DEPARTMENT OF EDUCATION
The Islamia University of Bahawalpur
PAKISTAN

JOURNAL OF EDUCATIONAL RESEARCH

CONTENTS

Satisfaction of Distance Learners with the Quality of Teacher Education in Pakistan: A case study of AIOU, Islamabad

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Abstract

This study aimed to analyze satisfaction of distance learners with the quality of education in Pakistan, find out areas needing attention to improve the system and suggest measures for the improvement of distance education in Pakistan. This was a survey study, based on data collected from 7593 distance learners enrolled in B. Ed program of AIOU in the Punjab province of Pakistan. A questionnaire consisting on five point Likert scale was used as tool of study that was administered to a randomly selected sample at the end of course during 3rd semester. Results of study, concluded by comparing mean scores, pointed out that overall students were satisfied with the quality of education without discrimination of rural and urban areas but female were more satisfied as compared to male. Furthermore, students pointed out deficiencies in the process of distance education. These indicated that improvements in tutorial process, tutors selection, tutor training, marking of assignments as well as answer scripts, study centres and conduct of examination are required to improve the quality of distance education in the country.

Key words: Quality, Distance Education, Assessment, AIOU, Examinations, Assignments

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Introduction

Satisfaction means "fulfillment of one's desires, prospects or needs" about something. It gives pleasure, relief, contentment and sense of achievement to a person. Satisfaction level and performance has strong relationship with each other. Satisfaction motivates a person to work hard and try to perform best in the field. Satisfaction of students with the institutional policies and working is a good motivator to improve learning performance of students. It helps institution to get popularity that results in the achievement of good ranks in assessment of institutions. Lack of satisfaction of students about the fulfillment of educational needs, desires and wishes regarding institution demotivates students to work hard that also results for the failure of educational institution.

Education is basic tool for enabling people to live with awareness about their rights. Governments plan to provide education to citizens. It is evident that governments cannot fulfill educational needs of people by formal education institutions. Therefore, major forcing factors of formal education system "non-availability of educational institutions in deprived areas, shortage of seats for admission in regular institutions, high expenses for education and high cost of education" (Goel and Goel, 2000, P.30) have motivated policy makers as well as students to adopt and accept distance education to improve educational facilities and status of people as well. Working class, women and people belonging to deprived areas has accepted it as blessing to improve educational status. "Distance education free learners from constraints of time and place offering flexible learning opportunities to individuals and groups" (Talesra, 2004, P.2). So, people accept it happily and governments and educational institutions take it economic from different aspects. It is evident from the history of last few years that distance education has arrived as new development to expand educational facilities for people all around the world. According to Holliangworth (2006) approximately 75% of colleges and universities in USA are offering distance learning courses at various levels. A report by Woodley (1998) indicates that Open University (OU), UK is now expected to teach more students but with reduced funding. Prasad (2006) has reported that in present, 25% of Indians are receiving education through distance mode and in next years it is expected to go up to 40%. Further, Swamy (2003) has indicated that distance education is one of the emerging areas in education that will become normal pattern of education in next twenty years.

In Pakistan, distance education was introduced with establishment of AIOU in 1974 in consequence of "Act No. XXXIX passed by National Assembly in May 1974" (AIOU, 1979, P.1). Keeping in view its acceptance by the people of Pakistan, Virtual education started in March 2002 (VU, 2013). Later on, Higher Education Commission of Pakistan launched the plan to establish directorate of distance education in selected public sector universities with the motive to discourage private education at higher

stage of education and narrow down quality gap between private and regular students (HEC, n.d, P.2). As result, BZU, Gomal University, Government College University Faisalabad and the Islamia University of Bahawalpur introduced distance education courses at various levels.

AIOU is oldest distance education institution in Pakistan and has rich enrollment in teacher education programs. Overview of enrolment trend in AIOU as reported by AIOU (2010) and AIOU (2011) indicates that it enrolled 6160861 students in 17875081 courses during the years 2006 to 2011. It shows acceptance of teacher education programs through distance education in Pakistan. High acceptance of distance education courses in Pakistan demands planners of distance education in the country to improve quality of education and satisfy needs of learners but some studies have pointed out displeasure of distance learners for the quality of teacher education by distance education courses in Pakistan (Asif, 1996; Anjum, 2004; Shah, 2004; Farooq, 2006; Ahmed, 2011; Iqbal, 2011). This indicated need to conduct a study to evaluate quality of distance education courses in Pakistan. Therefore, present study was conducted on "Satisfaction of distance learners with the quality teacher education in Pakistan: a case study of AIOU in Pakistan".

Objectives of the Study
    The study focused the following objectives.
1. To analyze satisfaction of distance learners about the quality of distance education
2. To find out areas needing improvement to improve satisfaction of distance learners
3. To suggest measures for improving quality of distance education system in Pakistan.

Significance of the Study
        The study is useful for planners of distance education in Pakistan to get guidelines about factors that are reason for the frustration of distance learners and provide basis to critics to criticize quality of distance education in the country. It is also helpful for those dual mode institutions that have introduced or are in the process to introduce distance education courses in future. In the light of results of this study, distance education institutions can get understanding for the strengths and weaknesses of their existing policies and make plan for improvement of distance education courses for future.

Methodology

The study was conducted following the procedure of survey method of descriptive research. Study was delimited to B. Ed program of AIOU. To measure students' satisfaction about the quality of education, questionnaire on five point Likert scale was developed and validated through expert opinion method. Reliability of research tool was determined by Cronbach's Alpha (.921) that showed high reliability of tool. A random sample of 8642 students (25% of population) was selected as sample of study from the population of 34567 AIOU students admitted in B. Ed (General) for semester spring 2012 in the Punjab Province. They had completed whole courses of three semesters. Data was collected during examinations of last (3rd) semester. Total, 7593 students returned questionnaire. So, return rate remained eighty eight percent. Figure one gives geographical detail about the respondents.
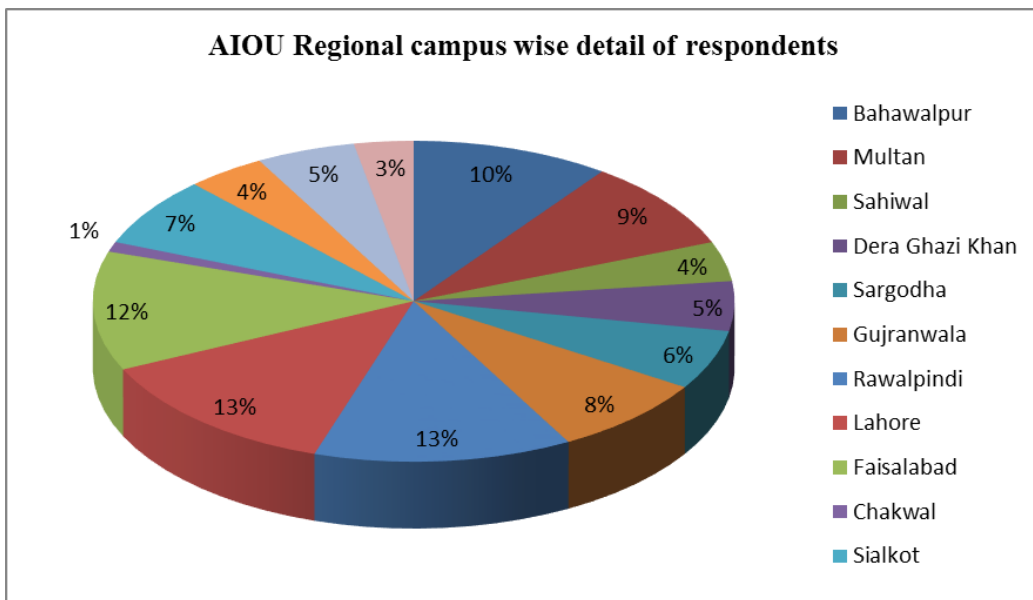
For analysis of data, formulas of percentages, mean scores and t test were applied to find out the results of study using SPSS. For interpretation, mean score 3.50 was taken as criterion to accept the result regarding acceptance of statements (mentioned in tables three to seven).

Results and their Interpretation

To evaluate satisfaction of distance learners about the quality of distance education, forty items on five point Likert scale were included in the questionnaire. So, mean scores of responses were compared to find out learners' satisfaction with the quality of education. Gender wise analysis has shown in table 1. According to the table, mean score of responses of students was 148.86. It pointed out better level of satisfaction about the process of distance education. Mean score of satisfaction level of female was 150.78 that was greater than mean score of satisfaction level of male (141.92). Overall, students found satisfied with the quality of distance education. T−test results (t value=11.645, p= .000) identified significant mean difference between groups at 0.05 level.

Table: 1 Gender wise comparison about the satisfaction level of students with the quality of distance education (N=7593)

Gender	N	Mean Score	df	t value	Significance
Male	1642	141.92	7591	11.645	0.000
Female	5951	150.78			
Total	7593	148.86			

Table 2 shows that mean score of satisfaction level of rural and urban distance learners was nearly equal (148.75 and 148. 96 respectively). It indicated no significant mean difference (t= .341, p= .061) between satisfaction level of male and female learners. It pointed out that distance education facilities were equally available to rural and urban population in the country.

Table: 2 Area wise comparison about the satisfaction of students with the quality of distance education (N=7593)

Gender	N	Mean Score	df	t value	Significance
Rural	3504	148.75	7591	0.341	0.061
Urban	4089	148.96			
Total	7593	148.86			

Table 3 indicates that students were satisfied about the correspondence system of distance education institutions. Mean score for each statement was above the criterion (3.50).

Table: 3 Satisfaction of students about the correspondence process of institution (N=7593)

Sr.no	Statement	Mean
1	Received admission information	3.97
2	Tutor appointment information communicated to students on time.	3.59
3	Study material received on time	3.91
4	Schedule of tutorials and submission of assignments was received on time	3.70
5	Students received results without any trouble.	3.60
6	University provided online facility to get result.	3.91

Table 4 explains that distance learners were partially satisfied with the assessment process of assignments. Evaluation of mean scores regarding the assessment process of assignments in distance education identifies that distance learners were in view that assignments covered whole of the courses (mean= 4.01), these helped in preparation for examinations (mean= 3.96) and their preparation demanded extensive study by students about the course contents (mean=3.79). But, there were some problems regarding assessment process of assignments like as; tutors did not provide comments on assignments after careful reading of answers (mean=3.23) and their comments did not help students to comprehend their learning deficiencies (mean=3.28). Moreover, they marked assignments without discriminating high and low quality of answers (3.44). This gives a sign to the institution to improve assessment process of assignments.

Table 4 Satisfaction of students about the Assessment of course assignments (N=7593)

Sr.no.	Statement	Mean
1	Assignments covered whole of the course	4.01
2	Assignments helped in preparation for examinations	3.96
3	Assignments preparation demanded students extensive study of course books.	3.79
4	Tutors provided comments on assignments after careful reading of students' answer	3.23
5	Tutors' comments were fruitful to understand learning weaknesses by students.	3.28
6	Tutors marked assignments without any discrimination.	3.44

Table 5 identifies satisfaction of learners about the aspects regarding tutorials. It explains that distance learners were partially satisfied with the tutorials process of distance education. It shows, distance learners were provided information about their tutors (mean= 3.75). Tutors treated positively to distance learners during the meetings (mean=3.74).They involved students in study (mean=3.66). They were punctual according to schedule (mean=3.73) and were competent in their fields of studies (mean=3.76). They submitted assessment results of students timely. But, study centres were not in the access of students (mean=3.43). Transport facility was not available to

students to reach study center for attending the workshop (mean=3.03). Necessary teaching aids were not available in the study centres (mean= 2.79). Tutors did not use available teaching aids during lectures (mean= 2.97). Regional directors did not monitor the tutorial meetings (mean= 3.28) that was necessary to monitor the work of tutors and resource persons involved in workshops.

Table 5 Satisfaction of students about the tutorials (N=7593)

Sr.no.	Statement	Mean
1	Information about the appointed tutor was provided to students.	3.75
2	Tutors treated positively during meetings	3.74
3	Tutors involved students in study	3.66
4	Tutors were punctual according to schedule	3.73
5	The tutors were competent in their subject.	3.76
6	Tutors submitted assessment results on time.	3.63
7	Study centres were in access of students	3.43
8	Transport was available to attend tutorials	3.03
9	Necessary teaching aids were provided in Study centres	2.79
10	Tutors used available teaching aids during lectures	2.97
11	The regional director monitored the tutorial meetings	3.28

Review of table 6 about an important component of distance education system "examinations" exposes that students were partially satisfied with the examinations process. Analysis of mean scores regarding different components identifies that examination schedule was communicated to students well advanced a time (mean= 3.70). Question papers were well constructed (mean= 3.69).Time for examinations was enough to attempt the papers (mean= 3.57). Results were declared timely (mean= 3.77). But, arrangements in examination centres were substandard (mean= 3.40), marking of answer scripts was unfair (mean=3.44) and access to controller office was not possible for students in case of any difficulty (mean=3.19).

Table 7 shows contentment of distance learners about the conduct of workshop. It explains that distance learners were satisfied with the workshops. Mean score of all items mentioned in the section was above four. This indicates good level of satisfaction of respondents with the workshop component of the system.

Table: 6   Satisfaction of students about the Examinations (N=7593)

Sr.no.	Statement	Mean
1 The examination schedule was communicated well advanced a time.		3.70
2 The question papers were well constructed.		3.69
3 The time for examination was sufficient.		3.57
4 The arrangements and examination hall were satisfactory.		3.40
5 The answer scripts were marked fairly.		3.44
6 The result of students declared on time.		3.77
7 The students could contact controller office in case of facing difficulty regarding examinations.		3.19

Table: 7   Satisfaction of students about the workshop (N=7593)

Sr.no.	Statement	Mean
1 The workshop conducted on time.		4.13
2 The resource persons delivered their lectures nicely.		4.01
3 The lectures enhance the awareness of students during the workshop.		4.07
4 The workshop was useful activity to enhance learning.		4.12
5 The workshop provided opportunity to interact with the fellows and teachers.		4.17

Discussion

Pakistan has distance education system to fulfill the needs of working class and deprived sections of its population. AIOU, Islamabad is first distance education University in the country. It is offering different level courses from certificate level to degree levels. Many of the formal Universities have introduced distance education courses and most of them are following the procedure of AIOU with little changes. Students of AIOU, on the other hand criticize its system and point out different deficiencies. AIOU following the reports about its system focus attention to improve system but some of the deficiencies have never been removed from the system.

Present study has verified some of the results of previous studies about deficiencies but pointed out strengths in the system also. Results showed in table number one and table number two have pointed out appreciating view about the services of distance education system of the University. Students pointed out that system of distance education has more strength as compared to its weaknesses. Although, female students are more satisfied than male (Table 1) but distance education facilities are equally provided with same procedure and facilities to rural and urban areas without preferring any one (Table 2). Furthermore, it is remarkable that results showed in table number three have support of study conducted by Shah (2004, P.265) who reported "university was internally more efficient for female than male students"

and Ahmad (2003) who pointed out that distance education has helped to promote women education in Pakistan". This helps to conclude that distance education system in Pakistan is much focusing to promote women education in the country in rural as well as urban areas.

Some of the results showed in table number three about the correspondence process of distance education match with the previous study conducted by Farooq (2006). He pointed out that distance learners got admission letter, study package, tutor letter, tutorial schedule and books on time. Moreover, present study has pointed out that distance learners also have online facility to get information about the result and examinations. This showed correspondence system of the university is admirable as it is satisfying needs of majority of the students.

Results (serial one to three) showed in table number four no doubt explain good quality of assignments proposed to distance learners. Theses also indicate command of academicians on preparation of assignments' questions for students to achieve the objectives of proposing assignments for formative assessment of distance learners and inspiring them for broad study of course. Last three results, showed in table number four, are critical to analyze satisfaction of distance learners regarding the assessment of assignments (by tutors) prepared by distance learners. These results have resemblance to a previous study conducted by Shah (2004, P.265) who explored same deficiency summing up "weakness in assessment and evaluation procedure of the university included invalid and unreliable marking of assignment papers". These also resemble to study conducted by Asif (1996) who pointed out that students were less satisfied on certain items regarding treatment and submission of assignments. Results concluded by Ahmed (2011) also resemble with this study. He reported that assignments encouraged students to visit internet and consult reference books but remarks given on assignments by the tutors do not help them for final examination. Iqbal (2011, P.132) also reported "majority of tutors just superficially tick over the assignments without judging the quality of students' responses and academically poor students achieve high grades from tutors". Present study also has pointed out careless study of students' answers by tutors, ineffective comments of tutors for pointing out learning deficiencies of students and unreliable marking without discriminating high achievers and low achievers. This indicates that University has given less attention to improve assessment process of assignments and training and monitoring of tutors.

Results showed in table number five indicate some factors that indicate displeasure of distance learners about the tutorials arranged for their help in study. Finding seven (serial seven in table number five) has resemblance with results of previous study conducted by Shah (2004) who reported that weakness of tutorial

support services included long distances between students' residence and study centre, inability of regional centres to solve students' problems related to tutors allocation.

A result showed in table number five (serial eight) has also support by a study conducted by Farooq (2006, P.125) who reported "there was no transport facility for study centre to attend the tutorial meetings". Some results (serial nine and ten in table number five) mentioned are different than results of previous studies conducted by Farooq (2006) who remarked that Audio visual aids were available at study centres and study conducted by Chaudhry (2000, P. 114) who reported "audio visual aids were used in workshop and teaching practice" but have similarity with results reported by Shah (2008, p.110) who said "there is need to train tutors in use of aids during the tutorial meetings".

Examinations are compulsory component of assessment process of distance education. Table number six has indicated students' poor satisfaction about some factors (serial number four, five and seven in the table) that identifies poor arrangements in examination halls, unfair marking of answer scripts and poor access of distance learners to the controller office in case of facing difficulty regarding examinations. These findings to some extent have support of finding reported by Shah (2004, P.265) who indicated weakness in assessment process of AIOU reporting "weakness in assessment and evaluation procedure included invalidity of examination papers, lack of reliability in marking" and results of study conducted by Anjum (2004, P.94) who suggested "examination system may be made efficient". Therefore, the policy makers need to plan effective strategies for conduct of valid and reliable assessment procedures in conduct of examinations and marking of scripts.

Table number seven has revealed students' satisfaction about the conduct of workshop. These results have support of a study conducted by Asif (1996) who reported that students were much satisfied regarding the functioning of workshop.

Conclusions
1. Overall, distance learners are satisfied with the quality of education but have some complaints regarding some aspects concerning the assignment marking, tutorials and examination process.
2. Educational facilities for urban and rural distance learners are equally satisfactory. Female are more satisfied with distance education than the male.
3. Correspondence process of distance education of AIOU, Pakistan is satisfactory
4. Students are partially satisfied with the assessment process of assignments. Assignments are tactfully framed and cover whole of the course, help in preparation for examinations, inspire them to study hard but assessment of assignments is not done carefully by tutors. They do not give fruitful comments

on assignments nor mark assignments comparing quality of good and poor responses.

5. Satisfaction of students regarding tutorials is partial. They are satisfied about tutor and his role during the tutorials but face problem about the allocation of appropriate study center and availability of transport to attend the tutorial meetings. They observed non availability of teaching aids in the study centres, no use of available teaching aids by tutors during lectures and inefficient monitoring by regional directors during the tutorial meetings.

6. Satisfaction of students about the examination process is limited. They are satisfied with the announcement of schedule, question paper, allocated time for examination and declaration of results but discontented about the arrangements in examination hall, marking of scripts and non-access to controller office in case of having difficulty.

7. Students are satisfied with the conduct and management of workshops.

Recommendations

1. Tutors must be trained to work in distance education. Orientation meeting after appointment of tutors may be arranged as compulsory part of the process. Only efficient, hardworking, trained and honest tutors must be appointed.

2. Manual for marking of assignment must be given to tutors to guide them about rules of marking. Furthermore, marked assignments must be randomly rechecked by academicians or other responsible authorities to ensure quality marking of assignment as according to rules communicated to tutors.

3. Arrangements in examination halls must be strictly monitored by the authorities.

4. Sub offices of controller office must be established at regional level and authorized persons must resolve complaints of students in short time.

5. This study conducted using close ended questionnaire only. A further study on same topic about each component of distance education may be conducted applying some other tools of study such as interview and observation.

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Impact of Teachers' Attitudes on the Achievement of Students

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Abstract

The present research explores the impact of attitudes of teachers on the achievement of students. The attitude of the teachers deeply affects the achievement of the students because students are very strongly influenced by their teachers as compared to others. A sample of 30 students of class 10th from Lahore Cantt. was selected randomly for the present study. Pre-test and post test research design was employed. On the basis of the results of the pre-test, three groups were formulated with equal means, each group was restricted to10 students. It is clear from the scores that there was significant difference in the mean scores of the achievements of the groups taught in a friendly disciplined and in a traditional way. The largest difference exists between the means of the group B (disciplined) and group C (traditional). The study shows that if the teacher adopts a friendly or disciplined attitude rather than the traditional attitude, the achievement of the students would be higher.

Key Words: Attitude, Achievement, Impact, Influence

Introduction

Teachers are the builders of a nation and their task is teaching and training the students. Throughout the child's day in school the teacher without doubt exercises the most significant psychological influence on him. It is the teacher more than the doctor, lawyer, journalist or entertainer who can inspire the new generation. The teacher is the person who along with the parents is concerned with the psychological and emotional welfare of the child.

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"The teacher is the most important factor in education no matter how beautiful the school building and modern the equipment, they are at best the setting for learning, important but not decisive elements in the educational process. It is the teacher who determines the opportunity that children will have at school. The teacher in fact manipulates the environment of children so that they may have significant learning experiences" (Lamb, 1956 p. 2).

Good Teaching implies early identification of learning and behavioral difficulties through observation and testing. It also implies teacher responsibility for children learning. There are several principles of good teaching that are as follows (Lowman, 1984):

- Allocate Time to Learning
- Keep students engaged in learning
- Provide a high level of success for students
- Assess what has been learned
- Keeping the classroom structure firm and positive

Effective Teaching is characterized as the competence to achieve one's desired educational outcomes. Rosenshine and Furst (1973) claimed that the single most important characteristics of effective teacher is that they have a clear definition of goals and have to achieve them. Pressley and Woloshyn (1995) argued that effective instruction is often broken into four categories. The first is selecting objective at the correct level of difficulty. Secondly, knowing the student's limits and their potential which helps an effective teacher develops objectives at an appropriate level and then design lessons to teach those objectives. These lessons should aim at including all students while providing challenges or enrichment for those with more ability. Thirdly, after choosing an appropriate objective the teacher has the task of teaching it. The majority of teacher actions should be relevant to the objective. There is a need of relationship to be established between the objective and the teaching. To do this the teacher must be well prepared and organized. After having selected an appropriate objective and taught a marvelous lesson that conveys the necessary information, it is time to monitor and assess student's progress to determine what students have learned and achieved. For this teacher may ask the students to do something that demonstrates their knowledge. If their responses are in accordance with what is anticipated then teacher can proceed to the next objective otherwise, they need to modify their instruction as necessary. Fourth, to increase the effectiveness as a teacher one must

learn and use the principle of learning. The real key to bring a good teacher is enthusiasm (Harford, 1979; Hanson, 1977). There are the factors of effective teaching, which are discussed in proceeding section:

Flexibility: Unfortunately, no teaching strategy or technique has proved to be effective all the time for all students. One general principle that emerges from the research is need for the teacher to be flexible, trained and competent in different strategies at different times for different students (Pamela, 1990).

Enthusiasm: Another significant factor in student learning for which there is some co-relational evidence (remember: do not assume causality) is teacher attitude (i,e, enthusiasm). Greater student achievement games have been associated with more enthusiastic, friendly teachers (Rosenshine & Furst, 1973).

Class Management: Class management refers to a broad range of techniques used to facilitate instruction, maximize learning time, maintain a pleasant atmosphere, prevent disruptive behaviours and deal with discipline problems (Wood, 2001).

Knowledge of the Subject, Organization and Clear Presentation: Knowledge of the subject, Organization of the subject matter and clear presentation are necessary for effective teaching. Information should be presented in a sequence that makes sense to the students and should prepare them sufficiently for practices or exercises. Time should be provided for review and discussion of the material (Trowbridge, & Bybee, 1986; Harris, 1986).

This point of view is a popular one, that the teacher's personality is more important than the teacher: (Lamb, 1956, p. 72-75). The first responsibility of the teacher is self-improvement, and his most outstanding qualification should be the desire for continuing self-improvement. The teachers' primary task is to motivate children so that they wish to learn and to respond in right ways to various situations throughout the year. They should understand the difference between positive and negative thinking and should teach children to think in positive terms. The teacher should appreciate the qualities of the pupil and lead him to awareness of his abilities and gifts so that he has the confidence to face his share of weaknesses and try to do something about them. The teacher should see to it that emotional atmosphere of the classroom is comfortable, free from sarcasm, ridicule and favoritism. The teacher should hold pupils to good work habits. Although the atmosphere of the classroom should be pleasant, work centered, for there should be respect for work and achievement stress should be pleasant, work centered, for there should be placed upon the spirit. Teacher should plan and conduct learning activities so that children learn what they are supposed to learn in ways that promote social adjustment.

Statement of the Problem

The present research was conducted to assess the effectiveness of the different attitude of the teachers on students' achievement.

Objectives of the Study

1. To determine the effect of a disciplined, strict teacher on students educational achievement. Disciplined teachers command a repertoire of teaching practices known to stimulate student motivation, to enhance student achievement of basic skills, to develop higher-level thinking and to produce self-regulated learners.
2. To determine the effect of a teacher having a friendly behavior on students educational achievements. Friendly teachers have personal qualities that allow them to develop authentic human relationships with their students, parents and colleagues and to create democratic classrooms for children and adolescents.
3. To determine the effect of a teaching in a traditional way on students educational achievement.

Methodology

The population consisted of students of class 10th from Cathedral Higher Secondary School Lahore Cantonment. The total number of students in class 10th were 50. A sample of 30 students was selected randomly from the students of class 10th for the present research study. Table 1 shows the distribution of students in different groups.

Table 1 Distribution of students in different groups

Group	Category	Number of students
Group – A	Disciplined	10
Group – B	Friendly	10
Group – C	Traditional	10
Total students		30

For the present research two achievements tests were prepared i.e. Pre-test and Post-test. The pre-test was prepared by the researcher themselves from chapter 1, 2, 3 of the Pak-Study book prescribed for Grade X students. The test consisted of 10 MCQ type items, 15 completion items and 5 short answer items. The test was administered by the researchers themselves. Time allowed for the test was 30 minutes. After the time was over papers were collected from the students and marked by the researchers.

On the basis of the result of the pre-test, three groups were formulated with equal means. The groups were named A, B and C, and each group restricted to10 students. Group A and B were the experimental groups and group C was the control

group. Arrangements were made by the researchers to assemble the groups A, B and C in different classes. Group A was taught in a friendly way, Group B in a disciplined, strict way and Group C in the traditional way. The students were informed by the researchers to study and prepare chapter 5, 6, 7.

At the end of the specified teaching period, a post-test was prepared by the researchers from chapter 4 and 5 of the Pakistan Studies text book to determine the achievement of the students at the end of the experiment. The post-test consisted of 10 MCQ items, 15 completion items and 5 short answer items. The total marks of the post-test were 50. The scores obtained by groups were tabulated by the researchers. Students achievement scores on the pre-test and post-test in the subject of Pakistan Studies are presented in the table 2. It shows that the mean scores of the students in Group A and Group B increased and the mean score of the students in Group C decreased.

Table 2 Scores of 30 Students on Pre-test and Post-test

	Pre-test Marks			Post-test Marks		
	Group 'A'	Group 'B'	Group 'C'	Group 'A'	Group 'B'	Group 'C'
1	48	47	43	39	41	34
2	41.5	42	42	34.5	35	21.5
3	41	41	40	40	39	22
4	39.5	40	40	38	44.5	34
5	38.5	39	39	34.5	42.5	25.5
6	36.5	36.5	36	37.5	42	34.5
7	34	36.5	33.5	41	46	25.5
8	31.5	31	33	40.5	39.5	31
9	31.5	32	32	42	39.5	19
10	29.5	39.5	30.5	34		
Mean	37.15	38.45	36.9	38.1	41	27.44
Lowest Score =	29.5	31	30. 5	34	35	19
Highest Score =	48	47	43	42	46	34

The Shapiro-Wilks Test was used to determine that sample data have been drawn from a normally distributed population.

Table 3 Tests of Normality

	Group	Kolmogorov-Smirnov[a]			Shapiro-Wilk		
		Statistic	df	Sig.	Statistic	df	Sig.
Pre-test	Group A	.140	10	.200[*]	.956	10	.741
	Group B	.135	9	.200[*]	.967	9	.864
	Group C	.188	9	.200[*]	.914	9	.345
Post-test	Group A	.191	10	.200[*]	.909	10	.275
	Group B	.159	9	.200[*]	.972	9	.914
	Group C	.194	9	.200[*]	.885	9	.176
Difference in scores in Pre-test and Post-test	Group A	.117	10	.200[*]	.959	10	.772
	Group B	.220	9	.200[*]	.887	9	.186
	Group C	.125	9	.200[*]	.954	9	.730

*. This is a lower bound of the true significance.
a. Lilliefors Significance Correction

Pre-test: Given that p = .741 for the Group A, p = .864 for the Group B, p = .345 for the Group C, and– and using a = .05 – it can be concluded that each of the groups are normally distributed which satisfies the normality assumption for this sample.

Post-test: Given that p = .275 for the Group A, p = .914 for the Group B, p = .176 for the Group C, and– and using a = .05 – it can be concluded that each of the groups are normally distributed which satisfies the normality assumption for this sample.

Difference between the Pre-test and Post-test: Given that p = .772 for the Group A, p = .186 for the Group B, p = .730 for the Group C, and– and using a = .05 – it can be concluded that each of the groups are normally distributed which satisfies the normality assumption for this sample.

Analysis and Interpretation of Data

The One-way ANOVA was used to determine whether experimental and control groups differed significantly or not in their mean performance on post-test. The data was analyzed, tabulated and interpreted as under:

Table 4 Scores of 30 Students on Pre-test on Post-test

		N	Mean	SD	df	F	Sig
Pre-test	Group A	10	37.150	5.692	2	.278	.759
	Group B	10	38.450	4.723			
	Group C	10	36.900	4.465			
Post-test	Group A	10	38.100	2.923	2	25.421	.000
	Group B	9	41.000	3.260			
	Group C	9	27.444	6.044			
Difference in scores in Pre-test and Post-test	Group A	10	.950	6.681	2	10.407	.001
	Group B	9	2.667	6.190			
	Group C	9	-10.167	6.638			

Pre-test: table 4 showed that F ratio $F(2, 29) = .278$, $p = .759$ – at the .05 alpha level is not significant indicating that there is no difference in the achievement of the three groups in the Pre-test.

Post-test: table 4 showed that F ratio $F(2, 27) = 25.421$, $p = .000$ – at the .05 alpha level is significant indicating that there is significant difference in the achievement of the three groups in the Post-test. Difference between the Pre-test and Post-test: table 4 showed that F ratio $F(2, 27) = 10.407$, $p = .001$ – at the .05 alpha level is significant indicating that there is significant difference in the achievements of the three groups in the Pre-test and Post-test.

Table 5 Multiple comparisons LSD

Dependent Variable	(I) group	(J) group	Mean Difference (I-J)	Sig.
Pre-test	Group A	Group B	-1.300	.565
		Group C	.250	.912
	Group B	Group A	1.300	.565
		Group C	1.550	.493
	Group C	Group A	-.250	.912
		Group B	-1.550	.493
Post-test	Group A	Group B	-2.900	.151
		Group C	10.655*	.000
	Group B	Group A	2.900	.151
		Group C	13.556*	.000
	Group C	Group A	-10.656*	.000
		Group B	-13.556*	.000
Difference in scores in Pre-test and Post-test	Group A	Group B	-1.717	.571
		Group C	11.117*	.001
	Group B	Group A	1.717	.571
		Group C	12.833*	.000
	Group C	Group A	-11.117*	.001
		Group B	-12.833*	.000

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

Table 5 revealed the multiple comparisons results for the LSD test.

Pre-Test:
Table revealed that the Group A (M =37.150) is not significantly different from the Group B (M = 38.450), with a mean difference of − 1.30 and a p value of .565. Also, the Group A (M = 37.150) is not significantly different from the Group C (M = 36.90), with a mean difference of .250 and a p value of .912. Group B (M = 38.450), is not significantly different from the Group C (M = 36.90), with a mean difference of 1.550 and a p value of .493.

Post-Test:
Table revealed that the Group A (M =38.10) is not significantly different from the Group B (M =41.0), with a mean difference of 2.90 and a p value of .151. Also, the Group A (M = 38.10) is significantly different from the Group C (M = 27.44), with a mean difference of 10.656 and a p value of .000. Group B (M = 41.0), is significantly different from the Group C (M = 27.4), with a mean difference of 13.556 and a p value of .000.

Difference in Scores in Pre-test and Post-test
Table revealed that the Group A (M =.950) is not significantly different from the Group B (M =2.667), with a mean difference of -1.717 and a p value of .571. Also, the Group A (M = .950) is significantly different from the Group C (M = -10.167), with a mean difference of 11.117 and a p value of .001. Group B (M = 2.667), is significantly different from the Group C (M = -10.167), with a mean difference of 12.833 and a p value of .000.

Results
It is clear from the scores of the group A, B and C in the pre-test that all these groups were equal to each other as far as their previous knowledge was concerned. The result of the study calculated by One-way ANOVA indicated that there was significant difference in the mean scores of the achievements of the groups taught in a friendly disciplined and in a traditional way. The largest difference exists between the means of the group B (disciplined) and group C (traditional). The smallest difference existed between the mean of the groups A (friendly) and B (traditional). The study shows that if the teacher adopts a friendly or disciplined attitude rather than the same traditional attitude, the achievement of the students would be higher.

Discussion and Recommendations

The attitude of the teachers deeply affects the achievement of the students because students are very strongly influenced by their teachers as compared to others. The teachers are the role models for the students. Therefore, teachers should try to use motivational techniques in their teaching process. They should try their best to avoid negative reinforcements like punishment and fear of failure in classroom. Teacher training institutions should train their students to use the motivational techniques in different classroom situations. In this way only we can enhance the standard of our education system and move towards being a developing country.

Following recommendations are made:

- The present study was limited to one school the similar kind should be conducted on the sample drawn from different schools from different localities that may lead to a more precise generalization.
- It is recommended that such a study should be conducted with a greater sample and the duration of the study should be at least one month.
- The traditional way of teaching students should be changed and the teachers should adopt such an attitude that increases the performance of the students.
- Teachers should be trained to adopt a friendly and disciplined attitude with the students.

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Effect of Continuous Professional Development Framework on Teachers' Moral Development

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Abstract

This article is based on a study, conducted in 2012, to analyze the effect of CPD Framework on teachers' moral development. Directorate of Staff Development (DSD) Lahore launched the 1st Phase of CPD Framework in 2007 for 12 districts of Punjab, Pakistan. The major objectives of the study were (1) to analyze the opinion of head teachers, peer teachers, and students about teachers' moral development as a result of the CPD Framework; (2) to evaluate the differences between teachers of urban and rural areas after participating in the CPD Framework; and (3) to analyze the differences among the districts regarding teachers' moral development. Data were collected from head teachers, peer teachers and students of 344 government boys' primary schools of four selected districts. CRD design and LSD test were used to analyze the data. From the findings of the study it was concluded that the effect of CPD Framework was higher on teachers of urban areas than the teachers of rural areas, the students were more satisfied with their teachers' moral development than the peer teachers and the head teachers, and effect upon the districts was also found varied but it was highly positive. It was recommended that the CPD Framework must be monitored regularly especially in rural areas to minimize the differences between urban and rural locality.

Key Words: Continuous Professional Development (CPD) Framework, Moral development, Effect

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Introduction

Education stands for bringing out and improving to their full potential all the latent faculties of individuals (Abdulhaq, 1990) and it is tremendously significant not only for the success of a person but for the whole of a nation as well because it develops knowledge, understanding, skills and moral fiber of the learners. It facilitates an individual in learning about how to level with the society by developing understanding, furnishing one's self to deal with the realities of life, and covers up teaching and learning specific skills, positive judgment, well developed insight and acumen (Duquette, 1993). Human beings are alone, ALLAH's vicegerent, can be educated/instructed as well as trained. To educate means is to construct something in mind, while training is just giving exercise in particular skill to the point of habit formation. Thus, training, pre-service or in-service, is inevitable for the teachers because they are charged with the highest responsibility to train the will of a human being (Abdulhaq, 1990). Teacher training is essential to do a whole range of different jobs: to enable teachers to develop the potential of their pupils; to serve as role models; to help transform education and trough it society; to encourage self-confidence and creativity. Permanent or recurrent education, a widespread principle of modern educational theories, necessarily involves permanent or recurrent teacher training, as one cannot possibly think of ways of keeping educational institutions and programs up to date without implying the same process for teachers. The trainees should be identified in all practicing teachers. Such training programs should be recognized as an integral part of their activity; therefore, both as a right and as a duty. Different aspects of teacher training programs, especially their effects on the teachers' moral development, must be analyzed in order to remove their deficiencies and make them more fruitful for teacher and taught.

The one brilliant sign of comprehensive knowledge is the power of teaching (Aristotle, 384 BC-322 BC). Teaching at its nucleus is a moral profession. Scratch a high-quality teacher and you will find a moral purpose (Fullan, 1993). Each and every established society has a morality, the power of differentiation between those that are "good" or right and those that are "bad" or wrong, and the school as a moral community and a primary training ground for becoming a fine citizen, teachers have extensive responsibility for moral development and for instilling fundamental values, attitudes, and "living habits" in learners at all levels. Intellectuals, who studied moral development, have found that individuals usually develop swiftly in early adulthood from a conventional stage in which they base behavior on the values and norms of those around them to a more principled stage where they recognize and endeavor to live by personal moral values (Branch, 2000). Values are ideals that give significance to our lives that are reflected through the priorities we choose and that we act on consistently and repeatedly (Hall, 2006).

"The teacher should be a guide not a dictator, an artist not a mechanic, a scholar and a philosopher not a collector and repeater of facts" (Association of the Teachers of Social Studies of the City of New York , 1967, p.353). Do not educate a child to learn by force or ruggedness; but direct them to it by what amuses their minds, so that you may be better able to find out with accuracy the peculiar bent of the genius of each (Plato, BC 427-BC 347). Revell and Arthur (2007) also describes that teachers must be trained clearly in the areas of moral development. Though "three Vs" views, values, and virtues all play a vital part in schooling, yet only virtues offer the true support critical for moral development. The focal point of moral education in primary schools must be character building of the students (Doan, 2005).

Last but not the least the teacher who has higher levels of moral development and consciousness produce better academic result for learners (Chang, 1994), while on the other hand, teacher with lower levels of moral development educates learners less effectively and display unsuitable behaviors (Reiman & Peace, 2002).

The following were the objectives of the study:
- To evaluate the differences in moral development between teachers of urban and rural areas after participating in the CPD Framework.
- To analyze the opinion of head teachers, peer teachers, and students about teachers' moral development as a result of the CPD Framework.
- To analyze the differences among selected districts regarding teachers' moral development.

Method

The study was conducted during 2012 in the four selected districts Faisalabad, Okara, Sargodha, and Sheikhupura, of Punjab. All the government boys' primary schools of those districts were the population of the study. The sample was selected according to the sample size table by Fitzggibbon, Taylor and Morris (1987). Three hundred and forty four schools were randomly selected from 3158 government boys' primary schools. A group of eight respondents, one head teacher, two Peer Teachers, and five students, was selected from each school. Sample was selected, according to the population division of the province of Punjab, with the ratio of 70% and 30% respectively from rural and urban areas. Data were collected from all the three types of respondents with the help of three different questionnaires containing five point Likert scales ranging from "Strongly Agree" to "Strongly Disagree". The questionnaires were administered by the researcher himself as well as with the help of his assistants who had been trained earlier for the assignment. ANOVA with 5% significance level was used to analyze the data collected from 344 head teachers, 688 peer teachers, and 1720

students. LSD test was used to analyze the differences between levels of significant factors. Data were presented in tables with the help of explanatory paragraphs.

Results and Discussion

   Various facets of CPD Framework such as responsibility and punctuality, guidance and counselling, teacher's attitude, and values concerning to teachers' moral development were analyzed in the light of respondents' views. On the basis of statistical analysis the conclusions were made and recommendations were prepared. Detailed explanation is given as under.

   Table 1 revealed that, comparison of means for responsibility and punctuality, the overall mean scores (4.72±0.053) and (4.71±0.029) of the districts Sheikhupura and Okara were highly significantly (p<0.01) different and higher from the districts Sargodha and Faisal Abad (4.61±0.032), (4.54±0.033) respectively. The students' and peer teachers' respective overall mean scores (4.64±0.025) and (4.69±0.024) were highly significantly (p<0.01) different and higher from head teachers' overall mean score (4.57±0.034). The urban locality mean score (4.74±0.055) of the district Sheikhupura was significantly (p<0.05) different and higher from the mean score of the district Sargodha (4.54±0.079) but non-significantly (p>0.05) different from the district Faisal Abad and Okara. The urban locality mean score (4.67±0.048) of the district Faisal Abad was significantly (p<0.05) different and higher from its rural locality mean score (4.50±0.41). The rural locality mean scores (4.72±0.035) and (4.72±0.035) of the districts Sheikhupura and Okara were highly significantly (p<0.05) different and higher from the mean score (4.50±0.041) of the district Faisal Abad, while non-significantly (p>0.05) different from the district Sargodha.

Table 1: Comparison of Means for Responsibility and Punctuality

Group**	Mean	
Head Teachers	4.57±0.034 B	
Peer Teachers	4.69±0.024 A	
Students	4.64±0.025 A	
District**		
Sheikhupura	4.72±0.030 A	
Sargodha	4.61±0.032 B	
Faisal Abad	4.54±0.033 B	
Okara	4.71±0.029 A	
Locality		
Urban	4.65±0.031 A	
Rural	4.63±0.019 A	
Interactions		
District×Locality*		
District	**Locality**	
	Urban	Rural
Sheikhupura	4.74±0.055 a	4.72±0.035 a
Sargodha	4.54±0.079 bc	4.64±0.032 ab
Faisal Abad	4.67±0.048 ab	4.50±0.041 c
Okara	4.67±0.050 ab	4.72±0.035 a

NS = Non-significant (P>0.05); * = Significant (P<0.05); ** = Highly significant (P<0.01)

Means sharing similar letter in a row or in a column are statistically non-significant (P>0.05). Small letters represent comparison among interaction means and capital letters are used for overall mean.

Table 2 illustrated that, comparison of means for guidance and counselling. The students' and Peer Teachers' overall mean scores (4.44±0.028) and (4.41±0.025) respectively were highly significantly (p<0.01) different and higher from the head teachers' overall mean score (4.31±0.039).

Table 2: Comparison of Means for Guidance and Counselling

Group**	Mean
Head Teachers	4.31±0.039 B
Peer Teachers	4.41±0.025 A
Students	4.44±0.028 A
District	
Sheikhupura	4.42±0.042 A
Sargodha	4.35±0.036 A
Faisal Abad	4.38±0.031 A
Okara	4.43±0.036 A
Locality	
Urban	4.44±0.032 A
Rural	4.37±0.022 A

NS = Non-significant (P>0.05); * = Significant (P<0.05); ** = Highly significant (P<0.01)

Means sharing similar letter in a row or in a column are statistically non-significant (P>0.05). Small letters represent comparison among interaction means and capital letters are used for overall mean.

Table 3 depicted comparison of means for teacher's attitude. The urban locality overall mean score (4.55±0.025) was highly significantly (p<0.01) different and higher from the rural locality overall mean score (4.44±0.019).

Table 3: Comparison of Means for Teacher's Attitude

Group	Mean
Head Teachers	4.49±0.029 A
Peer Teachers	4.44±0.024 A
Students	4.50±0.028 A
District	
Sheikhupura	4.52±0.036 A
Sargodha	4.45±0.030 A
Faisal Abad	4.45±0.027 A
Okara	4.49±0.032 A
Locality**	
Urban	4.55±0.025 A
Rural	4.44±0.019 B

NS = Non-significant (P>0.05); * = Significant (P<0.05); ** = Highly significant (P<0.01)

Means sharing similar letter in a row or in a column are statistically non-significant (P>0.05). Small letters represent comparison among interaction means and capital letters are used for overall mean. Table 4 described comparison of means for classroom management. All the comparisons were statistically non-significant (p>0.05) yet highly positive.

Table 4: Comparison of Means for Values

Group	Mean
Head Teachers	4.55±0.034 A
Peer Teachers	4.63±0.027 A
Students	4.53±0.031 A
District	
Sheikhupura	4.65±0.037 A
Sargodha	4.54±0.034 A
Faisal Abad	4.54±0.033 A
Okara	4.58±0.040 A
Locality	
Urban	4.61±0.030 A
Rural	4.56±0.022 A

NS = Non-significant (P>0.05); * = Significant (P<0.05); ** = Highly significant (P<0.01)

Means sharing similar letter in a row or in a column are statistically non-significant (P>0.05). Small letters represent comparison among interaction means and capital letters are used for overall mean.

Following significant findings may be drawn from the data:
- The mean score of the teachers of urban areas was higher than the teachers of rural areas.
- The mean scores of students and peer teachers were greater than the head teachers.
- The mean scores of the teachers belong to the districts Okara and Sheikhupura were better than the teachers belong to the districts Faisalabad and Sargodha.
-

Conclusion and Recommendations

It is concluded from the findings of the study that the effect of CPD Framework regarding teachers' moral development was better on the teachers of urban locality than the teachers of rural locality. The students and peer teachers were more contented with their teachers' moral development than the head teachers. Teachers' of the districts

Faisal Abad and Sargodha were morally less mature than the teachers of the districts Okara and Sheikhupura but their maturity was highly positive. Based on findings of the study, following recommendations are made:

- Participation of each and every teacher up to higher secondary level in the CPD Framework must be made compulsory.
- CPD Framework must be initiated in the remaining areas of Pakistan.
- To make-up the rural teachers' deficiencies CPD Framework must be monitored firmly as well as regularly.
- Future studies may be conducted to analyze the effects of this Framework on teachers' moral development in the remaining districts of the Punjab.

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Educational Study of War on Terror: Portrayal by Daily The Nation and Daily Times of India

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Abstract

This paper aims at exploring portrayal i.e., editorial treatment of war on terror by daily The Nation and daily Times of India. The study's main rationale was to bring to light and explore the treatment of this issue of war on terror by the two newspapers of neighbouring countries Pakistan and India. The war on terror was further divided into five main categories including Pakistan, India, Al-Qaeda, Afghan Taliban and Kashmiri Militant Organizations (KMOs). Time period of this study is from 12th September 2001 to 31st December 2008. Purposive sampling technique is used to draw the sample from entire population. Total number of editorials given by daily Nation and daily Times of India were 197 and 145 respectively on the issue of war on terror. We have employed Pearson's Chi-square test and the Likelihood Ratio test to test the association between the type of newspaper and their portrayal, in terms of favourable, unfavourable & neutral, towards the issue of war on terror. The results show that there is significant association at 0.05 level of significance as the p-value (0.045) depicted in table 4 is less than the pre-selected level of significance. The strength of the association has also been measured by using the Cramer's V coefficient of contingency table which showed significant results.

Keywords: War on Terror, Pakistan, India, Kashmiri Militant Organization, Framing

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Introduction

The US started "the international war on terror" after the dreadful attacks on 9/11 on the twin towers of World Trade Centre and Pentagon. It compelled Pakistani President General Musharraf to join and support the US in this campaign against terrorism due to huge international pressure. The decision of Pakistan to join the war on terror inevitably forced Pakistan to face the brunt of many militant organizations operating on its own soil which were, most ironically, were nurtured and supported by Pakistan Army for decades. So it was very difficult decision for Pakistan to detach itself from the militant organizations that are supported by its Army whole heartedly against Soviet Union in Afghanistan and India in Occupied Jammu and Kashmir. Four different terrorist and militant organizations were on the hit list of the Pakistani government. Many of these organizations were previously supported and sheltered by Pakistani government, Army and ISI due to this they became very powerful and got out of control from their sponsors who lead their sponsors to embarrassment. So it was time to curb the influence and power of these militant organizations because they were also challenging the local authorities with their power and influence in order to intimidate them and to create law and order problem (Rehman, 2011).

After the incidents of 9/11, media contributed a lot in framing the war on terror positively by mobilizing support for it through portrayal of U.S government and military leaders' themes to save the USA from further terrorist attacks (Reynolds & Barnett, 2003, Ryan, 2004). Defining the terror attacks as a "war" was not necessary, whereas rest of the terrorist attacks were considered "criminal act" e.g., attacks on the World Trade Center in 1993, Pan Am 103 in 1988, and U.S. embassies in Kenya and Tanzania in 1998 (Ryan, 2004). There was the presence of unusual consensus of a morally justified war in reply to these terror attacks (Anker, 2005). Reynolds and Barnett (2003) conducted qualitative study of the reporting of CNN after 9/11 attacks. The media plays an important role in defining of terrorism, establishing and strengthening of social standards (Anker, 2005 & Lule, 2001). Some data of Ryan's study showed that Bush followed the example of the media, in some cases (e.g., the ability of Afghan civilians and defining the "enemy") should be treated with an emphasis later on (Ryan, 2004). While over 90% of Americans said they supported the military operation during the time period of present study, there was more discussion about other possible reactions on terrorist attacks (Berke and Elder, 2001).

Nacos (2003) suggests that the importance of reporting terrorism is increasing because terrorism is being "sold" in the highly competitive news market, stories that attract consumers will always dominate. Extensive research by Rohner and Frey (2007) and Weimann and Winn (1994) shows that the act of one simple statement on terrorism engenders more terrorism, but the problem can be more serious than these analyses suggest. Gartner (2004), Nacos (2003), Weimann and Brosius (1991) and Weimann and

Winn (1994) emphasize the relationship between the features of terror attacks and the duration and significance of the reporting. Terror attacks were given less coverage, if they produced few victims, committed either in Latin America or in Europe (Rohner & Frey 2007), and used ordinary bombs. Gartner's (2004) work regarding reporting of local newspaper about the attacks on USS Cole in October, 2000 clearly depicts these results that pure domestic terrorism happened in the U.S. got more eminent and lengthy coverage in daily The New York Times than as compared to international attacks. More and more often, observers recommend that terrorism gets attention from the media evolved as a function of factors that have longer dealing with the market to its new nature endowed of the terrorist attacks. Three separate applications are clear. The first recommends that the "media fatigue" strikes the coverage of terrorism (Weimann & Brosius, 1991).

According to Nacos (2003), the media has transformed into an "infotainment" industry that enhances sensationalism more prominent. The outcome is a more-than media reporting the stories about terrorism and the under-reporting of stories on against-terrorism, something that reinforces the sense of public threat. Similarly, Bassiouni (1981) argues that the media is part of a broad "terrorism industry" that relies on the promotion the threat of terrorism so as to make terrorism appear more dangerous than it actually is. Jablonski and Sullivan (1996) depicted the relationship between the president and the media on terrorism between 1981 and 1994. In their analysis of the media, the president, and the real world cues, they states that there is a high level of correlation between the trends of the American media and presidential attention to terrorism. Jablonski and Sullivan (1996) found that it can be used to decline terrorist incidents in 1989 and 1990 as evidence of a shift over time between media coverage and incidents of terrorism. Use of the preparation of the agenda and theories is a symbiotic relationship, and Jablonski and Sullivan predict the existence of a relationship between the press and the president, and between the media and terrorism. During content analysis of different media, the researchers found that terrorist activities are dependent on media coverage.

Nacos (2002) pointed out that even if media hype is not the ultimate purpose of the terrorist organizations yet they consider that media coverage to the terrorist attacks is the excellent mode of attracting the attentions of pubic and to fulfill their hidden vested interests. Media coverage of incidents of terrorism is the means to attract the attention and to promote their vested interests. In spite of continuous attack of U.S. media and adverse publicity regarding Osama bin Laden, he shared the media coverage with President Bush in the top media channels.

Literature Review

Ruchman (2005) says that 11 September 2001 attack on twin towers of world trade centre, starts a war which is known as war on terror. In order to punish the perpetrators of 9/11 attackers USA focused on the broad based world war which have killed large number of innocent people. We can conclude that war is turning point of US policy, hence many witnessed that this is disrespect from the world towards US.

Lansford, Watson & Covarrubias (2000) says about balance between soft and hard power. They conclude that terrorism is the biggest threat to humanity. They have full confidence on president Obama that he will solve the threat of terrorism with the balance of power. They think that there must be consensus among all the states to eliminate the danger of terrorism and to create a good image of United States with diplomacy and limited use of power.

Koshy (2003) argues that the so called war on terror is purely an American war which aims to protect American imperialism and financial interests rather than to eliminate the perils of terrorism. American started war after 9/11 attacks without any limits and boundaries. Many countries are suffering from this war e.g. Iraq and Pakistan. Koshy emphasizes that this war will lead the world towards imperialism in which America will be the on the driving seat as they are now leading the war in many corners of world. Hussein (2005) says that there is a big chance of spreading radical Islam by different organizations in the name of true Islam. US is the key player in this scenario and also making her concerted efforts to have close relationship with India, China, Russia and the most important Pakistan. He argues that Pakistan and US must have long lasting relationships in order to cope with the issue of terrorism, besides the war on terror.

Gardner (2007) emphasizes that war on terror by US is to achieve the objectives of peace and stability in South Asia. Another important factor behind the war on terror is to have close ties between US and India to have check on China, which will ultimately benefits Pakistan. Pakistan's geo-political situation will provide Pakistan to avoid number of threats which Pakistan has failed in the past. Mockaitis and Rick (2003) discuss the different strategies adopted by US and other key players during war on terror. They say that before 9/11 the terrorism was not a regional concern. Same as Jafferlot (2002) says this war on terror by US led Pakistan to cultural, social, religious and economic instability. The most chaotic and troubled areas are FATA (Waziristan) in which the operations were launched by Pakistan Army in the name of war on terror. Keelty (2002) says that the whole world was united, on 9/11 incidents, on one point that is war against terrorism. Keetly focused on the revenge and anger on the day of attacks. The war on terrorism cannot be won immediately and stopped at once.

The main focus of news media is on to the particular individuals and government leaders rather to give the background knowledge and the latest trends in politics. Sometime media role is more effective than the representative of nation. During Gulf war Iraqi and American Presidents fully rely on the CNN channel and formulate their policies accordingly (Bryant & Thompson, 2002). Cronin (2003) found that after terrorist attacks of 11 September; the U.S. Department of Defense has received over 5,000 visits of media on military installations in over 1500 special interviews to the press, and has held over 225 press conferences. This allows the culture medium and liaison between media and Government, so that media is also aware of different issues happening in the wake of war against terrorism.

Li and Izard (2003) studied about news report by eight newspapers (New York Times, Washington Post, Los Angeles Times etc.) and five T.V channels like (ABC , CBS, Fox News, CNN and NBC) in America on the 9/11 incidents terror attacks. They concluded that source of news contents from government were dominated in both television and newspaper networks. Six out of eight newspapers used government official in more than 40 % of their stories. Ismail and Berkowits (2009) in a study regarding the interplay of press and government policies during war on terror. As framing of terrorism was studied in press system, they chose an American daily and its counterpart China daily. The results were very obvious and showed positive interplay between press and government policies, in which daily New York Time gave more coverage and supported the war on terror more than China daily as according to the policies of their respective governments. Kang (2006) examined the "Impact of T.V news on public opinion on war in Iraq". This study was to assess the framing and second level agenda setting. He found that positive frames are more than in numbers than negative ones, and also found second level agenda setting and framing as well.

Yang (2003) analyzed the air strikes by NATO in Kosovo by US and China newspapers in 1999. The contents of 200 newspapers were analyzed. Both newspapers framed the study in different angles. Chinese newspapers considered that strikes on Yugoslavia (Kosovo) are the invasion against the sovereign state whereas American newspapers considered it as necessary to stop the ethnic cleansing of Muslim of Kosovo. Ryan (2004) studied the military action of US in Afghanistan in American newspapers. He states that military operation is like a war. Duration of the study was 11th September 2001 to 8th October 2001. Sample was taken from editorials of 10 newspapers of United States. All newspapers supported military action in Afghanistan.

Hussein (2010) says that Pakistan's decision to become an ally of US in the war on terror was very unpopular among the general public and Islamist parties and caused to destabilize Pakistan. Incidents of 9/11 have changed the overall scenario of world significantly. Pakistan is now front line state in the war against terrorism along with US.

Pakistan is facing different kind of threats from different militant organizations which are not in favour of Pakistan's friendship policy towards US and other Western countries. US wants Pakistan to do more in the war on terror and to give assurance that Pakistani soil will not be used as launching pad for any kind of terrorist incident, from any militant organization. U.S and Pakistan should cooperate with each other, as both have their own and mutual interests in it. Strong bilateral relations between US and Pakistan are need of hour as Pakistan has economic interests in the war whereas US has geographical interests, because it wants to use the NATO supply line through Pakistani soil

Tellis (2008) says that after 9/11 incidents the global pressure compelled Pakistan to join the war on terror reluctantly because it was not easy for her to close immediately her long-time friendship and ties with different militant groups working in Afghanistan including Taliban. Pakistan has nurtured these militants for its own stability, in view of threat of India, to help Kashmiris and Taliban to form their independent government in Kashmir and Afghanistan. Shahid (2008) says that the war on terror is being fought at the two ends, one by US in Afghanistan against Taliban and other in Pakistan by security forces of Pakistan against local militant groups in FATA, Swat etc. Both Pakistan and USA need strong bilateral relationships which will be beneficial for both the countries and also to make suitable policies to counter the threat of terrorism. Democracy in Pakistan is in transitional phase that is strategies made by Pakistan to cope with threat of terrorism are very feeble. This phenomenon will not make country strengthen, rather make it weak. USA should also think in this regard because Pakistan cannot keep democracy on shelves for many years again.

Research Questions:
-   What is the total number of editorials published in both newspapers on the issue of War on Terror?
-   Which newspaper is more supportive for WOT?

Hypotheses

H_1 It is more likely that daily Nation will not support war on terror.

H_2 It is more likely that daily Times of India will not support war on terror.

H_3 There is association between the type of the newspaper and the slants.

Methodology

To test out the treatment about War on Terror, Daily Nation and Daily Times of India were selected and content analysis of editorials of above mentioned newspapers were carried out. The reason to choose the above mentioned newspapers for this study by the researchers was that because these newspapers were considered one of the top ranked newspapers of both countries and have an independent stance which gives a free

and obvious strategy of media. This research is designed to investigate the depiction of war on terror in daily Nation and daily Times of India. To make the comparative analysis of editorial treatment of War on Terror by daily Nation and daily Times of India, the researchers conducted the content analysis. The time period from 2001-2008 was selected. A single editorial containing anything related to war on terror was unit of analysis. All the editorials, in which war on terror is discussed under any heading, were discussed and were analysed. Data was manipulated, coded and analysed by using the SPSS (Statistical Package for Social Sciences) version 21. The editorials published from September 11, 2001 to December 31, 2008 in daily Nation and daily Times of India are considered as the universe of this study.

Operationalization of the War on Terror

Five categories were made to answer the hypotheses and research questions by further dividing the phrase "war on terror".

- Paragraphs related to:
- By Pakistan
- By India
- By Al-Qaeda
- By Afghan Taliban
- By Kashmiri Militant Organizations (KMO) operating in Indian Occupied Kashmir(LeT, Hizbul Mujahedeen, Jaish-e-Muhammad)

Variables of the Study

Topic/Category	Break up	Rules
War on terror	1.By Pakistan	Positive
		Pakistan own war
		Terrorism is biggest threat
		Operation against militants like Taliban, Al-Qaeda
		Provide logistic support to USA
		Negative
		Not our war
		Pakistan is not supporting WOT with full force.
		Taliban and Al-Qaeda are innocent.
	2.By India	Positive
		WOT is the best option to eradicate the terrorism.
		Terrorism is a biggest threat
		Operations against militants

Topic/Category	Break up	Rules
		India's contribution in WOT.
		Negative
		Not in India's Favour.
		Increased threats terrorism.
		Military operation is not solution.
		Government should talk with Kashmiri militant groups.
	3.By Al-Qaeda	Positive
		Al-Qaeda's war against US is justified.
		American policies are the cause for uprising Al-Qaeda.
		Al-Qaeda members are innocent
		Negative
		They have concept of war against USA and West
		Mala fide intentions
		Like the method of terrorism instead of peaceful means.
		Al-Qaeda has worldwide contacts with militants.
	4.By Afghan Taliban	Positive
		They are not the invaders but the defenders of their homeland..
		They are against the US policy
		They are innocent people having certain demands
		Afghan people want (Taliban) to rule over them
		Negative
		They have backward concept of Islam
		People of Afghanistan are not happy with them
		They have strong connections with Al-Qaeda
		They are responsible for destabilizing the whole region.
	5.By Kashmiri Militant Organizations	Positive
		They are freedom fighters.
		They don't have any international agenda.

Topic/Category	Break up	Rules
		They are only fighting for the rights of Kashmiri people.
		Negative
		They are terrorists.
		They are linked with Taliban and Al-Qaeda.
		They want to create law and order situation in India by doing terrorist acts like Mumbai attacks 2008.

Slanting

Slant is a quality of the issue that points out how a topic is presented. Topic is the main variable to studying Media's coverage but it is not sufficient to sketch conclusion. This is the reason, why the slant of the contents has been explored. According to Zheng (2006),"slant and topics are co-dependent in content analysis". Slants are positive, negative or neutral. The editorials which are neither positive nor negative are regarded as neutral.

Data Presentation and Results

We have chosen daily Nation, one of the top ranked English newspapers of Pakistan and daily Times of India, one of leading paper of India and done the content analysis for both of them. A time period of 12th September, 2001 to 31st December, 2008 was chosen and the editorials on the war against terrorism were selected. We found total number of 197 (100%) editorials in the daily Nation correlated to the War on Terror from 2001-2008. Furthermore we found 145 (100%) editorials in the daily Times of India. All the editorials were analysed and examined during study. Daily Nation published more editorials 197 (100%) about WOT than daily Times of India 145 (100%).
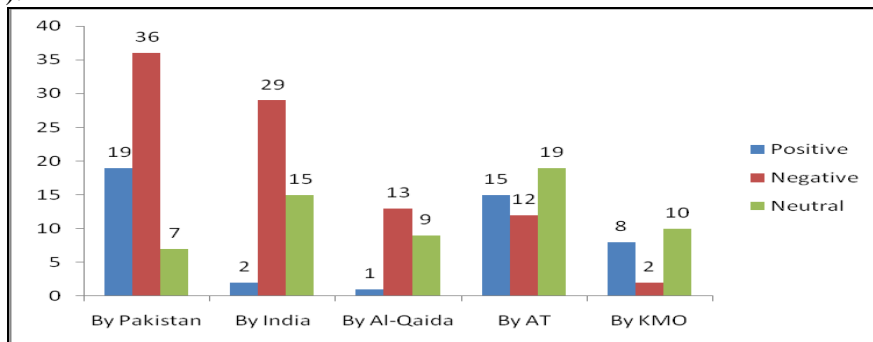

Figure 1: Graphical Representation of Slanting by daily "Nation" on WOT

Table: 1 Overall Slanting of Daily "Nation"

Categories	Positive	Negative	Neutral	**Total**
By Pakistan	19 (42.22%)	36 (39.13%)	7 (11.67%)	**62 (31.47%)**
By India	2 (4.44%)	29 (31.52%)	15 (25%)	**46 (23.35%)**
By Al-Qaida	1 (2.22%)	13 (14.13%)	9 (15%)	**23 (11.67%)**
By Afghan Taliban	15 (33.33%)	12 (13.04%)	19 (31.67%)	**46 (23.35%)**
By KMO	8 (17.78%)	2 (2.17%)	10 (16.67%)	**20 (10.15%)**
Total	**45 (22.84%)**	**92 (46.70%)**	**60 (30.46%)**	**197 (100%)**

Figure 1 shows the overall coverage by daily Nation in terms of positive, negative and neutral editorials given to Pakistan, India, Al-Qaida, Afghan Taliban and Kashmiri Militant Organizations regarding war on terror. According to table 1 the total number of editorials regarding Pakistan was 62 (31.47%) out of which 19 were positive, 36 negative and 7 neutral. The total number of editorials for India was 46 (23.35%) out of which 2 were positive, 29 were negative and 15 were in neutral. For Al-Qaida daily Nation has given total 23 (11.65%) editorials, out of which 1 was positive, 13 were negative and 9 were neutral. Regarding Afghan Taliban daily Nation has given total 46 (23.35%) editorials, out of which 15 were positive, 12 were negative and 19 were neutral. In last, for KMO's daily Nation has given total 20 (10.15%) editorials, out of which 8 were positive, 2 were negative and 10 were neutral. As a whole, we can see from table 1 that daily Nation treated the war on terror more unfavourably than to support it. In 46.70% of its total editorials it is negative towards war on terror, whereas 22.84% were positive and 30.45% were neutral regarding war on terror.
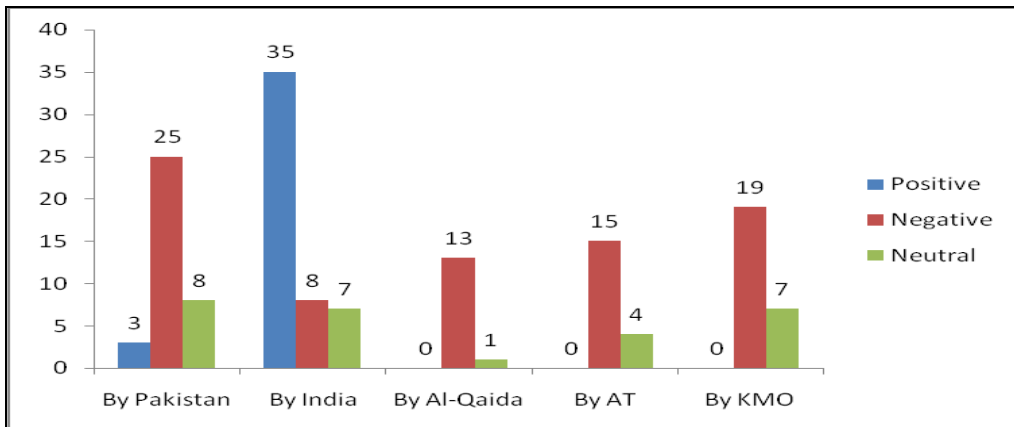

Figure 2: Graphical representation of slanting of Daily "Times of India" on WOT

Table: 2 Overall Slanting of Daily "Times of India"

Categories	Positive	Negative	Neutral	**Total**
By Pakistan	3 (7.89%)	25 (31.25%)	8 (29.63%)	**36 (24.82%)**
By India	35 (92.11%)	8 (10.00%)	07 (25.93%)	**43 (29.66%)**
By Al-Qaida	0 (0%)	13 (16.25%)	1 (3.70%)	**14 (9.65%)**
By AT	0 (0%)	15 (18.75%)	4 (14.81%)	**19 (13.1%)**
By KMO	0 (0%)	19 (23.75%)	7 (25.93%)	**26 (17.93%)**
Total	**38 (26.20%)**	**80 (55.17%)**	**27 (18.62%)**	**145 (100%)**

Figure 2 shows the overall coverage by daily Times of India in terms of positive, negative and neutral editorials given to Pakistan, India, Al-Qaida, Afghan Taliban and Kashmiri Militant Organizations (KMO's) regarding war on terror. According to table 2, the total number of editorials regarding Pakistan was 36 (24.82%), out of which 3 were positive, 25 negative and 8 neutral. The total number of editorials for India was 50 (34.48%), out of which 35 were positive, 8 were negative and 07 were neutral. For Al-Qaida, daily Times of India has given total 14 (09.65%) editorials, out of which none was positive, 13 were negative and 1 was neutral. Regarding Afghan Taliban, daily Times of India has given total 19 editorials (13.10%), out of which none was positive, 15 were negative and 4 were neutral. In last, for KMO's daily Times of India has given total 26 (17.93%) editorials, out of which none was positive, 19 were negative and 07 were neutral. To sum up all of these categories, we can see from table 1 that daily Times of India also treated the war on terror more unfavourably than to support it. In 55.17% of its total editorials it is negative towards war on terror, whereas 26.20% were positive and 18.62% were neutral regarding war on terror.

Reliability of Results

Wimmer and Dominick (1991) said "a true content analysis always contain reliable results". Reliability means the interpretation of same data with different hands conclude same results in repeating the several times. Holsti (1969) gave a formula to check the reliability in results.

$$\text{Reliability R} = \frac{3M}{N_1 + N_2 + N_3}$$

R=Reliability

M= Number of Common findings of all the three coders regarding editorials

N_1 = Number of editorials evaluated by coder number 1

N_2 = Number of editorials evaluated by coder number 2

N_3 = Number of editorials evaluated by coder number 3

Reliability of Daily "Nation"

$$R = \frac{3(192)}{197 + 197 + 197}$$

$$R = \frac{576}{591}$$

$$R = 0.974$$

Reliability of Daily "Times of India"

$$R = \frac{3(139)}{145 + 145 + 145}$$

$$R = \frac{417}{435}$$

$$R = 0.96$$

Table No. 3: Cross Tabulation between Newspaper and Slanting on War on Terror issue

		Slanting on War on Terror Issue			Total
		Positive	**Negative**	**Neutral**	
Type of News Paper	**Times of India**	38	80	27	145
	The Nation	45	92	60	197
Total		83	172	87	342

Table No. 4: Chi-Square Tests

	Value	df	P-Value
Pearson Chi-Square	6.181[*]	2	.045
Likelihood Ratio	6.328[*]	2	.042

*Shows significance at 0.05 level of significance

       We have employed Pearson's Chi-square test and the likelihood ratio test to test the association between the type of newspaper and their slanting towards the issue of war on terror. The results show that there is significant association at 0.05 level of significance as the p-value (0.045) depicted in table 4 is less than the pre-selected level of significance.
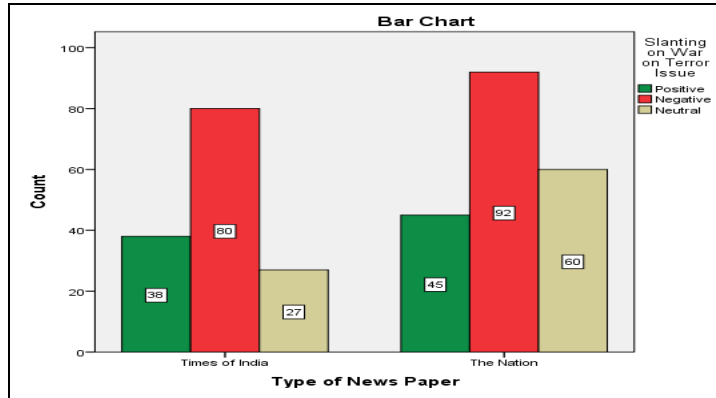
Figure 3: Slanting on War on Terror by Daily the Nation and Times of India Newspapers

After testing the significance of the association we employed Cramer's V coefficient of contingency to determine the strength of the association which was found to be 0.134 and was significant at 0.05 level of significance as the p-value (0.045) is less than the pre-selected level of significance as shown in table 5.

Table No. 5: Cramer's V coefficient of Contingency table

	Value	P-value
Cramer's V	.134	.045

Conclusion

As the campaign on war on terror put the entire world on the harbinger of third world war and become the challenge for the whole world. Pakistan played a very vital role in this American-led campaign and claimed to be the front line state in this war. This is the main reason that media has given the coverage to the issue of war on terror up to the maximum level because it disturbed millions of people throughout the world including the South Asian region. International media has given lot of coverage to Pakistan because it is non-NATO ally of USA and also participating actively in the war on terror. Media also treated the issue of war on terror according to their respective countries stance on this issue and their own perspective. The study's main rationale was to bring to light and explore the treatment of this issue of war on terror by the two newspapers of neighbouring countries Pakistan and India. This is an effort to find out how war on terror was treated by daily Nation and Daily Times of India in its editorials. For this purpose the editorials of both the newspapers i.e. daily Nation from Pakistan and daily Times of India from India were examined in terms of favourable, unfavourable and neutral editorial. The major issue "war on terror" is further divided into five main categories i.e. treatment in terms of Pakistan, India, Al-Qaeda, Afghan

Taliban and Kashmiri Militant Organization, operating in Indian Occupied Kashmir. It is concluded that total number of editorials regarding war on terror by daily Nation and daily Times of India are 197 and 145 respectively. Daily Times of India is more negative than daily Nation regarding war on terror (see table, 1 & 2).

The overall results show that daily Nation has treated the war on terror in more negative terms than in positive. Daily Nation has given 92 (46.7%) editorials as unfavourable to war on terror and 45 (22.84%) editorials in favour of war on terror. Moreover it has also given sizeable 60 (30.34%) editorials in terms of neutral slanting (see table, 1). These results show that daily Nation didn't support war on terror. So these results have proven the H_1 hypothesis which states that "it is more likely that daily Nation will not support war on terror". The overall results show that daily Times of India has treated the war on terror in more negative terms than in positive. Daily Times of India has given 80 (55.17%) editorials as unfavourable to war on terror and 38 (26.20%) editorials in favour of war on terror. Moreover it has also given sizeable 27 (18.60%) editorials in terms of neutral slanting (see table, 2). These results show that daily Times of India didn't support war on terror. So these results have proven the H_2 hypothesis of study which states that "it is more likely that daily Times of India will not support war on terror" (see table 2). The overall results show that daily Times of India is more unfavourable i.e. 50.34% of it editorials, towards war on terror than daily Nation, i.e., 38.07%. To test the H_3 hypothesis of the study i.e. "association between newspapers and slanting", we have conducted chi-square test and likelihood ratio test. The results show that there is significant association at 0.05 level of significance as the p-value (0.045) depicted in table 4 is less than the pre-selected level of significance. Moreover, the strength of association was determined by Cramer's V coefficient of contingency which turned out to be 0.134 and is significant at 0.05 level of significance.

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Peer Assessment in EAP Writing: An Effective Strategy for Large Classes

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Abstract

Students' writing skills are not adequately developed at school, college, and even later at the university level in the local context owing to a variety of reasons including: traditional and ineffective pedagogy for teaching writing skills, lack of practice, absence of feedback, flawed assessment, and large class size. This paper presents a study which attempted to address this situation by introducing peer assessment as an alternative to teacher assessment in EAP writing classes. The study was carried out with 280 first year students, who were pursuing bachelors in engineering at a public university in Karachi, during the compulsory English course. Three intact groups of students were trained for peer assessment following which they were taken through three rounds of peer assessment during which they marked essays developed by their peers. Finally, the peer assessment and teacher assessment scores of students' final essay were correlated; and there was no significant difference between the mean scores given by teachers and peers. The data revealed significant correlation between peer and teacher assessment. The qualitative data comprising researcher observation and students' feedback also suggested beneficial impact of peer assessment for writing instruction classes as well as the teacher and the students.

Key Words: Assessment of writing skills, Assessment at university level, Peer assessment, Teacher assessment

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Introduction

Of the four English Language skills, writing is the most challenging for teaching and learning especially in the second or foreign language [ESL/EFL] context. In Pakistan, English is taught as a second language in most contexts; however, English is taught as a subject rather than a language. The skills- based language teaching is ignored and the students are generally taken through a routine of reproducing printed matter following rote learning. Classroom instruction and examination in English courses, though, generally seem to focus on writing skills; but a closer look would reveal that the writing tasks and activities in reality are not targeting the development of students writing abilities in English Language as evident from the studies undertaken earlier such as Mashori and Iqbal (2007) noted, "writing remains always unclear and full of grammatical mistakes" (p.2). Majority of the public and private school subject 'English' teachers either dictate students summaries, essays, letters, and long answers etc. or provide them notes like written summaries, essays, letters long answer from text books) (Shamim, 2008; Fareed, 2009).

Assessment of writing, in the local education system, too most of the time may simply mean marking an answer which was written by the teacher or copied from some other source, memorized and reproduced in examination (Siddiqui, 2010). Learners who secure more than 80% marks in 'English' may not be able to write a small paragraph of fifty words. Guides, notes and guess papers from class IX onwards are conveniently available at book shops which have expected summaries, essays, letters and answers for the board exams. Guides as Siddiqui (2010) calls them 'get through guides' have a major role in stopping students from reading text books and practicing writing because they offer short cuts to pass examinations without much effort. These contextual happening do not leave much room for rigorous efforts in writing an original and creative write up involving the tedious process of drafting, revising, proofing and finalizing even in case of an ambitious learner. Also, this situation can de-motivate any aspiring language teacher who believes in authentic teaching – learning efforts being necessary condition for developing writing skills in English Language.

There are a number of factors that hinder adequate development of writing skills in learners pursuing English Language. The most common impediments are in-effective and outdated writing skills pedagogy, insufficient writing practice, absence of feedback, flawed assessment. Most of these problems are directly an outcome of the large class size. In developing countries such as, Pakistan normal class size in a public sector educational institution may reach up to 200 students (Shamim, 1996). Siddiqui (2010) also shares, "I recall my experience of teaching (English) at intermediate class of more than one hundred students" (p.176). The large class size, common feature across all levels in Pakistan, makes it impossible for teachers to provide opportunities for

regular and continuous practice of writing which, also, involves assessing students' written work and providing corrective and helpful feedback, quite a gargantuan task.

In this situation some language teachers have used peer assessment as a creative way to address some commonly confronted problems while teaching writing skills. Problems like insufficient writing practice, absence of corrective and helpful feedback, and provision of formative assessment were the issues that a peer assessment strategy seems to address to some extent. However, generally the teachers use it rather informally as a classroom activity instead of using it as a formal and valid strategy at least at the universities.

This study was carried out within this scenario to address some problems faced in the English writing classes by teachers and students. The study is based on the rationale that developing writing skills is necessary, and that it assumes central focus at undergraduate studies with English for Academic Purposes [EAP] being a compulsory course with academic writing as a major component. The major focus of the study was to see if peer assessment can be used as an effective strategy to provide students opportunity to practice writing, and get useful feedback on their written work as part of formative assessment to improve their writing skills. Hence, the primary objective of the study was to correlate teacher and peer assessment and explore the students and teacher feedback on its impact, so that peer assessment may be suggested for formative purposes particularly in large English language writing classes at public universities. The major questions raised in this study were:

RQ1: Do peer assessmen scores correlate significantly with teacher asessment scores?
RQ2: Can peer assessment be used as an alternate assessment in large EAP classroom?

Review of Related Literature

Boud and Flachikov (2006) (as cited in McMahon, 2010) state the purpose of assessment as, "Preparing students for lifelong learning necessarily involves preparing them for the tasks of making complex judgments about their own work and that of others and for making decisions in the uncertain and unpredictable circumstances in which they will find themselves in the future" (p.223) .Assessment of learning can mainly be categorized as formative and summative (Natascha & Maria, 2006). Formative assessment differs from summative assessment in a way that formative assessment is for the students whereas summative assessment is to the students (Ramsden, 1992; Brown & Knight, 1994). Formative assessment is effective for all educational context and areas (Sadler, 1998). Formative assessment not only better prepares students for summative assessment, but it also helps them master the skill they

are working on (Natascha & Maria, 2006). Black and William (1998) condition formative assessment with the improvement in performance.

Peer assessment has become a very common method of assessment, particularly in higher education (Wankat & Oreovicz 1993; Fullerton, 1999). In peer assessment learners of equal level evaluate each other's work (Falchikov, 1995). Assessment is not a term which is used only for measuring; it also aims to seek students' involvement and utilization of knowledge and skill they have (Filip, 2001). Peer assessment also teaches learners valuable life-skill of giving suggestions and feedback for performance improvement which they require in their practical lives (Prins, 2005). Peer assessment can also improve quality of learning (Sluijsmans, Brnd-Gruwel & Merrienber, 2002). Huges (2006) admires peer assessment as "peer assessment has many characteristics of good assessment. It is accurate, reproducible, efficient, monitors student progress, ALWAYS provides high quality feedback, stimulates learning and develops self-assessment abilities. The process produces better student learning and saves significant staff time." (p.1). Topping (1998) terms peer assessment as "an agreement in which individuals consider the amount, level, value, worth, quality, or success of the products or outcomes of learning of peers of similar status." (p.250). Peer assessment in teaching writing skill in English Language Teaching (ELT) helps learners in many ways such as, learners improve writing skills on the guidelines which they set for their peer; it enables them to assess others in the situations in which they will finally be assessed. Peer assessment develops critical thinking of learners (McMahon, 2010); and encourages social interaction, particularly with peers, which promotes the development of cognitive abilities and provides opportunity for self criticism and self correction (Anderson et al., 2001). Similarly, peer assessment increases student's responsibility and autonomy; it gives insight into assessment procedures and expectations for high quality work. Finally, it encourages deep rather than surface knowledge (Cassidy, 2006).

Peer assessment like other methods of assessment also has some drawbacks, particularly in summative assessment, such as: learners may be biased to some peers or favour others (Hanushek. E.A, Kain, J.F, Markman, J.M, &Rivkin, 2003; Paninczak, Young, Roves & Haynes, 2007), chances of incorrect feedback that can have negative backwash effects on students. But, largely, peer assessment plays important role in writing skill development (Papinczak et al. 2007). Despite, its pros and cons peer assessment can be helpful in, situations where facilitator can not give feedback individualy, which may be due to large class size, insufficient time or any other reason.

Research Methodology

The research design adopted in this study was the single group quasi-experimental. The study was carried out for three months with 280 students from two departments within a public sector engineering university in Karachi. These study

participants were three intact groups of students enrolled for English course. These two departments and the three groups of students were assigned to the principal investigator for the regular semester teaching course, hence, this takes care of the possibility of researcher's bias. The groups were considered approximately homogeneous owing to similar profile of participants i.e. having similar educational background (grade 12 – HSC Pre-engineering) and coming through a standard testing procedure (university entrance test). The overall groups comprised 48% female and 52% male students with the age range 19-21 years.

The study comprised three stages: (1) training students on peer assessment, (2) providing peer assessment practice to students, (3) and final assessment by peers and the teacher. Both qualitative and quantitative data were collected to answer the two questions attempted in this study. The quantitative data comprised assessment scores awarded by peers and the teacher on the writing task; whereas, the qualitative data consisted of students' feedback, obtained at the end of the study; and the researcher's observations log, maintained consciously at different points during the study. The quantitative data analysed by using paired t-test, and correlation analysis, while qualitative data is summarized through thematic analysis.

As previous studies observe that peer may become biased to or favour each other (Hanushek et al., 2003; Papinczak et al. 2007) in peer assessment. Essays which were assessed by peer did not have any writer identification – student name or registration number. The guidelines prepared for peer assessment were developed after in depth literature review; secondly two experts were consulted for face and content validity. Principal investigator taught all three groups of students involved as study participants, hence the intervention was uniform and owing to this the data was analysed collectively instead of group wise. The study participants [students] were taught 'essay writing' through 'Process Approach' of writing during the study. The participants were, first, trained how to assess each other with the help of provided guidelines; then, they assessed each other's essays as part of their peer assessment practice. The students were provided practice on assessing three essays during which they were facilitated by the researcher in addressing their queries. This instructor support clarified their concepts and increased their confidence. Finally, peer assessment of the fourth writing task was conducted and the same write up was evaluated by the teacher. The rubrics used for assessment by students and teacher remained constant. The rubrics focused on evaluating written tasks on ideas, organization and writing mechanics.

In the beginning students were well informed about this experiment and nature of study; however, it was not disclosed to them that the scores of peer assessment would be used for research. This also coincided with the fact that the study was planned as part

of the regular course instruction as an innovative instructional technique rather than an exclusive study only. However, after the completion of the study, the students' consent was sought for using their data for the research study. Out of the total 280 students who participated in the study, the data of only 227 students (81%) were included in the study based on their consent and their regularity during the entire study period.

Findings and Discussion
Peer Assessment as a Valid Alternative to Teacher Assessment

Table 1: Descriptive Statistics

	N	Range	Minimum	Maximum	Mean	Std. Deviation
Teacher Assessment	227	4.50	.00	4.50	2.8767	.89997
Peer Assessment	227	5.00	.00	5.00	2.8645	.97086

The above table shows that teacher and peer assessment of 227 students on a scale of 0 -5, where 0 indicates the lowest score given and 5 indicates the highest score given to them. The range of score by the teacher is 4.5 and by the peer is 5.00, which shows more variation in the scores given to them by the peers, and this is also reflected by the standard deviations of both i.e. .89 and .97 respectively. However, the mean score given by both the evaluators is almost same and there is no statistical difference between them. This suggests that peer assessment can be used an authentic alternative assessment. The person correlation between the teacher and peer assessment is also found moderately high i.e. .570 which is significant at p=.01. As far as the variation in the scores, as depicted by range of scores above, is concerned the possible reasons behind this are the facts that the students were engaged in peer assessment for the first time and with further practice and exposure this variation can be reduced.

Researcher Observations

The analysis of researcher log revealed that during peer assessment of the first essay, the students were shy, confused and reluctant to share essays with each other. They were also hesitant in assessing each other's write up and in pointing out mistakes. The participants were also not able to completely apply the rubrics for peer assessment despite their initial training. This may be due to two possible reasons, first, they were never exposed to a formal peer assessment experience before; and secondly, their initial motivation and fears inhibited them to some extent. In the second round of peer assessment, the participants became more open to each other. They showed less reluctance in sharing their essay, and assessing the peer's essay. The realization that their identity is not included on the essay and the essay being a computer printout further reduced their fears and anxieties. The participants also demonstrated greater understanding of the assessment rubrics, and they even more openly sought clarification

from their peers and the teacher. Out of the three peer assessment rounds, maximum student queries were seen in the second round. Following this with the help of teacher guidance and peer discussions, students further improved peer assessment skills in the third assessment round. It was an important observation that the seriousness with which student completed their writing tasks, and their efforts in completing these write ups increased as the study progressed and went through different peer assessment rounds towards its culmination. It was anticipated while the study was planned, and which later became the case, that the students' dependence on the teacher during peer assessment gradually decreased as they moved from the first peer assessment to the final peer assessment. With the passage of time participants' feedback also became more critical, relevant and clear.

Participants' Feedback

The students feedback revealed that they did not take peer assessment activity seriously in the beginning, despite the training provided to them regarding peer assessment and the guidelines given to them. They also considered the activity unrealistic and waste of time, because it was introduced for the first time. Most of the participants reported that they were also afraid that their writing weaknesses will be brought openly and discussed with their classmates which may lead to embarrassment. However, with the passage of time and as different stages went on their fears and anxieties were lessened. They started enjoying the activity, because neither the teacher nor most of the class mates discouraged their writing. The participants also felt that this strategy brought improvement in their writing as they kept the peer guidelines in mind while completing their essays. The activity, also, improved the social interaction and the classroom climate, as the students overcame their hesitation in asking from their peers something which they did not know, and in seeking help or advice. Most importantly, they started complimenting each other's work, whenever they openly showed it to their friends. The students' feedback regarding their interest and confidence in writing indicated that they are more willing and prepared to take up writing tasks in future with greater confidence.

Pedagogical Implications of the Study

Peer Assessment can be used as an authentic and valid assessment primarily for formative purposes. Using peer assessment, teachers can handle several problems that reduce the effectiveness and outcomes of writing instruction. However, it should be in no way taken as a replacement of Teacher Assessment. In writing classes, both teacher and students feedback is helpful to students regarding their writing skills and their written work. As observed by the researcher and also shared by the participants, learners do not welcome the activity in the beginning, particularly if the activity is introduced for the first time. Language teachers during writing instruction can consciously motivate the learners for this activity by taking some steps. First of all, the

learners should be given proper training for peer assessment. Secondly, learners should also be facilitated in peer assessment till they are at ease with peer assessment. Thirdly, students should be taught to respect each other's writings. Fourthly, the write ups should not have name or any other identification of the writer. Finally, teachers need to create a classroom environment where students trust one another, and discuss ideas and seek help openly. The students should be encouraged to use positive tone for comments.

Conclusions

If students are trained 'how to assess' and 'what to assess' in each other's writing, peer assessment can facilitate both students and teachers. Teachers, in public colleges and universities with large student population, can use it as a powerful and beneficial tool to address the problems of insufficient writing practice and assessment, and absence of corrective feedback. According to Goldfinch and Raeside (1990) peer assessment is a fast way for a teacher to assess large number of students' work with proper feedback.

Peer assessment, besides assisting teacher in making individual feedback possible, benefitted students in enhancing their interest and motivation for writing. Students undertook writing tasks more seriously, and shared their finished writing product with greater confidence with teacher and peers. They responded properly to the feedback given on their written work and consciously tried to avoid mistakes in their writings which they observed in their peers work.

The study concludes that peer assessment can be used as an alternate assessment strategy in EAP writing classes. It enables teachers to make individual feedback possible in large classrooms. The study provided a chance to develop students writing skills through opportunity to practice writing and get their written work assessed for corrective feedback.

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Professional Development Portfolio: A Tool for Student Teachers' Development

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Abstract

This article reports Action Research project carried out with the student teachers of a private sector teacher education institute in Pakistan. Professional Development Portfolio was introduced during the final, eight week practicum of the student teachers to improve their self-knowledge and professional skills particularly problem solving and decision-making. The study was carried out in two cycles and data were gathered through examination of portfolios, non-participant observation of the critical friend and Focus Group Discussions. The major findings of the study are that reflective writing helped the student teachers to identify classroom problems. Reflection paired with initial self-audit improved student teachers' problem-solving as well as decision-making skills. The data also indicated that the student teachers needed more practice in completing different sections of the professional development portfolio.

Key Words: Practicum, Professional Development Portfolio, Reflection, Self-audit

Introduction

"Teaching is a high pressure occupation" (Schwebel et al., 1996. p. 5) and one of the pressures in this regard is meeting the challenge of taking pupils to the point where they become independent learners" (Schwebel et. al., 1996, p. 7). This pressure may grow higher and higher unless the teachers themselves are not models of intellectual independence for their pupils. The function of teacher education

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programmes is central in this regard because success of teachers in schools depends a lot on their professional training. The teacher education needs to make student teachers self-directed, autonomous learners who can solve their classroom problems, make decisions, reflect on their teaching and plan for their own development.

Professional development of teachers is an important research area in teacher education (Calderhead & Robson, 1991; Kagan, 1992; Brookfield, 1995). Different models of professional development and mentoring of teachers have been developed to make teachers independent, lifelong learners (Katz, 1972; Furlong & Maynard, 1995). Though teacher education has received more attention in Pakistan in past few years, research on student teachers' development is relatively a less preferred area. This study was designed as an attempt to improve practicum experience of the student teachers by developing a professional development portfolio as a tool for their development.

Theoretical Background

Many countries including New Zealand, Canada, USA, UK, Australia and others have developed a set of competencies for teachers to license them to teach (Fitzsimons and Fenwick, 1997 cited in Maguire, 2010). Teacher training programmes are meant for developing the listed competencies among the student teachers. Practicum provides opportunities for practicing theory and developing insight into the phenomenon of teaching and learning. Lee and Fortune (2013) maintain that field practicum is an active learning process. It can be meaningful for the student teachers if they are encouraged to learn through and from their experiences (Loughran & Russell, 1997). Practicum becomes a developmental activity if it encompasses the cycle of regular self-assessment, action planning, action and reflection.

Furlong and Maynard (1995, p.70) have identified five stages of development despite of their belief that student teachers do not always progress along a narrow linear pathway. The stages are: 'early idealism', 'personal survival', 'dealing with difficulties', hitting plateau', and moving on'. Guillaume and Rudney (1993, p.78) see development of student teachers as moving from disintegrated, concrete ways of thinking to more integrated, flexible and holistic thinking. They maintain that "development is a general process in which students move towards more complex thought patterns". Katz (1972) has suggested a stage model of student teachers' development and in each stage, different learning is observed. Schwebel et. al. (1996) associated the term development with habit of monitoring and regulating the use of time and asserted that student teachers might benefit from the practicum and learn to use time effectively. The process of development is not linear and mechanical aiming at developing teaching skills. It is a highly complex phenomenon including a set of underlying concerns.

Fuller (1969) has classified student teachers' concerns into three categories: 'self- concerns'; 'task concerns'; and the 'impact concerns'. Posner (1993, p.13) has grouped concerns in four categories: concerns related to pupils, subject knowledge, school context and teachers. Guillaume and Rudney (1993) have listed six categories of student teachers' concerns: lesson planning and evaluation; discipline; working with pupils; working with school mentors; adjusting their classrooms; working with others in the profession; and transitions from student to professional teachers. Student teachers' concerns change in time with regular reflection.

Educational literature has reported the importance of reflection in teachers' development (Schon 1987; Brookfield, 1995, Giroux, 1988). Dewey (1964) sees reflective thought as active, consistent, and careful consideration of any in the light of the arguments that support it and the further conclusions to which it leads. Boud, Keogh and Walker (1985) have described reflection as an activity of recapturing experiences, thinking about them, mulling over them and evaluating them. Brookfield (1995) has proposed a model for critical reflection i.e." Four Lenses of Critical Reflection". They are: (1) the autobiographical, (2) the students' eyes, (3) our colleagues' experiences, and (4) theoretical literature. Mclyntyre (1993) has suggested the teachers to learn to reflect competently and moreover use reflection as a tool to achieve other goals. However, the question is how to make teachers learn to reflect.

Educational literature has extensively reported the importance of reflection in adult learning. However, literature on the ways to develop reflective thinking and practice among the teachers is relatively less. Retallick (2000) has reported the impact of teachers' portfolios in developing reflective thinking and professional growth. He claimed that the documentation of learning in a portfolio and subsequent reflection on it helps in fostering learning. Dollase (1996) found teacher's portfolio a valuable innovation in allowing growth through reflective writings. Wood and Campbell (1994) have described the worth of Professional Development Portfolio (PDP) in making student teachers responsible for their own learning. Barton and Collins (1993) noticed that in case of pre-service teachers, portfolios witness student teachers' development in problem-solving and self-evaluation.

The content and structure of the PDP depend upon the purpose of the portfolio. However, it is important not to follow very strict structures, otherwise it will result in copying rather than individualized response. Moreover, the professional development portfolio needs to be developmental. It should grow, mature and change over time. Harris and Russ (1994) insist that the developer of the PDP should be able to make connection between reflection and planning and subsequent action so that improvement can occur. The portfolio may include a section on self-audit or self-assessment before starting practicum to allow the teachers to set direction for their own learning.

The guidelines for the Quality Teaching Awards in New South Wales (Australian College of Educators, 2002), as cited in Dinham and Scott (2003), have mentioned the key purposes of the portfolio: To give insights into accomplished practicum; To record continual professional development; To reflect on the past experiences; To assist self-evaluation; and To formalize key experiences. The first step in continual professional development is Self-Audit which leads to Individual Learning Plan (ILP) where teachers set targets and strategies for their professional development. Enlisting concerns into PDP helps students in getting clarity about their own thinking. It also helps them to observe any pattern (analysis). Analysis of concerns is important as "it increases the benefits of the field experience" (Posner 1993, p.13) by providing students an initial focus for setting some personal and professional targets in the coming practicum. Setting professional goals on the basis of concerns is another important aspect of Individual Learning Plan (ILP). Posner (1993, p.13) argues that "to get benefits from examination of concerns, plans must be formulated". These initial sections of PDP may be named as planning sections while rest of the sections are related to implementation or post implementation phase.

Research Problem

Practicum in B.Ed. has got a serious emphasis in Pakistan in the past decade. Final practicum at Ali Institute of Education, a teacher education institute, consists of eight weeks teaching time. However, over the years of supervision informed the researchers that the practicum experience did not develop student teachers' professional skills such as goal setting, planning to achieve targets, making decisions and solving problems. After studying and discussing various models of adult's learning (Kolb, 1992; Brookfield, 1995, Friere, 1972), the researchers decided to introduce professional development portfolio (PDP) during practicum with an expectation that self-audit, learning plans, regular reflection and action planning would improve student teachers' professional skills.

It was aimed at knowing how Professional Development Portfolio (PDP) helps student teachers to develop professional skills during teaching practice. Specific questions to be answered in this study were:
1. How can PDP develop student teachers' self-knowledge?
2. How does PDP help student teachers set direction for their own professional growth?
3. How does PDP develop student teachers' problem solving skills?

Contents of the Professional Development Portfolio (PDP)

The PDP included 3 key sections along with school documents and daily lesson plans. These sections included Self-Audit, Individual Learning Plans and Reflections & Action Points. Details of each section are as follows:

Self-Audit included identification of strengths & concerns regarding knowledge and understanding of the subjects, educational theories and principles, teaching skills, educational assessment; Identification of own strengths & concerns regarding teaching skills; and Identification of strengths & concerns regarding Professional Values and Practice. The claims had to be justified with evidence in each professional domain.

Individual Learning Plan (ILP) included setting targets in the light of the concerns identified in self-audit, identifying strategies to attain the targets, reasons for selecting the stated strategies and listing down potential barriers in implementation of the strategy.

Reflections & Action Points section included Regular reflections and Action Points

Research Methodology

The research was done in Lahore, Pakistan, with forty two student teachers enrolled on B. Ed. programme. The data were collected through document analysis (20 randomly selected professional development portfolios), non-participant, unstructured observation by the critical friend during reflective sessions and focus group discussion with twelve student teachers. The focus group discussion before practicum aimed at getting answers of the following questions:

- Did you find self-audit section useful? How?
- How would you describe your experience of writing self-audit and making Individual Learning Plan (ILP) for yourself?

The focus group discussion during and after the practicum got answers of the following questions:

- Did you find reflective writing a useful activity? How?
- Did reflective writing help you in identifying and solving problems? How?
- How would you describe your experience of writing daily, weekly and monthly reflections?

Data Collection Procedures
First Cycle

1. The Professional Development Portfolio (PDP) was introduced to the student teachers two weeks before their practicum. Four major sections (Self-Audit; Professional Development Plan; Reflection and Action Plan) were explained to the participants in detail. Written example of each section was also shared with them to enhance their understanding. The PDP was introduced to the institute's faculty in a separate session.
2. The study participants were asked to do self-audit and write professional development plan in a week time. They were asked to meet with their tutor/supervisor regularly to seek guidance on writing self-audit and making Individual Learning Plan (ILP).
3. The researchers held a focus group discussion with the student teachers after one and a half week to see how the student teachers had progressed with self-audit and individual learning plan.
4. The researchers gathered participants' impressions on the use of PDP during a reflective session on the Practicum.
5. At the end of the practicum, the researchers examined eight randomly picked portfolios to analyze the reflections and weekly action plans.

Second Cycle

1. Having learnt from the data, the researchers decided to start another cycle of the research with next batch of student teachers by introducing PDP at least four weeks before practicum. Moreover, a short course of "reflective writing" was also done with the new cohort of student teachers.

In two month time of the practicum, the researchers held one reflective session with all the students and two focus group discussion sessions with twelve selected study participants to see how far they were able to make progress towards achieving their ILP through reflection.

2. At the end of the practicum, the researchers examined twenty randomly picked portfolios to analyze the reflections and weekly action plans.

The collected data were coded thematically under the categories of self-knowledge, setting direction for growth and problem solving. Notes were taken during Focus Group Discussions (FGD). FGDs were video recorded. The researchers drew themes from the discussions separately. Then they compared their themes, revisited them, discussed them and reached to a consensus. Data from the critical friend was coded together by the researchers. Both researchers coded two of the PDPs together to set same criteria for coding. Then each of the researchers analyzed rest of the PDPs

separately in both cycles. The study participants were informed about the study purpose. The study has used fake names for confidentiality sake.

Findings

The analysis of data in the first cycle of the action research led to the following findings:

Self-Knowledge

Many of the study participants mentioned that the professional development portfolio helped them to think about themselves as teachers. Most of the participants said that they had never thought of their strengths and concerns before.

> *"I found self-audit section interesting and difficult at the same time. It was good to think about my own strengths and concerns however, my language skills are not very good. I take more time to produce any writing". [Asma]*
>
> *"While doing self-audit, I kept thinking that how easy it is to be judgmental about others and how difficult it is to think about own-self. It is difficult indeed. I would request the teachers to give us more time for completing first two sections. We can tell our strengths and weaknesses to some extent but providing evidence of each is time taking activity" [Afia]*
>
> *"I always thought that I had good teaching skills but I could not find an evidence for that. So probably I am not that good in teaching". [Nadia]*

The above responses indicate that though writing self-audit was challenging, it helped the participants in improving their self-knowledge.

Setting Direction for Growth

Nearly all the participants mentioned that PDP is a tool to make individual, original plans for personal development during the period of practicum. However, they all found this section very challenging.

> *"A lot more time needs to be given to complete this section. We cannot copy each other plans because we have different weaknesses. We were supposed to address our own weaknesses in*

ILPs but we were not given enough time. This is certainly an important section". [Afia]

"After completing self-audit, I had a sigh of relief that I was done. But planning to address weaknesses was even more challenging and meaningful as it helped me developing a plan for my own growth. I have not been able to complete my Plan yet. My English is another barrier. I have studied in Urdu Medium environment It is difficult to write in English". [Ahmad]

"I identified behaviuor management as one of my weaknesses in the self-audit. I had to talk to teachers and had to read books to plan a strategy to address that concern. I also had to identify the potential barriers too regarding implementation of the planned strategy. This was huge task. More time should have been given to us". [Saima]

The responses indicate the significance of Individual Learning Plans (ILPs) in being creative in addressing a concern or solving problem. Writing of ILPs emerged as an intellectual activity also where the participants had to read through the books and think about the best possible strategies to cope with their concerns.

Solving Classroom Problems

Critical friend's observations during reflective sessions, FGDs and examination of PDPs indicated that writing reflections helped some of the study participants in identifying classroom problems and coming up with doable plan to solve the problems.

"Recording daily reflections in the PDP helped me in knowing my classroom. I had taught for three years in a school but I never knew about my classroom this much as I have explored in past four weeks. I know the problems and I can solve them". [Nadia]

"I need more coaching on writing reflections. Experience of writing reflections was strange. Sometimes I thought that I have learnt reflective writing and sometimes I thought that I did not know that. The most important aspect of sitting daily and writing was keeping an eye on my own teaching which ultimately reduced classroom problems. [Saima]

"I can think of many classroom problems once I sit to write" [Nida].

Though reflective writing has been found complex by the respondents, its impact on solving classroom problems have been highlighted.

Reflections on the First Cycle

The first cycle of the action research highlighted the impact of Professional Development Portfolio (PDP) on problem solving, planning and reflective practice. However, it also highlighted the issues of time frame and quality of reflection regarding the implementation of PDP. Pre practicum section of the PDP required more time. Two weeks after the introduction of the Professional Development Portfolio (PDP), only eighteen out of forty two students actually completed their Individual Learning Plans (ILP). The rest of them were still not clear about what they had to do. Few of them identified some of their strengths but they were not relevant to the mentioned domains-professional values and practice, teaching skills and knowledge. For instance, one student wrote, "I am good at developing resources" but it was written under the knowledge domain.

The quality of reflection was not up to degree level expectation. During focus group discussion, many respondents could not come up with focused thoughts. The researchers had to ask probing questions like how and why to help them focus their thinking. For example some respondents said that "PDP was difficult in a number of ways". They did not tell those aspects in the first instance. The above issues lead the researchers implement another cycle of the intervention by addressing the participants concern. Second cycle of the research was implemented with twenty seven students of the next cohort three months later. Here are findings of the second cycle.
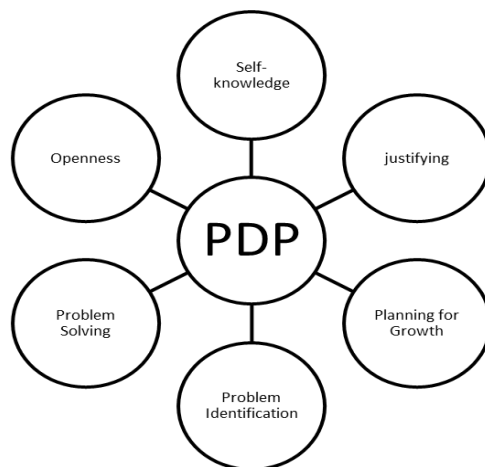

Figure: Outcome of Using Professional Development Portfolio

Reflections on the Second Cycle

Analysis of the data highlighted the following themes: Self-knowledge as a Teacher, Justifying arguments, Planning for Growth, Problem Identification, Problem Solving, and Openness. The above themes were further merged to categorize them under the predefined categories of self-knowledge, setting direction for growth and problem solving. Like cycle 1, the majority of the respondents mentioned that self-audit helped them knowing themselves as teachers.

> *"I liked doing self-audit as it helped me knowing myself as a teacher". [Amna]*
>
> *"It was difficult to identify own strengths and concerns. However, it was good to do that. Now I know what I am as a teacher". [Farah]*
>
> *"I had never done such kind of work before. Initially, it was difficult to identify strengths and concerns. After collaborative discussions with other colleagues I did this section more confidently. Now I know my strengths and weaknesses". [Faiqa]*

The above responses indicate that professional development portfolio helped the study participants in knowing themselves as teachers. Besides, the participants found self-audit highly useful in learning to justifying claims.

> "Writing self-audit helped me to reason out. I had to think of the reasons for making a claim". [Aysha]
>
> *"We are not in a habit of thinking about ourselves rationally. Self-audit helped me think rationally with evidence. This has really improved my evaluation skills. I have learnt how to make a statement". [Farah]*

Nearly half of the respondents claimed that self-audit helped them thinking outside the box. They also mentioned that they completed this part before practicum however; they kept modifying it as they learnt more over the time. The respondents remarked that they had to think very openly about themselves.

> *"Generally, we think that we are very good people and good teachers. It is difficult to think of own weaknesses and mention*

them on the paper. Apart from developing skill of writing self-audit, I have developed an attitude of being open. I kept modifying my ILP over the course of practicum. Every day was full of new learning". [Farah]

"I feel being more rational and open minded after completing the first two sections of the PDP. I had to think about so many aspects while writing anything. I had never asked so many questions from myself before". [Jahan]

The activity of self-audit emerged as highly valuable in terms of improving self-knowledge of teachers, developing their reasoning skills and making them think with an open, reflective mind. Most of the respondents mentioned that the PDP helped them in setting targets and planning for strategies for themselves.

"It was a different experience altogether. I have always experienced others telling me what to do and how to do. This time I had to think about my own concerns and plan to address the concerns. I was very confused and unhappy about it. However, in time I realized that it made me planner and supervisor of my own learning. I must say that it was extremely difficult in the start. I would suggest that such kind of tasks should be given more often so that the students get used to it. I get clarity about this section in time after experiencing writing". [Naila]

"Writing Individual Learning Plan (ILP) was the most difficult section of the PDP. It required lot of thinking and reading. Ultimately, it helped in setting direction for growth. [Fatima]

"ILP was difficult to write but very useful. It helped me in setting my own targets. It also served as a useful prompt for a professional dialogue with the supervisor".
[Sadia]

The responses signify the importance of PDP in planning for growth or it is an initial step towards "self-directed learning" (Brookfield, 1995). Many respondents found reflective writing in the PDP useful in identifying classroom problems.

"Daily reflections helped me in looking into my classroom issues more specifically. I had to think a lot about identifying the exact problem". [Misbah]

"I never thought that identifying a problem was a skill. While writing reflections, I realized that identifying a problem properly is very important but difficult at the same time. I learnt that many times something which seemed a problem did not emerge as a problem after reflection". [Naila]

"I think if we identify a problem accurately, it is half-solved. Reflection writing helped me in reflecting on my teaching and students' learning. It made me learn what interests children? What motivates children? and what was problematic for the children and for myself. Initially, I could not identify problem but in time, I have learnt how to identify problems". [Jahan]

"I had not been able to make Aleeza, Urwa and Tania sit on their seats in past three days. It had been a big problem for me as they disturbed the whole class. Their regular teachers told me that they were naughty, mis-behaving girls. I did not agree with that. I had also learnt that all three girls were low-achievers mostly. The problem could be difficulty in keeping pace with the new topics. Today they were mostly on their seats in English lesson. However, in other periods they behaved in the same old way. I think they sat on their seats as today we had a vocabulary game in English class where students were supposed to make vocabulary puzzle at least with Fifteen words with correct spelling. Students had to give their puzzle to friends to find the words. When I looked at the puzzles of Aleeza, Urwa and Tania, I realized that the puzzles had mostly simple words. It helped me in identifying the cause of their behaviour. I learnt that they are engaged in the lesson if it matches with their prior learning". [Excerpt from PDP]

The above data indicate usefulness of reflection thus PDP in helping student teachers' identify the classroom problems. Many of the respondents claimed that addressing their own concerns, writing reflections and making action plans helped them solve problems.

"I cannot say that I have developed the skill of problem-solving but I can surely say that now I can identify problems and think of many possible solutions". [Jahan]

"Previously, I used to blame pupils for every failure of my teaching. Now, I try to solve the problems at any cost. Initially, I thought that how can I solve all issues of the students but the portfolio require us to keep making action plans and implement them till the time problem is solved. Now I think that most of classroom problem can be solved as a teacher". [Naila]

"Completing the PDP had been too challenging but rewarding at the same time. I must say that it has transformed my thinking. I have learnt that writing brings clarity and clarity leads to solve problems". [Aysha]

"Nearly one third of the boys do not complete the written tasks in class. I thought that either they keep talking or they write very slow. Some further observation showed me that whenever, the written tasks were given as the last activity of the lesson, they never completed them however, if given in between the session, they mostly completed them.

Action Points: To plan lessons more thoughtfully to provide more time for completing the written tasks in class". [Excerpt from PDP]

The data have shown that the PDP serves as a vehicle for student teachers' development. It improves self-knowledge and reasoning skills by requiring the teachers to identify their strengths and concerns/ weaknesses. It also served as a tool in making teachers set direction for their own learning. Developing ILP in the light of self-audit make teachers think coherently. Writing reflections regularly in the PDP improves reflective writing as well as helps in identifying and solving classroom problems. Overall the PDP may be considered as a vehicle for professional development of teachers however, its development is time-consuming and challenging.

Discussion

The study showed that the professional development portfolio (PDP) helped the study participants take ownership of their own learning by setting direction for development. This finding is in line with Brookfield's (1995) claim that adults are self-

directed learners and good adult educational processes are inherently democratic. The study showed that the participants used "autobiographical lens" of Brookfield (1995) and created self-image during self-audit. This image creation helped them develop Individual Learning Plans (ILPs) which addressed their concerns and weaknesses as teachers. They also read literature around their concerns to identify the strategies to achieve the set targets. This experience was highly individualized as it was based on individual, unique concerns. Fletcher and Childs (2000) insist that the self-directed learners take responsibility for their own learning and create learning strategies or devise tailored ways to make learning more meaningful for themselves. The undemocratic learning experiences are not meaningful for individuals as they do not create ownership and excitement for learning. The PDP served as a tool for meaningful learning by setting a path for step by step growth.

Growth has emerged as another important outcome of the study. The Professional Development Portfolio (PDP) successfully served as a developmental tool and engaged student teachers in thinking about their own professional skills. It was challenging also because it shifted the responsibility of learning to the student teachers. Secondly, it involved reflective writing. The students who studied English as second language and had only ten months background of studying in English medium environment could not always make clear links between their concerns-targets-plans-reflection and future plans. They needed a lot of support and time. The participants claimed that they were unclear, confused and stressed initially. They did not have developed writing skills. They could not justify their statements. However, experience of writing and reflecting regularly developed their skills and made them more confident. This finding is in accord with Kolb's (1992) notion of experiential learning. In the light of individual experiences, the participants described their success. For some, it was a success to be able to overcome their weaknesses; for some it was about improved writing skills, for some it was all about learning to solve problems and for some it was becoming open-minded. According to Fletcher and Childs (2000: 71), "probably the single most important aspect that characterizes self-directed learners is that they experience "progress" and/or "success" according to their own definitions of these".

Though the study helped in improving student teachers professional skills, aim of the research, it has also shed light on the teacher dependent phenomenon of education in Pakistan. In both cycles of the study, the study participants were very much confused on how to do self-audit and develop ILP. Sample self-audits and ILPs had been provided to them and an orientation session was also organized. The minimum age of any respondent was 21 years. All of them held Bachelor degrees. Many of them asked us to give them targets for their practicum. Initially, they did not want to take ownership of their own learning. They were scared of taking responsibility. This

indicated authoritative education of the country where students do not have a voice for what they want to learn and how they want to learn. They study "prescribed curriculum" (Eisner, 2004) in a teacher-prescribed environment making them dependent individuals.

Conclusions

The Professional Development Portfolio (PDP) allows application of "auto-biographical lens" to identify strengths and weaknesses as teachers. The findings show that the PDP helps in developing problem-solving, reasoning and decision making skills by requiring the teachers to complete and modify different sections of the PDP throughout. The PDP also served as a tool for critical reflection as many of the respondents claimed that raising frequent questions has changed their outlook. Most importantly, the PDP emerged as teachers' "companion". Most of the respondents found it very challenging initially but in time found it a developmental tool.

Recommendations

The professional development portfolio may be used by the teacher education colleges and institutes during practicum as it helps in making student teachers incharge of their own learning. Teacher preparation should make reflection as a regular feature in all courses to develop student teachers' reflection skills. Future researches may be carried out on: "Mentoring the mentors" to see how can the mentors be involved more productively in students' professional development, "Introducing Professional Development Portfolios in the B.Ed. Programme" to see students' professional development over an extended period of time, and "Role of reflective sessions in developing reflective thinking among students" to see if students develop in reflective practice more through focused guidance.

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Students' Attitude towards Science in Lower Secondary Classes: Comparison across Regions

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Abstract

Science education is an area of interest for long and has gained a lot of attention from science educators. Keeping this in view, the current study explored the attitude of grade VI-VIII students towards science in the provinces of Sindh and Balochistan. This research study was conducted as part of a 5-year project titled 'USAID-LINKS to learning: Education Support to Pakistan' (USAID-EDLINKS). A 5-point rating scale, Science Attitude Scale (SAS) was adapted from previous research. SAS has 32 items arranged under five constructs: learning science in school, self-concept in science, science outside of school, future participation in science and importance of science. SAS was administered to 1458 students, from twelve randomly selected schools from the two provinces. The result exhibited positive students' attitude towards science, irrespective of province. However, comparison across regions favoured students from the province of Sindh as compared to their counterparts in Balochistan. A similar pattern was observed for all constructs except future participation in science, where both regions have exhibited a similar trend. The study concludes that students need to be engaged actively in science learning so that their positive attitude towards the discipline can be sustained and improved further as they grow older.

Key Words: Science education, Attitude, Science learning, Science practicals.

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Introduction

Attitude towards science has gained a lot of attention in the realm of science education especially from the perspective of teaching and learning. It has been noticed that students find science to be a very difficult and boring subject. The interest of the students declines as they move to the higher grades of education. Research shows that students manifest the highest level of a positive attitude towards science before the age of eleven which significantly declines over the middle school and high school years (Barmby, Kind & Jones, 2008; George, 2006; Simon, 2000). Students, particularly at the secondary level, perceive science irrelevant to life. They feel that advancement in science has generated social and environmental problems; science is difficult and is about things not people (Bennett, 2001). For these reasons many students do not want to continue studying science (Kind, Jones & Barmby, 2007).

While students' attitude towards science has been explored in other contexts there is a dearth of research in this important area in Pakistan. Keeping this gap in consideration, this study aimed to investigate students' attitude towards science in lower secondary schools in the provinces of Sindh and Balochistan. The focus of the study was three years of lower secondary schooling (VI–VIII) because students' science attitudes are shaped during these years. It was conducted as part of a 5-year project titled 'USAID-LINKS to Learning: Education Support to Pakistan (EDLINKS) launched by the United States Agency for International Development (USAID). The project recruited schools from the two provinces of Pakistan including Sindh and Balochistan. This paper presents a part of the larger study by focusing on one of the research questions defined for the study: What are students' attitude towards science in the EDLINKS schools of Sindh and Balochistan?

Theoretical Framework

This section explains the theoretical underpinning, the study is based on. Defining Attitude and Science Attitude: Attitude is a hypothetical trait hold by an individual for something. Attitude themselves are evaluative judgments formed by the person (Aijzen, 2001). Evaluation and subsequent decision depends upon personal knowledge, feelings and experiences. Generally, attitudes once established remain stable. However, this trait is open to change and development (Reid, 2006). Social psychologists have defined attitude as a combination of emotional or affective components (liking or disliking), a cognitive component (beliefs) and a behavioural component (tendencies to act towards these items in various ways) (Child, 2007; Reid, 2006; Baron, 2001). Attitude is a multidimensional construct and different researchers have studied various aspects of attitude depending upon the aim of the study. The common areas which have been used across studies as attitude constructs are: experience, interest, feeling, motivation, enjoyment, usefulness and self-concepts (Lim,

Tso & Lin, 2009; Barmby, Kind & Jones, 2008; Kind, Jones & Barmby, 2007; Jones, Howe & Rua, 2000).

Although educationists and psychologists have tried to define the parameters of attitude towards science, different interpretations have been made for this term. That is why, many studies have focused on different parameters of 'attitude' (Osborn & Simon, 2003). Bennet (2001) has elaborated on different research studies to explain the nature of these terms. Some studies focus on physical science, some on school science and some on science outside the school. Because of the complexities attached, science educators have defined attitude towards science in different ways. Ramsden's (1998) definition of science attitude comprises cognitive, emotional and action components, which leads to develop a particular behaviour. Kind, et al (2007) have defined attitude as the feeling that one has on the basis of knowledge and belief about an object, where science is an object, therefore attitude is towards science. Both the definitions are based on three broad components of attitude including cognition, affect, and behaviour (Child, 2007; Baron, 2001). Interlinks between the components could be interpreted as; a person has knowledge and beliefs and develops feelings about an object. As a result, knowledge and beliefs may lead to certain actions (Barmby, et al, 2008).

Students' Attitude towards Science: Meta-analysis done by educationists reveals that a lot of research has been done on students' attitude towards science (Osborne, Driver & Simons, 1998; Osborne, Simons & Collins, 2003). Reid (2006) has identified four target areas as important features of attitude in science education: "the science subject itself as a discipline; the learning of the science subject; topics and themes covered in a particular course and the method of science" (p. 7). Nevertheless, much of the research has been done to find out attitude towards science as a discipline (Bennett, Rollnick, Green & White, 2001; Pell & Jarvis, 2001; Ramsden, 1998; Osborne et al, 1998).

Generally, science is perceived to be a difficult, boring and inaccessible subject (Osborne, et al, 1998; Simons, 2000). The other widely held perceptions among students are: science is irrelevant to human lives, responsible for social and environmental problems, difficult to understand, science is about things rather than people, science is for boys rather than girls and that scientists are generally odd people (Bennet, 2001; Ramsden, 1998). Literature also indicates that students exhibit positive attitude towards utility of science while their attitude towards science declines as they progress to the higher grades (George, 2006). It is argued that a negative attitude towards science has an adverse effect on students' engagement with science in the school. Furthermore, the negative attitude has been identified as one of the important factors which restrict students from continuing their career in science (Ramsden, 1998).

Measuring Students' Attitude towards Science: Over the last three decades the researchers have used various approaches to measure students' attitude towards science. Paper-and-pencil is one such widely used technique. Types of questions used in this technique were based on format similar to that developed by Osgood or Likert; rating questions and situational set questions (Reid, 2006). In most of the cases, attitudes have been measured through questionnaires consisting of Likert scale items (Simons, 2000). It is argued that these scales have inherent advantages and disadvantages. Researchers are expected to establish reliability and validity of their tools to gather useful information yet poor psychometric properties of these tools have been identified as a recurrent issue (Reid, 2006; Osborne & Reid, 2003; Ramsden, 1998; Munby, 1997; Gardner, 1996). Due to the poor psychometric properties of the attitude scales, results were generated which were difficult to interpret and unable to offer the precision required in understanding attitude development in science education (Reid, 2006; Gardner 1996). Therefore, a need was identified to develop statistically valid and reliable tools to measure attitude towards science (Munby, 1997; Gardner, 1996). Kind et al (2007) worked with the problem by developing an instrument - Science Attitude Scale (SAS) - for measuring students' attitude towards science. They have not only computed the internal consistency (Cronbach's Alpha) but have also explored unidimensionality (factor analysis). SAS was found to be an appropriate tool for the current study to explore students' attitude towards science. Figure 1 demonstrates the links between our working definition of attitude (beliefs and feeling towards an object), theoretical constructs and empirical categories (construct of SAS).
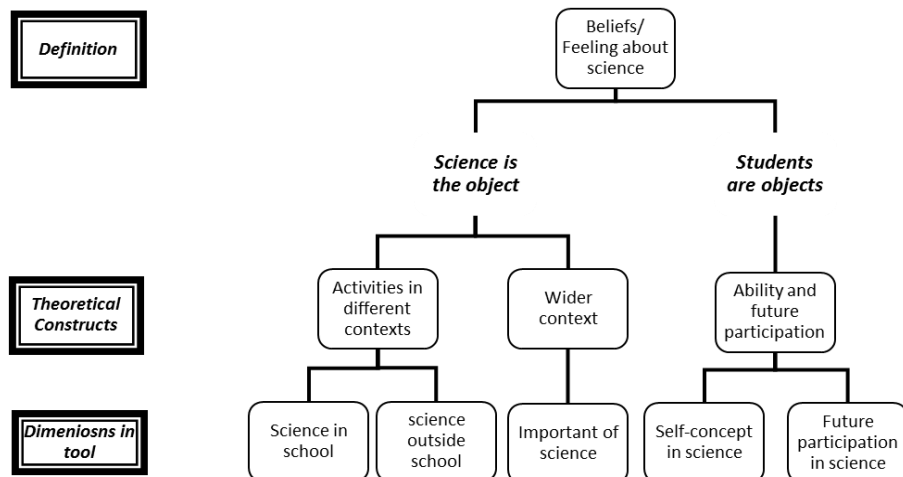

Figure 1: Interlinks among definition, theoretical constructs and dimensions in the tool

The two subscales learning science in school and science outside school focused on students' attitude towards science learning activities in different contexts. The construct presents meaningful objects (science) about which students would form beliefs. The subscale importance of science focused on students' beliefs in the value of science in a wider context. Self-concept in science and future participation in science were of a different nature because in these two constructs students were themselves a part of the attitude object (Kind et al, 2007).

Research Design

A cross-sectional survey was used to collect data about students' attitude towards science at one point in time (Fraenkel & Wallen, 2006; Gorard, 2003). The strategy helped to get useful information in the available time from a relatively bigger group (Robson, 2002; May, 2003). A multi-stage cluster sampling was employed to select districts, schools and students. Of the 22 EDLINKS target districts, 6 were randomly chosen from Sindh (n=3) and Balochistan (n=3). From within these districts, 12 lower-secondary schools were selected randomly to equally represent both regions. Altogether, 1458 students were recruited from the sample schools in Sindh (n=633) and Balochistan (n=825). The focus of the study was lower secondary classes; therefore VI, VII and VIII grades were selected from each school.

Assessment Tool: Students Attitude Scale (SAS)

This study adapted the Science Attitude Scale (SAS) developed for western context (Kind et al, 2007). The original tool has 37 items organized under six dimensions (i.e. learning science in school, practical work in science, science outside school, self-concept in science, future participation in science, importance of science). A 5-point scale (1 = strongly disagree to 5 = strongly agree) is defined for each item. The format of the tool was retained. However, changes were made in the content to address some contextual needs. In doing so, one of the dimensions of attitude - practical work in science - was excluded from SAS because science practicals are usually not conducted at lower secondary level in government schools. Furthermore, keeping in mind the rural context two items related to science clubs and science museum were also deleted. Table 1 presents a summary of adapted version of SAS which contains 32 items.

Table 1: Summary of Science Attitude Scale (SAS)

S. No	Sub-scale	Example of an item	No of items
1.	Learning Science in School (LSS)	We learn interesting things in science lessons	06
2.	Self-Concept in Science (SCS)	Science is one of my best subjects	07
3.	Science Outside School (SOS)	I like to do science experiments at home	08
4.	Future Participation in Science (FPS)	I would like to study more science in the future	05
5.	Importance of Science (IS)	Science and technology are important for society	06

Establishing Validity of SAS

In order to establish content validity of the items, the adapted SAS was reviewed by eleven subject specialists from government and private institutes. The group included teachers from the rural / urban schools and colleges, and teacher educators from professional development organisations like Bureau of Curriculum (BOC), Provincial Institute for Teacher Education (PITE) and Science Association of Pakistan (SAP). The purpose of the review was to establish whether the measurement scale covers the appropriate content to measure attitude towards science in Pakistani context. The reviewers were asked to make judgments according to their understanding of the definition of the items in the scale (Robson, 2002; Mertens, 1998; Carmines & Zeller, 1994; Mueller, 1986). These subject specialists reviewed the tool with reference to the contextual relevancy, clarity of language, and appropriateness of content to grade level. They individually rated each item on a five point rating scale (1 = completely irrelevant; 5 = completely relevant). Reviewers were also requested to suggest additions or deletions in the tool.

Overall, SAS was rated high (M=3.88) by the reviewers i.e. items are appropriate for measuring attitude in the rural context of Pakistan. Majority of the items fell between 'excellent' (i.e. 17; 54.8 %) and 'good' category (i.e. 10 items; 32.2%). Only four items (12.9%) were rated below three (i.e. rated as weak items). Reviewers suggested reconsidering items related to TV, scientific books and newspapers, which might not be available in the rural context. Although this suggestion was relevant, still these items were retained for the main study in light of reflections shared by rural teachers during pilot. They provided relevant examples showing that science related programmes are aired and published on local channels and local newspapers, respectively. For such items, an additional option 'not available' was added as sixth

option along with five points in the rating scale to avoid 'forced opinion'. Reviewers also suggested adding an item related to farming as a majority of the rural population depends on agriculture. Therefore, one item 'I like to use scientific knowledge in farming' was added to SAS. An option of 'not available' was also added for this item. Final version of SAS was translated in Urdu and Sindhi to make it more user-friendly by minimizing the language related issues.

Establishing Reliability of SAS

Researchers usually aim at reliability co-efficient greater than 0.70, though lower values are accepted as well. A well-constructed scale, however, may have reliability co-efficient of 0.80 to 0.90 (Field, 2005; Black, 1999; Mertens, 1998). The SAS was found to be reasonably reliable in the western context with internal consistency greater than the threshold value of 0.70 (Kind et al. 2007). However, there was a risk of irrelevance to our context. Therefore, reliability of the adapted tool was also explored for Pakistani context. Cronbach's alpha for five dimensions ranged between 0.53 (Learning Science in School) and 0.74 (Future Participation in Science) with an alpha value of 0.85 for the total score. Evidently, alpha for one construct (learning science in school) was lower than those found for the rest of the constructs and total score. However, keeping in consideration the importance of this dimension it was retained for the final analysis.

In each province, a team of trained research assistants along with lead researchers administered SAS. Direct administration method was used where children were made to sit in examination set-up (Fraenkel & Wallen, 2003). After explaining the scale format each statement were read to respondents. They were encouraged to select responses according to their own feelings as the individual viewpoint was important.

Analysis and Results

Data collected through SAS was analyzed using Statistical Package for Social Sciences (SPSS 16.0). A database was developed beforehand to enter data at items level for individual participants. Negative statements were reversed. The subscale and total SAS scores were then computed from the raw data. The data obtained were explored using descriptive analysis (e.g. mean, range, standard deviation). In order to explore normality and homogeneity of the data, objective tests [i.e. skewness > 2 (standard error)] and Levene's test) were carried out. The distribution was found to be skewed. Therefore, non-parametric version of t-test (i.e. Mann-Whitney) was employed to gauge the differences in attitude across two regions. The following section presents a summary of demographics and results of analysis.

Demographics

SAS was administered to 1458 students to represent Sindh (n=633; 43%) and Balochistan (n=825; 57%). This difference in number of children across regions is a function of class size which was consistently bigger in Balochistan than Sindh in all target grades with a more prominent difference for grade VI [$\chi^2(2) = 9.38$, p < 0.05]. Interestingly, girls were over-represented in this sample (n=822; 56%); however, the gender ratio across regions was not different. The mean age of the students for this sample was 12.8 years (SD = 1.55). On average, students in Balochistan (M=13.15; SD=1.60) were older than their counterpart in Sindh (M=12.47; SD = 1.35) and the difference was found to be significant [U = 177889.000, p < 0.01].

Students' Attitude towards Science: An Overview

The overall result, as shown in table 2, exhibits a positive (M = 3.99; SD = 0.50) students' attitude towards science. Similar patterns are observed at construct level, except for self-concept in science where students have shown slightly less positive attitude (M = 3.69; SD = 0.68) towards science. Students assigned highest score to importance of science (M = 4.31; SD = 0.56) which reflects their views about importance of science and technology for society in general and its role in solving problems in particular.

Table 2: Mean score for SAS total and five constructs

Constructs	Mean score	Standard Deviation
Learning Science in School (LSS)	4.08	0.62
Self-Concept in Science (SCS)	3.69	0.68
Science Outside School (SOS)	3.92	0.65
Future Participation in Science (FPS)	4.03	0.83
Importance of Science (IS)	4.31	0.56
Overall	3.99	0.50

Students' Attitude towards Science: Comparison across Two Regions

Figure 2 presents a comparative overview of students' attitude across two regions. Evidently, students from rural areas of Sindh have displayed more positive attitude (M=4.08; SD=0.51) towards science as compared to their counterparts in Balochistan (M=3.93; SD=0.48). The difference was found to be significant [U = 210991.5, p < 0.001] with a small effect size (r=0.20). A similar pattern was found for all constructs except future participation in science. What follows is an analytical description of results at construct level.
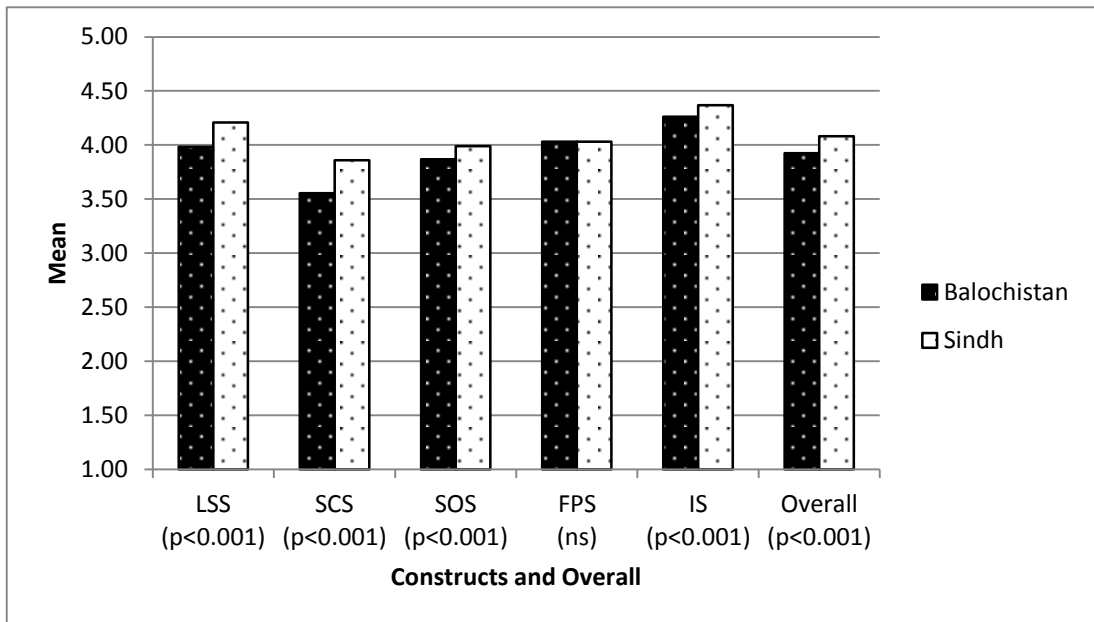
Figure 2: Students' attitude towards science-comparison across two regions

Learning Science in School

Students from Sindh have shown more positive attitude (M = 4.12; SD = 0.61) towards their engagement in learning of science in school as compared to their counterparts in Balochistan (M = 3.98; SD = 0.62). The difference was found to be significant [U = 206206.00; p < 0.001] with a small effect size (r=0.18). In other words, students in Sindh have found their science lessons exciting, engaging and better than the other subjects taught in school.

Self-Concept in Science

Similarly, students from Sindh have shown an edge (M=3.86; SD=0.69) on self-concept in science as compared to students in Balochistan (M=3.55; SD=0.65). The difference was found to be significant [U = 191156.500; p < 0.001] with a small effect size (r=0.23). It is important to note that the mean score of this sub-scale is lowest among all five sub scales. This indicates that students from both the provinces might find science difficult and feel helpless when doing science. This feeling is more prominent among students from Balochistan.

Science Outside School

The finding reveals that students from Sindh have claimed to be more oriented (M=3.99; SD=0.65) towards doing science outside school than students from

Balochistan (M=3.87; SD=0.65). The difference was found to be significant [U = 230821.500; p < 0.001] with a small effect size (r=0.10). In other words, students enjoy participating in various science-related activities (e.g. doing experiment at home, sharing knowledge with family) outside their schools. Furthermore, they use a variety of avenues (e.g. watching science-related TV programmes, reading science books and newspaper articles) to enhance their learning in science.

Future Participation in Science

Interestingly, students from both the provinces have shown equally high positive attitude (M = 4.03) towards their future participation in science with a slight dissimilarity in variation (Sindh SD = 0.84; Balochistan SD = 0.82). It is encouraging to note that students form both regions have shown inclination towards science-oriented career. More specifically, they want to contribute in the field of science as teachers or scientists.

Importance of Science

As mentioned earlier, students have shown their highest positive attitude towards importance of science. In this regards students from Sindh have shown slightly more positive attitude (M=4.36; SD=0.55) as compared to students from Balochistan (M=4.26; SD=0.56) with a significant difference [U=227421.500; p < 0.001] and small effect size (r=0.10). In general, students reported to believe in importance of science for society and its contribution in making lives easier and more comfortable. In a way, they have acknowledged the importance of science and technology for the society. This opinion was more strongly fostered by students in Sindh.

Discussion and Conclusion

This study aimed to explore lower secondary school students' attitude towards science in the EDLINKS schools of Sindh and Balochistan. Grade VI–VIII students (n = 1458), including both boys and girls, participated in this study. In general, students' displayed a positive attitude towards science in the rural settings of Sindh and Balochistan. These results do not necessarily corroborate with findings of other research studies, where science is perceived to be a difficult, boring and inaccessible subject (Osborne et al. 1998; Simons, 2000). In the current study, students have acknowledged the importance of learning science in school, enjoy doing science outside of school, want to participate in science related activities in future and have realized the importance of science. Although, their self-concept in science is relatively low still the overall score for the construct remains at the higher end. That said, it is worth noting that students in Sindh have exhibited more positive attitude towards science as compared to their counterparts in Balochistan. Interestingly, the contexts are similar, all are EDLINKS intervention schools, follow the same curriculum, and students belong to

similar socioeconomic status yet there is a difference in their attitude towards science. How to interpret these findings?

It is worth recalling here that class size varied significantly across two regions with higher enrolment in Balochistan. Less positive attitude exhibited by students in Balochistan could be a manifestation of large class size. Research has found an inverse relationship between class size and students' learning outcomes (Blatchford, Basset, Goldstein & Martin, 2003; Pedder, 2006; Jeremy, Gerber, Ashilles & Boyd-Zoharias, 2001). Researchers have explained this relationship further by differentiating between pedagogical strategies used by the teachers in two types of classes. Arguably, teachers adapt strategies to handle large classes within available timeframe which has differential negative impact on quality and quantity of learning opportunities for different students (Pedder, 2006; Blatchford et al, 2003). Furthermore, they have found multiple effects of large classes effecting both teacher and students. In large classes there are large groups which teachers find difficult to manage. On the other hand, teachers in smaller classes can provide more support for learning with more teacher-student interaction (Blatchford et al, 2003). These interactive pedagogical strategies could have an implication for developing positive attitude towards the subject - science in this case. Perhaps, students view large class less favourable as compared to small class due to lack of teacher-student interaction which may have damaging impact on students' motivation. Therefore, students in small classes may develop more positive attitude towards subject. Based on this argument, it could be concluded that difference in students' attitude towards science across two regions might be a manifestation of class size.

This study has contributed to an important aspect of science education. Therefore, it has implications at different levels. This research generates some interesting findings for the curriculum designers at provincial and school level such that it retains or enhances students' attitude towards science as they promote to the higher grades. Having said that, it is imperative to arrange professional development programmes for elementary teachers to adopt more interactive methods of teaching science, make it more relevant to students' lives and society so that they see its value and importance. Attached to this is the availability and positive utilisation of resources which are very few in majority of rural schools. This implies that schools need to strive for provision of essential resources and encourage teachers to develop relevant material in order to enhance teaching.

Although, this research has generated important results, still there are some limitations attached to it. The data were collected through self-reported survey. The results of the study could have been benefitted by conducting in-depth interviews with students to understand contributing and inhibiting factors. Researchers have identified

many factors which may shape students' attitude towards science (George, 2006; Murphy & Beggs, 2003; Osborne, Simons & Collins, 2003). Examination of the contributing/inhibiting factors (i.e. role of teacher, school environment and home environment) was necessitated by the available time and resources. Furthermore, data on classroom practices would be helpful to explore possible linkages between pedagogical practices and students' attitude; nevertheless, it was beyond the scope of this study.

The study generates many opportunities for further research. A significant outcome of this research is a valid and reliable attitude tool (SAS) for Pakistani context. SAS can be used to replicate the study at national level. Furthermore, a correlational study can be carried out to explore associations between attitude towards the discipline and classroom practice. Data can also be collected on other possible factors (e.g. system of schools, role of teacher, school environment and home environment environment) which may influence students' attitude towards science. Suitable statistical models would help to isolate the effects of various factors on students' attitude. Those who are interested to take the same line of research can administer SAS on a large and more representative sample to generate more generalizable data.

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Analyzing Perceptions of Primary School Teachers about Their Professional Competencies, Expectations and Needs

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Abstract

This paper explores primary school teachers' (PSTs) competencies in four major domains. It also looks into the hopes, expectations and concerns of PSTs about their professional development. Eight mainstream PSTs from five schools of district Mianwali were drawn on convenient basis. Their views were sought through interview. The results of study revealed that PSTs have knowledge of the tradition, values and customs of Pakistani society and also know how these may affect individual learners. They have insufficient knowledge and understanding of the sociology, philosophy, management of education and curriculum. In general, teachers don't have positive attitudes towards academic environment of primary schools. They think that school heads are not competent and their attitude is discouraging towards teachers' motivation and professional competence. PSTs expect that school heads should be honest, punctual, sincere, competent, and possess the qualities of good trainer. PSTs desire training in the areas of content, methodology, assessment, and context. The heads and administrators also need to go through professional courses, especially in the area of instructional supervision, educational administration and management.

Key Words: Professional Competencies, Context, Methodology, Assessment, Content

Introduction

It is unanimously acknowledged that education is the primary key to ethical, cultural, political, intellectual, physical, socio-political and socio-economic development of a country. It is a basic right of every individual in a society and enlightens the mind of a person so that he/she could think and understand the

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philosophy and realities of life. The purpose of education and training is not necessarily to inculcate new knowledge and skills in the individuals but also to prepare them to meet the challenges of the time. It is a process and series of activities, which aim at enabling individuals to assimilate and develop knowledge, skills, values and understanding (Akhtar, 2000). Education is a great investment of country. The goals and objectives of education should be clear, specific and measureable.

Mukhopadhyay (1990) stated that education aims to develop and cultivate the various physical, social, moral, and emotional process of an individual. It is a practice from side to side which a nation develops its self-consciousness by sensitizing individuals who compose it. It is not plain public instruction, rather is a social institution which provides mental, corporeal, ideological and ethical training to the persons of the nation. Education plays a significant role in human resource development. It raises output, competence of individuals and produces skilled human resource that is capable path of sustainable economic development.

This is an age of science and technology. With the advancement in science and technology and explosion of knowledge in interdisciplinary research, the needs of the society are changing rapidly and this has put a healthy impact on the teaching profession. There was a time when bookish knowledge was considered as the chief source of knowledge, but now the electronic media has changed the culture of teaching-learning discourse. Teachers need to be aware of the educational developments in global perspective. There is a need for on-going innovations in the three main modes of teacher development: initial, induction, and continuous professional development. Teachers' development at each stage is important to enable them to become effective or successful teachers and to be useful members of the society.

The key responsibility of a teacher is teaching and that is a complex activity. Virtuous teaching is a compound interaction of a wide-range of teachers' characteristics, dispositions, subject matter knowledge, experience, and pedagogical knowledge (Andrew, Cobb, & Giampietro, 2005). These factors interrelate with every school cultures, set of educational goals and students to create effective teaching. The quality of educator is influenced by the personal as well as professional development of the teacher. For this a teacher has to play multifarious roles in the school and society – role as a mentor, instructional supervisor, leader, coach, guide and counselor, change agent, parent etc. (Saeed, 2007).

Yusuf (2002) perceived that the foremost aim of teacher education is to improve mindfulness, information, attitudes, and encourage complete involvement in the teaching and learning process. Anderson (1991) relates good or effective teachers with setting clear goals and objectives and to achieve them to the desired extent, as she

states 'effective teachers are those who set goals for themselves. They have competence required to achieve goals and be capable to apply that competencies correctly if the objectives are to be accomplished. Gilchrist et al. (1985) says a teacher can support the pupils to develop goals of their own and decide on experiences, which are related to the previous experiences and reach out into new fields.

The Report of the Commission on National Education (1959) highlights 'no education system can rise above the quality of its teachers' (p.128). It supplementary adds that the teacher should be well competent in the subjects he teaches and have had sound professional training to teach his subjects. Zehm and Kottler (1993) state both personal and professional dimensions make teachers great. The great teachers had great personalities and that the greatest teachers had outrageous personalities. Ali and Awan (1993) state 'good teachers are those who wear clean dress, communicate to the parents about their children's performance, invite parents to schools, kind and sympathetic in their attitude and behaviour, treat all the students equally, seek their colleagues' cooperation, and help and curious to learn (p.57). Similar findings were revealed from a larger study conducted by Govt. of Punjab (1999) regarding identification of the required competencies of elementary and secondary school teachers and teacher trainers. The key competencies include: caring, tolerance, content knowledge, relationship with parents, patriot, inspiring look, curious to learn, fair in dealing with all, positive and supportive, and high beliefs for success. The indispensable professional experiences required for teachers are – diagnostic assessment, supervising students' development, introduction to lesson, and time planning in carrying out lesson preparation and delivery and other activities for the betterment of the institution.

The term 'competency' is a relative term like quality efficiency, efficacy and effectiveness. Its dictionary meanings are skill or talent, ability, and power to do something. Hyland (1995, p.65) stated that 'competence implies to the satisfaction of basic minimum standards. It is the possession of sufficient skills and understanding to a certain kind of work satisfactorily. Teaching competence is a set of skills and belief he possesses and also uses for an effective teaching and learning process. It refers to the intellectual knowledge of the teachers which requires effects on students' learning. Houston and Howsam (1972) has described competencies in the context of teacher education and job performance of a teacher as the necessities of a competency-based teacher education which includes various skills and values which the teacher must exhibit for the successful accomplishment of teacher education programme.

Kirschner and Thijssen (2005, pp.70–75) describe the competences concept under three captions: a) Person-related possess competencies which in varying degrees; b) Criteria-related competency need to be defined and used to assess the acquisition of a competency. c) Context-related competencies. A competency can evident itself in

different ways in different contexts as opposed to knowledge, which is context independent. Kautto-Koivula (1996, p.154) pointed out that professional competence is frequently considered as two main types: a) proficiencies specific to the profession, discipline or organization and b) general characteristics of the individual that facilitate the individual's development and maintenance of professional competence.

Competence does not compare with brilliance; it does indicate a level of proficiency that has been judged to be adequate for the purpose of the activity in question. Whitty and Willmott (1995) pointed out that competence includes intellectual and behavioural dimensions as well as presentation abilities. To be effective teacher, one should employ or use improved or efficient methods of teaching. To be able to do this, the teacher should always have an open-minded approach in acquainting himself with the test development techniques and adopting them by constantly updating his knowledge and skills. Whitty (1996) identified that professional characteristics and professional competence are two sets of qualities of successful professional teacher. First characteristic include professional values, personal and professional development whereas professional competencies include understanding of learners and their learning, curriculum, the education system, and teacher's role in this system. Kalra (1997) also divides competencies into two categories: personal and professional. The former relates to teachers' mental abilities and skills, understanding of psychological and educational principles and his knowledge of the general and specific subject matter to be taught. The latter stems from the personality of teachers' interest, attitude, belief, behavior, and working relationship with pupils and other individuals.

The competency of teachers, particularly at elementary level has been the subject of hot discussion since many decades in Pakistan. Previous research speaks about the low quality of primary teachers (The British Council, 1988; Farooq, 1990; Saeed 1997). Research also shows that effective continuous professional preparation of teachers leads to professional commitment and excellence in teaching (Saeed, 2002; Directorate of Staff Development, 2006). In the context of Punjab, although since 2001 graduate teachers have been recruited at primary level but the quality of teaching learning in the classroom is still a question of great concern. There exists a network of in-service training of elementary/primary teachers through District Training and Support Centres (DTSCs) and Cluster Training and Support Centres (CTSCs) under the umbrella of Directorate of Staff Development, Punjab but still it has not become completely functional. The situation of teachers' competency is more questionable in the far flung districts like Mianwali as library and modern educational facilities are not adequately available to the desired extent.

It is necessary to mention here that no adequate research is available to identify the competencies of the primary school teachers (PSTs) and analyze their hopes and

expectations. It was therefore imperative to investigate the competencies of PSTs, which enable them to provoke critical thinking. This paper contains a description of the competencies and thinking of PSTs in the primary schools of Punjab. The competencies of the PSTs have been discussed under four domains: knowledge of children; subject knowledge and application of teaching skills; assessment and evaluation; and professional values and behavior. The study was aimed to identify the extent to which the teachers have these four types of competencies, and to explore the need for the courses to develop these competencies in them.

II Research Questions

To assess these competencies following five research questions were framed:
1. What competencies do PSTs have?
2. What competencies PSTs don't have?
3. What do teachers aspire to their work?
4. What are teachers' concerns about their work?
5. Which courses do teachers like in an ideal world regarding content, method, and context?

III Methodology

To answer the research questions it was necessary to listen to the PSTs currently working in the primary schools. So the researchers interviewed eight mainstream PSTs (one male and seven female) from five primary schools of Mianwali. The discussion with PSTs was based on four domains of competencies which were desired by the primary school teachers. Their views were sought through interview focusing on four domains: a) knowledge of children; b) subject knowledge and practical teaching skills; c) assessment and evaluation; and d) professional values and behaviour. This discussion was also helpful to analyze PSTs thinking and identified their needs.

IV Discussions and Conclusions

The discussions and conclusions are drawn under four major domains of PSTs competencies. The scope of the each domain also explained briefly their thinking and needs regarding required professional courses.

1. Knowledge of Children

Knowledge of children refers to the competencies of PSTs i.e. what children's think and feel and how do they learn in different ways. The study revealed that the PSTs have basic knowledge of child development / psychology but they do not know the psychological issues. Moreover, they are not applying this knowledge proficiently in teaching because they are not mentally satisfied with their job. A teacher remarked as 'children in this area take less interest in study'. The children were found able to some

extent to modify their language according to their cognition level and use both verbal and non-verbal means to accelerate understanding and enhance learning.

PSTs were able to cope with large classes but incapable to handle diverse ability and multi-level classes successfully. Two teachers pointed out that elementary teachers are able to control large classes but not able to properly handle different ability students in the same group. It was found that the students generally do not find ample opportunities to promote co-operative learning and team teaching, as a teacher asserted that they are not fully conscious of the differences in learners and teach every learner in the class, taking into account the age, gender, their needs and individual differences in education.

Conducive learning environment accelerates learning in the classroom. The study revealed that 'the students possess skills to create a positive atmosphere in the classroom conducive to learning and motivate learners through appropriate supportive actions'. Similar findings were found in the previous research undertaken by Saeed, Gondal, and Bushra (2005). They found a number of factors have a positive correlation with the learning achievement of students, of which conducive learning environment, was one of the key factor.

2. Subject Knowledge and Practical Teaching Skills

Subject knowledge refers to the content knowledge, professional knowledge, evolving and current knowledge and the concrete understanding that a teacher necessities in order to accomplish his or her assigned task. The skills of teachers refer to the instructional processes, plans and classroom handling techniques that a teacher practices to improve learning of their students. The study shows that PSTs of Mianwali have inadequate subject knowledge and practical teaching skills. Therefore, they apply their skills ineffectually in teaching learning situations.

PSTs are not able to make links across different subject content where applicable in the practical life. They have an average command over the subject content they teach in the primary classes but majority of them are not able to teach the subject of Science and English. They claim that they are competent to teach Urdu, Islamiat, and Social Studies but their claim is not truly valid due to many reasons. For instance, they do not know the general objectives of these subjects. In the subject of Urdu they not know different type of strategies to accomplish the four basic skills in the students. They have insignificant knowledge in the subject of sociology, management of education and philosophy.

PSTs are able to interpret syllabus content and but not able to prepare day-to-day lesson plans with clear and specific attainable objectives. They are using traditional method of teaching in classroom and not aware of the importance of a diversity of teaching methods according to the need of learner and maximum use of a variety of new methodologies which aligned with the age and developmental level of the child. They have no skill and willingness to develop new material, learning activities and methodologies which can be applicable at local level learners. They have no opportunity to use available modern technology to enhance learning. They have a little knowledge about the rules and national educational policies of the Ministry of Education. They have traditional knowledge regarding teaching and learning and related methodologies. As a result, they are not willing to use new methodologies in teaching and learning environment. PSTs have little knowledge of the instructional language in spoken and written forms. They have insufficient vocabulary in the instructional language which is a major obstacle to transfer the contemporary knowledge to the learners.

3. Professional Values and Behaviour

Professional Values denotes to the teachers' manner of conduct, ethics, and extraordinary commitment towards their proficient role and promotion of good citizenship. Kerry and Wilding's (2004) found that experience in staff training and education clearly demonstrates the need to offer teachers better opportunity to educate and develop themselves in order to become more effective. Lawal (2003) pointed out that skilled and effective teaching and learning are expected from professionally trained teachers.

The study reveals that PSTs have knowledge of the tradition, values, and customs of Pakistani society and also know how these affect individual learners but they are not enthusiastically planning to positively change in traditions, values, and customs of Pakistani society. They are not fully aware of their responsibilities and children's rights. PSTs have competence to increase enrolment and retention of students in school, especially to handle vulnerable students but they have no authority to apply these strategies. PSTs are not able to understand the importance of comprehensive education and are not able to assist learners with special needs.

4. Assessment and Evaluation

Assessment and Evaluation competencies of the PSTs are referred to the process of assembling, examining, inferring, and communicating information about students' performance by using a variety of instruments, i.e. test, assignments, quiz and group work to show levels of accomplishment and give response of usefulness of instruction. According to Amahala (1979, p.251), "when teachers understand the techniques of evaluation that they will be capable of maximizing the potential of their

students". Sanders et al. (1990) pointed out that teachers should have skills at choosing, developing, relating, communicating, and evaluating student assessment information and practices.

PSTs are able to develop achievement test but have no clear idea of valid and reliable assessment tools. They are not able to use feedback from assessment instruments to plan and organize for corrective work. PSTs are not able to keep precise progress that help in management and supervision. They are not aware to keep accurate records on learners' health. They only use formative and summative tests (written or oral) as assessment tools to make judgments about students' achievement. They do not monitor learners' progress during and after the lesson through quizzes, assignments, presentations and class participation. PSTs are not able to apply ethical assessment practices and ensure confidentiality of information which is need for learner mental satisfaction.

Recommendations

More efforts are needed for training of teachers and improving the efficiency of overall environment of the education department at elementary level. The findings of the study have significant implications to the school administrators, teachers, policy makers, and other stakeholders who are directly and indirectly involved in teachers' education. The following recommendations are put forwarded for the organizers, policy makers, and academicians of in-service teacher education institutions.

Emphasis may be given on bringing positive change in the thinking of teachers so that the standards of education at primary level could be maintained. For this we need to appoint competent and sincere heads of primary and elementary school. The professional ability of school heads and administrator may be helpful to improve the competencies of PSTs and change their thinking positively towards school heads and administrators. The heads and administrators also need to undergo professional courses in instructional supervision, educational administration and management.

Teachers training institutions in Pakistan may plan to provide professional support to their faculty such as initial and field based training programmes, lesson plans, developing teacher guides, and instructional resources to improve the performance of PSTs. PSTs need further training in the areas of content, methodology, assessment, and context so as to improve the quality of education at elementary level to the desired extent.

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Effect of Thinking and Learning Styles on Students' Academic Achievement

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Abstract

This study has two objectives: the premier is to investigate the nature of thinking style described in the theory of mental self- government by Stenberg and second to determine the effect of thinking and learning on students' academic achievement. This was a co-relational study in which 122 students participated as a sample from various departments of Islamia University Bahawalpur. Thinking and learning styles were evaluated by using two inventories: Thinking Style Inventory and style of learning and thinking (SOLAT) as a second inventory. The convergent statistical analysis procedure was used which indicated that thinking styles and modes of thinking share certain common variances in the data for example, the legislative, judicial, global and liberal thinking styles are significantly related to the holistic mode of thinking while local, executive and conservative thinking styles are significantly related to the analytic mode of thinking. Multiple regression analysis showed that both thinking styles and modes of thinking statistically contributed to students' self-reported grade point average.

Key Words: Thinking and learning style, mental self-government, holistic mode, analytical mode

Introduction

The human being perceives and processes information according to his/her intellectual abilities, experience and attitude. Cognitive abilities like thinking, reasoning, problems solving and decision making may be considered as some of the main qualities which differentiate humans from one another and from other species including the higher animals. Good poetry, highly developed computer software, an

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efficient robot, a beautiful painting etc. are all product of human thinking, reasoning and other intellectual capabilities of their creators and inventor (Mangal, 2000). In educational setting tests are used to find the individual difference. Sternberg and William (1997) have described that traditional achievement test can consider only a minimal amount of individual differences in academic achievement. For example, someone likes to concentrate on single task while other can perform multi-tasking. Similarly, an individual can focus on abstract ideas, whereas others can focus on concrete one. These are the reason due to which one can say that humans think in a different ways. The main purpose of this research is to investigate the effect of thinking styles on students' academic achievement. Globally, thinking and learning styles as a variable of individual differences in academic achievement has become a field of interest. The researcher has an assumption that students' style of learning and thinking has effect on their academic achievements.

Research Objectives

The objective of this study was to investigate the nature of thinking styles of the students of Islamia University Bahawalpur as described in the theory of mental self government by Sternberg, (1988) and to find the influence of thinking and learning styles on students' academic achievement. Following hypotheses have been formulated:

1. Students who score higher on legislative, judicial, liberal and global thinking styles will also score higher on the holistic mode of thinking but will be lower on analytic mode.
2. Students who score higher on executive, local and conservative thinking styles will also score higher on the analytic mode of thinking but will score lower on the holistic mode.
3. Legislative, judicial, global & liberal thinking styles and holistic mode of thinking will contribute the students' GPA in the same way while local, executive & conservative thinking style and analytic mode will contribute the students' GPA in the same way.

Literature Review

Cognitive abilities and ways of utilizing these capabilities contribute much to students' performance in their academic activities. In many ways the thinking styles and learning styles are the two sides of the same coin. Thinking styles refer to the management and manipulation of daily activities while learning styles points how student learn effectively. In order to further explore the nature of thinking and learning styles and their influence on students' academic achievement, the literature review may help how people think, learn and what are the different modes of thinking.

A number of researchers have studied the above question and generated theories in an attempt to answer it. Many theoretical models have been postulated since

late 1950s and early 1960s, among them, Witkin, (1964) describes "Field dependence-Independence" and Kagan, (1966) presented "Reflection-Impulsivity" model and these viewpoints have great importance in this field. Another major work about "Deep and Surface Learning" approaches was done separately (Marton, 1976, Biggs, 1979 and Entwistle, 1981). In 1980s and 1990s, some scholars conceptually integrated these stylistic models; for example, a three layer "Onion" model was proposed to describe various learning styles (Curry, 1983). In this model each layer is characterized by different influences on the learning process and varying degree of stability. The outer layer, Curry referred as "Instructional Preference" i.e. it is the students' preferred ways of learning and the major influence comes from the learning environment e.g. teaching style and physical environment of the classroom. The middle layer is considered as the "Informational Processing styles" that focus on the strategies that students use to process information such as goal-directed sequences of cognitive operations. The final layer labelled by Curry is "the Cognitive personality style" which reflects the students underlying approach to thinking.

According to Grigorinko and Sternberg (1995), existing models and theories on styles can be classified into three traditions: cognition, personality, and activity centred. The **"Cognition Centred"** styles closely resemble with students' abilities that are often measured by a test of maximal performance with right and wrong answers. While "**Personality Centred"** styles are considered closer to personality traits and the **"Activity Centred"** styles are assumed as mediators among various activities that tend to arise from some aspects of cognition and personality. The present study is contextualized in Grigorinko and Sternberg's conceptual work on styles. The literature about style has some other domain also such as, learning styles, cognitive styles, thinking styles and teaching styles (Zhang, 2002). Although the styles are different to one another, but have one thing in common i.e. they are not the individual abilities rather it is their preferred ways of processing information by using the abilities they have.

In 1988, Sternberg published his theory of "Mental-Self Government" which describes the way the human mind works. He postulated 13 thinking styles that fall under various dimensions like functions, forms, levels, scope and learning. The **"Functions"** includes Legislative, Executive and Judicial thinking styles. The legislative function is to create, formulate, or plan ideas, strategies, products and the like while executive function execute the plan formulated by legislative function and the judicial function is to involve activities of judging. Whereas, the other dimension **"Forms"** have the list of thinking styles such as Hierarchical, Oligarchic, Monarchic and Anarchic. The Hierarchic forms deal with multiple prioritized task, monarchic problems fulfil single goal, oligarchic require to deal with the equally important multiple task and anarchic person deal with tasks randomly. The major levels of this

mental self government are local and global. A globalist usually deals with comparatively larger issues but these issues are abstract not concrete such as policy making in contrast with localist who considers relatively smaller issues and details and believes in concrete thinking approach like planning a school time table. The mental self government functions at different levels, such as national and international levels and these include global and local thinking styles.

Another dimension of mind is **"Scope".** This includes Internal thinking styles, which deal with domestic problems and external thinking styles deal with foreign affairs. The last dimension is **"Learning"** which comprises of Liberal and Conservative thinking styles. The liberal learner likes to do things in a creative way and prefers open classroom settings, whereas conservative struggles to solve problems by adopting traditional methods. Like thinking styles, modes of thinking have also been studied extensively and are used to study learning styles such as using pictures instead of text, working with other people versus alone, and learning in structured or un-structured situations. The learning styles such as using pictures or learning in a un-structured situation comes under the holistic mode while using text or learning in a structured situation fall under the category of analytic mode of thinking. Hall (1983) studied the modes of thinking as "Future Logics, A system of prospective thinking" which he defined it as a system to organize the spectrum of thoughts. It is a thinking system based on research using the mind's reactions in the future by developing the natural intuition in all of us. He used the analogy of the rainbow spectrum to study the mind reaction. Bono (1985) studied the thinking style under, "Six Thinking Hats" and Hall added future logic to Bono work, and selected the title "Future Logics Versus Six Thinking Hats." Zhang (2002) establishes a correlation between thinking styles and modes of thinking in such a way that he classified 7 out of 13 thinking styles into two broad categories: Holistic Mode and Analytic Mode. Thinking styles that generate creativity and are more complex are known as a holistic mode of thinking and this mode comprise legislative, judicial, global and liberal thinking styles and are termed as type I thinking styles. Mode of thinking that implies ways of doing things in a more norm favouring and more simplistic styles is known as an analytic mode of thinking and this comprises executive, local and conservative thinking styles. These are called type II thinking style. The present study is the replication of the work done by L. F. Zhang in 2002 in Hong Kong.

Research Methodology
The problem under investigation is a correlation study in order to determine whether and to what extent a relationship exist between two or more variables. For the present study survey method was adopted. The technique of random sampling was used and about 122 graduate students from 20 different departments of the Islamia University Bahawalpur were selected as the sample of the study. The participants were

selected from different faculties such as arts, management sciences, education, science and Islamic Learning. From each department 3 male and 3 female students were selected.

To collect the data, a questionnaire was designed, which consisted of 3-parts. The first part comprised of demographic variables such as, age and academic record. Second part consisted of thinking style inventory (TSI) while the third part consisted of style of learning and thinking inventory (SOLAT). The inventories were taken from Zhang's research paper and it was redesigned in accordance with the culture, social and educational environment of the area under study. The inventories consisted of 21 statements, each of the three statements assessing one of the seven thinking styles. For example, each of first three statements measured only legislative thinking styles. The respondents rated themselves on a 3 point scale with "0" representing that the statement does not characterize them at all, "1" indicates that statement describes them to some extent and "2" describes them extremely well. The SOLAT inventory was also redesigned which consisted of four items each allowing the respondents to choose one of the two statements. One of the statements is assumed to be characterized by the analytical mode of thinking, another by the holistic mode of thinking. Among 122 students, 4 were M.Phil. students, 9 were Bachelors and remaining 109 students were postgraduates. The scoring was done by calculating grade point average of the students from the information given by them about their academic record. Scoring on TSI was done by using 3-point rating scale for 21 statements. Scoring of SOLAT was done by assigning the numerical value of 2 for both analytic and holistic mode of thinking. The respondents' chosen "a" was scored on the analytic mode of thinking scale and those whose selection was "b" scored on the holistic mode of thinking scale.

Results

To explore the relationship between thinking styles and modes of thinking two statistical procedures were used. First a Pearson correlation matrix was computed with scales from thinking style inventory (TSI) being one set of variables and scales from the SOLAT being a second set of variables. Secondly, a multiple regression procedures was conducted. At the first step the contribution of thinking styles to students' CGPA was computed and then impact on learning styles was calculated as the predictors for students' accumulative GPA. The reliabilities of seven thinking styles and two modes of thinking were computed by using Kuder Richardson formula. The first two procedures were accomplished with the help of computer software SPSS Ver.12.0.

Table-1 Kuder – Richardson Reliability Estimate for TSI & SOLAT Scale (n=122)

Scales TSI	KR-21
Legislative	0.75
Executive	0.84
Judicial	0.94
Global	0.89
Local	0.80
Liberal	0.74
Conservative	0.63
SOLAT	
Analytic	0.13
Holistic	0.17

The table-1 indicates values of reliability which are within the standard value range from 0 to 1. The value of the reliability estimate of TSI ranging from 0.63 to 0.94 which lies within the standard values of reliability estimate (0-1) whereas the value of reliability of SOLAT was 0.13 for analytic and 0.17 for holistic mode.

Table- 2 Pearson Correlation Matrix for the Thinking Styles Inventory and The Style of Learning and thinking (n=122)

Scale	Analytic	Holistic
Legislative	-0.685**	0.712**
Executive	0.626**	-0.625**
Judicial	-0.463**	0.474**
Global	-0.595**	0.588**
Local	0.660**	-0616**
Liberal	-0.544**	0.573**
Conservative	0.653**	-0.659**

Table-2 indicates that Legislative, Judicial, Global and liberal thinking styles are negatively correlated with an analytic mode of thinking and positively correlated with a holistic mode of thinking. While executive, local and conservative thinking styles are positively correlated with an analytic mode of thinking and negatively correlated with holistic mode. By negative correlation means the students who scored higher on legislative, judicial, global and liberal thinking styles have lower score on analytic mode while students who scored higher on executive, local and conservative thinking style have scored lower on the holistic mode of thinking. The positive correlation means students who scored higher on legislative, judicial, liberal and global

thinking styles also scored higher on holistic mode and those who scored higher on local, executive and conservative thinking styles also scored higher on the analytic mode of thinking.

Table-3 Stepwise Multiple Regressions of TSI Scales as Predictors of CGPAs (n=122)

Variable	β -Weight
Legislative.	+ 0.835
Executive	0.817
Judicial	+0.88
Global	-0.856
Local	0.779
Liberal	-0.808
Conservative	0.738

The table-3 indicates that legislative, executive, judicial, local and conservative thinking styles contributed positively to students accumulative GPA whereas global and liberal thinking styles negatively contributed to students accumulative GPA. It means students who scored higher on legislative, executive, judicial, local and conservative thinking styles reported higher accumulative GPA, whereas students who scored higher on global and Liberal thinking styles reported low accumulative GPA.

Table 4 Stepwise Multiple Regressions of SOLAT Scale as Predictors of CGPA (n=122)

Variables	β-Weight	Significance
Analytic	0.223	0.01
Holistic	-0.174	0.05

The table-4 shows that the influence of the analytic mode of thinking is positively significant to students' accumulative GPA, whereas a holistic mode of thinking has a lower contribution to students' achievement. This is the indication that students who scored higher on the analytic mode of thinking scale have a good accumulative GPA whereas students who scored higher on holistic mode reported low CGPA.

Discussion and Conclusions

The above mentioned table showed 14 correlation coefficients "r" resulted from the two modes of thinking and 7 thinking styles. All these correlations are statistically highly significant. Furthermore, all these correlations are in the expected directions. For example analytical mode of thinking is positively significant in relation to type II thinking styles (conservative, local and executive), but negatively co-related to type I thinking style (legislative, global, liberal and judicial). The holistic mode of thinking is positively significant in relation to the legislative, global, liberal and judicial thinking styles, but negatively co-related with the thinking style that are more norm-favouring and simplistic. Summary of stepwise multiple regression of TSI scales as predictors of CGPA indicates that all the 7 thinking styles statistically contributed to student's CGPA. The sign of β –weight shows that Global and Liberal styles negatively contributed to the achievement, and that the conservative, judicial, executive, legislative and local have positively contributed to the student achievement. Results from the regression using the modes of thinking scale as the predictor indicated that analytical mode of thinking positively contributed to the student achievement (β= 0.22) while the holistic mode of thinking negatively contributed to the achievement (β= -0.174). It is an indication that the students who scored on analytic mode also reported high academic achievement. The TSI is more reliable than SOLAT inventory because the values of reliability estimate for all the TSI scales were higher than the value of reliability estimate for all the SOLAT scale.

The goal of the present study was to investigate the nature of thinking style of the student of Islamia University Bahawalpur. This goal has been achieved by testing the relationships among thinking styles, modes of thinking and academic performance. Finding from this research indicated that thinking style and modes of thinking share certain common variations in the data for example, students who were liberal, judicial and legislative in their thinking show holistic mode in their learning, whereas students who were conservative, local and executive in thinking use the analytic mode in their learning. Results from statistical procedure, i.e. scales of TSI & SOLAT correlations supported the hypothesis 1 and 2 on relationships between thinking styles and modes of thinking.

The results indicate that participants used creative thinking styles. Moreover, complex thinking styles were positively significant in relation to the Holistic mode of thinking, but negatively significant in relation to the analytic mode of thinking. So for the first hypothesis, students who score higher on legislative, judicial, liberal and global thinking styles will also score higher on the holistic mode of thinking but will be lower on analytic mode is true. Similarly, participants used more norm favouring and simplistic thinking styles were positively significant in relation to the use of the Analytic mode of thinking, but significantly negatively related to the Holistic mode of

thinking, hence the second hypothesis that the students who score higher on conservative, executive and local thinking styles will also score higher on the analytic mode of thinking but will score lower on the holistic mode also seems true. The relation between thinking styles and modes of thinking were further revealed that both TSI & SOLAT play an important role in students' academic achievement as both thinking styles and modes of thinking statistically predicted students' accumulative GPA. It seemed that performing tasks blindly according to rules and procedures is a conservative style, whereas, processing information in a more peaceful way is highly appreciated in educational institutions and performing tasks in a more norm-challenging way like Liberal Style but those paying more attention to larger issues favour Global Style which is not academically rewarded. This means that educational institutions do not encourage students who process information in a synthesized and self-generated manners rather they appreciated students who perform tasks blindly according to rules and procedures and process information in a piecemeal and logical manner.

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Impact of District Teacher Educators' Mentoring Support on Professional Development of Primary School Teachers

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Abstract

This research was conducted to study the impact of District Teacher Educators Mentoring Support upon Primary School Teachers Professional Development. It was related to both descriptive and survey type research using questionnaire as an instrument for data collection. In addition to percentage measure, Chi- square test was also applied to find out the significance of mentoring programme and the difference among the opinions of the respondents. This study was delimited to District Mandi Baha-u-Din, and out of total 40 Cluster Training and Support Centres (CTSCs) three CTSCs were involved in this study. The sample consisted of 120 PSTs being mentored in these three CTSCs. .Major findings of the study indicated that Primary School Teachers were satisfied about the District Teacher Educators mentoring programme in eight areas of Mentoral Program. However, Mentees were not satisfied about the availability of revised Ta'leemi Calendar, the effectiveness of lesson plan in view of its local requirement. It was concluded that PSTs reported overall positive impact of DSD's mentoring support porgramme on their professional development.

Key Words: District Teacher Educator, Teacher Education, Continuous Professional Development, Directorate of Staff Development, Cluster Training & Support Centre.

Introduction

The professional development of teachers both at pre-service and in-service level is the need of hour. The professional development begins with in service training and continues throughout the career (Saeed, 2000). Training is a sort of mentoring.

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Shukla (2005) defines mentoring as the process in which an experienced colleague is assigned to an inexperienced individual and assists in a training or general support role. According to Messurier (2012), mentoring is now recognized as a powerfully efficient method for the transference of professional, technical and management skills. Shea, as cited in Messurier (2012), says that mentoring is a significant, long term, beneficial effect on the life or style of another person, generally as a result of personal-one-on-one-contact. Jarvis (2002) states that mentoring can vary from unplanned intervention to a comprehensively designed long-term relationship but the building of quality relationship between the Mentee and the Mentor is a universal ingredient. Sadker and Sadker (2005) point out that mentor guides intern teachers through the school culture and norms. UNESCO (2006) has identified mentoring programme as an important factor for ensuring the availability of quality teachers. Training and capacity building of teachers are very essential for quality education. The purpose of this study was to assess the impact of District Teacher Educators (DTEs) Mentoral Support on the professional development of primary school teachers. Mentoring programme provides professional support and services for new teachers. It results in retention of teachers, quality instruction and students achievement. Sound, comprehensive and up-to-date mentoring programme was helpful for increasing students' literacy-rate and decreasing students drop out rate. Assessment of the impact of Punjab Government's mentoring programme was very essential. Since the said mentoring programme was started five year back with high expenditure, its effectiveness needed to be assessed.

Objectives of the Study

Directorate of Staff Development (DSD) has given guidelines to DTEs for providing mentoral support to PSTs in eight areas. For assessing the impact of DTEs mentoral support upon the professional development of PSTs, the prescribed eight areas were focused in this study. Following were the objectives of the study:

- To assess the impact of DTEs mentoral support on mentees follow-up of ta'leemi calendar;
- To analyze the impact of DTEs mentoral support on the mentees' skill for the preparation of lesson plan;
- To investigate the mentees' involvement in activity based learning;
- To find out the mentees' skill in using support material;
- To determine the mentees' interaction with the majority of students;
- To analyze the mentees' skill to manage the class room;
- To evaluate the mentees' skill for students assessment;
- To evaluate the mentees' skill to assign meaningful home work to the students.

Review of the Related Literature

According to Messurier (2012), mentoring is a significant, long term, beneficial effect on the life or style of another person. It is generally a result of personal one-on-one contact. Jravis (2002) says about the concept of mentoring that i) Mentoring is an interpersonal process, nurturing process which fosters the growth and development of an individual; ii) Mentoring is a supportive, protective process and finally mentoring is about being a role model; and iii) Mentoring is a complex, interactive process, occurring between individuals of differing levels of experience and expertise which incorporates interpersonal or psychosocial development socialization functions into the relationship. Messurier (2012) defines that a mentor is one who offers knowledge insight, perception, or wisdom that is especially useful to the other person. Shea, as cited in Messurier (2012), says that a mentor is often described as a coach. Sadker (2005) remarks that mentors can offer information about curricular materials, as well as observe a class to offer insights into teaching skills. In the best of circumstances, they guide new teachers to become skilled professionals.

Reddy (2004) defines profession as an occupation based upon specialized study training, the purpose of which is to supply skilled service or advice to others for a definite package, fee, or salary. Tiwari (2006) defines progress as that a measure of how a student is facing over time towards a well-defined goal. Thus the student reaches the goal within an expected time frame. Wright (2008) points out about professional that professionalism has to do with being a member of a profession. Balasubramanian (2004) adds that the concept of progress is central to the ideal of quality management.

According to Rossi (2004), of all the technically evaluation tasks, impact assessment is the most challenging. The evaluation design that has the best chance of detecting programme specific impact is the controlled randomized experiment. Mertens (2010) maintains the essential standards for evaluation credibility include feasibility, propriety, accuracy, utility and meta-evaluation. Khawaja (2001) says about the characteristics of programme evaluation that evaluation should be realistic and relevant to decision-making. It is in the context of expectation or objectives, and assumption. It is supported by quantitative analysis. It is continuous and forward-looking. Corsini (1987) writes that programme evaluation is most typically applied to sponsored activities implemented through an identifiable organizational structure with designated staff, appropriate facilities, defined budget, and so forth. Programme evaluation might be applied to any such programme through in practice. Its domain has been almost exclusively human service programme.

Agochiya (2009) reports that first stage is pre-training evaluation, second is ongoing evaluation, third is end programme evaluation and the best is post training evaluation. Jaradat, Ajlouni, and Alhmaneh (2010) explain the evaluation of any

training programme has certain aims to fulfill. These are concerned with the determination of change in the organizational behaviour and the change needed in the organizational structure. Thus, evaluation of any training programme must inform whether the training programme has been able to deliver the goals and objectives in terms of cost incurred and benefits achieved.

The current research is related to evaluation study. In Punjab, DTEs conduct short in-service training courses for Primary School Teachers in their respective cluster centres from time to time. These are short INSET sessions to ensure that PSTs do not remain away from their schools for long periods of time. The specific objectives of this programme include: i) to assess and identify professional development needs of PSTs within the cluster; ii) to organize INSET courses for PSTs as per identified needs within the overall CPD framework; and iii) to work with head-teachers in planning and organizing school-based professional development. The present study focused on following eight areas: (i) Ta'leemi Calendar; (ii) Lesson Planning; (iii) Teaching through activities;(iv) Use of A.V Aids; (v) Interaction between students; (vi) Management of class rooms;(vii) Assessment of students; and (viii) Home work.

Research Methodology

The study was related to both descriptive and survey type research. Its primary purpose was impact assessment of Directorate of Staff Development's ongoing mentoral support programme. The study was delimited to one District of Punjab. This District was included in the first phase of Punjab Government's Mentoring Programme. Population of the study included all male and female Primary Schools Teachers (PSTs) working in public schools in Mandi Bahauddin district and getting benefit from Mentoral Support Programme.. Forty CTSCs were operating in three tehsils of Mandi Baha-ud-Din district. From each tehsil, one Cluster Training and Support Centre located in the centre was chosen for this study. Furhter from each CTSC, 40 PSTs were selected randomly. In total, sample of the study comprised of 120 PSTs.

Questionnaire was used as instrument for data collection, which was related to eight areas of Mentoral Support. Each area was sub-divided into five more items. Mentoring progress related to each area's sub-item was noted down in five options including very much, much, less, very less and no. Before distributing the questionnaire to the participants, it was tried out in a pilot study. A focus group of thoughtful and critical individuals similar to the research participants was chosen. The copies of the questionnaire were distributed among this focus group to get information about the deficiencies and improvements about the theme and diction of question statements. In the light of suggestions provided by this group, statements were further refined. The suggestions helped the principal researcher in ensuring the content validity of the questionnaire. The researcher himself distributed questionnaires to 120 sampled PSTs

on their Professional Development Days, and collected back all filled in questionnaires from the participants. The return rate of questionnaires was 100%. Quantitative data was analyzed through the percentage measure, and Chi-square test was also applied to find out the significance of mentoring programme and the difference in the opinions of respondents.

Results

This study was related to the Impact of District Teacher Educators Mentoring Support on professional development of primary school teachers in District Mandi Bahauddin. For this purpose, PSTs (Mentees) responses were collected through Questionnaire. The results show that DTEs mentoral support for PSTs professional progress is effective in District M.B.Din. Other Findings drawn from the Mentees responses about mentoring support related to eight areas have been given as under:-

Ta'leemi Calendar: Ninety-nine Per-cent of PSTs reported that Ta'leemi calendar was available to them. One Per-cent of PSTs reported that Ta'leemi calendar was not available to them.

Lesson Plan: Ninety-six per-cent of PSTs reported that Lesson plan was available to them. Four per-cent of PSTs reported that Lesson plan was not available to them.

Activity Based Learning: Forty-four per-cent of PSTs reported that DTEs very much guidance about Activity Based Learning was available to them. Fifty percent of PSTs reported that DTEs much guidance about Activity Based Learning was available to them. Four per-cent of PSTs reported that DTEs less guidance about Activity Based Learning was available to them. One per-cent of PSTs reported that DTEs very less guidance about Activity Based Learning was available to them. Two per-cent of PSTs reported that DTEs no guidance about Activity Based Learning was available to them.

Use of Support Material: Eight per-cent of PSTs reported that they had found very much availability of A.V. Aids in class room. Thirty-three per-cent of PSTs reported that they had found much availability of A.V. Aids in class room. Thirty-three per-cent of PSTs reported that they had found less availability of A.V. Aids in class room. Eleven per-cent of PSTs reported that they had found very less availability of A.V. Aids in class room. Fifteen per-cent of PSTs reported that they had not found any availability of A.V. Aids in class room.

Interaction with Students: Twenty-seven per-cent of PSTs reported that they had found DTEs very much guidance about Skillful Interaction with Students. Sixty per-cent of PSTs reported that they had found DTEs much guidance about Skillful Interaction with Students was available to them. Ten per-cent of PSTs reported that they

had found DTEs less guidance about Skillful Interaction with Students was available to them. Two per-cent of PSTs reported that they had found DTEs very less guidance about Skillful Interaction with Students was available to them.

Management of Class Room: Forty-four per-cent of PSTs reported that they had found DTEs very much guidance about class room management techniques. Fifty-one per-cent of PSTs reported that they had found DTEs much guidance about class room management techniques. Two per-cent of PSTs reported that DTEs less guidance about class room management techniques was available to them. Three per-cent of PSTs reported that DTEs guidance about class room management techniques was not available to them.

Student Assessment: Thirty-five per-cent of PSTs reported that they had found DTEs very much guidance about students assessment. Fifty-seven per-cent of PSTs reported that they had found DTEs much guidance about students assessment. Six per-cent of PSTs reported that they had found DTEs less guidance about student assessment. Two per-cent of PSTs reported that DTEs guidance about students assessment was not available to them.

Home Work for Students: Thirty-six per-cent of PSTs reported that DTEs very much guidance about the assignment of appropriate home work for students was available to them. Fifty-seven per-cent of PSTs reported that DTEs much guidance about the assignment of appropriate home work for students was available to them. Five per-cent of PSTs reported that DTEs less guidance about the assignment of appropriate home work for students was available to them. Two per-cent of PSTs reported that DTEs very less guidance about the assignment of appropriate home work for students was available to them.

Discussion and Conclusions
Major findings of the study indicated that Primary School Teachers (PSTs) were satisfied about the District Teacher Educators mentoring programme. However, PSTs were not satisfied about the availability of revised Ta'leemi Calendar and the effectiveness of Lesson Plan in view of its local requirement. The availability of revised Ta'leemi Calendar was not found according to the required demand, in this area. Its reasons might be lack of funding for revised publications, delayed publications of revised Ta'leemi Calendar, lack of proper supply system or lack of DTEs proper follow-up for supply of revised Ta'leemi Calendar.

The review of the results indicated that the availability of lesson plan, DTEs guidance about the preparation of lesson plan, the improvement in teaching process through usage of lesson plan, and the improvement in professional skill through usage

of lesson plan were all found desirably positive. The effectiveness of lesson plan in view of its local requirement was found comparatively at lower rank. It might have occurred due to incompetent or less qualified teachers or due to DTEs less skill in providing the guidance for this task. The satisfaction about the activities given in Basic Foundation Module (BFM) was found comparatively at lower level in this area. Its reason might be some teachers would be incompetent/ less qualified, or Basic Foundation Module (BFM) activities themselves might be very tough for such teachers, or such activities might be mismatched with the local culture at particular places.

The availability of A.V. Aids in class room was not found according to the required demand. Its reason might be lack of funding for supply of A.V. Aids, lack of proper supply system, lack of DTEs proper follow up for the supply of A.V. Aids in class-room or over-burdened teaching work in single teacher schools. The skill improvement for interaction with students in large classes was found comparatively at lower level. Its reason might be lack of discipline management, less skillful teachers, lack of proper environment, or lack of DTEs guidance about interaction with students in large classes and discipline management

The success in specific management for specific class-room activities was found comparatively at lower level. Its reason might be lack of specific-activities oriented teaching, lack of DTEs guidance for specific management, lack of the PSTs interest about teaching techniques. The availability of DTEs guidance about test-item development techniques was found comparatively at lower level. Its reason might be lack of DTEs proper training for test item development, less focus on test-item development and reliance upon market-based test-items or model test paper. The practice of regular error correction during home work checking was found comparatively weaker. Its reason might be lack of PSTs proper interest for checking the home work, lack of DTEs guidance about home work, and over burdened teaching work in single teacher schools. Conclusions reached through review of the findings of Mentees Responses are as under:

1. The impact of DTEs mentoral support upon Mentees follow-up of Ta'leemi Calendar has been found reasonably positive. However, this impact has been noted comparatively weaker in the availability of revised Ta'leemi Calendar.
2. The impact of DTEs mentoral support upon Mentees skill for the preparation of lesson plan was analyzed as reasonably positive according to the mentees own responses. However, this impact has been noted less dominant and comparatively weaker in the particular aspect of the lesson plan effectiveness for the local requirement.
3. The impact of DTEs mentoral support upon Mentess involvement in activity based teaching and learning was investigated reasonably positive according to

mentees own responses. However, this impact has been noted less dominant and comparatively weaker in the satisfaction about the activities given in Basic Foundation Module.

4. The impact of DTEs mentoral support upon mentees skill in the use of support material was found out reasonably positive according to mentees own responses. However this impact has been noted less dominant and comparatively weaker in the availability of A.V. Aids in class-room.

5. The impact of DTEs mentoral support upon Mentees interaction with the students was determined reasonably positive according to mentees own responses. However, this impact has been noted less dominant and comparatively weaker in the teacher's skill improvement for interaction with students in large classes.

6. The impact of DTEs mentoral support upon Mentees skill in the area of class-room management has been analyzed as reasonably positive according to mentees own responses. However, this impact has been noted less dominant and comparatively weaker in the specific management for specific class-room activities.

7. The impact of DTEs mentoral support upon Mentees skill for students assessment was also ranked as reasonably positive according to mentees own responses. However, this impact has been noted less dominant and comparatively weaker in the availability of DTEs guidance about test item development techniques.

8. The impact of DTEs mentoral support upon Mentees skill to assign meaningful homework to students was found reasonably positive according to mentees own responses. However, this impact was noted less dominant and comparatively weaker in the practice of regular error correction on daily basis during home work checking.

Recommendations

1. Revised Ta'leemi Calendar should be provided to all PSTs on regular basis. It will increase the impact of DTEs mentoral support.

2. Lesson plan should be made effective and relevant to the local requirement of students. It will reinforce the impact of DTEs mentoral support.

3. Activities given in Basic Foundation Module (BFM) should be revised. They should be motivational and interesting for the mentees. It will unify the impact of DTEs mentoral support.

4. A.V.Aids should be made available in the class-rooms. They should be used in the class-rooms. A.V. Aids should be arranged properly and meaningfully in the class room for all students. It will strengthen the impact of DTEs mentoral support.

5. Teachers should be provided skill and training for interaction with students in large classes. It will increase the impact of DTEs mentoral support.

6. Specific training should be imparted to the mentess during management of class rooms for the conduct of specific activities. It will project the impact of DTEs mentoral support.

7. DTEs guidance about test item development techniques should be imparted to all PSTs. It will strengthen the impact of DTEs mentoral support in the area of student's assessment. It will make up the prevailing deficiency.

8. Practice of regular error correction should be made permanent during home work checking. If mentees adopt it for all students it will increase the impact of DTEs mentoral support and students assessment will prove productive and very useful.

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Appendices

Table 1 Primary School Teachers Response about DTEs Mentoring Support In the 1st Area-Ta'leemiCalendar

Number of Respondents	Items Contained in the 1st Area	Availability of Ta'leemi Calendar		Availability of revised Ta'leemi Calendar		Availability of guidance about the use of Ta'leemi Calendar			Usage of Ta'leemi Calendar by Primary School Teacher during teaching			Increase in PSTs professional skill by the use of Ta'leemi Calendar		
		Yes	No	Yes	No	No r	Much	Very much	No r	Much	Very much	No r	Much	Very much
120		119	1	78	42	1 9 2 71 37			- – 79	11 30		- 1 59 50		10
Number of Responses reflected in Percentage measure		99%	1%	65%	35%	1% 8% 2% 59% 30%			- 11% 25%	- 64%		- 1% 42%	8% 49%	
Combinedimpact grade		A+		B		A+			A+			A+		

Note: Primary School Teachers response about "**Ta'leemi Calendar**" shows positive impact of DTEs mentoral support .Four A+s witness to this evidence and perceived impact.

Table 2 Primary School Teachers Response about DTEs Mentoring Support In the 2nd Area-Lesson Plan

Number of Respondents	Items Contained in the 2nd Area	Availability of lesson plan		Effectiveness of lesson plan in view of local requirement		DTEs guidance about the preparation of lesson plan	Improvement in teaching process through lesson plan	Improvement in professional skill through usage of lesson plan
		Y	N	Y	N	m y er A	uc m y er A	m y er A
120		116	4	88	32	1 15 1 78 25	1 8 1 81 29	2 9 -- 68 41
Number of Responses reflected in Percentage measure		96%	4%	73%	27%	1% 13% 1% 65% 20%	1% 6% 1% 68% 24%	2% 8% - 56% 34%
Combinedimpact grade		A+		A		A+	A+	A+

Note: Primary School Teachers response about "**Lesson Plan**" shows positive impact of DTEs mentoral support. Four A+s witness to this evidence and perceived impact.

Table 3 Primary School Teachers Response about DTEs Mentoring Support In the [3rd] Area-Activity Based Learning

Number of Respondents	Items Contained in the 3rd Area	DTEs guidance about Activity Based Learning	Usage of stories and examples in teaching process	Usage of Activity Based Learning Method during teaching	Satisfaction about the activities given in (BFM)	Improvement in professional skill through usage of activities
120		53 61 2 4 --	35 72 -- 12 01	38 72 1 9 --	23 69 4 21 3	47 64 2 6 1
Number of Responses reflected in Percentage measure		44% 50% 2% 4% --	29% 60% -- 10% 1%	31% 60% 1% 8% --	19% 57% 3% 19% 2%	39% 53% 2% 5% 1%
Combined impact grade		A+	A+	A+	A	A+

Note: Primary School Teachers response about "**Activity based Learning**" shows positive impact of DTEs mentoral support. Four A+s witness to this evidence and perceived impact.

Table 4 Primary School Teachers Response about DTEs Mentoring Support In the 4th Area -Use of Support Material

Number of Respondents	Items Contained in the 4th Area	Availability of A.V. Aids in class room	DTEs Guidance about the preparation and usage of low cast material	Usage of A.V. Aids during teaching process	Improvement in teaching process through usage of A.V. Aids	Improvement in professional skill through usage of A.V.Aids
120		10 40 18 40 12	29 72 3 13 3	30 68 -- 17 5	42 71 1 6 - -	35 73 1 10 1
Number of Responses reflected in Percentage measure		8% 33% 15% 33%11%	24% 60% 2% 12% 2%	25% 57% -- 14% 4%	35% 59% 1% 5% --	29% 60% 1% 9% 1%
Combined impact grade		D	A+	A+	A+	A+

Note: Primary School Teachers response about "**Usage of Support Material**" shows positive impact of DTEs mentoral support. Four A+s witness to this evidence and perceived impact.

Table 5 Primary School Teachers Response about DTEs Mentoring Support In the 5th Area-Interaction with Students

Number of Respondents	Items Contained in the 5th Area	DTEs guidance about skillful interaction with students	Skill improvement for interaction with students in large classes	Teaching effectiveness in the light of DTEs guidance	Improvement in students performance through teachers increased interaction with their students	Improvements in teachers professional skill through interaction with students
		les y er V	les y er V	les y er V	les y er V	les y er V
120		32 72 1 12 3	18 76 3 20 3	31 80 1 08	48 61 -- 11 -	25 78 1 15 1
Number of Responses reflected in Percentage measure		27% 60% 1% 10% 2%	15% 63% 3% 16% 3%	26% 66% 1% 7% --	40% 51% -- 9% --	21% 65% 1% 12% 1%
Combined impact grade		A+	A	A+	A+	A+

Note: Primary School Teachers response about "**Interaction with Students**" shows positive impact of DTEs mentoral support. Four A+s witness to this evidence and perceived impact.

Table 6 Primary School Teachers Response about DTEs Mentoring Support In the 6th Area-Management of Class Room

Number of Respondents	Items Contained in the 6th Area	Availability of DTEs guidance about class room management techniques	Success in specific management for specific class room activities	Improvement in class management through DTEs guidance	Improvement in teaching process through better class room management	Increase in teachers professional skill through class room management
120		53 61 4 2 -	27 71 2 1 9 1	50 64 --- 5 1	34 76 -- 6 4	37 76 1 5 1
Number of Responses reflected in Percentage measure		44% 51% 3% 2% --	22% 59% 2% 16% 1%	42% 53% -- 4% 1%	28% 63% -- 5% 4%	31% 63% 1% 4% 1%
Combined impact grade		A+	A+	A+	A+	A+

Note: Primary School Teachers response about "**Management of Class Room**" shows positive impact of DTEs mentoral support. All A+s witness to this evidence and perceived impact.

Table 7 Primary School Teachers Response about DTEs Mentoring Support In the 7th Area-Assessment of Students

Number of Respondents	Items Contained in the 7th area	Availability of DTEs guidance about students assessment	Availability of DTEs Guidance about test item development techniques	Teacher practice about the assessment of students performance	Increase in Students performance through students assessment	Increase in teachers professional skill through students assessment
120		42 68 3 7 --	33 71 1 12 3	30 79 -- 9 2	36 76 2 4 2	32 82 --- 05 1
Number of Responses reflected in Percentage measure		35% 57% 2% 6% --	27% 59% 1% 11% 2%	25% 66% -- 8% 1%	30% 63% 2% 3% 2%	26% 68% -- 5% 1%
Combined impact grade		A+	A+	A+	A+	A+

Note: Primary School Teachers response about "**Assessment of Students**" shows positive impact of DTEs mentoral support. All A+s witness to this evidence and perceived impact.

Table 8 Primary School Teachers Response about DTEs Mentoring Support in the 8th Area-Home Work

Number of Respondents ↓	Items Contained in the 8th Area →	Availability of DTEs guidance for the assignment of home work					Practice of regular in checking home work of students					Practice of regular error correction during checking the home work					Increase in students performance through home work					Improvement in teachers professional skill through checking of home work				
120		42	68	3	7	--	33	71	1	12	3	30	79	--	9	2	36	76	2	4	2	32	82	--	5	1
Number of Responses reflected in Percentage measure		35%	57%	2%	6%	--	27%	59%	1%	11%	2%	25%	66%	--	8%	1%	30%	63%	2%	3%	2%	26%	68%	--	5%	1%
Combined impact grade		A+					A+					A+					A+					A+				

Note: Primary School Teachers response about "**Home Work**" shows positive impact of DTEs mentoral support. All A+s witness to this evidence and perceived impact.

Table: Total Frequency Observed Response of PSTs about DTEs Mentoring Programme in District M.B.Din (Area 1 to 8)

Area Number	Yes	No	V.Less	Less	Much	V .much	Total
1= Ta'leemi Calendar	197	46	1	30	209	117	600
2=Lesson Plan	204	38	4	32	227	95	600
3=Activity Based Learning		9	5	52	338	196	600
4=Use of Support Material		23	21	86	324	146	600
5=Interaction with Students		6	7	66	367	154	600
6=Management of Classroom		7	7	37	348	201	600
7=Assessment of Students		6	8	37	376	173	600
8=Home Work		2	6	37	351	201	600
Total	401	137	59	377	2540	1286	4800

Note: Individually, Area-wise Frequency observed can be seen from Table 1 to 8.

Table 10 Total Frequency Expected (Fe) Response of PSTs about DTEs Mentoring Programme in District M.B.Din (Area 1 – 8)

Area No.	Yes	No	V. less	Less	Much	V.Much	Total (Fe)
1	50.125	17.125	7.375	47.125	317.50	160.75	600
2	50.125	17.125	7.375	47.125	317.50	160.75	600
3	50.125	17.125	7.375	47.125	317.50	160.75	600
4	50.125	17.125	7.375	47.125	317.50	160.75	600
5	50.125	17.125	7.375	47.125	317.50	160.75	600
6	50.125	17.125	7.375	47.125	317.50	160.75	600
7	50.125	17.125	7.375	47.125	317.50	160.75	600
8	50.125	17.125	7.375	47.125	317.50	160.75	600
Total	401	137	59	377	2540	1286	4800

Note: This Table shows frequency expected of PSTs response about Mentoring Programme.

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JOURNAL OF EDUCATIONAL RESEARCH

Vol. 17 No.1	2014

Published By:
DEPARTMENT OF EDUCATION
The Islamia University of Bahawalpur
PAKISTAN
2014
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