Assessing Teachers' Performance at Higher Education Level in Pakistan

Muhammad Saeed, Muhammad T. Afzal, Tariq Mahmood

Abstract: The purpose of this paper is to assess performance of teachers at higher education level in Pakistan. The study was conducted on a stratified random sample of 700 students of seven programmes drawn from three universities located in Lahore city and nine Government Colleges for Elementary Teachers (GCETs) affiliated with university A. Data were collected through a questionnaire, which contained items on four major aspects of teachers' performance: awareness with objectives and subject knowledge; teaching strategies; resource material, and assessment techniques. The instrument was piloted and reliability was established at 0.91 Cronbach's Alpha. The overall results revealed that the students were partially satisfied with their teachers' performance in regard to these four major aspects. No significant inter-university difference (except 'resource materials') was found; the difference was, however, prominent within departments of the universities and in the nine GCETs of Punjab province.

Keywords: assessment, teachers, higher education, pakistan, students' views.

Acronyms:

GCETs: Government Colleges for Elementary Teachers DASS: Division of Arts and Social Sciences DE: Division of Education BRC: Bank Road Campus HEC: Higher Education Commission HEIs: Higher Education Institutions

Pseudonyms: A, B, C. (Names of universities) Affiliated institutions with university A

GCET "A"	GCET "B"
GCET "C"	GCET "D"
GCET "E"	GCET "F"
GCET "G"	GCET "H"
GCET "I"	

Names of Government Colleges for Elementary Teachers

About Higher Education in Pakistan

Post-secondary (after grade 12) education in Pakistan comes under 'higher education'. It is catered in universities, degree and post-graduate colleges and some technical and professional colleges. The universities are autonomous institutions run by their own Syndicates, Academic Councils and other such bodies, while the colleges are the constituent or affiliated institutions of the universities for the award of degrees. A few of the colleges, however, have 'degree awarding' status as well; these exist both in the public and private sector. The higher education institutions (universities and degree awarding institutions) are granted Charter by the Higher Education Commission (HEC) Pakistan, and the concerned provincial governments. There are 87 universities (50 in public sector and 37 in private sector) and 26 degree awarding institutions (8 in public sector and 18 in private sector in the country) (www.hec.gov.pk/html/hei/ollunilist.htm, accessed 27 February 2007).

Participation in higher education is 2.6% which is low in comparison to its other neighbouring countries with almost equal socio-economic status. For example, in India, it is 6.0% (Isani and Virk, 2005). Admissions to various programmes at higher education level rest with the merit determined by each institution, but generally it is based on departmental test and/or interview along with previous academic records or other such achievements. For the last two years, in some of the universities at M.Phil/Ph.D level and in some other programmes at higher education level, the admissions rest with qualifying GRE type test organized by the National Testing Service (NTS) Pakistan. It is expected that gradually all admissions to various higher education programmes will be subject to qualifying GRE type test. Assessment and examinations is either external or internal or a combination of both. There is no structured mechanism of assessing teachers' performance at higher education level.

I. Introduction

The ultimate goal of the education and training is to improve the students' abilities, attitudes and behaviour. Though a number of factors are linked with the quality of education and training but perhaps it has more close association with "teacher's

JRRE Vol.2, No1, 2008

commitment and his/her competency in subject matter and teaching methodology" (Saeed, 2002). Therefore, teachers' own performance needs to be assessed through selfassessment, and faculty level so as to ensure the quality of instruction at higher level. Teaching or delivery of instruction is not an easy task. It is 'a complex phenomenon and involves the interplay of information about student characteristics, subject matter, teaching pedagogy and resources' (California Commission on Teacher Credentialing, 2003). Bubb et al. (2002) think that teaching is a complex and subtle activity, a special kind of generative and communicative art which seeks to get the experiences of learning underway and to sustain them in practice. Classrooms are places where multiple interactions, interpretations and responses occur. Romano (2006) also supports these views and asserts that "teaching is a highly complex activity in which many things happen at once".

Fundamental to education is the need to evaluate students' learning and the effectiveness of teaching methods and the programmes offered. Assessment allows faculty to determine what, and how well, students are learning. Assessment also allows faculty to fine tune teaching methods. Finally, assessment allows department or division heads evaluate the to effectiveness of entire programs (http://www.glencoe.com/ps/teachingtoday/educationupclose.phtml/9, retrieved 22 March 2007). Assessment is a central element to ensure the overall quality of teaching and learning at all levels. Well designed assessment sets clear expectations, establishes a reasonable workload (one that does not push students into rote reproductive approaches to study), and provides opportunities for students to self-monitor, rehearse, practice and receive feedback. It is an integral component of a coherent educational experience. Since assessment plays such an important and significant part in the future of students, there is no doubt that any assessment system will determine what students learn and the way in which they do this. Hence 'assessment will also determine the way in which we teach and what we teach'. (http://www.city.londonmet.ac.uk/deliberations, retrieved 22 March 2007).

Teachers' effectiveness, teachers' competence and teachers' performance are not the same concepts. Medley (1982) and Medley and Shannon (1994) distinguished that teacher' effectiveness is a matter of the degree to which a teacher achieves desired effects

Saeed, Tanveer and Tariq

upon students. Teachers' performance is the way in which a teacher behaves in the process of teaching, while teachers' competence is the extent to which the teacher possesses the knowledge and skills (competencies) defined as necessary or desirable qualifications to teach. These dimensions are important because they influence the types of evidence that are gathered in order for judgments about teachers to be made.

Teachers' performance can be assessed through a number of ways. The most common are: students' opinions about their teachers, students results in examinations or tests, teachers' portfolios and self-assessment. In fact, those who believe that the test scores are not important but learning is focused on the improvement of test scores as undesirable, because it encourages the use of result-oriented teaching methods and not the process-oriented approaches that they believe are better suited to critical thinking (Casas, 2003; Smerdon, Burkam, & Lee, 1999). Greaney and Kellaghan (1996) perceive teachers' performance in the context of outputs of students. They state "outputs are cognitive achievements of the students, and affective characteristics such as the positive and negative feelings and attitudes of students develop relating to their activities, interests and values". Students' performance is associated with teachers' performance and teachers' performance is said to be effective when teachers teach effectively and students' learning is enhanced (Saeed, 2003). Mohanan (2005) states that the quality of learning outcome is a measure of quality of teaching and teachers' teaching can be assessed through learners' views. In another study, it was found that teachers' assessment can be made by content presented in the lectures and teaching materials. It is also important to know the quality of exposition and presentation in the lectures and teaching materials is useful. In this context, the best teacher is one who transmits the best possible body of knowledge in the best possible manner. In the actual practice, teachers' evaluation should be made from the point of view the students (http://www.utmem.edu/fammed/howdoweevaluate teachingandteachers.doc., retrieved 24 September 2003).

Researchers, policymakers, parents, and even teachers themselves agree that teachers are the quality controller of education. In Pakistan, teachers' performance is critical as Hoodbhoy (2001) identified that it is not just research which is the problem,

but teaching as well.

Research in regard to assessment at higher education level is rare in the context of developing countries. Most countries address the issues of incentives to the teachers and their promotion to be linked with their performance. Dunkin (1997) has identified three dimensions of teachers' quality that are commonly used for the judgment of the teachers' performance and also mentioned that there are many other issues of teachers' performance evaluation than those explored by him. Kinnard (1987) used observation for assessing teachers' performance and has identified five broader categories: Management of instructional time; management of student behavior; instructional presentation; instructional monitoring; and instructional feedback. All these contribute towards the teachers' quality assurance. Dunkin (1997) has highlighted the need to develop the standards upon which the teachers' performance can be assessed. Whitty (1996) identified two sets of qualities that characterized a successful professional teacher: professional characteristics and professional competence. Professional characteristics include professional values, personal and professional development, communication and relationships as well as synthesis and application. Professional competencies include knowledge and understanding of students and their learning, subject knowledge, curriculum, the education system, and teacher's role. This study considers all these indicators or aspects to assess teachers' performance at higher education level in Pakistan.

All the programmes in education emphasize the goal of improved academic achievement operationally defined as student performance on achievement tests. It is a process which gives the information about any programme, individual or activity. To conduct an assessment study, a careful and rigorous approach is needed. Otherwise, it provides fake results which consequently lead to waste of human and financial resources. On the other hand, defining, measuring, and identifying teachers' quality is a far more controversial task. An educational environment focused on improving students' grades that rarely reveal information about how students actually understand and can reason with acquired ideas or apply their knowledge (Azeem and Afzal, 2006), the ultimate measure of teacher' quality is the impact that teacher has on student' learning. As so far there is no

proper assessment system for teacher' performance in Pakistan, there is a need to evaluate the performance of teachers at higher education level.

This study has been designed for the evaluation and value judgment of teachers who are working in higher education institutions. This judgment was based on students' feedback through questionnaire using four indicators towards teachers' performance which were somewhat different from Kinnard (1987). The study may provide feedback to teachers and other academicians of universities/HEIs about teachers' performance at higher level. It may help the institutions to develop some structured mechanism of teachers' performance to seek quality assurance. It mainly covers following objectives:

- 1. assess the teachers' performance on four indicators;
- 2. compare teachers' performance between universities and among various departments/ institutions of the universities; and
- 3. compare the nine GCETs in regard to teachers' performance on four major indicators.

To achieve the above objectives, following questions were posed:

- 1. how teachers are assessed n Pakistani HEIs.
- 2. is there any difference among different universities in regard to teachers' performance on four major indicators?

In view of the above two core questions, following six null hypotheses were developed to further quantify the data and interpret the results;

- 1. there is no significant difference in the performance of teachers of A University and B University;
- 2. there is no significant inter-departmental difference in regard to teachers' performance at B University;
- 3. there is no significant inter-departmental difference in regard to teachers' performance at C College;
- 4. there is no significant inter-divisional difference in the opinions of students about their teachers' performance at A University;
- 5. there is no significant inter-GCETs difference in the opinions of the students about their teachers' performance; and
- 18

 there is no significant difference in the opinions of students in regard to teachers' performance on the four indicators - awareness with objectives and subject knowledge, teaching strategies, resource material, and assessment techniques.

II. Method and Procedure

The survey study was conducted on a purposive and random sample of 700 students (about 5% of the population) of different departments of three universities based in Lahore. It is to be noted here that the nine GCETs drawn in the sample of the study were affiliated with A where do we find reference to "A"? but were under the administrative control of the Directorate of Staff Development, an attached institution of the Government of Punjab, Education Department.

This study was conducted in two phases. I in the first phase, the researchers identified performance indicators by consulting experts of teacher education and HEC Quality Assurance criteria. After identifying performance indicators, the consensus was developed upon these indicators. This provided a final list of indicators to teachers' performance. In the second phase, the researchers developed a questionnaire to collect the information about the indicators' of teachers' performance. For teachers' performance assessment, 30 items were initially developed; four items were deleted after pilot study, hence final analysis was made of 26 items. The students were asked opinions against each item on a five-point scale (Likert Scale): strongly agree (5), agree (4), undecided (3), disagree (2) and strongly disagree (1). The 26 items were placed in four major groups of identical themes: awareness with objectives and subject knowledge (6 items); teaching strategies (8 items); resource materials (instructional resources/teaching aids) (5 items); and assessment techniques (7 items). The main themes in group A were teachers' awareness of the objectives of the programme and courses, exploring objectives to the students in the classroom, and subject competency. In group B 'teaching strategies', items were included about various teaching learning techniques/strategies used by teachers in the classroom like discussion method, activity-based teaching, assignments and projects etc. In group C 'resource materials', items were included about teachers' use of different teaching aids like white board, OHP, multimedia, charts and models and

other instructional materials. Group D 'assessment techniques' contained items about formative (observations, questioning, responding) and summative (questioning, responding, short tests, activity or quiz) assessment techniques used by the teachers during teaching, and feedback to students on their assessment.

The validity and reliability of the instrument was ensured by conducting a pilot study in mid 2006. The reliability of the final questionnaire was established at $\alpha = 0.91$ which showed that the instrument was reliable. Data was collected on personal visits and with the help of some M.Phil/Ph.D research students, who were well briefed by the researchers about the data collection procedure. The data collected was reviewed and processed for analysis in accordance with the objectives and hypotheses of the study through SPSS.

III. Results

Of the 700 sampled students, 636 responded to the questionnaire, hence the response rate remained 90%. The response rate was good due to the personal visits of the researchers to the sampled subjects. The respondents belonged to seven programmes: B.A/B.S Honours (4.6%); B.Ed (39.5%); M.Ed (22.8%); M.A Education (24.4%); M.A English (3.1%); M.A Economics (4.1%); and M.Sc Mathematics (1.6%). It shows that a marked majority (86.6%) belonged to the discipline of Education either at bachelor or master level (Table 1). The inter-universities, inter-departments in the universities and inter-GCETs comparisons are presented below.

Inter-Universities Comparison

Data was analysed at two levels; firstly, a comparison was done between two universities; and secondly, a cross comparison was carried out among different departments of same institutions. Table 2 shows comparison of students' rating about their teachers' performance between the A University and B University. On the basis of overall mean values of A University (100.15) and B University (100.5), it was found that students of both universities had almost similar level of satisfaction about their teachers' performance on the four major aspects/indicators: awareness with objectives and subject knowledge; awareness of teaching strategies; resource material; and assessment

techniques.

In regard to inter-universities comparisons, it was found that probability value in t-test was .812, and the t-statistic value was -.238. This value was in the acceptance region at $\alpha = 0.05$ and therefore, the null hypothesis 1 was not rejected. It means there was no significant difference in the opinions of the students of A University and B University about their teachers' performance about the four indicators. These results are somewhat surprising in the context that B University is amongst the most established public sector universities of the country, but their teachers' performance was not found much satisfactory to that extent. The reason might be teachers' relatively less attention to classroom teaching, and more emphasis on research which ultimately led the students' less satisfaction in regard to quality of teaching.

Inter-Departmental Comparison at B University

On the basis of mean values of the Department of Economics (100.0) and Department of Education (100.7), it was found that there was no marked difference in the opinions of students at both departments in regard to the performance of their teachers on the basis of four major indicators: awareness with objectives and subject knowledge; teaching strategies; resource materials; and assessment techniques. T-test revealed no significant difference in the performance of teachers of both departments. The null hypothesis 2 was, therefore, not rejected at $\alpha = 0.05$ (Table 3).

Comparison between Departments of C College

Students' opinions about the performance of their teachers were compared at the two departments of C College (a Chartered University): Department of English and Mathematics. There was a little difference in the opinions of the students in regard to the performance of students about four aspects: awareness with objectives and subject knowledge; awareness of teaching strategies; resource materials; and assessment techniques. The mean values for the Department of English and Mathematics were 108.21 and 105.70 respectively. T-test revealed no significant difference in the opinions of the students at the both departments: the null hypothesis 3 was, therefore, rejected at $\alpha = 0.05$ (Table 4).

Inter-Division Comparisons at University of Education

The fourth hypothesis of the study was to investigate the difference in the performance of the different Divisions of A University. Table 5 presents the comparison of students' opinions about their teachers of two campuses: Bank Road Campus (BRC) and Division of Arts and Social Sciences (DASS). The value of p=0.006 showed a significant mean difference in the opinions of the students of two campuses. Hence, the null hypothesis 4 was rejected at $\alpha = 0.05$. The students at the Bank Road Campus of A University were relatively less satisfied with the performance of their teachers in regard to four major domains: awareness with objectives and subject knowledge; teaching strategies; resource materials; and assessment techniques than teachers at DASS.

On comparing the performance of teachers at the Division of Education (DE) with Bank Road Campus (BRC), it was found that teachers relatively performed better at the BRC (mean 98.63) than teachers at the DE (mean 89.84), as can be seen in Table 6. But when both these institutions of A University were compared with the DASS, students showed more satisfaction with their teachers at DASS. The difference was significant between DE and DASS: the students were more satisfied with the performance of teachers with the latter than the former. This was evident even on the basis of high mean value (114.0) at DASS (Table 7). Overall comparisons revealed that the DASS ranked at the top; BRC was lying in the middle and DE ranked at the lowest.

Inter-GCETs Comparisons

The results of ANOVA demonstrated that there was a significant difference in the performance of teachers at the nine GCETs (Table 8). The null hypothesis 5 was, therefore, rejected at $\alpha = 0.05$. The performance of the teachers on the four major indicators was ranked at the top at GCET "A" (mean 110.4), while it was the lowest at GCET "I" (90.8). The performance of teachers at GCET "B" and GCET "C" was ranked at second (mean 109.9) and third (109.5) positions, respectively. Table 9 displays the comparison of teachers' performance at the nine GCETs in terms of mean, standard deviation and rank.

Again the results were surprising that GCET "I" is relatively well-

equipped in terms of staff and other resources than all other eight GCETs, but the performance of teachers as per opinions of their students was ranked at the lowest. It is noted that the teaching staff at GCET "I" was about twice to all the other GCETs in Punjab (A, 2005). The low performance of teachers at GCET "I" might be due to the reason that here students had high expectations from their teachers which they couldn't meet or the students at the other GCETs rated their teachers at higher level than their fellows at Lahore.

Overall Comparison of Teachers' Performance about Four Indicators

Hypothesis 6 of the study was that 'there is no significant difference in the opinions of the students about the performance of their teachers in regard to the four indicators'. The first indicator of teachers' performance was 'awareness with objectives and subject knowledge': the mean value for A University (24.5) and B University (24.6) was almost the same which means that the teachers of both universities had the same level of subject knowledge. Likewise, there was no marked difference in the mean values of both universities about the second indicator 'teaching strategies' which showed that the students of both universities reported the similar level of satisfaction concerning their teachers' performance. The mean values at A University and B University were 33.1 and 33.0 respectively. In regard to the third indicator 'resource materials', the situation was relatively better of A University teachers (mean 21.8) than their counterparts at B University (mean 19.5). T-test showed a significant difference in the opinions of the students; the null hypothesis was therefore rejected at $\alpha = 0.05$. In regard to the fourth major component i.e. 'use of appropriate assessment or evaluation techniques', almost similar results were found. The mean values at A University and B University were 23.13 and 22.62 respectively. Comparing teachers' performance across the four major aspects or indicators, teachers were found better in 'teaching strategies' while in regard to 'resource materials' they were placed at the lowest, as can be seen in Table 10. The relatively low mean value in case of resource materials clearly indicates that teachers had no easy access to teaching-learning resources and/or they were not using these in the classroom teaching learning process.

IV. Conclusions and Recommendations

In view of the above discussion, it can be concluded that the performance of teachers in the three universities is partially satisfactory. At C College, though the students in both subjects (English and mathematics) are not largely satisfied with their teachers' performance, but it is relatively better than teachers at both A University and B University. Likewise, the performance of teachers at the two departments (Education and Economics) of B University is not encouraging in regard to the four aspects: awareness with objectives and subject knowledge; teaching strategies; resource materials; and assessment techniques. At A University, the performance of teachers at the DE is ranked at the lowest than at DASS and BRC. This finding is also surprising as the most highly qualified staff is at the DE. The reason might be that students have high expectations from their highly qualified teachers which the faculty did not meet, and hence they have shown partial satisfaction with their teaching. The difference in the teachers' performance at the various departments and institutions is not a chance; previous research supports this finding (Kvan, 1999).

Relatively, more prominent difference exists across the nine sampled GCETs; students are largely satisfied with their teachers' performance at GCET "A" which is ranked at the top, while the majority of the students of GCET "I" show dissatisfaction with their teachers' performance, and it is ranked at the bottom. This is also somewhat surprising in the sense that teachers at this college have relatively better opportunities of teaching and learning resources than GCET "A". The reason might be that in Lahore teachers may easily find part-time teaching and other related jobs and this affects their regular classroom teaching; that's why the students have not shown complete satisfaction. Another reason might be the high commitment of teachers at GCET "A".

Comparing A University with B University, no marked difference in the teachers' performance is found, except 'resource materials' in which students of A University have shown relatively more satisfaction with their teachers' performance than of B University. This might be due to the reason that at A University the focus of teaching in each subject is integrated with teaching methodology and assessment, and teachers use varying techniques in the classroom teaching which has resulted in students'

JRRE Vol.2, No1, 2008

relatively better satisfaction than students at B University. The relatively better performance of teachers at C College is most probably due to its better infrastructure than A University and B University.

In view of above findings and conclusions, following recommendations can be put forwarded;

- Teachers of three institution and affiliated institutions need to continuously update their knowledge and skills through staff development programmes. Some joint workshops and seminars may also be organized in this regard. The more established departments in the three universities can offer staff development seminars.
- The gap in regard to teachers' strength and other resources needs to be filled in and another study may be carried out in regard to comparison of GCETs teachers' performance.
- There is a need to develop teachers' performance standards to improve the quality of instruction at higher level.
- The study was delimited to four main indicators of teachers' performance: awareness with objectives and subject knowledge; teaching strategies; resource materials; and use of effective assessment techniques. Further research may be carried out considering more indicators and other strategies for assessing teachers' performance at higher level such as students' results, teachers' portfolio, and views of heads of departments.

References

- Azeem, M. & Afzal, M. T. (2006) Grade, grading and grading methods. Paper presented in the 1st International Conference on Assessing Quality in Higher Education, University of Punjab, Lahore, Pakistan.
- Bubb, S., Heilbronn, R., Jones, C., Totterdell, M. & Bailey, M. (2002) Improving induction: research-based best practice for schools (London, RoutledgeFalmer).
- California Commission on Teacher Credentialing (2003) California teaching performance assessment: California Commission on Teacher Credentialing State Prototype Field Review Guidebook. Available online at:
- http://www.scu.edu/ecppm/education/programs/credential/upload/tpa_handbook.pdf (Accessed 15 March 2007).

- Casas, M. (2003) The use of standardized tests in assessing authentic learning. Teachers College Record, ID Number: 11211. Available online at: http://www.tcrecord.org/Content.asp?ContentID=11211 (retrieved 18 January, 2005).
- Dunkin, M. J. (1997). Assessing teachers' effectiveness, *Issues in Educational Research*, 7(1), 37-51.
- Good, T. L. & Mulryam, C. (1990) Teacher ratings: A call for teachers, in: J. Millman and L. Darling-Hammond (Eds.) The handbook of teacher evaluation: Assessing elementary and secondary school teachers (Newbury Park, CA: Sage), 229-240
- Greaney, V. and Kellaghan, T. (1996) *Monitoring the learning outcomes of education systems.* Washington, DC: The World Bank.
- Hoodbhoy, P. (2001) Turning higher education around? The Friday Times (15 Feb.).
- Isani, U. A G. & Virk, M. L. (2005) *Higher education in Pakistan: a historical and futuristic perspective* (2nd Edition) (Islamabad, National Book Foundation).
- Kinnard, W. (1987) Assessing teacher performance using an observation instrument based on research findings, *NASSP Bulletin*, 71(497), 89-95.
- Kvan, K. P. (1999) How fair are student ratings in assessing the teaching performance of university teachers? Assessment and Evaluation in Higher Education, 24(2), 181-195.
- Medley, D. M. (1982) Teacher competency testing and the teacher educator, (Charlottesville, VA: Association of Teacher Educators and the Bureau of Educational Research, University of Virginia).
- Medley, D. M. & Shannon, D. M. (1994) Teacher evaluation, in: T. Husen & T.N. Postlethwaite (Eds.) *The International encyclopedia of education* (2nd edition), Vol. 10 (Oxford, Pergamon), 6015-6020.
- Mohanan, K. P. (2005) Assessing quality of teaching in higher education (_____, Centre for Development of Teaching and Learning). Available online at: http://cdtl.nus.edu.sg/publications/assess/how.htm (accessed 30 March 2007).
- Romano, M. E. (2006) Bimpy moments in teaching: reflections from practicing teachers, *Teaching and Teacher Education*, 22, 973-985.
- Saeed, M. (2002) Assessment and Examination: a training manual for teacher educators and teachers. Lahore: Directorate of Staff Development, Punjab.
- Saeed, M. (2003) Assessing quality of student learning, *Journal of Educational Research*, 6(1-2), 4-9.
- Sanders, W. (1998) Value-added assessment: a method for measuring the effects of the system, school and teacher on the rate of student academic progress, *The School Administrator*, 55(11), _____.

- Smerdon, B. A., Burkam, D. T. & Lee, V. E. (1999) Access to constructivist and didactic teaching: who gets it? where is it practiced? *Teachers College Record*, 101(1), 5– 34. Available online at: http://www.tcrecord.org/PDF/10423.pdf (retrieved 18 January 2007)
- Teaching Today, Education Close Up: Linking the Real World to the Classroom. (Available online at: http://www.glencoe.com/ps/teachingtoday/educationupclose.phtml/9 (retrieved 22 March 2007)
- University of Education (2005) Staff pay scales May 2005 (Lahore, University of Education)
- Whitty, G. (1996) Professional competence and professional characteristics: the Northern Ireland approach to the reform of teacher education, in: D. Hustler and D. McIntyre (Eds.) Developing competent teachers: approach to professional competence in teacher education (London: David Fulton), 69-90.
- http://www.utmem.edu/fammed/howdoweevaluateteachingandteachers.doc. (retrieved 24 September 2003.

http://www.hec.gov.pk/html/hei/ollunilist.htm (Accessed 27 February 2007).

http://www.city.londonmet.ac.uk/deliberations.htm (Accessed 22 March 2007).

Correspondence

Muhammad Saeed

Email:drsaeed61@hotmail.com>

Programme	Frequency	Percent	Cumulative
B.A/B.S (Honours)	29	4.6	4.6
B.Ed	251	39.5	44.0
M.Ed	145	22.8	66.8
M.A Education	155	24.4	91.2
M.A English	20	3.1	94.3
M.A Economics	26	4.1	98.4
M.Sc Mathematics	10	1.6	100.0
	Total	636	100.0

Programme-wise response rate in terms of frequency, percent and cumulative %

Table 2

Overall comparison of A University B University

University	Ν	Mean	Standard Deviation	t- Value	ig.
A University	413	100.15	16.749	.238	812
B University	194	100.50	17.617	.233	

*N = Number of Respondents *t = t-Test *Sig. = Level of Significance

Department	Ν	Mean	Std. Deviation	t-Value	Sig.
Dept. of Eco.	6	100.00	15.080	251	802
Dept. of Edu.	38	100.70	18.596	274	

Comparison of Department of Economics and Education at B University

*N = Number of Respondents *t = t-Test *Sig. = Level of Significance

Table 4

Comparison of Department of English and Mathematics at C College

Department	Ν	Mean	Standard Deviation	t-Value	Sig.
Dept. of Eng.	19	108.21	11.636	. 562	. 575
Dept. of Math.	10	105.70	11.046	. 571	

*N = Number of Respondents *t = t-Test *Sig. = Level of Significance

Table 5

Comparison of Bank Road Campus and Division of Arts and Social Sciences Campus at A University

Department	Ν	Mean	Standard Deviation	t-Value	Sig.
Bank Road Campus	84	98.63	23.655	-2.833	006
Div. of Arts Campus	20	114.00	10.372	-4.429	

*N = Number of Respondents *t = t-Test *Sig. = Level of Significance

Comparison of Division of Education and Bank Road Campuses at A University

Department	N	Mean		Standard Deviation	t-Value	Sig.
Bank Road Campus	84		98.63	23.655	2.476	.014
Div. of Edu. Campus	58		89.84	15.698	2.660	

*N = Number of Respondents *t = t-Test *Sig. = Level of Significance

Table 7

Comparison of Division of Education and Division of Arts and Social Sc. at A University

Department	N	Mean	Standard Deviation	Sig.	t- Value
DASS	20	114.00	10.372	.000	-6.402
Division of Edu.	58	89.84	15.698		-7.785

*N = Number of Respondents *t = t-Test *Sig. = Level of Significance

JRRE Vol.2, No1, 2008

Table 8

Comparison of nine GCETs of Punjab based on ANOVA

	Sum of Squares	f Mea	an Square F	Si	ig.
Between Groups	186 16.953	3	224. 301	1 .565	. 002
Within Groups	791 23.291	52	143. 339		
Total	977 40.244	35			

Table 9

Rank and Comparison of nine GCETs of Punjab

1		5	
Institution	N*	Mean	S.D Rank
GCET "A"	20	110.35	6.777
			1
GCET "B"	20	109.95	7.917
			2
GCET "C"	27	109.52	11.918
			3
GCET "D"	29	106.38	8.567
GCET D	2)	100.50	4
GCET "E"	30	100.70	14.064
UCEI E	30	100.70	5
	• •		
GCET "F"	30	99.23	8.282
			6
GCET "G"	60	98.02	14.994
			7
GCET "H"	15	96.13	13.783
			8
GCET "I"	20	90.80	9.174
			9

* N = Number of Respondents

Comparison of A University and B University in terms of four major indicators

Aspect	University	Ν	Mean	Standard Deviation	Sig.	t- Value
SK	A University	412	24.54	5.045	.953	059
	B University	187	24.57	4.722		060
TS	A University	410	33.09	5.216	.850	.189
	B University	187	33.01	5.287		.188
RM	A University	412	19.49	5.470	.000	-5.010
	B University	184	21.82	4.722		-5.299
AT	A University	411	23.13	4.458	189	1.314
	B University	184	22.62	4.307		1.331

*S.K = Subject knowledge *TS = Teaching strategy *R.M = Resource material

*AT = Assessment techniques *N = Number of respondents *Sig. = Level of significance.