

# **A Comparative Study of Promoted In-Service and Directly Selected Subject Specialists on the Aspect of Teaching Methodology at Higher Secondary School Level**

Malik Amer Atta<sup>\*</sup>, Umar Ali Khan<sup>\*\*</sup> and Abdur Rehman<sup>\*\*\*</sup>

## **Abstract**

*The main objective of the study was to compare the teaching effectiveness of promoted in-service and directly selected subject specialists of higher secondary schools on the aspect of teaching methodology. Promoted and selected subject specialists are being posted in the higher secondary schools of the country. Selected subject specialists are those who are appointed directly to the posts of higher secondary schools as compared to the promoted subject specialists who teach in the high/higher secondary schools against some junior position as Senior English teacher in BPS-16. They have master's degree in education, and when they are promoted they become subject specialists. Most of them acquire their requisite qualification as private candidates prior to their promotions as higher secondary school teachers. Sixteen higher secondary schools were selected in four districts namely D.I.Khan, Lakki, Bannu and Peshawar, and from each higher secondary school two subject specialists (one promoted and one selected) were picked up through random sampling technique, so a total of thirty two subject specialists were selected as a sample teacher. From sixteen higher secondary schools all sixteen Principals were selected to collect the data. Two colleagues subject specialist working with each promoted and selected subject specialists since last two years, and four students of each sample teacher were also picked up by random sampling technique. It included 32 fellow teachers and 64 students. Sixteen head teachers (Principals) of the concerned schools were also included in the sample to compare the teaching effectiveness of promoted and selected subject specialists on the aspect of teaching methodology. In this way sampling was done in case of selection of students, sample teachers, colleagues and promoted and selected subject specialists. The sample size grew to 144. Performance criteria for different factors was developed and validated to measure the teaching effectiveness regarding teaching methodology of the teachers. Three Likert type five points rating scales were developed and validated for students, colleagues and head teachers respectively. Each rating scale was comprised of 11 items to collect the data on the minimum indicators of the teaching methodology of the teachers. After the*

---

<sup>\*</sup> Malik Amer Atta, Lecturer, Institute of Education and Research, Gomal University, D.I. Khan

<sup>\*\*</sup> Prof. Dr. Umar Ali Khan, Institute of Education and Research, Gomal University, D.I. Khan

<sup>\*\*\*</sup> Prof. Dr. Abdur Rehman, Institute of Education and Research, Hazara University, Manshera

*collection of data "t" test and Co-efficient of variation were applied to analyze the data. The level of significance to reject or retain the null hypothesis was 0.05. It was concluded that the performance of selected subject specialists was better than the promoted subject specialists regarding teaching methodology.*

## **Introduction**

Education is a process through which a nation develops its self-consciousness, by developing the self-consciousness of the individuals who constitutes it. Education is broadly viewed as the intellectual and the moral training of individuals through which their potentialities are developed, the character traits are inculcated in them, and the culture of the people is transmitted to the coming generations. Education is indeed a vital component of the life of a nation and cannot be considered in absolute isolation or viewed in a vacuum. Teacher is a key to the education process. A teacher ought to command the respect of his pupils by virtue of what he is. Teaching is an art and like all other arts it can be learned with varying degrees of proficiency. Keeping in view the pivotal role of teachers, due attention should be paid to the recruiting and staffing process of the teachers. Only those persons should be selected who have profound commitment and positive professional attitude towards the teaching profession. Teachers training, their professional commitment, their knowledge and experience are the variables, which directly affect their performance.

The in-service promotion and direct selection provide equal chance to serve as higher secondary school teacher to both categories of the teachers. Higher secondary school teachers have to educate the young generations of the nation. The teachers have to make them good individuals, good citizens, committed patriots and good workers at this crucial stage. In this way, schooling at the secondary education level

demands committed and dedicated teachers. The fulfillment of such needs and objectives depends upon the teachers and this duty is assigned to the promoted and selected higher secondary school teachers. Higher secondary education is an important and crucial stage of learning. The objective of effective teaching and learning at this crucial stage is achieved by the higher secondary school teachers. There are two modes of recruitment of higher secondary school teachers in NWFP i.e. in-service promotion and direct selection (by the NWFP Public Service Commission) secondary school teachers.

Keeping in view these two modes of appointment of these teachers, it was considered imperative to conduct a study to compare the teaching effectiveness regarding teaching methodology of these teachers, because no such study seems to have been conducted in the past.

### **Statement of the Problem**

This study was designed to compare the teaching effectiveness of promoted in-service and directly selected subject specialists on the aspect of teaching methodology of the teachers at higher secondary schools in NWFP.

### **Objectives of the Study**

Following were the objectives of the study:-

- (i) To develop a teachers' performance criteria.
- (ii) To compare the teaching effectiveness of promoted in service and directly selected subject specialists on the aspect of teaching methodology of the teachers.

### **Significance of the Study**

Following points highlight the significance of the study:

- (i) This study may help the educational decision makers and policy makers in better understanding of the teaching effectiveness of subject specialists on the aspect of teaching methodology of the teachers.
- (ii) It may help the educational administration and policy makers to decide appropriate criteria of appointments and quota of promotion and direct selection of the teachers.
- (iii) The study results may provide the basis for further research in this area.

### **Hypotheses of the Study**

Following null versus alternative hypotheses were developed and tested.

$H_0$  There is no significant difference between the teaching effectiveness of promoted in-service and directly selected subject specialists on the aspect of teaching methodology of the teachers.

$H_1$  There is a significant difference between the teaching effectiveness of promoted in-service and directly selected subject specialists on the aspect of teaching methodology of the teachers.

### **Explanation of Terms and Abbreviations**

Terms and Abbreviations used in the study are as under:-

<b>a.</b>	<b>á</b>	Level of significance.
<b>b.</b>	<b>d.f</b>	Degree of freedom.
<b>c.</b>	<b>SET</b>	Senior English Teacher.
<b>d.</b>	<b>SSTs</b>	Senior Science Teachers.
<b>e.</b>	<b>SS</b>	Subject Specialists.
<b>f.</b>	<b>B.Ed</b>	Bachelor of Education.
<b>g.</b>	<b>M.Ed</b>	Master of Education.

<b>h</b>	<b>C.V</b>	Co-efficient of variation.
----------	------------	----------------------------

## **Review of Related Literature**

### **Teaching Methodology**

Mohanty (2003) contends that Teachers are the key agents who translate the abstract into concrete and the dreams into realities. Whatever may be the subject matter or a content or message of communication, suitable tools and techniques, media and methods are of prime importance for realizing the objectives most effectively and efficiently. But every experienced teacher and educationist knows that even the best curriculum and the most perfect syllabus remain dead unless quickened into life by the right methods of teaching and by the right kind of teachers. Any method, good or bad links up the teacher and his pupils into an organic relationship with constant mutual interaction. It effects not only the mind of the students but also their entire personality, their standard of work and judgment, their intellectual and emotional outlook, their attitude and their values. Good methods which are psychologically and socially sound may raise the quality of their life and bad methods may debase it. Good method of teaching should aim at realizing all the objectives, cognitive and affective. At the school stage, trained teachers are usually exposed to a number of methods of teaching, some of which are demonstrated by teachers, educators and trainees themselves during their term of practice lessons or student teaching. (p.333)

Lowman (1987) has cogently stated, "Excellent teaching captivates and stimulates students, imaginations with exciting ideas and rational discourse. Student's satisfaction and enjoyment are stressed here as important criteria for successful teaching". Thus successful teaching and student satisfaction as well as motivation are strongly correlated

teaching and learning are not thought of as cold and technological, but warm, exciting and personal. (p.139)

Mohanty (2003) contends that many teachers do not take teaching as a complex process calling for competencies in various knowledge and skills. They should master different teaching skills and understand the adolescent psychology, classroom management, pedagogy and methodology. Their postgraduate degrees showing their mastery in a particular subject and their research experience cannot ensure good teaching. Imitation and emulation are the only methods through which young teachers learn the teaching skills and other "trick of the trade" for improving their professional competencies. It is therefore felt essential to expose teachers to various teaching methods and models. They should be encouraged to try out the methods found useful and favorable to their parts and talents. Proper guidance and supervision can be provided to them by experienced and skillful teachers. Methods may vary from subject to subject, from topic to topic and from teacher to teacher. An adequate knowledge and practice of vital principles of teaching methods and learning theories can help the teachers to improve their performance in classrooms. (p.335)

Mohanty (2003), states further as, "An important parameter for improving the quality of education thus lies in the part of improving instruction in adopting right methods for organizing various curricular programmes. Dynamic methods of teaching, i.e. project and problem-solving activities need to be adopted by the successful teachers besides following stereotyped techniques of giving lectures in the classroom. Interactive and innovative methods like seminar, symposia and brain storming session should be tried out as far as possible. Learning by living and learning by doing should be the main objective as well as the process

of education. There should be adequate scope for flexibility and freedom in the system for facilitating the growth of sterling qualities of initiative, cooperation, leadership, free thinking, dignity of labor and social responsibility among teachers as well as students". (p.338)

Effective teaching in lesson planning, set induction, testing the previous knowledge, introduction of lesson, use of audio visual aids, black board writing, Question-Answer techniques, use of simple language, caring the learners' listening, reading and writing skills, explanation of difficult concepts, use of challenging questions, recapitulation after teaching, assigning the home work, regular evaluation of the students' work, keeping the student's record separately, method of teaching etc, are different angles of teacher's methodology, who applies the same is considered an effective teacher.

There are a number of teaching strategies, teaching methods, teaching approaches and techniques which should be used by the teacher while in classroom teaching situation. Use of effective methods in different lessons, use of audio visual aids and simplifying the contents are the indicators of teacher's performance regarding teaching methodology. Before hand planning of a lesson enables the teacher to teach effectively.

Moore (1980) has stated as, "The instructional strategy is how teachers present lesson content or how they transmit or facilitate information to students. A successful strategy follows as an organized pattern, such as the lesson cycle plan. The lesson cycle is one strategy to help teachers organize and plan their instruction, because for each step in the cycle, there are several choices of activities that need to be decided". (p.205)

Studies by Brophy and Good (1979), "students learn basic skills faster and score higher on standardized tests when they receive instruction directly from the teacher in an organized manner". So effective teaching and desirable learning depend upon the way and methodology of teaching and it is considered as an influence and indicator of the teaching effectiveness of a teacher.

### **Recruitment of Subject Specialists in Pakistan**

Teachers, for teaching to class 11-12 (1<sup>st</sup> year and 2<sup>nd</sup>) year in Government higher secondary schools are appointed/ recruited by the concerned authorities at District and Provincial level. Vacancies are announced through national newspapers for appointments.

#### **Higher Secondary:**

According to Afridi (1998), "Higher secondary schools include 1<sup>st</sup> year and 2<sup>nd</sup> year Arts classes. In rare cases science classes are there, qualification for teachers B.A/B.Sc or M.A/M.Sc with B.Ed as subject specialists". (p.187)

According to Afridi (1998) Terms & Conditions of Employment are as follow:

<b>Nomenclature of Post</b>	<b>Qualification for Recruitment</b>	<b>Scale</b>	<b>Schools</b>
S.E.T(Senior English Teacher)	B.A/B.Sc B.Ed	BPS-16	High Schools & Higher Secondary Schools
Subject Specialist	M.A/M.Sc B.Ed	BPS-17	Higher Secondary Schools

### **Higher Secondary School Teachers and their Recruitment**

Higher secondary school teachers are those who are M.A/M.Sc with B.Ed and eligible for teaching to class 11<sup>th</sup> and 12<sup>th</sup>. They are specialized in Science or Arts disciplines. Fresh appointments of subject specialists



are made through NWFP Public Service Commission, and in-service promotions are made by the Education Department. In this way, the promoted subject specialists and selected subject specialists, two types of higher secondary school teachers are serving in the prevailing set up of Government higher secondary schools in Pakistan.

### **In-Service Promotion of Higher Secondary School Teachers**

Promoted subject specialists are those who are working in secondary schools as a Senior English teacher (SET) are promoted to higher scales, as subject specialists against 50% in-service promotion quota on service seniority basis. Just provision of degree (M.A/M.Sc with B.Ed) with the length of service is the requirement of promotion. They don't have to qualify any test or examination for the purpose. Promoted subject specialists are upgraded to higher scales without any test, just after the verification of their service records and degrees on seniority basis by the Director of Secondary Education (D.S.E) / Executive District Officer education (E.D.O.Edu).

### **Direct Selection of Secondary School Teachers**

Selected subject specialists are those, who are directly selected through NWFP Public Service Commission as fresh candidates. Most of them are fresh and new comer in education department as teachers. In the same way their recruitment criteria are also different. Selected subject specialists have to pass job orientation test as well as interview. There is 50% reserved quota for direct and fresh appointments as subject specialists. Working teachers are also eligible for the posts, but most of the selected subject specialists are fresh.

### **Procedure of the Study**

The study aimed at comparing the teaching effectiveness of in-service promoted secondary school teachers (promoted subject specialist) and directly selected (by the Public Service Commission) higher secondary school teachers (selected subject specialist) in DIKhan, Lakki, Bannu and Peshawar district. The main objective of the study was to compare the teaching effectiveness of promoted and selected subject specialists regarding teaching methodology of the teachers.

### **Population**

The population of the study consisted of all students of eleven and twelve class (1<sup>st</sup> year and 2<sup>nd</sup> year). All higher secondary school teachers, promoted and selected subject specialists, serving in Government higher secondary schools of NWFP and the head teachers of these schools.

### **Sample**

Four districts (DIKhan, Lakki, Bannu and Peshawar) were selected randomly and from each district four higher secondary schools were selected randomly, so total sixteen higher secondary schools were selected. From each higher secondary school two subject specialists (one promoted and one selected) were selected through random sampling technique, so total thirty two subject specialists were selected as a sample teacher. From sixteen higher secondary schools all sixteen Principals were selected to get the data.

Two colleagues' higher secondary school teachers working with each promoted and selected subject specialists since last two years, and four students of each sample teacher were also selected by random sampling technique. It included 32 teachers and 64 students. Sixteen Head teachers (Principals) of the concerned schools were also included

in the sample to get their opinion about the teaching effectiveness of promoted and selected subject specialists. In this way sampling was done in case of selection of students, sample teachers, colleague, promoted and selected subject specialists.

**The description of the sample is given below:**

District	Principals	Sample Teacher	Colleague teachers	Pupils	Total
DIKhan	4	8	8	16	36
Lakki	4	8	8	16	36
Bannu	4	8	8	16	36
Peshawar	4	8	8	16	36
Total	16	32	32	64	144

### **Instruments**

#### **Performance Criteria**

Minimum teaching effectiveness (performance) indicators were identified with the help of literature and administration personnel of the education department and performance criteria was prepared. These indicators of teacher's performance were given to forty expert educationists for their opinion and comments to check the content validity. It was improved in the light of their comment and observations. The minimum teaching effectiveness criteria are shown in the following table;

#### **Minimum Teaching Effectiveness Indicator/Criteria**

Aspect	Weightage		
	M.P Score	G.P Score	B.P Score
Teaching Methodology	33-40	41-47	48-55

**M.P Score:** Minimum performance score

**G.P Score:** Good performance score

**B.P Score:** Better performance score

A minimum performance criterion was developed with the help of questionnaire, in teaching methodology M.P Score is 33 and B.P Score is 55. In the light of this criterion, three Likert type five points rating scales were developed for students, colleagues and head teachers respectively. Each rating scale was comprised of 11 items to collect the data on the minimum indicators of teaching effectiveness regarding teaching methodology of the teachers. The detail of the instruments is given below.

### **Rating Scale for Students**

Rating scale for students was developed to get the opinion of the students about the teaching methodology of the teachers. This five point rating scale consisted of eleven items on each indicator of minimum performance criteria. This scale was filled by twenty students of five different higher secondary schools for try out purposes. The Rating Scale was improved in the light of feedback, difficulties and ambiguities pointed out by the students and in consultation with the experts in the relevant field. Its Urdu version was used to collect the data from the students.

### **Rating Scale for Colleagues**

Rating scale for colleagues was developed to get the opinion of the colleagues about the teaching methodology the teachers. This scale was got filled from ten higher secondary school teachers of five different schools for try out purposes. The Rating scale was improved in the light of difficulties and ambiguities pointed out by the teachers and also in consultation with the experts in the relevant field.

### Rating Scale for Head Teachers

A Rating scale for head teachers consisting of eleven statements was developed to collect the opinions of heads of institutions regarding teaching methodology of the teachers. It was tried out in five higher secondary schools as five head teachers used it and it was improved in the light of their observations.

a.	<b>Rating Scale for Students</b>	To get the opinion of the students with regard to sample teachers on the aspect of teaching methodology of the teachers.
b.	<b>Rating Scale for Colleagues</b>	To gather data on the teacher's colleagues' opinion on the teaching effectiveness of sample teachers on the aspect of teaching methodology of the teachers.
c.	<b>Rating Scale for Head Teachers</b>	To collect the opinion of the heads of institutions regarding the overall teaching effectiveness of sample teachers on the aspect of teaching methodology of the teachers.

### Data Collection

The data were gathered with the help of three instruments as detailed below;

- a) The data were collected through Rating Scale from the students. Four students of each sample teacher were asked to give their opinion regarding the teaching effectiveness on the aspect of teaching methodology. This rating scale was got filled from 64 sample students taught by the sample teachers.
- b) Colleagues also provided data through another Rating Scale. Two colleagues of each sample teacher were asked to give their opinion regarding the teaching effectiveness on the aspect of teaching methodology. Thirty two Colleagues of sample teachers provided the data.

- c) The data regarding the teaching effectiveness of sample teachers as viewed by head teachers were collected with the help of Rating Scale for Head Teachers. This scale was filled by 16 head teachers of the sample teacher's schools.

### **Scoring Procedure**

The responses of each sample were counted separately. The data were converted into quantitative form. Each response was given quantitative value accordingly i.e. Excellent 5, Good 4, Average 3, Poor 2 and Very Poor 1.

### **Analysis of Data**

The data collected through Rating Scale for students, colleagues and head teachers were organized and arranged separately. The collected data were analyzed to make comparison between teaching effectiveness of two groups of sample teachers on the aspect of teaching methodology. The scores of all samples were calculated, summed and mean scores were calculated, "t" test was used as statistical technique to compare the significance of difference between the means performance of promoted and selected subject specialists. To compare the teaching effectiveness of promoted and selected subject specialists on the aspect of teaching methodology Co-efficient of Variation was used.

Chaudhary (1996) states as, "The Co-efficient of Variation is also used to compare the performance of two candidates" (p.106).

Alam (2000) states that, "Consistency or stability is used as terms opposite to variation (or dispersion). A data is considered more stable if it has less variation and likewise it is less stable if variation is more". (p.151)

The applied formulae of test were as under:

### Analysis and Interpretation of Data

The study aimed at comparing the teaching effectiveness of promoted and selected subject specialists on the aspect of teaching methodology the students in DIKhan, Peshawar, Lakki and Bannu district.

### Comparison and Interpretation of the Data Collected Through Rating Scale for Students

The analysis of data collected through "Rating Scale for students" is presented in the following.

### Comparison of Teaching Effectiveness of Promoted and Selected Subject Specialists on the Aspect of Teaching Methodology

Group	N	Group Mean	SD	C.V	d.f	á	t- tabulated	t- Calculated
Promoted SS	16	37.93	4.86	12.81	30	0.05	2.042	14.05
Selected SS	16	49.39	4.3	8.77				

The above table indicates that the mean of teaching effectiveness of promoted and selected subject specialists groups were 37.93 and 49.39 respectively, which were higher than the mean score of 33 of minimum performance criteria (MPC). SD in the scores of two samples was 4.86 and 4.3 respectively. The obtained t-calculated value 14.05 is greater than then the t- tabulated 2.042 so we reject  $H_0$  and accept  $H_1$  and conclude that there is significant difference between the teaching effectiveness of promoted and selected subject specialists on the aspect of the teaching methodology. The difference was in the favor of selected subject specialists. The co-efficient of variation (C.V) of promoted and selected subject specialists is 12.81 and 8.77 respectively. Since C.V of selected subject specialists is less than the promoted subject specialists so

there is consistency in the teaching of selected subject specialists on the aspect of teaching methodology.

### **Comparison and Interpretation of the Data Collected Through Rating Scale for Colleagues**

The analysis of data collected through "Rating Scale for Colleagues" is presented in the following.

### **Comparison of Teaching Effectiveness of Promoted and Selected Subject Specialists on the Aspect of Teaching Methodology**

<b>Group</b>	<b>N</b>	<b>Group Mean</b>	<b>SD</b>	<b>C.V</b>	<b>d.f</b>	<b>á</b>	<b>t- tabulated</b>	<b>t- Calculated</b>
Promoted SS	16	39.49	7.72	19.55	30	0.05	2.042	3.25
Selected SS	16	52.23	7.19	13.76				

The above table indicates that the mean of teaching effectiveness of promoted and selected subject specialists groups were 39.49 and 52.23 respectively, which were higher than the mean score of 33 of minimum performance criteria (MPC). SD in the scores of two samples was 7.72 and 7.19 respectively. The obtained t-calculated value 3.25 is greater than the t- tabulated 2.042 so we reject  $H_0$  and accept  $H_1$  and conclude that there is significant difference between the teaching effectiveness of promoted and selected subject specialists on the aspect of the teaching methodology. The difference was in the favor of selected subject specialists. The co-efficient of variation (C.V) of promoted and selected subject specialists is 19.55 and 13.76 respectively. Since C.V of selected subject specialists is less than the promoted subject specialists so there is consistency in the teaching of selected subject specialists on the aspect of teaching methodology.



### Comparison and Interpretation of the Data Collected Through Rating Scale for Head Teachers

The analysis of data collected through "Rating Scale for Head Teachers" is presented in the following.

### Comparison of Teaching Effectiveness of Promoted and Selected Subject Specialists on the Aspect of Teaching Methodology

Group	N	Group Mean	SD	C.V	d.f	á	t- tabulated	t- Calculated
Promoted SS	16	35.39	4.97	14.04	30	0.05	2.042	3.59
Selected SS	16	48.41	4.12	8.51				

The above table indicates that the mean of teaching effectiveness of promoted and selected subject specialists groups were 35.39 and 48.41 respectively, which were higher than the mean score of 33 of minimum performance criteria (MPC). SD in the scores of two samples was 4.97 and 4.12 respectively. The obtained t-calculated value 3.59 is greater than the t- tabulated 2.042 so we reject  $H_0$  and accept  $H_1$  and conclude that there is significant difference between the teaching effectiveness of promoted and selected subject specialists on the aspect of the teaching methodology. The difference was in the favor of selected subject specialists. The co-efficient of variation (C.V) of promoted and selected subject specialists is 14.04 and 8.51 respectively. Since C.V of selected subject specialists is less than the promoted subject specialists so there is consistency in the teaching of selected subject specialists on the aspect of teaching methodology.

### Summary

Promoted and selected higher secondary school teachers are being posted in the higher secondary schools of the country. Selected higher

secondary school teachers are those who are posted directly to the posts of subject specialist as compared to the promoted higher secondary school teachers who are teaching in the schools against some junior position and scale having the same master degree in M.A, M.Sc. Most of them acquire their requisite qualification as private candidates prior to their promotions as higher secondary school teachers.

The in-service promotion and direct selection provide equal chance to serve as higher secondary school teacher to both categories of teachers. Higher secondary school teachers have to educate the young generation of the nation who are considered the learners of a very crucial stage. The teachers have to make them good individuals, good citizens, committed patriots and good workers at this crucial stage. In this way, higher secondary education demands for committed and dedicated teachers. The fulfillment of such needs and objectives depends upon the teachers and this duty is assigned to the promoted and selected higher secondary school teachers.

Keeping in view these two modes of posting of these teachers, it was considered imperative to conduct a study in order to compare their teaching effectiveness, because perhaps no such study appears to have been conducted. This study was basically of descriptive nature,

### **Findings**

The mean score of selected subject specialists group on rating scale for students was 37.93 as compared to 49.39 of promoted subject specialists which indicate that there was significant difference in the mean performance score of promoted and selected subject specialists the difference being in favor of selected subject specialists. It also indicates that the mean scores of promoted & selected subject specialists groups were more than the mean score of 33 of minimum performance criteria

on teaching. The co-efficient of variation (C.V) of promoted and selected subject specialists is 12.81 and 8.77 respectively. Since C.V of selected subject specialists is less than the promoted subject specialists so there is consistency in the teaching effectiveness of selected subject specialists on the aspect of teaching methodology.

The mean score of selected subject specialists group on rating scale for colleagues was 39.49 as compared to 52.23 of promoted subject specialists group, which indicates that there was significant difference in the mean performance score of promoted and selected subject specialists the difference being in favor of selected subject specialists. It also indicates that the mean scores of promoted & selected subject specialists groups were more than the mean score of 33 of minimum performance criteria on teaching methodologies. The co-efficient of variation (C.V) of promoted and selected subject specialists is 19.55 and 13.76 respectively. Since C.V of selected subject specialists is less than the promoted subject specialists so there is consistency in the teaching effectiveness of selected subject specialists on the aspect of teaching methodology.

The mean score of selected subject specialists group on rating scale for head teachers was 35.39 as compared to 48.41 of promoted subject specialists group, which indicates that there was significant difference in the mean performance score of promoted and selected subject specialists the difference being in favor of selected subject specialists. It also indicates that the mean scores of promoted & selected s subject specialists groups were more than the mean score of 33 of minimum performance criteria on teaching methodologies. The co-efficient of variation (C.V) of promoted and selected subject specialists is 14.04 and 8.51 respectively. Since C.V of selected subject specialists is less than the promoted subject specialists so there is consistency in the

teaching effectiveness of selected subject specialists on the aspect of teaching methodology.

### **Conclusion**

Conclusion based on findings of the study, following conclusion was drawn:-

Selected subject specialists performed better than the promoted subject specialists on the aspect of teaching methodology. The better performance of the selected subject specialists on teaching methodology can be attributed to their recent exposure to the pedagogy and better interaction during the teacher training.

### **Discussion**

In the light of the analysis, a brief discussion is presented below. On the basis of the analysis, this null hypothesis was tested. "There is no significant difference between the mean performance score of promoted and selected higher secondary school teachers on the aspect of teaching methodology." This hypothesis was rejected because t-values of the student's, colleague's and head teacher's opinion score were calculated as 14.5, 3.25 and 3.59 respectively which were more than the tabulated t-value i.e. 2.042 at 0.05 level of significance. It was concluded that the selected subject specialists had performed better on the aspect of teaching methodology. The better performance of the selected subject specialists on teaching methodology can be attributed to their recent exposure to the pedagogy and better interaction during the teacher training.

These results support the findings of research conducted by Shah, (2007) study entitled "a comparison between the performance of in-service promoted and directly selected (by the public service

commission) secondary school teachers in Rawalpindi district" it concluded that; "it was concluded that the promoted SSTs had performed better on "teaching methodology aspects". (p.67)

### **Recommendations**

On the bases of findings and conclusions of the study, following recommendations are made:-

1. In-service training may be provided to all promoted and selected subject specialists on pedagogy and contents on periodical basis at least once in every five years to enable them to perform effectively during their classroom teaching. Different teaching methods, skills and approaches may be included in this training for the enhancement of teachers' abilities.
2. M.A/B.Ed and M.Sc/B.Ed subject specialists may be provided opportunities to improve their academic qualification during service in the area of education like M.Ed.
3. A proper system of continuous evaluation may be made in all higher secondary schools. The weak aspect of the subject specialists may be diagnosed by the head teachers and senior staff and necessary measures may be taken for the improvement of subject specialists.

## **References**

- Afridi, A. K. (1998). Educational Administration & School Organization, Peshawar: The Print man Publishing. (p.187)
- Aggarwal, J. C. (1995). Teacher and Education in a Developing Society, Delhi: Vikas Publishing house Pvt. Ltd.
- Alam, S.K. (2000). Statistics Concepts and Methods, Karachi: Urdu Bazar, Rehman Publishers.
- Chaudhry, S.M. & Kamal, S. (1996). Introduction to Statistical Theory Part1& Part 2, Lahore: Al-Hajaz Printing press.
- Mayor, F. (1987). A History of Educational Thought, Ohio Charles: Merrill Books.
- Mohanty, J. (2003). Teacher Education, New Delhi: Deep & Deep Publications.
- Shah, S.M.A (2007). A Comparison between the Performance of in-service promoted and directly selected (By the public Service Commission) Secondary School Teachers in Rawalpindi District, (Unpublished M.Phil Thesis), Islamabad: AIOU.