Fellowship training were found competent.

22) Majority of the Overseas Fellowship trainees reported that they were well aware of personal and organization values and management styles before receiving the training. It was observed, on the basis of information, that the Overseas Fellowship training was found to be according to their job requirements and their efficiency of work was also improved after training. The training helped them in the developing a conducive environment and solving the administrative problems in their organizations.

23) Majority of the Overseas Fellowship trainees reported that they applied the theoretical concepts of management learnt in the training, in their organization. The behaviour/attitude of trainees was modified towards the management of the institutions / organizations. It was reported that the official work was also streamlined and their subordinates benefited from their Overseas Fellowship training.

24) Majority of the Overseas Fellowship trainees reported that educational managers were found to be exposed to new ideas of management and the

training provided them with improved effective decision making ability. It is evident from the data that training, to some extent, improved skills for the development of budget of the organization/ institution.

25) Majority of the Overseas Fellowship trainees reported that the following aspects were not monitored by the educational managers in the institutions: institutions' broad aims and objectives, written strategic plan, library/resource center, open access to learning resources, building/classrooms and the labs upkeep, well planned and organized learning environment, teaching and learning strategies, review and evaluation system.

26) Majority of the Overseas Fellowship trainees reported that educational managers monitored open access to computer facilities and opportunities for students to organize their own activities.

27) All the master trainers (TOs) and 94 percent trainee teachers reported that the objectives of the training were provided to the trainee teachers.

28) All the master trainers and 92 percent trainee teachers reported that the time table of the training was provided to the trainee teachers and all the master trainers and 95 percent trainee teachers reported that the subjects were taught according to the time table of the training programme.

29) All the master trainers and trainee teachers indicated that the pre-test and post-test of the trainee teachers were conducted.

30) All the master trainers and majority (93 percent) of the trainee teachers reported that the trainee teachers were regular during training programme and attendance of the trainee teachers was found to be 91 to 100 percent. Seventy five percent master trainers reported that the trainee teachers were maximum

interested and motivated for the training programme, whereas (72 percent) trainee teachers reported that the interest and motivation of the trainee teachers was found to be, to some extent.

31) All of master trainers reported that pre-service training was not imparted to trainee teachers in TOs whereas two full time teachers (master trainers) were appointed in TOs by TTP.

32) All the master trainers and trainee teachers reported that non formal system of education was not offered in TOs.

33) Majority of the respondents reported that home food processing, family planning, environment protection and adult literacy courses were not offered in TOs.

34) The master trainers and trainee teachers reported that the guidance and counseling and information services were reported as, to some extent, whereas tutorials, co-curricular activities were being provided maximum in TOs but, the service of study loan was not offered.

35) Eighty five percent master trainers had the opinion that PITEs were not connected with TOs through its mobiles training vans regarding bringing the subject specialists/lecturers to TOs whereas monitoring, supervising and evaluating the performance of TOs was reported as, to some extent.

36) Sixty percent master trainers reported that the TOs were not functioning after the completion of teacher training project. Only 30 percent master trainers reported that the TOs were found to be functioning as, to some extent, after the completion of the Teacher Training Project.

37) Seventy three percent experts/consultants were of the view that objectives of

the Teacher Training Project were framed according to the need and demand of the country and strategies adopted to achieve the objectives of TTP were found to be adequate. The strategies adopted to achieve the objectives of TTP were reported as training of teachers/ master trainers/Overseas Fellowship/In-Country Fellowship training, establishment of four PITEs and 66 TOs to impart in service and pre-service training, establishment of TPTE, FCU as coordination unit at federal level, establishment of four PIUs as implementation units at provincial level and up gradation of 10 GCEs and 49 GCETs as model colleges. It was observed, on the basis of information, that 28 research studies were not conducted in time. Developed instructional material was reported to be insufficient. Diploma in Education programme was also not successful. Provision of physical facilities was reported as maximum.

38) Majority (53 percent) of the percent experts/ consultants reported that foreign consultants were well qualified and competent. Sixty seven percent experts/ consultants reported that local consultants were well qualified and competent.

Fifty seven percent respondents reported that the consultants provided their best services for the project. But it is inferred from the data that the some consultants/experts did not provided the best services. The main contribution of consultants were found to be revision and development of curricula/material for pre- service and in-service training programs, conduct of research studies and training of teachers / master trainers.

39) Majority (60 percent) of the experts/ consultants reported that the coordination was found to be weak between TPTE, FCU and PIUs and it was established

through meetings.

40) Ninety percent experts/ consultants reported that in service training was imparted adequately. It was observed, on the basis of information, that in-service training was subject based and the aspect of pedagogical skills was emphasized

41) Fifty three percent experts / consultants responded that staff of the project was properly qualified and competent. But it is inferred from the data that some experts/ consultants were not properly qualified and competent.

42) Fifty three percent experts / consultants responded that the project was well organized. The elements of organization were found to be FCU, PIUs, TPTE and management of the project (project staff, secretary etc) and consultant's services.

43) Fifty seven percent experts/ consultants reported that professional attitude was developed through In-country Fellowship programme which emphasized on teaching methods, skills and competenc, introduction of new techniques, learning material and conducive environment. Sixty seven percent respondents reported that management techniques were improved through Overseas Fellowship/In-Country-Fellowship programmes. The emphasis was on the training materials, modules and discussion.

44) Sixty percent respondents reported that PITEs were not functioning according to the objectives formulated in PC-I and the main function of PITEs was to impart in-service training to master trainers/teachers. Eighty three percent educational experts reported that TOs were not functioning according to the objectives of PC-I and the main function of the TOs was to impart in-service

training to primary and secondary school teachers.

45) Forty three percent educational experts /consultants indicated that Diploma in Education was an innovative approach, including the knowledge, skills and latest teaching techniques. It was observed on the basis of information that Diploma in Education was a good programme. It was implemented in Punjab, NWFP and Balochistan provinces but it was not successful due to improper provision of grades for jobs to the graduates of Diploma in Education.

5.3 CONCLUSIONS

In the light of the analysis of data and findings of the study the following conclusions were drawn:

1. Majority of the respondents included in the study was found well qualified and trained. They were found with M.A and M.Ed. degree. Majority of them were found well experienced.
2. Office equipment was sufficiently provided and electronic media was insufficiently provided in GCEs and GCETs. Regarding utilization, it was observed that office equipment was properly utilized whereas electronic media was not properly utilized. Teacher educators (TR and NTR) reported that the use of VCR/VCP, TV sets, video cameras, radio/tape players and over head projectors was unsatisfactory in all the institutions. Public address system, 35 mm cameras and tele classroom cum studio were not provided in PITEs, GCEs and GCETs. It is evident that except slide projectors and type writers, office equipment and electronic media were not provided in TOs. Regarding utilization, these two items i-e slide projectors and type writers were not properly utilized. Majority of the

heads (PITEs, GCEs and GCETs) felt comfortable with the provision of office equipment. In PITEs, GCEs and GCETs, electronic media was reported as played a vital role in strengthening the teacher training in all the four provinces.

3. Almost all the furniture was provided in sufficient quantity and was maximum utilized in PITEs,GCEs and GCETs. But few items (mono desks, rostrum, revolving chairs and stenographer tables) were insufficiently provided. Administrative/ teaching staff and students were facilitated with the provision of furniture in the three provinces i-e Punjab, Sindh and Balochistan. But NWFP province was reported as to some extent. Furniture was also sufficiently provided in TOs and its utilization was reported as maximum during training.
4. Science equipment in science laboratories were provided to PITEs, GCEs and GCETs in four provinces which enriched utmost level of the teaching of science in two provinces (Punjab and Sindh). But NWFP and Balochistan provinces were reported as to some extent. It may be due to lack of training in using the science equipment for making their teaching effective.
5. The buildings of PITEs were constructed and equipped with necessary facilities under TTP. One/two rooms were constructed in existing GCEs, GCETs and TOs. The students' enrolment was enhanced in all the four provinces due to the construction of one/two rooms in the existing GCEs, GCETs and with the establishment of two new GCETs for female in Vehari and Talagang in Punjab. It reflects the quantitative improvement in teacher education. It was the impact of Teacher Training Project that establishment of two new GCETs and construction of one/two rooms in existing GCEs, GCETs and TOs facilitated the prospective teachers.

6. Almost all the teacher educators training receivers and non- training receivers possessed the same, competencies and skills. But in some cases, it was reported that the teacher educators training receivers were found much better and they were consulting reference/latest books/material and new techniques whereas non training receivers were following textbooks for teaching.
7. The use of project method and simulation method were more adopting by the teacher educators training receivers whereas frequent use of lecture method and question answer method was reported by the teacher educator's non training receivers. It may be due to the fact the teacher educators training receivers were trained in this area through training for effective teaching. It is inferred from the data that discussion method, demonstration method, micro teaching and team teaching were not being frequently used by the teacher educators training receivers and non training receivers.
8. The impact of Teacher Training Project was noticed in the teacher educators-training receivers as they employed contemporary methods of teaching (project and simulation method).They also attained competence to use reference books and developed the skills to use the A.V. aids/ modern technology (multimedia, overhead projectors, internet etc), classroom management skills and have personal skills (time managements, personal responsibility and ability to continue learn).
9. Behaviour of the teacher educators – training receivers and non training receivers was reported to be positive; a good professional attitude was developed in the prospective teachers and aptitude was also rated as good. Both teacher educators training receivers and non training receivers were found professionally committed with their job, satisfied with present salary and liked the teaching profession. It is

inferred from the data that some teacher educators – training receivers and non training receivers were not found satisfied with the present salary. It may be due to the fact that some facilities like transport, official residence and medical facilities may not be provided by Department of Education so they were found unsatisfied.

10. Majority of the heads reported that library books were provided in the institutions. Library books were found more supportive for teaching and learning in three provinces (Punjab, NWFP and Sindh) but province of Balochistan was being neglected in this respect. Provision of library books was reported short in supply in the Balochistan province. So the use of library books was rarely found in the institutions of Balochistan province. Library / reference books and printed books and guides were provided in TOs but the use of these books was rarely found in TOs.
11. Objectives and scheme of studies for Diploma in Education programme were reported as well formulated but the textbooks proposed by Ministry of Education for Diploma in Education were poorly developed and deficient. The contents selected for Diploma in Education were found to be appropriate but it was observed, on the information, provided by teacher educators training receivers and non- training receivers that contents were to some extent relevant and adequate. The Diploma in Education programme was reported as not successful by the educational experts/consultants due to the improper provision of grades for jobs and non acceptance of programme in the teacher training institutions. Educational experts/consultants reported that a curricula reform for pre-service teacher education (Diploma in Education) was a good programme including the

knowledge, skills and latest teaching techniques.

12. The experts/consultants had opinion that In-country Fellowship programme played a vital role in the development of the professional attitude in the teacher educators through emphasizing on teaching methods, skills and competence. Conducive environment, introduction of new techniques and learning material added to the success at large.
13. Overseas Fellowship training was reported to be useful for educational managers/ teachers. The training was found to be effective and supportive. It was according to the need of the country and job requirements of the educational managers/teachers. The master trainers of Overseas Fellowship training were found to be competent. The selected institutions for Overseas Fellowship training also provided adequate and understandable modules and instructional material for training which helped the trainees to solve their administrative problems and also improved the efficiency of work.
14. The educational managers/teachers reported positive change in the behavior as a result of training and the behavior/attitude of trainees was modified towards the management of the institution/ organization. The analysis revealed that some areas of management were found to be deficient i-e the institutions' broad aims and objectives, written strategic plan, library/resource center, open access to learning resources, building/classrooms and the labs upkeep, well planned and organized learning environment, teaching and learning strategies, review and evaluation system in the institutions. It is also inferred from the data that some trainees reported that Overseas Fellowship training, to some extent, helped the trainees to solve the administrative problems in the organization.

15. Overseas Fellowship training improved skills for the development of budget of the organization/ institution. It is also inferred from the data that some trainees reported that Overseas Fellowship training, to some extent, improved skill for the development of budget of the organization/ institution.
16. Management techniques were improved through In-Country Fellowship/Overseas Fellowship programmes. Training materials and modules/manuals were provided and discussions were also carried out for effective training.
17. A report was written by the educational managers/teachers after their return from Overseas Fellowship training but they did not conduct any training programme for the educational managers.
18. In the TOs the objectives and time table of the training were provided to the trainee teachers and the subjects were taught according to the time table. Pre-test and post-test of the trainee teachers (TOs) were conducted and performance of the trainee teachers was found to be better in post-test which was the impact of the Teacher Training project. The trainee teachers were found to be regular but they were not much interested and motivated during training programme. It may be due to the lack of facilities and incentives in terms of promotion.
19. Pre-service training, non formal system of education, home food processing courses were not offered whereas family planning, environment protection and adult literacy courses were, to some extent, offered in TOs.
20. Tutorials and co-curricular activities were found to be effective but guidance and counseling and information services were not properly provided whereas the service of study loan was not being provided in TOs.
21. PITEs were not connected with TOs through their mobiles training vans for

bringing the subject specialists/lecturers to TOs whereas PITEs were, to some extent, connected with TOs through their mobiles training vans for monitoring, supervising and evaluating the performance of TOs.

22. Almost all the skills were developed in the trainee teachers of TOs but the skills of presentation of lesson, use of A.V aids, effective questioning, motivating the students towards studies, involvements of the students and evaluation skills were found to be less developed in the trainee teachers. Communication skills, skills of non verbal cues and silence, use of modern technology and information management skills were, to some extent developed, perhaps due to the ineffective teaching of master trainers.
23. After the completion of the project TOs were found ineffective which caused the wastage of money and material. It was perhaps due to lack of interest and funds that after the completion of the project the teachers' training could not be continued.
24. Majority of the experts/consultants reported that objectives of the Teacher Training Project were framed according to the need and demand of the country and strategies adopted to achieve the objectives were adequate. Following strategies were adopted; training of teachers/ master trainers / Overseas Fellowship/In-Country Fellowship training, four PITEs and TOs were established to provide in service training and pre-service training. FCU was established at federal level as coordination unit and PIUs were established at provincial level. TPTE was also established at Federal level. To achieve the objectives 10 GCEs and 49 GCETs colleges were upgraded as model colleges. It is inferred from the data that some experts/consultants had opinion that strategies adopted to achieve

the objectives were inadequate. It may be due to the fact that 28 needs based research studies were also conducted but not completed well in-time which adversely affected the project. Curricula of CT, B.Ed./ B.S.Ed. and M.Ed. was revised and an innovative approach Diploma in Education 10+3 and 12+1 ½ was introduced replacing the C.T and PTC to meet the international standard. But this programme was not successful due to the non acceptance of programme in TTIs and given grades for jobs to the graduates.

25. Majority of the foreign and local consultants were found properly qualified and competent whereas it is inferred from the data that some foreign and local consultants were not competent in the relevant area. It was also observed, on the basis of information, that local consultants were found slightly better as compared to foreign consultants.
26. Majority of the experts / consultants reported that staff of the project was well qualified but the data reflects that all the staff of the project was not found to be well qualified and competent.
27. The educational experts/consultants reported that in-service training provided to teacher educators, educational managers and primary/secondary school teachers was found to be adequate. It was subject based-training and pedagogical skills were developed in the training but the training material was not developed according to the needs.
28. Majority of the Experts/consultants reported that the project was well organized and the elements of organization were found to be FCU and PIUs and TPTE, management of the project (secretary etc) and consultation services. But some experts/consultants had the opinion that the project was not well organized. It may

be due to the weak coordination.

29. The experts / consultants reported that consultants(local and foreign) provided their best services in the development and revision of curricula/ development of material for in service training, preparation of modules, research studies and training of teachers / master trainers whereas it is inferred from the data that some consultants did not provide their best services. It may be due to their incompetence on the subject, weak monitoring and supervision by the consulting firms, FCU and PIUs and lack of attention by ADB review missions' to closely monitor the consultants outputs.
30. Experts/ consultants pointed out that there was weak coordination between FCU, PIUs and TPTE and the coordination was established through meetings. It may be due to the weak managerial leadership. The staff of the project was also not trained in the relevant field.
31. PITEs and TOs were not functioning according to the objectives formulated in the PC-I. The main function of PITEs was imparted in-service training to teachers and master trainers. In-service training was imparted to teachers and master trainers during the project but preparation of training material, pre-service training programmes and conduct of research studies were found to be neglected in PITEs. It may be due to the lack of interest and funds. PITEs may not be playing effective role as it was planned in the PC-1.The TOs were established for especially female teachers in rural areas to provide pre-service and in-service training. But pre-service training and non- formal education system were also found neglected in TOs.

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5.4 RECOMMENDATIONS

Keeping in view the findings of the study and conclusion drawn, the following recommendations are being made which may be helpful for the improvement of the present status of teacher education and for further researches. It may provide guidelines for launching another project in teacher education.

1) Finding showed that electronic media was not provided in sufficient quantity, so electronic media may be provided in sufficient quantity and arrangements may be made for the proper utilization of office equipment and electronic media in Teacher Training Institutions. For that purpose, short term training courses may be arranged for imparting training to faculty in using the office equipment and electronic media.
2) Furniture provided to PITEs, GCEs and GCETs by TTP to some extent, facilitated the administrative/teaching staff and students in NWFP province. So all the teacher training institutions in NWFP may be equipped with adequate furniture for effective training of the prospective teachers.
3) Science equipment in science laboratories were sufficiently provided to PITEs, GCEs and GCETs in all the four provinces, but it's to some extent enriched the teaching of science in NWFP and Balochistan provinces. It is a dire need that short term training courses may be arranged for imparting training to faculty in using the science equipment.
4) Books in the libraries were also provided short in supply in Balochistan. Special funds may be allocated for the purchase of books in Balochistan province. The trainees may be facilitated to make the use of library; for the purpose a period may be allocated in the time table.
5) The students' enrolment may be enhanced through the construction of more rooms

in the existing GCEs and GCETs. For this purpose, funds may be raised with the involvement of community, NGOs and provincial governments.

6) Teacher educators training receivers were employing contemporary methods of teaching. Their competencies and skills were also groomed. But teacher educators' non-training receivers may be encouraged to use the A.V aids and modern methods and techniques for the training of prospective teachers. They may be encouraged to use reference books/new techniques for effective teaching. For this purpose, teacher educators-training receivers may arrange mentoring sessions for teacher educators' non-training receivers. Micro- teaching rooms also may be developed in all teacher training institutions.

7) In service training programmes for both male and female teachers may be designed and organized regularly for continuous learning and improvement. To enhance the pedagogical skills, personal skills, classroom management skills, skills of closure, non-verbal cues and silence, and re-designing the lessons, in-service training may be imparted to all the teacher educators/ trainee teachers for effective teaching. Writing and research skills may be encouraged among teachers through training courses, and emphasis may be given on development of all the skills.

8) There may be no disparity in the pay scales of teacher educators irrespective of whether they are teaching at college or university level. To cope with the financial deficiencies of teacher educators, their salary may be increased and facilities be extended further.

9) Diploma in Education programme(10+3and 12+1/2) may be offered in all the teacher training institutions of Punjab and Sindh provinces, to meet the international standard.

10) Textbooks proposed by Ministry of Education for Diploma in Education may be restructured and redesigned to cope with the need of the day.

11) The duration of in-service and pre-service training may be enhanced.

12) Refresher courses of appropriate duration after every 5 years must be conducted and these courses may be linked with the promotion and other monetary benefits.

13) Dedicated and competent professionals from all disciplines may be trained locally and internationally as lead trainers and master trainers on priority and urgent basis.

14) Economic aspects of the management of teacher training sector have been too often ignored in the past. So the modules may be provided to trainee teachers, to develop insight for the development of budget of the organization/institution. The modules may be according to the needs of the educational managers, have up-to-date information, address some of the pressing issues in teacher training, and cover the every aspect of the management.

15) Educational managers may be encouraged to monitor the institutions' broad aims/objectives and all the learning activities in the institutions/organizations which are essential for the improvement of management process.

16) Educational managers did not conduct training programmes for the educational managers after their return. It is wastage of resources. Educational managers may be encouraged to conduct training programmes for educational managers who helped to streamline their official work**.** For that purpose, cluster training programmes may be designed to train educational managers.

17) In the TOs photocopiers, audio/video cassette tapes, video cassette tapes players and information packages (by PITEs and AIOU) were not properly provided. TOs may be reactivated under the supervision of PITEs. Equipments may be provided

well in time and arrangements may be made for the proper utilization.

18) The trainee teachers of TOs were found not much interested and motivated to the training programmes. For the purpose, training institutions may be equipped with adequate instructional aids. Facility of transport and incentives in terms of grades may be provided in TOs.

19) Pre-service training, non formal system of education, home food processing course, family planning, environment protection and adult literacy courses may be offered in TOs with the involvement of NGOs, PITEs and Directorate of Staff Development(DSD). These special programmes may be organized for the teachers in collaboration with AIOU.

20) Service of study loan may be provided in TOs. For that purpose, provincial governments may be allocated special study loans for the teachers in collaboration with the banks.

21) TOs may be reactivated and PITEs be connected with TOs through its mobiles training vans plying for subject specialists/lecturers to TOs. Vehicles must be used for the establishments of links between TOs and PITEs for the promotion of teacher education. For that purpose, proper monitoring system may be devised.

22) Guidance and counseling centers may be established in all the teacher training institutions.

23) The aspect of development of instructional material was neglected in training programmes during TTP, so training material (printed material, audio/video material) may be provided in the training programmes. All PITEs and teacher training colleges may constitute the committees to assess the needs of the institutions to develop/ purchase the material. The instructional material may also

be try-out in the institutions.

24) TOs are not functioning after the completion of Teacher Training Project. It is the dire need of time that these institutions may be fully utilized in true manner and fill the gap through use of different local resources and arrangements may be made for their proper utilization. Executive District Officers/District Officers may be encouraged to reorganize the training programmes in these existing TOs at district level.

25) It is essential that adequate strategies may be adopted keeping in view the current situation of Pakistan for continuous improvement in teacher education sub sector and all the components of organization may be properly monitored. For the purpose, effective evaluation and monitoring system may be organized along with proper follow-up in an institutionalized way.

26) Staff of the project and foreign/local consultants may be selected on merit to avoid the wastage of resources. For that purpose, it must be ensured that consultants are competent in that area.

27) For the implementation of the project, it is essential that strong coordination be ensured between the different components of the project and it may be properly monitored.

28) In-Country Fellowship/ Overseas Fellowship programmes may be organized keeping in view the need and demand of the country and the number of prospective teachers so that it may be helpful in future.

29) Management techniques may be improved through In-Country Fellowship/Overseas Fellowship training. Arrangements may be made for the proper utilization of resources. For that purpose, library facilities and adequate

modules may be provided in the training institutions.

30) Young and talented persons may be selected on merit because it was observed on the basis of information that most of the trainees retired after a few years and training may be linked with the promotion.

31) All the PITEs in all the four provinces are functioning but not according to the objectives formulated in PC-I. The PITEs may be recognized as apex body, according to the objectives formulated in PC-1. In PITEs B.Ed., M.Ed. and M.A Education programmes may be started and it may be declared degree awarding institutions besides in-service training programmes.

32) HEC, Federal and Provincial governments may sponsor the training programmes for teachers and lecturers both at public and private level. Education Departments may be given recurring budget for the training programmes, so that the teachers may avail of the training opportunities.

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Appendix-I

IMPACT OF ADB ASSISTED TEACHER TRAINING PROJECT ON THE QUALITY OF TEACHER EDUCATION IN PAKISTAN

Questionnaire for Heads of the Institutions

(PITEs, GCEs, GCETs/RITEs)

.

:

1. Name_____
2. Name of the Institution :_____
3. Designation _____
4. Qualification (a) Academic _____

   (b) Professional _____
5. Total Experience (in years): As administrator / manager _____

This questionnaire is designed to find out the impact of ADB assisted Teacher Training Project (1994-2001).on the quality of teacher education in Pakistan.

6. To what extent office equipment was provided and utilized in the institution under TTP?

S. No	Equipment	Provision			Utilization		
		Sufficient	Short	NAA	Max	TSE	NAA
i.	Photocopier						
ii.	Desktop Computer						
iii.	Printer						
iv.	Typewriter						
V	Any Other _____						

Max=Maximum TSE=To some extent NAA= Not at all

7. To what extent furniture was provided and utilized in the institution under TTP?

S. No	Furniture	Provision			Utilization		
		Sufficient	Short	NAA	Max	TSE	NAA
i.	Classroom tablet chair						
ii.	Mono desk						

iii.	Rostrum						
iv	Tables for classrooms						
v	Armed chairs						
vi	Revolving chairs						
vii	Officer tables						
viii	Stenographer table						
ix	Office chairs						
x	Office tables						
xi	Table for practical						
xii	Stools for labs.						
xiii	Showcase/ steel almirah						
xiv	Library chairs						
xv	Library tables						
xvi	Librarian chair						
xvii	Library catalog						
xviii	Librarian counter						

Max=Maximum TSE=To some extent NAA= Not at all

8.To what extent electronic media was provided and utilized in the institutions under TTP?:

S. No	**Electronic Media**	**Provision**			**Utilization**		
		Sufficient	**Short**	**NAA**	**Max**	**TSE**	**NAA**
i.	VCR/VCP						
ii.	T.V set						
iii.	Video camera						
iv.	Public address system						
v.	Radio/ tape player						
vi	Over head projector						
vii.	Slide projector						
ix.	35 mm camera						
x.	Audio/video tapes/						

	Consumables						
xi.	Tele classroom cum studio						
xii.	Printing facilities						

Max=Maximum TSE=To some extent NAA= Not at all

9. To what extent do you feel comfortable with the provision of office equipment? Max/ TSE/ NAA

10. To what extent furniture provided by TTP facilitated the administrative and teaching staff? Max/ TSE/ NAA

11. To what extent furniture provided by TTP facilitated the students? Max/ TSE/ NAA

12. To what extent electronic media played a vital role in the strengthening of the teacher's training? Max/ TSE/ NAA

13. To what extent the science equipment was provided in the science labs by TTP? Sufficient/Short /Not Available

14. To what extent science equipment provided by TTP enriched the teaching of science? Max/ TSE/ NAA

15. To what extent the books were provided in the libraries by TTP? Sufficient/Short /Not Available

16. To what extent the library books supported the teaching and learning? Max/ TSE/ NAA

17. To what extent do you think that construction of 1 or 2 rooms in existing GCETs/ GCEs enhanced the enrollment? Max/ TSE/ NAA

18. Please mention the weaknesses of the training programmes in Pakistan

. _____

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19. Give suggestions for the improvement of the teacher training programmes in Pakistan

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Appendix-II

IMPACT OF ADB ASSISTED TEACHER TRAINING PROJECT ON THE QUALITY OF /TEACHER EDUCATION IN PAKISTAN

Questionnaire for Teacher Educators

(GCEs, GCETs/RITEs)

1. Name _____
2. Name of Institution _____
3. Designation with BPS _____
4. Qualification _____
   a) Academic _____
   b) Professional _____
5. Teaching experience (In years) _____
6. Have you attended the In-Country Fellowship training program (in service training) under Teacher Training Project (TTP) implemented in Pakistan (1994 – 2001) Yes / No

Following statements / questions are designed to investigate the impact of ADB assisted Teacher Training Project (TTP) on the quality of teacher education in Pakistan. You are requested to give your opinion on the following rating scale:

SA = Strongly Agree
A = Agree
UD = Undecided
DA = Disagree
SDA = Strongly Disagree

PART A: Office Equipment

7. To what extent office equipment was provided and utilized in the institution under TTP?

S. No	Equipment	Provision			Utilization		
		Sufficient	Short	NAA	Max	TSE	NAA
a.	Photocopier						

b.	Desktop Computer						
c.	Printer						
d.	Typewriter						
e	Any Other _____						

PART B: Electronic Media

8. To what extent electronic media was provided and utilized in the institution under TTP?

S. No	Electronic Media	Provision			Utilization		
		Sufficient	Short	NAA	Max	TSE	NAA
a.	VCR/VCP						
b.	T.V set						
c.	Video camera						
d.	Public address system						
e.	Radio/ tape player						
f.	Over head projector						
g.	Slide projector						
i.	35 mm camera						
j.	Audio/Video tapes/ Consumables						
k.	Tele classroom cum studio						
l.	Printing facilities						

PART C: Teaching Methods/ Strategies

10. Which method / strategies you adopt during teaching.

S.No	Statements	Mostly	Occasionally	Never
a.	Project method			

b.	Question – answer method			
c.	Discussion method			
d.	Lecture method			
e.	Demonstration method			
f.	Micro teaching			
g.	Team teaching			
h.	Simulation			

PART D: Teacher educator's Performance w.r.t Competency and Skills

11. Please indicate Teacher educator's competency with regard to the following aspects

S.No	Statement	SA	A	UD	DA	SDA
i.	Arriving in the class on-time.					
ii.	Maintaining discipline in the class.					
iii.	Informing the students about the objectives of the lesson.					
F	Providing reliable information to the students.					
g	Having command on the subjects being taught					
h.	Listening to students' problems					
i.	Encouraging the students to hold discussion in the class.					
J	Following the text books for teaching.					
k	Following the already prepared notes for teaching					
L	Following the reference books / latest books / material for teaching.					
m	Following the web based learning material for teaching					
n	Following new techniques for teaching the subjects					
o	Completing the course on time					

p	Leaving the class after completion of period's time.					
q	Maintaining working relationship with the head of institution.					
R	Arranging the field trips (Visits to the educational Institutions) for the students to see the actual scenario of the education system.					

12. Please indicate the teacher educator's skills with regard to following aspects

S.No	**Skills**	**SA**	**A**	**UD**	**DA**	**SDA**
a	Set induction statement (introduction of the lesson)					
b.	Presentation of the lesson					
c	Use of A.V. aids					
d.	Effective questioning					
e.	Motivating the students towards studies					
f.	Involvement of the students					
g	Skills to use modern technology (multimedia, OHP, Internet etc)					
h	Skills of closure (closing the lesson)					
I	Re-designing the lesson.					
J	Communication skills					
k.	Classroom management skills					
l.	Evaluation skills					
m	Skills of non-verbal cues and silence					
n	Information management skills					
o	Personal skills (Time management, personal responsibility and the ability to continue to learn)					

PART E: Professional Attitude Towards Teaching

13. Are you satisfied with your present job? Yes/No

14. If you are not satisfied with your present job, give reasons;

_____

_____

_____

.15 If you are satisfied with your present job, give reasons;

_____

_____

_____

16. Are you satisfied with your present salary? Yes/No

17. If you are not satisfied with your present salary, give reasons;

_____

_____

_____

18. Do you like the teaching profession? Yes/No

19. What is your future plan?

_____

_____

_____

20. To what extent the professional attitude is developed in your students?

Excellent	Good	Fair	Poor

21. How would you rate the aptitude of your students towards teaching profession?

Excellent	Good	Fair	Poor

PART G: Curriculum

22. Please express your opinion regarding the following aspects of the curriculum

S.No	Statement	SA	A	UD	DA	SDA
a	The objectives of Diploma in Education are according to the need of the time to meet the international standard					
b	The selected scheme of studies is according to the objectives of the Diploma in Education					
c	The textbooks for Diploma in Education are easy to understand.					
d	The textbooks are written in a way that the students are involved into studies.					
e	The textbooks proposed for Diploma in Education are: a. Well formulated b. Have latest information c. Have latest teaching techniques d. According to the need and demand of the society/ country.					
F	The contents selected for the training of teachers (Diploma in Education) are a. Appropriate b. Relevant. c. Adequate					

23. Please mention the weaknesses of the training programmes in Pakistan

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24. Give suggestions for the improvement of the teacher training programmes in Pakistan

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Appendix-III

IMPACT OF ADB ASSISTED TEACHER TRAINING PROJECT ON THE QUALITY OF TEACHER EDUCATION IN PAKISTAN

Questionnaire for Educational Managers

(Overseas Fellowship Trainees)

1. Name: _____

2. Designation _____

3. Organization/Institution _____

_____

4. Qualification (a) Academic _____

(b) Professional _____

5. Total Experience (in years): As administrator / Manager _____

As Teacher _____

6. Name of the country in which you received Overseas Fellowship Training under TTP _____

7. Duration of the training _____

8. In which area you received Overseas Fellowship Training (please tick)

   a. Curriculum Development

   b. Material Development

   c. Educational Technology

   d. Non Formal Education

   e. Introduction/ Use of A.V. Aids/ Development

   f. Institutional/ Project Management

   g. Any other

This questionnaire is designed keeping in view your Overseas Fellowship Training (OFT) held in 1998 under Teacher Training Project (TTP). Please give your opinion about the training and its outputs on the following rating scale:

SA	=	Strongly Agree
A	=	Agree
UD	=	Undecided
DA	=	Disagree
SDA	=	Strongly Disagree

S.No.	**Statements**	**SA**	**A**	**UD**	**DA**	**SDA**
1.	The objectives of OFT were achieved.					
2.	The objectives of OFT were according to the need of the country.					
3.	The modules provided during training were under standable and adequate.					
4.	The modules provided during training were according to the needs of the educational managers.					
5.	The modules provided covered every aspect of the management.					
6.	The institutions selected for OFT provided adequate instructional material for training.					
7.	The master trainers of OFT were competent.					
8.	You were aware of the management styles before receiving training.					
9.	The OFT was according to your job requirements.					
10.	The OFT helped you in the development of conducive environment in your organization.					
11.	OFT helped you solving the administrative problems of your organization / institution.					
12.	You applied the theoretical concepts of management taught to you during OFT in your organization.					
13.	Your efficiency of work improved after receiving OFT					
14	Your subordinates benefited from your OFT					
15	The official work is streamlined after receiving OFT					
16.	OFT modified your behaviour/attitude about					

	management of the institution / organization					
17.	Educational managers were exposed to new ideas of management.					
18.	Educational managers are well aware of personal and organization values.					
19.	OFT improved the effective decision making of the educational managers.					
20.	OFT training provided improved skill for the development of budget of the organization / institution.					

21. To what extent educational managers monitor the following aspects regarding quality management

i. Institutions' broad aims and objectives. MAX TSE NAA

ii. Institutions' written strategic plan. MAX TSE NAA

iii. Library/ resource center. MAX TSE NAA

iv. Open access to learning resources. MAX TSE NAA

v. Open access to computer facilities. MAX TSE NAA

vi. Opportunities for students to organize the academic activities. MAX TSE NAA

vii. The Building, the classrooms and the labs upkeep. MAX TSE NAA

viii. Learning environment well planned and organized. MAX TSE NAA

ix. Teaching and learning strategies MAX TSE NAA

x. Review and evaluation system in the institutions MAX TSE NAA

22. Did you write a report on the OFT training on your return? Yes / No

If yes, please mention the main points.

_____

_____

23. Did you provide training to the other managers after receiving OFT? Yes/ No

If yes, please mention the objectives of the training provided by you.

24. Please enlist the problems which you are facing in management / administration

25. Give suggestion for the improvement of the management system in Pakistan.

Appendix-IV

IMPACT OF ADB ASSISTED TEACHER TRAINING PROJECT ON THE QUALITY OF TEACHER EDUCATION IN PAKISTAN

Questionnaire for Heads / Master Trainers of TOs

1. Name of Heads/Master Trainer:_____
2. Name of Training Outposts_____
3. Designation _____
4. Qualification (a) Academic _____
   (b) Professional _____
5. Total Experience _____

This questionnaire is designed to find out the impact of Teacher Training provided in Training Out Posts (TOs) under Teacher Training Project (1994-2001).

Part A . Physical Facilities

6. Were the two rooms constructed in the school (TOs) under TTP? Yes/No
   If yes, when? _____
7. Was furniture provided and utilized in the TOs under TTP?
   Yes/No

8. To what extent following training material/ A.V. aids were provided and utilized in TOs?

Items	Provision			Utilization		
	Sufficient	Short	NAA	Max	TSE	NAA
i. Photocopier						
ii. Audio cassette tapes						
iii. Video cassette tapes						
iv. Video tape cassette player						
v. Slide projector with Tap Cassettes Synchronizer						
f. 50 x 50 Screen						

g. Type Writer						
h. Printed books and guides						
i. Correspondence Text Books						
j. A Set of Library/ Reference Books						
k. Information packages (By PITEs & AIOU)						

MAX- Maximum **TSE - To Some Extent** **NAA- Not At All**

Part B: Teachers' Training

9. How many in-service training courses you have attended as a participant during Teacher Training Project? _____

10. How many in-service training courses you have conducted as a master trainer during Teacher Training Project? _____

11. How many in-service training courses you have conducted as a master trainer after the completion of Teacher Training Project?_____

12. To what extent the training provided to you prepared you as master trainer for the training of teachers? Max/TSE/NAA

13. Were the objectives of the training provided to you for trainee teachers? Yes/ No.

14. Was the time table provided to you for trainee teachers? Yes/No

15. Did you teach the subjects to trainee teachers according to the given time table? Yes/No

16. Did you conduct a pre-test for trainee teachers before the start of teacher training in TOs under TTP? Yes/ No

17. Did you conduct a post-test for trainee teachers after the completion of teacher

training in TOs under TTP?

Yes/No

18. What was the difference between the pre-test and the post –test?

_____

_____

_____

19. Did the trainee teachers attend the course regularly? Yes/ No

Give percentage of the participants' attendance.

61-70 %	71-80 %	Above 80 %

20. Was the pre-service teacher training for female student teachers provided in TOs? Yes/ No

21. Was following staff provided in TOs?

S.No	Staff	YES	NO
a.	Two full time Teachers		
b.	One Administrative Assistant		
c.	One LDC		
d.	One Peon		

22. To what extent the trainee teachers were interested in and motivated to the training programme? Max/TSE/NAA

23. To what extent the training was provided through non formal system to the teachers? Max/TSE/NAA

24. To what extent the following community extension training courses were provided to the women?

S.No	Community Extension Training Courses	Max	TSE	NAA
a.	Home Food Processing			
b.	Family Planning			
c.	Environment Protection			
d.	Adult Literacy			

MAX- Maximum **TSE - To Some Extent** **NAA- Not At All**

25. To what extent the following services were provided in TOs?

S.No	Services	Max	TSE	NAA
a.	Guidance and Counseling			
b.	Tutorials			
c.	Co-Curricular Activities			
d.	Information Services			
e.	Study Loans			

MAX- Maximum **TSE - To Some Extent** **NAA- Not At All**

26. To what extent PITEs were connected with TOs through its mobile training vans, regarding the following aspects

S.No	Aspects	Max	TSE	NAA
a.	Bring PITES' subject specialists/lecturer to TOs			
b.	Monitored, supervised and evaluated the performance of TOs with reference to headmaster, teaching staff, educational technologist and its staff activities and provide counseling			

MAX- Maximum **TSE - To Some Extent** **NAA- Not At All**

27. To what extant the training provided by the master trainers developed the following skills in the trainee teachers. Please express your opinion on the following rating scale.

SA = Strongly Agree
A = Agree
UD = Undecided
DA = Disagree
SDA = Strongly Disagree

S.No	Skills	SA	A	UD	DA	SDA
a	Set induction statement (introduction of the lesson)					
S.No	**Skills**	**SA**	**A**	**UD**	**DA**	**SDA**
b.	Presentation of the lesson					
c	Use of A.V. aids					
d.	Effective questioning					
e.	Motivating the students towards studies.					
f.	Involvement of the students.					
g	Skills to use modern technology (Multimedia, OHP, Internet etc)					
h	Skills of closure (closing the lesson)					
I	Re-designing the lesson.					
J	Communication skills					
k.	Classroom management skills					
l.	Evaluation skills					
m	Skills of non-verbal cues and silence					
n	Information management skills					
o	Personal Skills (Time management, personal responsibility and the ability to continue to learn)					

28. To what extent the TOs are functioning after the completion of Teacher Training Project? Max/TSE/NAA
29. What were the deficiencies in teacher training programmes conducted during Teacher Training Project ?

. _____

_____

_____

_____

30. Give suggestions for the improvement of the teacher training programmes in Pakistan

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Appendix-V

IMPACT OF ADB ASSISTED TEACHER TRAINING PROJECT ON THE QUALITY OF TEACHER EDUCATION IN PAKISTAN

Questionnaire for Trainee Teachers of TOs

1. Name of Trainee Teacher_____
2. Name of School _____
3. Name of Training Outposts_____
4.. Designation _____
5. Qualification (a) Academic _____
   (b) Professional _____
6. Total Experience _____

This questionnaire is designed to find out the impact of Teacher Training provided in TOs under Teacher Training Project (1994-2001).

Part A . Physical Facilities

7. To what extent following training material/ A.V. aids were provided and utilized in TOs?

Items	Provision			Utilization		
	Sufficient	Short	NAA	Max	TSE	NAA
i. Photocopier						
ii. Audio cassette tapes						
iii. Video cassette tapes						
iv. Video tape cassette player						
v. Slide projector with tap cassettes synchronizer						
vi. 50 x 50 screen						
vii. Type writer						
viii. Printed books and guides						
ix. Correspondence text books						

x.. A set of library/ reference books						
xi. Information packages (By PITEs & AIOU)						

MAX- Maximum **TSE - To Some Extent** **NAA- Not at all**

Part B. Teachers' Training

8. Were the objectives of the training course provided to you? Yes/ No.
9. Was the time table provided to you? Yes/No
10. Were the subjects taught according to the given time table? Yes/No
11. Did you take pre-test before the teacher training in TOs under TTP? Yes/No
12. Did you take post-test after the teacher training in TOs under TTP? Yes/No
13. Did the trainee teachers attend the course regularly? Yes/ No
14. To what extent the training provided to you prepared you for teaching? Max/TSE/NAA
15. To what extent the trainee teachers were interested in and motivated to the training programme? Max/TSE/NAA
16. To what extent the training was provided through non formal system to the teachers? Max/TSE/NAA
17. To what extent the following community extension training courses were provided to the women?

S.No	Community Extension Training Courses	Max	TSE	NAA
i.	Home Food Processing			
ii.	Family Planning			
iii.	Environment Protection			
iv.	Adult Literacy			

18. To what extent the following services were provided in TOs?

S.No	Services	Max	TSE	NAA
i.	Guidance and Counseling			
ii.	Tutorials			
iii.	Co-Curricular Activities			
iv.	Information Services			
v.	Study Loans			

31. To what extent the training provided by the master trainers developed the following skills in the trainee teachers. Please express your opinion on the following rating scale.

SA = Strongly Agree
A = Agree
UD = Undecided
DA = Disagree
SDA = Strongly Disagree

S.No	Skills	SA	A	UD	DA	SDA
I	Set induction statement (introduction of the lesson)					
ii.	Presentation of the lesson					
Iii	Use of A.V. aids					
iv.	Effective questioning					
v.	Motivating the students towards studies.					
Vi	Involvement of the students.					
Vii	Skills to use modern technology (multimedia, OHP, Internet etc)					
Viii	Skills of closure (closing the lesson)					
ix.	Re-designing the lesson.					
x.	Communication skills					
xi.	Classroom management skills					

xii.	Evaluation skills					
Xiii	Skills of non-verbal cues and silence					
Xiv	Information management skills					
Xv	Personal Skills (Time management, personal responsibility and the ability to continue to learn)					

19. What were the deficiencies in Teacher Training Programmes conducted during Teacher Training Project?

    ._____

    _____

    _____

    _____

20. Give suggestions for the improvement of the teacher training programmes in Pakistan

    ._____

    _____

    _____

    _____

Appendix-VI

IMPACT OF ADB ASSISTED TEACHER TRAINING PROJECT ON THE QUALITY OF TEACHER EDUCATION IN PAKISTAN

INTERVIEW SCHEDULE FOR EXPERTS/ CONSULTANTS

1. Name _____
2. Name of Institution_____
3. Designation with BPS_____
4. Qualification _____
   A) Academic _____
   B) Professional _____
5. Teaching experience (In years)_____
6. Total experience (In years)_____

7. Were the objectives of the TTP framed keeping in view the needs and demand of the country in teacher education?

   _____

   _____

   _____

8. Was the project (TTP) well organized? Please indicate elements of organization.

   _____

   _____

9. Was the staff of the project (TTP) competent and well qualified?

   _____

   _____

   _____

10. Were the strategies adopted to achieve the objectives / targets adequate? Please enumerate those strategies.

    _____

    _____

    _____

11. Were the foreign consultants of TTP well qualified and competent? Please substantiate.

    _____

    _____

    _____

12. Were the local consultants of TTP well qualified and competent? Please substantiate.

    _____

    _____

    _____

13. Did the consultants provide their best services for the project (TTP)? Please enlist their main contributions.

    _____

    _____

    _____

14. Was In-service training provided by TTP adequate? What aspects were emphasized?

    _____

    _____

    _____

15. Was there coordination between FCU and TPTE and PIUs? How was it established?

    _____

    _____

    _____

16. How In-Country Fellowship programme played a vital role in the development of the professional attitudes in the teacher educators?

    _____

    _____

    _____

17. Are the PITEs functioning according to the objectives formulated in the PC-I of the TTP? Enlist main functions being performed.

_____

_____

18. Are the TOs functioning according to the objectives formulated in the PC-I of the TTP? Enlist main functions being performed

_____

_____

19. How Management Techniques improved through Overseas Fellowship /In-Country in service teacher training Programme under TTP?

_____

_____

20. What is your opinion about curricula reforms of pre- service teacher education replacing PTC and CT by Diploma in Education programme?

_____

_____

_____

22. What were the deficiencies in teacher training programmes conducted during Teacher Training Project?

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23. Give suggestions for the improvement of the teacher training programmes in Pakistan

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_____

_____

Appendix-VII

LIST OF PITE, GCEs AND GCETs/RITEs

1. Provincial Institute of Teacher Education, Lahore, Punjab
2. Provincial Institute of Teacher Education, Jamshoro, Sindh
3. Provincial Institute of Teacher Education, Peshawar, NWFP
4. Provincial Institute of Teacher Education, Quetta, Balochistan

FERERAL

1. Federal College of Education, H-9, Islamabad

PUNJAB

1. University of Education, Lower Mall Campus, Lahore (Ex College of Education)
2. University of Education, Township, Lahore (Ex College of Education)
3. University of Education, Multan (Ex College of Education)
4. University of Education, D.G. Khan (Ex College of Education)
5. Govt. College for Elementary Teachers (Women), Islamabad
6. Govt. College for Elementary Teachers, Rawalpindi
7. Govt.College for Elementary Teachers (Women), Multan
8. Govt. College for Elementary Teachers (Men), Multan
9. Govt. College for Elementary Teachers, Gujrat
10. Govt. College for Elementary Teachers, Lalamusa
11. Govt.College for Elementary Teachers, Jehlum
12. Govt. College for Elementary Teachers (Women), Township Kotlakhpat, Lahore
13. Govt. College for Elementary Teachers, Sargohda
14. Govt. College for Elementary Teachers, Mainwali

SINDH

1. Govt. College of Education, F.B Area, Karachi
2. Govt. Jamia Milia College For Education, Malir, Karachi
3. Govt. Elementary College of Education, Shah Faisal Colony, Karachi

4. Govt. Elementary College of Education, Hussainabad, Karachi
5. Govt. Elementary College of Education, Qasimabad, Karachi
6. Govt. Elementary College of Education, Hydrabad
7. Govt. Elementary College of Education (Women), Sukhar
8. Govt. Elementary College of Education (Men), Sukhar
9. Govt. Elementary College of Education (Women), Khairpur
10. Govt. Elementary College of Education (Men), Khairpur
11. Govt. Elementary College of Education, Liari, Karachi
12. In Service Training Center, Hyderabad

NWFP

1. Regional Institute of Teacher Education (Women), D.I. Khan
2. Regional Institute of Teacher Education (Men), D.I. Khan
3. Regional Institute of Teacher Education (Women), Banu
4. Regional Institute of Teacher Education, Abbotabad
5. Regional Institute of Teacher Education, Timargara Deer
6. Regional Institute of Teacher Education (Women), Kohat
7. Regional Institute of Teacher Education (Men), Kohat
8. Regional Institute of Teacher Education, Dargai
9. Regional Institute of Teacher Education, Karak
10. Regional Institute of Teacher Education, Huripur
11. Regional Institute of Teacher Education (Men), Peshawar

Balochistan

1. Govt. Agro Technical College of Education, Quetta
2. Govt. College of Elementary Education (Women), Quetta
3. Govt. College of Elementary Education (Men), Quetta
4. Govt. College of Elementary Education, Loralai
5. Govt. College of Elementary Education, Mustang
6. Govt. College of Elementary Education, Loralai
7. Govt. College of Elementary Education, Mustang
8. Govt. College of Elementary Education, Pashin

Appendix-VIII

LIST OF TRAINING OUT POSTs (TOs)

1. Govt. Boys High School, Chakwal, Punjab
2. Govt. Girls High School, Jehlum, Punjab
3. Govt.Boys High School, Murree, Punjab
4. Govt. Girls High School Civil Station Mianwali Punjab
5. Govt. Girls High School Mazafargarh, Punjab
6. Govt. Girls High School Khaniwal, Punjab
7. Govt. Girls High School Mandi Bahudin, Punjab
8. Govt. Boys Higher Secondary School No.1 Attock City
9. Govt. Girls High School, Ghazi,NWFP
10. Govt. Girls High School, Battal,NWFP
11. Govt. Girls High School, Boi, NWFP
12. Govt. Girls Higher Secondary School, Rabat, Timargarah Dheer, NWFP
13. Govt. Girls High School Ranipur, Sindh
14. Govt. Girls High School Thari Mirwah, Sindh
15. Govt. Girls High School Sehvan Dadu, Sindh
16. Govt. Girls High School Kandkot Jacobabad Sindh
17. Govt. Girls High School Pasni, Balochistan
18. Govt. Boys High School Dalbadin, Balochistan
19. Govt. Girls High School Chamman, Balochistan
20. Govt. Girls High School Loralai, Balochistan

Appendix-IX

LIST OF EDUCATIONAL EXPERTS FOR PILOT TESTING OF INSTRUMENTS

1. Dr. M.A Bukhari, Professor, Department of Education, International Islamic University, Islamababd.
2. Dr. M. Iqbal Ch. Director/Professor, University Institute of Education and Research, University of Arid Agriculture, Rawalpindi.
3. Dr. P.A. Shami, Director General, Academy of Educational Planning and Management, Ministry of Education, Islamabad.

Appendix-X

LIST OF EDUCATIONAL EXPERTS/CONSULTANTS

1 Dr. M. Iqbql Ch., (Ex-Consultant) Director, UIER, University of Arid Agriculture, Rawalpindi, Punjab.

2 Prof.A.D.Maken, (Ex-Director, TTP) Research Coordinator (Edu), Institute of Policy Studies, Islamabad.

3 Ch. Rafaqat Ali, (Ex.-Project Manager) Director of Staff Development, Lahore, Punjab.

4 Mr. Abdus Samad, (Ex.-Director of PITE) Prof. and Dean, University of Management and Technology Lahore, Punjab.

5 Prof. Khadim Ali Hashmi (Ex. Consultant) Vice Principal ® GCE, Multan, Punjab.

6 Mr. Munir Ahmad Ch. (Ex-Joint Educational Advisor during TTP) Best Way Foundation, F-7 Markaz, Islamabad.

7 .Abdullah Faisal, (Director) Provincial Institute of Teacher Education, Lahore, Punjab.

8 Dr Ahmad Farooq Mshhadi, (Lead trainer) Baha-ud-Din Zakria University Multan, Punjab.

9 Mrs.Kishwar Aslam, (Ex Director) Directorate and Staff Development Lahore, Punjab.

10 Malik Muhammad Hussain,(Ex project Manager,Punjab)

11 Ms. Sajida Shamsi (Deputy. Director) Technical Panel on Teacher Education, Ministry of Education, Islamabad.

12 Dr.Muhammad Zafar Iqbal,(Lead trainer, Dera Ismail Khan University) Dean, Allama Iqbal Open University, Islamabad.

13 Dr. Muhammad Memon (Director) Agha Khan University Institute of Education Karacahi, Sindh.

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