

# Potentials of Educational Technology Used In in-Service Teachers Training Programs at Secondary School Level In Khyber Pakhtunkhwa Pakistan

Sajjad Hayat Akhtar

Provincial education department Khyber Pakhtunkhwa Pakistan.

S.Wajid Ali Shah

Abdual Wali Khan University Khyber Pakhtunkhwa Pakistan.

Muhammad Naseer Ud Din

Kohat University of Science & Technology Kohat (Khyber Pakhtunkhwa) Pakistan.

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## Abstract

The study investigated in to descriptive research to evaluate the potentials of educational technology used in-service teachers training programmed in KPK (Pakistan). The study has defined the potentials of educational technology used in services training, provision of a new educational technology in in-service training and the effectiveness of in- service training at secondary level. The main objectives of the study were, to determine the role of educational technology, needs, usefulness, status and emerging trends of educational technology, educational technology used in-service teachers training. The following results were drawn by the researcher in the light of the analysis of the data:-It was found that the in-service training schedule is not followed; educational technology is helpful for professional development but not properly used. Executive district officer makes the nomination of the teachers for in service training. In-service training venue is not accessible for the teachers and result oriented teaching methods are used at secondary level.

**Keywords:** Use of educational technology, provision of ET, in-service training, emerging technologies and professional development.

## 1. Introduction:

A teacher occupies the most crucial position in the entire spectrum of education activities. The availability of a good number of educated and professionally trained teachers therefore possess the greatest challenge to policy makers and planners of education in Pakistan. The training to communicate a teacher during his service to aware him with the latest innovations, changes in the curriculum and pedagogy is called in-service training. S.S (1997, P70) stated that refresher courses are provided to teachers for the improvement of their teaching skills and provide opportunities for realistic approach in teaching learning process. After in-service teachers training the teachers apply their skills in the class room and used advance

teaching methodologies for effectiveness learning of the students.

The quality of the system of education depends upon the quality of the teachers. The education is emphasis in all the advance countries. According to Jamshid, M. (2000, P.90) describes that in-service training programmes develop the teacher command for theoretical knowledge about learning and human behavior and to improve the teachers attitudes that faster learning and pure human relationship. In service training strengthen the capacity of the teachers professional skills facilitate students learning.

According to Bansal, H. (2007: P 224) stated that throughout the world the learners realized the importance and rule of internet and internet have expended classroom resources. There resources can be obtained through internet. In service training can easily be improved to keeping in mind the challenge of the 21<sup>st</sup> century: such type of training should be developed that a students is made in dependent and a teacher is a facilitator.

### 1.1. LITERATURE

The Education reserves, as it deserves the label of prime importance for the development of a country and the National Progress as a matter of fact effective teaching demands that besides possessing adequate knowledge of the subject matter the methods and new techniques of teaching are prerequisites to be learned by the teacher for his professional competency and effectiveness. In other words keeping in view the complementary nature of the educator (teacher) and the education, the training of teachers comes to be matter of impotence par-excellence. The word teaching is used in various ways.

Zafar (1996, PP.61-62) defines:

“Teaching is an arrangement and manipulation of situation in which there are gaps or obstructions which an individual will seek to overcome and from which he will learn in the course of doing so. Teaching is an intimate contact between a more nature personality and a less mature one which is designed to further the education of the latter. Teaching is importation of knowledge to an individual by another in a school. Bahti &, et al (1994, P.414) stated: “The teacher occupies the central position in the whole process of curriculum change. The nature of the process of curriculum function is not reserved only to the teacher of history and social studies, but equally it is the obligation of the teacher formulation and task the teacher is involved in, make it highly imperative that there should be close coordination between the apparently two distinct jobs of curriculum formulation and class-room instruction. They are the two aspect of just one role”. Joseph (1969, P.9) has discussed the social function of teacher as follows:

“First, he has to transmit the accumulated knowledge of the past and interpret it with reference to the present. Therefore, science, art, language, and all varied subjects found in a modern curriculum. Next he must be able to make this knowledge of the present in to the future, because he is guarding his students in a society always evolving. At the very least, the teacher must understand major trends in contemporary civilization, and prepare the young to meet adequately the problems they will encounter as they approach maturity.”The greatest wealth of a country is her children who future development is to a great measure, in the hand of the nation’s teachers.

Bureau of Curriculum (1962, P.19) has enumerated that: “No formal teacher training organization existed among the primitive people. The institution of teaching known to history is stated to have started first in Egypt (21.P.543), while the idea of teacher training originated in France in 1672. The first normal school was found in 1685 by Abbe de Saile at Rheims (22, P.136). Subsequently, Pestalozzi developed formal pedagogical methods and Germany adopted numerous between 1872 and 1933 to safeguard the

professional interests of teacher (21, P.544). Other European countries came only gradually to realize the significance of trained teachers. In England, for example such training dates back to the beginning of the 19<sup>th</sup> century when the monitorial system was adopted. It was replaced by the pupil-teacher system by about 1840. There is no denying fact that the teacher occupies the most crucial position in the entire spectrum of educational activities.

Singh Nagendra (1988, P.1) has enumerated the origin of Teacher Education as under: “Teaching as a profession is as old as the human race. Though it has been with us for such a long time, the professional preparation of teacher is probably a little less than two centuries old. It developed gradually and in distinct stages over these years. The historical forerunner of the training of teacher is the monitorial system which comes off just accidentally as far back as 1789 at the hand of Rev. and Drew Bell, the superintendent of a male asylum Anglo-Indian orphan and destitute at Madras. To his pleasant, Bell discovered that in the face of scarcity of teacher, the older boys of his asylum taught their companions. The ingenuity of Bell was accepted as a new potential method for eight long years at the asylum and later, on his return to England in 1797, he established a school of his own.”

### **1.1.1 Teacher Education during Pre-Independence**

Teacher education was introduced in the indo-pak sub-continent during the British rules. West Pakistan Bureau of Curriculum (1962, p.7) stated that: “The system of teacher education dates as back as the end of the first quarter of the nineteenth century when first attempt towards teacher training may be said to have been made by Dr. Bell who introduced what he called as the monitorial system of teacher education. It consisted of the advanced pupils teaching their less advanced fellow students in the same class under the guidance of adult teacher. This system was adopted by the education societies of three Presidencies of Calcutta, Bombay and Madras. However this system failed to make any headway, as it did not aim at training in methods of instruction as at improving knowledge of the subject matter. Before long, Wood’s Dispatch (1854) came which stressed, for the first time an record, the need for a more systemic training of teachers. It recommended establishment of separate training schools and class for masters very much akin to the pupil teacher system of England.”

### **1.1.2 Teacher Education after Independence**

After partition in 1947, the physical expansion of Primary Teacher Training Institutions has been slow during the early years of our national independence.

West Pakistan Bureau of Curriculum Lahore (1962, PP.22-23) has described as under: “Among the varied educational problems at the initial stages, the paucity of teachers training institutions was by no less phenomena.....To start with 3 normal schools for males were opened during 1949-50. A further increase of 8 institutions was made during the next two years which included a Training College at Peshawar for Secondary school teachers and Department of Education Conference held in Karachi from November 27 to December 1947 recommended taking steps for proper training of teachers and award of an adequate salary. Since then development, ideological and socio-economic needs of the country.”

### **1.1.3 Course Duration of Conventional Teachers Training Programs**

In Pakistan there are different programs of teacher training being offered in colleges/institutions of education. These institutions impart training to primary school teachers, secondary school teachers and

supervisions.

Abbasi (1995, P.3) Writes as follows:

“Both the PTC and C.T courses are meant to equip prospective teachers the basic knowledge, teaching skills, educational theories and principles necessary for effective development of teaching learning process. The courses are spread 42 weeks. There are minimum 36 working hours in a week. The course components consist of five academic and six professional courses of equal weight age. It is followed by practical teaching comprising 32-36 planned lessons and delivered under the guidance of the staff of the training colleges and supervision of the participating school teachers. Evaluation of theory works is 25% internal and 75% external....Final examination is conducted at the end of the academic session.”

#### **1.1.4 Teacher Training Through Distance Education**

Farooq (1990, P.16) stated that:

“For quantitative expansion and qualitative improvement of teacher education Allama Iqbal Open University Islamabad has launched various programs of teacher training through distance education. These include PTC, P.T.O.C, C.T and B.Ed teacher education programs. The PTC program of Allama Iqbal Open University is a very popular program among the untrained teachers working in the primary schools of different parts of the country..... These are not required to leave their schools, and they can easily afford the training expenses.”

Ministry of Education (1998, P.22) stated that:

“The Allama Iqbal Open University also contributes significantly to the training of teachers by means of distance learning techniques. Allama Iqbal Open University prepares candidates for PTC, CT and Bed and in session 1986/87, 4913 PTC teachers were produced by this route.”

#### **1.1.5 Problems Of Teachers Education**

Ministry of Education (1998, P.67) stated that:

“Teaching suffers from low status throughout Pakistan, with the possible exception of its perceived value an employer of women. The status problem is not unique to Pakistan and attempts to resolve it have usually focused on the twin strategies of raising professional standards of teachers as well as their rewards and incentives....Whilst alternative employment opportunities remain limited than candidates for teacher education will continue to come forward but this does not produce a committed and motivated teaching force.”

#### **1.1.6 Objectives**

Objectives of the study were to:

1. Evaluate the role of Educational Technology at secondary level in Khyber Pakhtunkhwa.
2. Determine the usefulness of Educational Technology at secondary level.
3. Identify the status of the use of Educational Technology at secondary level.
4. Point out the effectiveness of Educational Technology at secondary level.
5. Assess the emerging trends of Educational Technology at secondary level.
  
- 6 evaluate the potentials of educational technology used in-service training.

### 1.1.7 Methodology:

Data were collected through survey and questionnaires. The researcher administered three different self assessment questionnaires and sampled principals, and Senior School Teachers and master trainers at Secondary School level in Mardan district of Khyber Pakhtunkhwa province (Pakistan). For demographic profile percentages were used to compare the frequencies of the responses. Chi Square was applied to measure the role, needs, impact and effectiveness of Educational Technology in -service training. Heads of the schools, SSTs, and master trainers total population 1, 2, and 3 were taken as a sample 1,2 and 3 i.e. 30%, 30%, and 30%.

### Result:

**Table No 1. QUESTIONNAIRE FOR IN-SERVICE TRAINED TEACHERS**

S.No	Statement	SA	A	UD	DA	SDA	X2
1	The duration of your in-service training was reasonable.	42	35	21	20	32	24.16
2	The selector should considered concern subject for training.	35	3	22	26	34	10.9
3	Your professional education was assessed before training.	30	26	29	49	30	16.6
4	You were nominated for subject related training.	53	34	24	20	19	26.6
5	The training center was accessible for you.	40	42	16	26	26	15.63
6	The schedule of in-service training was suitable for you.	20	26	25	49	30	16.6
7	The methodology of teaching was followed during the training.	22	36	29	32	31	3.49
8	The resource persons applied the result oriented teaching methods.	32	44	18	27	29	11.76
9	The instructional technology items were provided regularly during training.	20	26	25	49	30	16.6
10	The relevant A.v.aids was used in training. ..	29	36	11	48	26	24.56
11	The emerging educational technology training was given to you in training	16	27	14	46	47	33.4
12	Emerging educational technology related materials were provided to you.	11	28	20	39	52	31.32
13	Resource Persons were expert to operate the E.T	47	32	11	36	24	24.16
14	The emerging educational technology was helpful for professional development.	42	35	21	20	32	24.16
15	The Educational Technology models were Properly used in training.	20	26	25	49	30	16.6
16	Teaching of instructors was according to your professional development.	39	30	31	29	21	5.46

17	The training situation can be improved by using educational technology.	40	42	16	26	26	15.63
18	The course coordinator behavior was democratic in training.	39	30	31	29	21	5.46
19	You availed physical facilities during training.	16	42	18	39	35	19.6
20	Your training was evaluated.	29	36	11	48	26	24.56
21	Instructors were capable for that training.	42	35	21	20	32	24.16
Total of $\chi^2 =$							337.91
Total of $\chi^2 /$ No of Items = Average $\chi^2$							16.09

From table No 1 to 21. It is revealed that the average  $\chi^2$  (16.09) is greater than the table value of  $\chi^2$  (9.488) at P (0.05), so that the opinion is different among the teachers. Therefore  $H_0$  is rejected.

**Table 2 QUESTIONNAIRE FOR HEAD OF THE INSTITUTIONS**

S.No	Statement	SA	A	UD	DA	SDA	X2
1	Director Education decides the organization of in-service teachers training programmed.	36	28	30	35	21	4.86
2	You nominate the teachers for in-service training.	49	35	10	36	20	30.72
3	Any need analysis of teachers was made before nomination.	37	49	7	41	24	28.46
4	You faced administrative problems after relieving teachers for in-service training.	29	36	11	48	26	24.56
5	You have substitute teachers after relieving teachers for training.	16	42	18	39	35	19.6
6	You assess professional weakness before the training.	11	28	20	39	52	31.32
7	The ability should be considered, while nomination of the teachers for training.	29	36	11	48	26	24.56
8	You evaluate teacher's performance after training.	16	42	18	39	35	19.6
9	In-service trained teachers applied the techniques after training.	47	32	11	36	24	24.16
10	Trained teachers used effectively ET aaaa after training.	37	41	7	41	24	28.46
11	Any positive change was observed by the follow-up study.	24	38	16	43	29	15.43
12	Trained teachers apply any educational activities model in teaching activities.	48	37	13	29	23	22.8
13	The in-service training should be be	42	35	21	20	32	24.16

	organized during the vacation.						
14	Training institutions should be well equipped.	53	34	24	20	19	26.6
15	The emerging educational technology was helpful for professional development.	49	35	10	36	20	30.72
	Total of $\chi^2 =$						356.01
	Total of $\chi^2 /$ No of Items = Average $\chi^2$						23.73

From table No 1 to 21. It is revealed that the average  $\chi^2(23.73)$  is greater than the table value of  $\chi^2(9.488)$  at  $P(0.05)$ , so that the opinion is different among the Head of the institution. Therefore  $H_0$  is rejected.

**Table3. QUESTIONNAIRE FOR MASTER TRAINERS/RESOURCE PERSON**

S.No	Statement	SA	A	UD	DA	SDA	X2
1	Your nomination was made by considering the needs of master training.	22	26	13	18	1	23.37
2	Master training schedule was properly followed.	28	42	1	9	-	60.46
3	The result oriented teaching methods were used in your master training.	10	18	11	29	12	6.06
4	A.v.aids was provided during your master training .	1	3	6	49	19	100.49
5	The emerging educational technologies was used in your training .	4	8	2	48	18	89.5
6	The emerging educational technology is helpful for professional development.	11	3	6	49	19	100.49
7	In-service trainees were nominated on merit.	38	27	8	7	-	62.87
8	They asked questions during training.	4	8	2	48	18	89.5
9	You apply educational technology during in-service training.	9	31	8	20	12	23.12
10	You teach the operational skills of educational technology to trainee teachers.	12	16	28	19	5	18.12
11	You apply educational technology model during training.	1	3	6	49	19	100.49
12	You teach them, how to develop the educational technology model.	15	23	4	33	4	40.12
13	The emerging educational technology was helpful for professional development.	38	27	8	7	-	62.87
14	The in-service training should be organized during the vacations.	38	27	8	7	-	62.87
15	Your training was evaluated.	28	42	1	9	-	60.46

	Total of $\chi^2$ =						900.79
	Total of $\chi^2$ / No of Items = Average $\chi^2$						60.05

From table No 1 to 21. It is revealed that the average  $\chi^2$ (60.05) is greater than the table value of  $\chi^2$ (9.488) at P (0.05), so that the opinion is different among the Master trainers. Therefore  $H_0$  is rejected.

### Conclusions

1. Professional as well as academic qualification was considered before in-service training.
2. Training centre was not accessible for teachers due to convince problem.
3. Time table schedule was not properly followed. Instructional technology was not properly used in training because the master trainers were not properly trained.
4. Principals/Head Masters were not consulted to makes the nomination of teachers for training.
5. Principals/Head Masters faced problems because substitute teachers were not provided after reliving teachers for training.
6. Principals/Head Masters did not evaluate the teachers performance after the in-service training
7. Follow up students did not conduct after in-service training
8. In service training should be organized according to the needs of the teacher and nomination should be made transparent
9. Emerging educational of technologies should be provided during in-service training, because immersing technologies are helpful for professional development.
10. Training evaluation may be ensured
11. Professional weaknesses may be evaluated before training.

### Recommendations

1. Research may be conducted to study the potentials of educational teaching used in in-service training
2. Teacher development programmed is a long term commitment of term, experiences and resources therefore follow up students may be conducted
3. Head of the institutions may be authorized to nominate the teachers for in-service training.



4. In-service training may be developed on need bases
5. Coordination may be developed between head of institutions and executive officers
6. Teaching methods and mastery of the subjects may be updated as required from time to time
7. Emerging technologies may be used in in-service training
8. Selection of in-service teachers for training and master training should be made on merit bases
9. Appropriate teaching methods and management of the programmed may be arranged according to the needs and demand of the schools.
10. Continuous evaluation of overall training programmed and achievement of training objectives may be done both formatively and summative.

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