

A COMPARATIVE STUDY OF THE TEACHING ATTITUDES OF DEPARTMENTAL PROMOTEE, ONLINE & PSC SELECTEE SECONDARY SCHOOL SCIENCE TEACHERS IN DISTRICT DERA ISMAIL KHAN

Qayyum Nawaz¹, Muhammad Javed Iqbal², Dr Malik Aamir Atta³

1. Ph.D (Education) Scholar Gomal University D.I.Khan(KP) Pakistan.
Email: qayyum_nawaz@yahoo.com

2. SST, Govt: Centennial Model High School No-1 (Boys), DIKhan, KP, Pakistan

3. Assistant professor IER, Gomal University, DIKhan, KP, Pakistan

Abstract

The study in hand was conducted to compare the Teaching Attitude of Departmental Promotee, Online and PSC Selectee Secondary School Science Teachers (SSSTs) in District Dera Ismail Khan. The major objective of the study was to assess the Teaching Attitude of Departmental Promotee, Online and Public Service Commission selectee Secondary School Science Teachers. The gender and location as demographic variables were also investigated. All the male and female of 9th class science students and Secondary School Science Teachers (SSSTs) working at GHS & GHSS of district DIKhan constitute the population of study. A sample of 25 Promotee, 25 online and 25 PSC selectee SSSTs was taken. Only those schools were selected in the sample where all three types of SSSTs were working simultaneously. 04 students for each promotee, Online and PSC selectee SSST were selected by random sampling technique. In order to get the opinion of the students about the performance of their science teachers, a 5-point Likert type rating scale was developed. The Cornbrash alpha reliability of the scale was 0.91. In order to compare the significance difference between the means of three groups of Science Teachers, ANOVA and Tukey Test were used as statistical technique. The mean difference between male and female, rural and urban was analyzed by using the t-test. The result shows that the Teaching Attitudes of Online selectee SSSTs were better than Departmental Promotee and PSC selectee SSSTs. The results further show that there was no significant difference between the Teaching Attitudes of male and female and rural and urban SSSTs.

Keywords: *Teaching Attitude , Departmental Promotees, Online & PSC Selectee Secondary School Science Teachers, Dera Ismail Khan.*

Introduction

It is taken for granted that national development of a country is determined by the standard and quality of its educational system. Education plays a vivacious role in restructuring and solidification of the society. It is unswervingly liable for the advancement of a nation. It is a tool that is used to modify the cultural, economic, political and social system of the country. Teacher Education is a system that prepares skillful and professionally competent teachers who produce capable persons that plays their role in the national development. Thus the role of a teacher in the nation building is of due consideration. Hence it is essential that the teacher should be made skillful and competent.

The role of Secondary School Science Teachers (in short Science Teachers) at secondary level is of due importance. I would like to say that if Science Teachers effectively establish a comprehensive base of science subjects in their students, it will not be exaggeration to say that they will be capable to make fusion at the sun in their control. It is because these teachers occupy the backbone in entire system of education. So we can say that the upcoming status of the students mostly depends upon the performance and teaching effectiveness of their teachers at secondary level.

For secondary classes, two kinds of teachers (SSTs) are recruited i.e. SST(Gen) and SST(Sc). The latter is usually known as Science Teacher. In KPK, there are two modes for the recruitment of Science Teachers i.e. In-service promotion of teachers working on some lower teaching posts by the Elementary & Secondary Education department and direct selection by Khyber Pakhtunkhwa PSC.

In 2006, former Govt: of N-W.F.P through its Schools & Literacy Department invited online applications through internet from all interested candidates having BA/ B.Sc degree with B.Ed/ BS.Ed: for appointment as SST. As a result of this advertisement, more than 1300 SSTs were appointed on fixed pay for a period of six months. These SSTs were selected without any interview or qualifying ability test. A merit based on their academic and professional qualification was determined and candidates were appointed to serve as SST. Their contract was then extended twice. Later on their services were regularized in 2009 through an ordinance. These SSTs are generally known as online selectee SSTs or simply Online SSTs.

Another category of SSTs in my research is departmental promoted SSTs. These are those SSTs

who are promoted from the posts like PST, CT, DM, AT, TT and Qari. According to the existing service structure prepared by the Govt: of KPK for its govt: school teachers, 50% of the in-service teachers from cadres like CT, PST, DM, PET, Qari and AT are promoted to the post of SST. These SSTs are generally known as Promotee SSTs.

Third category of SSTs in my research is SSTs selected by Khyber Pakhtunkhwa Public Service Commission. According to current service structure, 50% SSTs are appointed directly through KPK Public Service Commission.

In this research, we would like to compare the Teaching Attitude of these three kinds of SSSTs i.e Direct Selectee (by the Public Service Commission), Online Selectee and Departmental Promotee SSSTs of District DIKhan.

Statement of the problem

One of the problems in the education discipline is the comparatively poor attitude of teachers towards teaching. Teaching itself is one of the important weapon and skill in the hands of a teacher. Without this skill they can't be called a teacher. The effective teachers lift the achievement of their students very high. Teacher preparation has strongest correlation with the student achievement and teacher education, their hiring and professional development may make an important difference in the qualifications and capacities that teachers bring to their work (Hammond, 2000). The researchers of the world are struggling to raise the student achievement by adopting new techniques and ways in the teachers training and appointment. The present study in line with the researchers of the world is a struggle to compare the Teaching Attitudes of Departmental Promotee, Online and PSC Selectee Secondary School Science Teachers (SSSTs) of Dera Ismail Khan District; so that we can know better that which types of teachers are more effective in enhancing the achievement and learning of their students.

Objectives of the study

The following objectives were kept in mind while in the deliberation of the study in hands:

1. To compare the Teaching Attitude of Departmental Promotee, Online and Public Service Commission selectee Secondary School Science Teachers.
2. To compare the teaching performance of female and male, Secondary School Science Teachers.

3. To compare the teaching performance of Urban and Rural, Secondary School Science Teachers.

Null hypotheses

- H₀₁: There is no significant difference in the Teaching Attitude of three groups of Science Teachers (DP, Online and PSC selectee).
- H₀₂: There is no significant difference in the Teaching Attitude of male and female Science Teachers.
- H₀₃: There is no significant difference in the Teaching Attitude of urban and rural Science Teachers.

Limitations of the study

As there was no standard test which fulfills the need of our research topic, the researcher made questionnaire was used for data collection about the Teaching Attitude of three groups of Science Teachers.

Delimitations of the study

The study in hand was restricted to Departmental Promote, Online and Public Service Commission selectee, Secondary School Science Teachers of High and Higher Secondary Schools of district DIKhan. The study was further delimited to rural/ urban and male/female selected science students of class 9th of these schools.

Significance of the study

Findings of this research study will certainly prove as one of the leading chains of development in the field of education. Natural advancement in the different branches of learning is owing to the aptitude of modern scholars in their specific subjects. The research in hand will definitely be one of the milestones in the development field of teacher's education and training. The best teachers of the country are symbol of her bright and promising future.

The study will be significant for science teachers in improving their teaching performance. It may help the policy makers and educational administrators to adopt some suitable criteria of direct recruitment and quota for departmental promotion for the selection of science teachers. It

can also accommodate the educational policy makers, school heads and educational administrators to understand teaching performance of science teachers in comparative perspective in formulating policies at various stages.

The study will be useful for school heads and administrators to improve the teaching attitude of their teachers. The study will also provide guidelines for further research.

LITERATURE REVIEW

Teacher and teaching

It is unanimously accepted that teacher is the major organizer of all educational activities that take place either within or outside the institution. All the activities and curriculum revolve around the teacher. Teaching is a profession having great prominence in every society. The reason is that, teacher is not only the facilitator of merely educational, both curricular and co-curricular activities, but also helps to educate people who become history makers of a nation (Rizvi, 2003).

An individual that conveys education for adults and children is called a teacher. The job of a teacher has been often formal, approved and continuing, usually carried out at an institution called school or college or some other place of formal education. It is pre-requisite for an individual who desires to become a teacher, should first obtain some specified and required professional credentials from a recognized degree awarding institution (Wikipedia, 2013). Mohanty (2003) says that teacher is the fundamental agent who interpret the immaterial (abstract) into tangible (concrete) and imaginations into realities.

Teaching is a multifaceted task which is not easy to describe, define and explain comprehensively. Every educationist has defined teaching and its nature in his own way. As it does not deal with any physical material rather it concerns with human mind, which cannot be observed or examined. It can be only understood on psychological basis but one thing is common among all educationists, that is about the complex nature of this art.

Elwood (1990) observed that teaching is both an art and science but what in teaching art is and what the science has never been delineated, nor it is of much concern. The teacher confronted with a group that is as varied as its numbers with respect to age, physical maturity, emotional and intellectual maturity, skills appreciations, background, understanding and perhaps race. This is

the clay with which the teacher must work, the raw material that has the imprints of other molds, some good and some bad. It is his task to try to remove the faulty imprints of previous molds and to add through the deftness of his artistry, something of lasting worth to the growing creation.

Some educationists relate teaching towards science and some towards art, while according to some it is both art and science. More comprehensive and professional view about teaching is given by Arthur (1990) as, “Teaching is actually an applied science resulting from exploration in human learning and human behavior. It is an applied science which uses the outcomes of anthropology, sociology, neurology and psychology” (p.39).

Teaching is an art, an activity, a process and something other than science, as science deals with human beings and his various other aspects concerning him but teaching deals with human mind which provides a foundation of all aspects of the environment. Teaching is a very complex activity as it is not easy to bring out something from one's mind and to insert into it something new for its application and utility (Akram, 2008).

2.1.1 Role of teacher and teaching

The importance of teachers in an educational system cannot be over stressed. It is the teacher who excites intellectual inquisitiveness and develops an appreciation, esthetical values and prepares the youth of the country to assume the full responsibilities of citizenship. It is the supreme task of teacher to promote national essence and build up strong national character among the students.

The role of the teacher is pivoted on raising the standards of education at all levels. In fact the quality of educational programme is determined to a very large extent by the personal attributes, professional competency, attitude and insight of teachers because a perfect teaching itself is the teacher's total experiences and his overall personality. Therefore, it is the improvement in the different traits of teacher's personality and his teaching methods which will bring about and all round improvement in society.

The role of a teacher may be different in different cultures. The teachers may offer instructions in learning, occupational or workmanship training, the religion, the community, civics, the arts, public roles, or other life amenities. Usually formal education initiates through home schooling in various countries of the world. However informal education may be abetted by teachers or

family elders having a vast knowledge and experiences of various community settings. (Wikipedia, 2013).

National Education Commission (1959) report has set certain goals for national education. But it is obvious that our national education is likely to fall short of these goals to the extent that our teachers fall below the standards we expect of them. A good teacher must possess some characteristics which have been emphasized by the commission on National Education. It is said that pupils are like a mirror where one can see the reflection of the personality of their teachers. It means that certain characteristics of the teachers are projected by the behavior of his pupils. Royans in his study says, “Due to having higher knowledge and wider experiences, the teacher should be able to escort and provide his students with beneficial knowledge, skills and group approved attitude”.

SCIENCE TEACHING IN PAKISTAN

In Pakistan, education is the subject of both, the federal and the provincial governments. Federal government usually deals in the development and approval of curriculum, accreditation and allocation of funding for research. According to the article 25-A of the Constitution of Pakistan, it is obligatory for the government to offer free and essential quality education to all the kids of the country lying between five to sixteen years of age (The Gazette of Pakistan, 2010).

There are six levels of education in Pakistan;

- Primary level include Class 1 to 5th
- Middle level include Class 6th, 7th and 8th
- High level include Class 9th and 10th
- Intermediate level include Class 11th and 12th
- Graduation include Class 13th and 14th
- Master level includes Class 15th and 16th.
- The University education comprises of various graduate and undergraduate programs (Blood, 2013).

During the last decades, world has undergone various revolutions in the fields of politics, economics, material sciences, agriculture, industry, space and energy. Science teaching in

Pakistan is not moving on its proper track. Science teachers teach science just for results. They do not create scientific ATTITUDE in their students. The students also study science for passing the exam, obtaining certificate and hence getting jobs. The prevailing examination system of Pakistan is encouraging cramming. Our examination system is failed to encourage the students for understanding the facts.

Practical is integral part of science curriculum. Science teachers do not focus on practical work. Practical work is just limited to books and note books. Neither teachers nor students take any pain for practical work.

Teaching of science requires modern methodology but it is not actually practiced in our schools. Teachers teach science using traditional lecture methods. It is also a matter of great distress that Regional Institutes of Teachers Education (RITEs) and University Institutes of Education & Research (IERs) also do not focus on the proper training of trainee science teachers for the creation of scientific ATTITUDE towards them.

After 64 years of independence, we are still in the process of experimentation. We are not yet able to build any stable educational system. Science curriculum requires proper and regular updating but no appropriate procedure is followed. For the construction of curriculum, teachers and students are not given any chance of participation. The curriculum is developed by Ph.Ds.' which have no concern with school level.

According to Salam (1989), we are in the process of organizing science teaching at all levels. Our govt: policies are not meeting the goals and objectives of our educational system. We have formulated excellent educational policies but without any output. Even we are unable to associate our education to our religion. Our educational system is not fulfilling the requirements of time and religion as well. There are many reasons for this which include:

- Science education of the individual is purposeless.
- Non-scientific trend of young generation.
- Non-practicable science curricula.
- Subject contents are ancient.
- Old conventional teaching methods.
- No linkage between practical work and teaching.
- Laboratories are not properly equipped.
- Un-sufficient training of science teachers.
- Less number of science teachers.
- Unequal facilities available to schools (pp.43-44).

Teaching performance

The capabilities, results, proficiencies, effects, abilities, tendencies and outcomes of some body's work are collectively called his performance. As for as a teacher is concerned, the term 'performance' refers to the accomplishment of his professional responsibilities in the school.

It is globally accepted that teaching is one of the largest profession in the world in terms of its members. Like all other professions, it also has some special features. The teacher requires two types of knowledge, i.e knowledge of Content and knowledge of Pedagogy. It also requires two types of qualities, i.e personal and professional. If a teacher combines both types of qualities in content and functional areas he/ she can achieve his/ her objectives and may be called a good teacher or an effective teacher or a good performance teacher (Rizvi, 2003)

According to Sultana (1998), the terms teaching performance, tendencies, capabilities and competencies may be defined as follows:

1. Teaching Performance: Vocal and nonverbal observable behavior.
2. Tendencies: The act of a teacher in various classroom situations.
3. Capabilities: The ability of a teacher to do his best.
4. Competencies: Those approaches, understandings, skills & actions that are considered to be essential for the overall growth of students (p.34).

This means, teaching conduct of a teacher that sometimes appear as outcomes, results, achievement or perceptions of students is called teaching performance . But the student's results or achievement cannot be the reflection of teacher's overall performance; rather it may be an aspect of his/ her performance. The reason is that many other variables are involved in the student's achievement.

Dash and Dash (2003), has defined the teacher effectiveness as the perfection or the best level of productivity and output on the part of a teacher. It mentions elevation of maturity and ripeness during the entire service period of a teacher. Thus with more time is passed, the teacher gets more experienced and his teaching becomes more and more effective.

According to Theall and Franklin (2001), the student's learning is the reflection of their teacher's effectiveness i.e the teaching of a teacher can be judged with the perception and performance of their students. There is reliably high relationship among the student's learning and teaching

performance of a teacher. The learners who acquire more knowledge gave high rankings to their teachers”.

According to Good (1973), teaching effectiveness is the fine performance on the part of a teacher. Teaching effectiveness is the sum of job regularities, student’s satisfaction and acceptable outcomes of the students. A ‘teacher’ can be well said as ‘effective teacher’ if he/ she facilitates his learners by his best teaching attitude and aptness. An effective teacher can decide; how he can achieve his objectives. A teacher can present his content in a better way, if he has knowledge of student’s attitudes.

Measurement of teaching performance

According to Paulsen (2002), numerous sorts and sources of data can be used to estimate teaching effectiveness. The data may be gathered from students, colleagues, heads and teachers themselves. According to Arreola, Theall & Aleamoni (2003), five necessary skills required for effective teaching include:

- Command over subject
- Instructional design skills
- Expertise in subject matter delivery
- Evaluation skills; and
- Skills related to the management of course.

For the precise and accurate assessment of the teaching performance, the data should be collected on all five areas. This includes perceptions and feedbacks to several features of the content delivery, course designing, assessment skills and mastery to course management. Other related areas can also be included. Data should be gathered by students on a well-formed student-rating form. It should depict perceptions and reactions of the students about the effectiveness of the teacher’s instructional design, his/ her command over subject, content delivery, and features related to course assessment.

RESEARCH METHODOLOGY

Population of the study

All the male and female 9th class science students and Secondary School Science Teachers (SSSTs) working at GHS & GHSS of district DIKhan constitute the population of study. There are total 126 High and Higher Secondary Schools in district DIKhan in which 149 Science Teachers are working. The total 9th class science students enrolled in these schools are 4021.

Table 3.1: Description of Population

Gender	No of Schools		Departmental Selectee SSSTs		PSC selectee SSSTs	Total SSSTs	Total Science Students (Class 9 th)
	High School	Higher Secondary School	Promotee	Online Selectee			
Male	71	11	41	30	26	97	2836
Female	38	06	21	15	16	52	1185
Total	109	17	62	45	42	149	4021
G/ Total	126		149			149	4021

Source: 1. Annual Statistical Report of Govt: Schools of Khyber Pakhtunkhwa for the year 2010-11.

Sample of the study

A sample of 25 Promotee, 25 online and 25 PSC selectee SSSTs were taken. Random sampling technique was used to select the sample. Only those schools were selected in the sample where all three types of SSSTs were working simultaneously. 04 students for each promotee, Online and PSC selectee SSST were selected by random sampling technique.

Table 3.2 Description of Sample.

Gender	Departmental Selectee SSSTs		PSC selectee SSSTs	Students
	Promotee SSSTs	Online Selectee SSSTs		
Male	15	15	15	180
Female	10	10	10	120
Total	25	25	25	300

Instrumentation

In order to get the opinion of the students about the performance of their science teachers, a Likert type five point rating scale was developed for students by going through the literature review. This scale was initially consisted of 72 items in six parts. The scale was filled by 22 experts for pilot testing. Rating scale was improved in consultation with experts. Complicated words were replaced by simple and commonly used words and terms. Some necessary items were added and some unnecessary items were removed. It was kept in view that each question must express a definite idea. Efforts were made to incorporate all possible aspects related to teaching performance in the questionnaire. The reliability of the scale was 0.86. This reliability was measured by the Crombush Alpha method by using the SPSS (version 16.0). The final version of rating scale was consisted of 56 items in six parts. Urdu version of this scale was distributed among the students to collect the data for their teachers.

Procedure of data collection

Administration of the Instrument.

The rating scale was personally administered among 180 male students of 9th class and 120 female students through their school heads.

Data Collection.

The data were personally collected through rating scale from 180 male and 120 female students through their school heads.

Scoring Procedure.

The responses of each sample were totaled separately. The data were converted into quantitative form. All the responses were given quantitative value as;

Excellent=5, Good=4, Average=3, Poor=2 and Very Poor=1.

Analysis of data

The collected data were ordered and organized individually for each rating scale of students. It was then analyzed to make comparison of the Teaching Attitude of three groups of SSSTs viz. Departmental Promotee, Online and PSC selectee. The values were calculated, summed and mean scores were obtained separately for each rating scale. In order to compare the significance difference between the means of the performance of three groups of Science Teachers, ANNOVA and Tukey Test were used as statistical technique. The mean difference between two groups male and female and rural and urban was analyzed by using the t-test.

Table 1

Showing Mean and Standard Deviation of the Teaching Attitude of three groups of Science Teachers (Departmental Promotee, Online and PSC selectee).

	N	Mean	Std. Deviation
PSC	100	3.9761	0.48020
DP	100	3.6656	0.48766
On Line	100	3.5844	0.53999
Total	300	3.7420	0.52936

This table shows the mean teaching methodology capabilities of three groups of Science Teachers (DP, Online and PSC selectee). The average scores of PSC, DP and Online selectee SSSTs on Teaching Attitude test were 3.9761, 3.6656 and 3.5844 respectively. The mean score of PSC selectee SSSTs was greater than the other two groups of SSSTs. The Standard Deviation of PSC, DP and Online selectee SSSTs was .48020, .48766 and .53999 respectively. This shows that teaching methodology capabilities of PSC selectee SSSTs were greater than the DP and Online selectee SSSTs.

Table 2

Showing Mean and Standard Deviation of the Teaching Attitude of three types of Science teachers (Departmental Promotee, Online and PSC selectee) on Gender basis.

Cross tabulation of Gender and Selection Criteria.

	Selection Criteria			Total (N)	Mean	Std. Deviation
	PSC	DP	On Line			
Gender Male	60	60	60	180	3.6866	.51470
Female	40	40	40	120	3.7766	.28978
Total	100	100	100	300		

This table shows the cross tabulation of Gender and Selection Criteria. The table shows that there were 60 male and 40 female students for each of the PSC, DP and Online selectee SSSTs. So there were 180 male and 120 female student respondents. The table also shows that the mean of male and female SSSTs were 3.6866 and 3.7766 respectively. The Standard Deviation of male and female SSSTs were 0.51470 and 0.28978. This table shows that the mean performance of female SSSTs was greater than male ones.

Table 3

Showing Mean and Standard Deviation of the Teaching Attitude of three types of Science teachers (Departmental Promotee, Online and PSC selectee) on Locality (Urban & Rural) basis.

Cross tabulation of Locality and Selection Criteria

		Selection Criteria			Total	Mean	Std. Deviation
		PSC	DP	On Line			
Living Location	Urban	28	28	28	84	3.6968	.48657
	Rural	72	72	72	216	3.7492	.38722
	Total	100	100	100	300		

This table shows the cross tabulation of Living Location and Selection Criteria. The table shows that there were 28 Urban and 72 rural students for each of the PSC, DP and Online selectee SSSTs. So there were 84 urban and 216 rural student respondents. The table also shows that the mean of urban and rural SSSTs were 3.6968 and 3.7492 respectively. The Standard Deviation of Urban SSSTs was 0.48657 and that of Rural SSSTs was 0.38722. This table shows that the mean performance of rural science teachers was greater than urban ones.

TESTING OF HYPOTHESES:

H₀₁: There is no significant difference in the Teaching Attitude of three groups of Science Teachers (DP, Online and PSC selectee).

ANOVA

Table 4

ANOVA showing the Teaching Attitude differences of DP, Online and PSC selectee SSSTs.

Mean differences of DP, Online and PSC selectee SSSTs on Teaching Attitude .

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	8.548	2	4.274	16.870	.000
Within Groups	75.239	297	.253		
Total	83.787	299			

This table shows that $F=16.870$ and $p = 0.000 < 0.05$, which means that there is a significant difference among the performance of three groups of Science Teachers. Therefore the null hypothesis H_{01} stating no significant difference among the Teaching Attitude of three groups of Science Teachers is hereby rejected. This table does not show that which group differs from which one. Therefore, we use Tukey's test.

Multiple Comparisons

Table 5 Tukey's Test showing Mean differences on Teaching Methodology

(I) Selection Through	(J) Selection Through	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
PSC	DP	.31056*	.07118	.000	.1429	.4782
	On Line	.39167*	.07118	.000	.2240	.5593
DP	PSC	-.31056*	.07118	.000	-.4782	-.1429
	On Line	.08111	.07118	.491	-.0866	.2488
On Line	PSC	-.39167*	.07118	.000	-.5593	-.2240
	DP	-.08111	.07118	.491	-.2488	.0866

*. The mean difference is significant at the 0.05 level.

This table shows that for PSC and DP, $p=0.000 < 0.05$ which means that there is a significant difference between the Teaching Attitude of PSC and DP SSSTs. Similarly for PSC and Online selectee, $p=0.000 < 0.05$ which means that there is also a significant difference between the teaching methodology PSC and Online selectee SSSTs. For Online and DP, $p=0.491 > 0.05$ which means that There is no significant difference between the teaching methodology of Online and DP SSSTs.

H₀₂: There is no significant difference in the Teaching Attitude of male and female Secondary School Science Teachers.

Table 6

t-test showing the mean differences between the Teaching Attitude of Male and Female SSSTs.

Gender	N	Mean	Std. Deviation	T	P
Male	180	3.6866	.51470	-1.740	0.083
Female	120	3.7766	.28978		

This table shows that $p=0.083 > 0.05$, this means that there is no significant difference between the Teaching Attitude of male and female Science Teachers. Therefore the null hypothesis H₀₂ stating no significant difference among the performance of two groups of science teachers on the gender basis is hereby accepted.

H₀₃: There is no significant difference in the Teaching Attitude of Urban and Rural Secondary School Science Teachers.

Table 7

t-test showing the mean differences between the Teaching Attitude of rural and urban SSSTs.

Living Location	N	Mean	Std. Deviation	T	p
Urban	152	3.6968	.48657	-1.030	.304
Rural	148	3.7492	.38722		

This table shows that $p = 0.304 > 0.05$, which shows that there is no significant difference of rural and urban SSSTs on the aspect of their Teaching Attitude. Therefore the null hypothesis

H_{03} stating no significant difference among the two groups of science teachers on locality basis is hereby accepted.

Findings and Discussion

The topic under study was “A comparative assessment of the Teaching Attitude of Departmental Promotee, Online and PSC selectee SSSTs of the district DIKhan”. The major objective of the study were to compare the Teaching Attitude of three groups of SSSTs and also to compare the teaching performance of male & female, Urban & Rural SSSTs.

A total of 75 SSSTs were selected to know about their Teaching Attitude such that 25 were DP (15 male and 10 female), 25 Online (15 male and 10 female) and 25 SSSTs were PSC Selectee (15 male and 10 female). The questionnaire was distributed among 300 students (180 male and 120 female). The study was delimited to SSSTs and 9th class science students of district DIKhan only.

The data collected was put in the data matrix and was analyzed by using the SPSS (Version 16.0). The result shows that there were significant difference in the Teaching Attitude of three groups of Science Teachers (Departmental Promotee, Online and Public Service Commission selectee) and no significant difference was observed between male & female and Urban & Rural SSSTs.

Test of Hypothesis H_{01} : There is no significant difference in the average performance of three groups of Science Teachers (DP, Online and PSC selectee) in the Teaching Attitude .

The data analysis shows that there is significant difference in the average performance of three groups of Science Teachers (DP, Online and PSC selectee) on the aspect of teaching methodology. Hence H_{01} is rejected.

The result shows that there was a significant difference in the average performance of three groups of Science Teachers on the aspect of Teaching Attitude . The mean teaching performance of PSC, DP and Online selectee SSTs on teaching methodology were 3.9761, 3.6656 and 3.5844 respectively. The mean of PSC selectee SSTs was greater than the means of Online and DP SSTs. This finding supports the results reported by Bibi (2005), Shah (2007) and Atta (2008).

Test of Hypothesis H₀₂: There is no significant difference in the overall gender wise average performance of three groups of Science Teachers (DP, Online and PSC selectee). The data analysis shows that there is no significant difference in the overall gender wise average performance of three groups of Science Teachers (DP, Online and PSC selectee). Hence H₀₂ is accepted.

The result shows that there was no significant difference in the overall average performance of three groups of Science Teachers on gender aspect. The mean of male and female SSSTs on the aspect of their overall teaching performance was 3.6866 and 3.7766 respectively. The results of the present study are supported by Khan (2000).

Test of Hypothesis H₀₃: There is no significant difference in the overall average performance of three groups of Science Teachers (DP, Online and PSC selectee) on locality basis. The data analysis shows that there is no significant difference in the overall average performance of three groups of Science Teachers (DP, Online and PSC selectee) on their locality basis. Hence H₀₃ is accepted.

The result shows that there was no significant difference in the average performance of three groups of Science Teachers on their locality aspect. The mean of urban and rural SSSTs on the aspect of their overall performance was 3.6968 and 3.7492 respectively. The same result were reported by Khan (2000).

Conclusions

The result shows that Public Service Commission selectee SSSTs performed better on the aspect of teaching methodology. Data analysis shows that there is no significant difference between the overall teaching performance of female and male SSSTs. The overall teaching performance of male and female SSSTs was similar. Data analysis also shows that there is no significant difference between the overall teaching performance of Urban and Rural SSSTs. The overall teaching performance of Urban and Rural SSSTs was also similar.

Recommendations

The foregoing conclusions of the study, leads to the following recommendations.

1. The data analysis shows that there is significant difference in the average performance of three groups of Science Teachers (DP, Online and PSC selectee) in the Teaching Methodology. Therefore researcher recommends that DP and Online selectee SSSTs must be provided in-service trainings on the aspects of Teaching Methodology.
2. As this study was conducted on SSSTs of district DIKhan only and its findings could not be generalized, therefore studies may be conducted in other districts of Khyber Pakhtunkhwa.
3. The present study was focused on Teaching Attitude of SSSTs. Classroom management, The other factors related to teacher's performance like Classroom management, Student's motivation, Student's guidance, Attitude of teachers towards teaching profession and Character building of students, Lesson Planning Skills, Evaluation Skills, School Record Maintenance Skills, Time management skills and communication skills may be undertaken for further research.
4. The present study was focused on gender and locality as demographic variables, therefore the studies may be conducted on other demographics like Socio economic status, qualification, experience of teachers etc.

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