Research Article



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ANALYSIS OF THE EFFECTIVENESS OF TESTS CONDUCTED BY DTES AT PRIMARY SCHOOL LEVEL

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ABSTRACT-

The objective of this study is to find out the effectiveness of tests conducted by Director Staff Development (DSD) under the supervision of District Teachers Educators (DTEs) to know the views of teachers about the merits and demerits of papers arranged by DSD and their impact on the performance of teachers. A sample 50 PST male teachers and 50 PST female teachers were selected and data was collected through a structured questionnaire. The results reveal that testing enhances the knowledge and skill of teachers and students and it is suggested that its standards must be scaled up to improve the quality of education.

Key words: primary education; school teachers, District Teacher Educator,

Teachers training; professional development; testing system;

Type of study: Original Research paper.

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1. INTRODUCTION

1.1 Background of study

Teaching requires different levels of competence. It is well known that the performance of trained teachers is much better than untrained teachers. It needs their continuous professional development to meet the challenges of this job. Teachers play a key role in the educational process, and influence the social, economic and academic lives of their pupils. The demands for their improvement are significant and these can be met only by creating a scientifically based profession, which is supported by a body of theoretical and practical knowledge.

In Punjab (the largest province of Pakistan containing 60% of total population) Punjab Education Sector Reforms Program' (PESRP) were introduced in 2003, with the primary objective of enhancing access to students; improving the quality; and governance in education sector. The education reforms focus on increasing enrolments (with net primary enrollments rates of only 45 percent) and retention, especially for girls, and in improving governance and monitoring in this sector. The program has stressed that the goal of quality education cannot be achieved without improving professional competence, motivation and accountability of teachers (Government. of Pakistan, 2003). To achieve these objectives, Directorate of Staff Development, (DSD) Punjab has developed a conceptual framework for Continuous Professional Development (CPD). The CPD framework provides scheme for teacher development in Punjab which can broaden the scope of teacher development from mere "teacher training" to "continuous professional development" for quality learning of students. It combines in-service training

of teachers (INSET) with follow-ups, in-class, teacher support, mentoring, monitoring, accountability, incentives, and teacher career growth. These measures were previously not included in the teacher development in Punjab (Government of Punjab, 2012).

1.2 Main Research problem.

Our Research main research problem is to study the effectiveness of tests conducted by District Teachers Educators at primary level to assess the competency of teachers working at different primary schools of District Vehari.

1.3 Objectives of study

The objectives of this research study are given below: -

- To find out the effectiveness of tests that are conducted by DSD under the supervision of DTE.
- To record the views of teachers about the merits and demerits of papers arranged by DSD for tests.
- To assess the quality and effectiveness of these tests.
- To analyze the performance of students in these papers.
- To compare these tests with BISE papers in order to determine the standard of these tests.
- To find out the impacts of these tests on the performance and teaching of primary teachers.
- To judge whether these tests are helpful for teachers to complete the course within given time frame.

- To analyze the benefits of different programs of DSD for improvement of learning and teaching.
- To investigate the difficulties being faced by primary teachers in teaching primary classes.
- To find out the solutions of these problems with the help of educational experts and results of this study.

1.4 Significance of study

Education plays an important role for the progress of a country and nation. testing and exams are important tools that determine the effectiveness and validity of the education system. There are many institutions in Pakistan like PEC at elementary level, BISE at higher secondary level and Universities and Degree Awarding Institute at graduate and post graduate levels. There is no doubt that these institutions have command over paper setting to conduct examinations. In Punjab there is another institution named DSD that conducts exams from 3rd class to 5th class in English, Urdu, Math, Physics, Chemistry, Islamic studies and other subjects of social sciences six times in a year. DTES are responsible for conducting these exams. This study will analyze the merits and the demerits of these tests. The results of this study will be helpful for academicians, policy makers, teachers and the students in improving teaching skill, learning process and policy framework. In this perspective, this study is very significant and its results will be useful for all involved in education sector. Due to the importance of teachers training program in Punjab by the District Teachers Educator (DTEs), it was decided to conduct present research. It is expected that this research will pave the way for further research. It will also enable the higher authorities and policy maker to know the facts regarding

the effectiveness of teacher training arranged by DTEs, hence they will be able to make future decisions about current issues.

2. Literature Review

The Directorate of Staff Development is an apex organization and is committed to develop the Pedagogical skills and knowledge through a continuous process of professional development of teachers in Punjab. The core objective is to enhance the quality of learning at all levels of education by training and nurturing the teaching cadre both at DSD and simultaneously in the field (Government of Punjab, 2012). DSD has created support network to provide in-service training, follow-ups, pedagogical support and mentoring to the primary school teachers. Accordingly, each district has been divided into clusters of schools, called Cluster Training and Support Centers (CTSCs) on the base of strength and location of PSTs in the district. DTEs were selected from teaching cadre and were trained to train PSTs in CTSCs (Government of Punjab, 2010). Professional development refers to skills and knowledge attained for both personal development and career advancement. Professional development encompasses all types of facilitated learning opportunities, ranging from college degrees to formal coursework, conferences and informal learning opportunities situated in practice. It has been described as intensive and collaborative, ideally incorporating an evaluative stage (Speck & Knipe, 2005). National Professional Development Center on Inclusion (2008) describes that there are a variety of approaches to professional development, including consultation, coaching, practice, lesson study, mentoring, reflective supervision and technical assistance. Specific continuous professional

development linked to the introduction of new educational reforms and training programs organized by the relevant authorities in general as a professional duty for teachers in all countries (Eurydice, 2008; European Commission, 2009). In the OECD (2005) study, it was found that teachers frequently make a financial contribution to the costs of transport, course fees or course materials during professional development programs. The major exceptions are Chile, Northern Ireland and Sweden where teachers generally do not contribute to such costs. Guskey (2000) contends that many teachers perceive CPD to be irrelevant to their needs and it is fact that we still know relatively little about its impact (p.32). The international literature on teacher CPD (Harland and Kinder, 1997; Joyce and Showers, 1988; Day, 1999; Ingvarson et al., 2003) depict discouraging picture. There is ample evidence, for instance, of the failure of attempts to implement change (Fullan, 2001) and of the superficial nature of the gains achieved (Cooley, 1997). There are currently three main providers: education colleges run by provincial and Municipal Educational Authorities; tertiary teacher education and other institutions of higher learning; and overseas institutions and organizations. The program is based on the premise 'that professional learning is more likely to improve student learning outcomes if it increases teachers' understanding of the content they teach, how students learn that content and how to represent and convey that content in meaningful ways' (Ingvarson et al., 2003). Drawing a linkage between pre-service and INSET and career development is essential to ensure teacher motivation, which in turn enhances teacher performance and thus impacts learning outcomes positively. Such a link is absent in developing countries (Ministry of Education and Vocational Training, Zanzibar, 2005). On the issue of TPD assessments, all developing countries follow mostly quantitative assessment indicators. South Africa is an exception and has

undertaken creation of a holistic performance assessment system which tracks progress on qualitative issues (Parker, 2002). Punjab is the first province in Pakistan to address shortcomings in its in-service teacher training system by introducing a continuous professional development (CPD) model for its primary teachers in 2006. District teacher educators (DTEs) were recruited and deployed to serve as the key actors in this CPD model. They hold primary responsibility for teacher professional development both in the school and at the cluster level (each cluster contains 25 to 30 schools within a 15-kilometer radius). DTEs comprise a mobile workforce of over 3,000 dispersed throughout Punjab with about 2 DTEs per cluster, each of whom is responsible for 10 to 15 schools. The DETs have to visit teachers in schools in their clusters twice a month to offer on-the-job mentoring and training support. They are to identify, assess and redress specific knowledge and skill gaps in teachers through one-to-one interactions. During these school visits the DTE is expected to conduct student assessments to assess learning process, observe teacher practice in the classroom. guide and mentor teachers how to improve their knowledge and skills. They have to train teachers collectively for one day in every quarter at the cluster-training centers known as CTSCs where all teachers of a District are congregated. DTEs were seen as the antidote to the shortcomings of the one-off, inadequate, irregular trainings that teachers were receiving thus far that were often lacking alignment with teachers' actual needs. More than 10 years later, policymakers are revamping the CPD model. While a number of changes have been proposed, a key change is the elimination of the post of DTE. This policy note describes the proposed changes, motivations for reform, and the advantages and challenges posed in

the revised model. This note is based on conversations with relevant officials and stakeholders in Punjab's education sector. It reflects their views on different issues (Awan and Zia,2013). According to DSD Lahore (2006) the DTEs has to perform following tasks as a teacher trainer:

- To assess and identify professional development needs of primary school teachers within the cluster;
- To organize in-service training courses for the teachers as per identified needs within the overall CPD framework;
- To work with the head teachers to plan and organize school-based inservice training (INSET) and other professional development activities.
- To visit and provide professional support to one teacher/mentee per day.
 A second teacher/mentee may be covered during the same day only under specific instructions of CTSC or DTSC head concerned.
- To plan and conduct Professional Development Day (to be notified by the Education Department in due course) every month on which all PSTs will gather at their respective CTSCs. DTEs will review the activity of the whole month and will also help the PSTs to develop lesson plans. PSTs will keep a record of the concepts and ideas learnt on PD days in the PST Log Book provided to them to participate in training courses and other professional development activities organized by DSD or other institutions designated by DSD.
- To seek professional advice from the CTSC head and/or Teacher Educator
 (TE) concerned to address any problems or difficulties faced while providing pedagogical support to the teachers.
- To maintain records of professional events and advice given to the individual teacher within the cluster.

To devise a work plan, in consultation with CTSC head, on CTSC Form 1
 (Monthly Work Plan) to schedule visits to the primary schools attached to his/her CTSC (DSD, 2006).

3. Research Methodology

3.1 Population

In order to collect data, the district **Vehari** was selected. There are three tehsils in this district. These tehsils are Vehari, Burewala and 3 Mailsi. Among these tehsils, Mailsi was selected this research study.

3.2 Sample of study

Sampling is an important factor. It is responsible for correct collection of data. In this study we took a sample of 100 respondents and among them 50 were male and 50 were female teachers from primary schools of Tehsil Mailsi. Similarly, 100 students were selected randomly from the following schools to solve DTE test in order to assess about the effectiveness of the tests. The following schools were selected for tests and interviews:

- Government High School Dokota Mailsi.
- Government High School Juhni Mailsi.
- Government Girls Primary School 193/WB Mailsi.
- Government Girls Primary School Bahwal wah Mailsi.
- Government Girls Primary School Mari Mitroo Mailsi.
- Government Boys Primary School 195/WB Mailsi.
- Government Girls High School 143/WB. Mailsi.
- Government Girls Elementary School Lali pur Mailsi.
- Government Girls Elementary School139/wb Mailsi.

3.3 Research design

As this study was to find the effectiveness of the tests that are conducted by D.S.D. So a paper was selected out of different previous papers randomly by D.T.E. This paper was given to the students of 5th class. They were asked to attempt it within given time. After this, papers were given to the experienced teachers to mark them. Then a questionnaire containing 30 questions about the test was given to record the views about paper marking system etc. Similarly, interviews were conducted to get more information about the test, about their demerits and their possible solutions of the problems.

3.3 Analytical Technique

5-points Likert Scale was used to record the response of the selected respondents about different statements given in the questionnaire.

4. Data Analysis

The statements and their responses are given in Table 1.

D **Statements** SA A SD Neutral This test has reliable. 26 34 29 11 This test has validity. 34 27 11 14 All students attempt these tests 10 5 4 **78**

Table 1: Results of 5-points Likert scale

0 14 3 in given proper time. 7 The contents of these papers 57 10 12 14 are related to the syllabus. The tests conducted by D.T. Es 46 14 14 16 20

20	11	20	20	00
39	11	30	20	00
59	20	11	5	5
10	12	48	20	10
15	16	30	29	10
12	18	25	39	6
10	15	37	35	3
21	24	22	23	10
35	40	8	7	10
39	41	5	7	8
27	43	15	5	10
	15 12 10 21 35 39	59 20 10 12 15 16 12 18 10 15 21 24 35 40 39 41	59 20 11 10 12 48 15 16 30 12 18 25 10 15 37 21 24 22 35 40 8 39 41 5	59 20 11 5 10 12 48 20 15 16 30 29 12 18 25 39 10 15 37 35 21 24 22 23 35 40 8 7 39 41 5 7

There is avoidance of unintended	27	43	5	15	10
clues in the answers of MCQs					
of these tests.					
The main focus of these tests is	45	25	12	13	5
to improve the learning process.					
These tests are assessed and	13	17	30	35	5
evaluated by experienced teachers.					
All the standard measures are	13	17	35	32	3
adopted in the marking of these					
tests.					
These D.T. Es tests are marked	100	00	00	00	00
By the other schools of the					
same cluster center.					
The teachers know about the person	100	00	00	00	00
who is marking their student's papers.					
The teachers can influence the	82	10	5	3	00
results of these tests.					
The schools ranking criteria is mostly	100	00	00	00	00
dependent on the results of these tests.					
The results of these tests are helpful to	15	12	33	35	15
judge the teaching quality of the					
teachers.					
The teachers are trained whose	45	47	3	5	00
results of these tests are below					
criteria.					

Students prepare these tests	10	15	30	40	5
properly.					
These tests motivate the teachers	15	13	42	20	10
to write lesson plans and diaries.					
These tests should be conducted	23	27	26	24	00
continuously.					
These tests are parallel to BISE	11	09	34	36	10
standard.					
These tests are effective for teachers	14	12	34	35	5
and students' in education system.					

5. Findings of study

Data was collected with the help of questionnaire from the teachers. After this data was tabulated and analyzed carefully. The findings of this study are given below.

According to teachers the reliability and validity score of this test was 60 percent. According to 88 percent students, time duration for the students to solve the paper was sufficient. As 88% of the participants are agree with the statement. About 26 percent teachers 26 percent of test material was from books while 74 percent were out of course.

The components of the test are from the course given in the books.26% teachers are in the view that the contents of these tests are not according to the course. According to the participants the effective of test was 60 percent. Around 50 percent participants were agreed that these tests were followed the

standard rules of (BISE) while 50% were disagreed with this statement. 79 percent participants were agreed that these tests were prepared by most experiences teachers. There is no doubt that these tests are prepared by most experienced teachers.79% is agree with this statement. However, 21 percent were disagreeing with it and expressed doubts about transparent assessment of tests. Similarly, 30 percent teachers disclosed that the students used unfair means because the Students don't sit at proper distance during these papers and due to this reason the students were able to copy the paper from other students sitting adjacent to him. 72 percent of participants were disagreeing with the statement that teachers were not in these tests. About 50 percent told that secrecy was maintained during the whole process of tests. The majority of female teachers maintained high level of secrecy during tests. As DTE has to conduct three tests in a day in three different schools simultaneously so it was difficult to maintain high level of secrecy and prevent unfair means during tests. About 75 percent of the participants were agree that the test duration was proper and due time was given to them to solve test papers

The paper length is proper according to 75% of the participants. The students of 3rd,4th and5th found difficulty to solve the questions in a proper way. However, 75 percent students were agreed and there were no other options in objective portion of the paper.

Test items are difficult, conceptual and unseen for 3rd 4th and 5th class students. They are unable to solve these questions in a better way. There are no irrelevant options in the objective portion of the paper according to 75% of the participants. Around 70 percent participants were agreed that these tests would improve teaching and learning process. About 30 percent students expressed doubt about transparent assessment of test because untrained

teachers were also involved in evaluation process. As many as 65 percent apprehended that no standard rules were followed during evaluation process.

Those teachers whose results were below the criteria; they were trained by DSD. Students did not prepare these test seriously as they know that their teachers will help them in the exams.70% of participant told that students did not prepare tests properly because they perceived that their teachers would help them during tests. 28 percent contended that the testing process would motivate the students to improve their knowledge and test solving capability.

However, teachers pleaded that they wrote students diaries and lesson plans in order to improve their school ranking. About 50 percent participants emphasized that such test should be continued for improving learning and teaching skills.

6. Policy recommendations

After finding the results and taking interviews of the teachers DTE and other officials following recommendations are given to make these tests more effective both for teachers and students.

- These tests should be prepared from the text books provided by Government of Punjab in the same wording as given in the books in order to save the students from confusion.
- CPD and DSD should provide guidelines to the paper setter to follow these instructions.
- All the stakeholders should implement effectively on order to achieve the objectives and goals of these to make these tests more effective.

• The DSD department must be made efficient and proactive to improve the standard in order to make tests system ideal and foolproof.

It should be made compulsory for the teachers to get proper training before marking these tests as is carrying out in Board of Intermediate and Secondary Education.

- All papers marked by teachers should be rechecked by T.E, CTSC HEADS and, AEOs to remove the loopholes in the marking system. If the papers are not marked properly then teachers should be fined according to their mistakes in the marking system.
- Handsome remunerations must be given to the teachers to their interest in paper marking.
- The papers must be sent to other cluster Centers for marking in order to reduce teachers' influence on the results and to create transparency in the assessment.
- Female DTEs should be appointed in the girl schools in order to minimize the male influence on female side. During the conduction of exam sudden and surprise visits of T. Es and CTSC Heads should be made to eliminate the chances of cheating in these tests.
- Distance between two students should be at kept 4 to 5 feet .in this way students cannot copy or see others' papers.
- Four versions technique should be adopted for the students. but the paper contents should be identical, just question number should be different.
- The contents of test papers must be different from school to school to maintain secrecy and remove the possibility of using unfair means during tests.
- DSD should work with other partners to develop need-based self-explanatory teacher guides/manuals and provide them to PSTS.

- Workshop on Multiple teaching methods may be organized to solve immediate issues of PSTs.
- Lesson planning is an essential part of effective teaching to motivate teachers to plan their lessons in advance and also it requires effective follow up strategy on part of the DTEs at least once in a month face to face training.
- Preparation and use of audio/visual aids using low/no cost material can also be made possible through effective follow up/classroom base support.

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References

Aga Khan University Institute for Educational Development and Society for the Advancement of Education (2004). Effectiveness on In-Service Teacher Education Programs offered by the University of Education, Lahore.

Google Scholar

Burdin, J. L. (1982). Teacher certification. In H. E. Mitzel (Ed.), *Encyclopedia of education research* (5th ed.) New York: Free Press.

Google Scholar

Brown, R. (2004) Quality Assurance in Higher Education. The UK experience since 1992.London: *Routledge*. Google Scholar

- Butt, M.H. & Shams, F., (2007). Final Report on Quality Assurance of Teacher Training Programs, third party review and assessment. Google Scholar
- Carter, K. (1984). Do teachers understand the principles for writing tests?

 Journal of Teacher Education, 35(6), 57-60.

 Google Scholar
- Denny, J. D., Paterson, G. R., & Feldhusen, J. F. (1964). Anxiety and achievements functions of daily testing. *Journal of Educational Measurement*, 1,143-147.

 Google Scholar
- DSD (2006). Continuous Professional Development Framework for Primary School Teachers. Professional Development for Quality Learning.

 Lahore: Directorate of Staff Development, Punjab.

 Google Scholar
- DSD (2006). Quality Assurance Mechanism for Trainings at Directorate of Staff Development, Punjab. Lahore: Directorate of Staff Development, Punjab.

 Google Scholar
- Duchastel, P. (1981). Retention of prose following testing with different types of test. *Contemporary Educational Psychology*, 6, 217-226.

Google Scholar

Dwyer, F. M. (1968). Effect of visual stimuli on varied learning objectives. *Perceptual and motor Skills*, 27, 1067-1070. <u>Google Scholar</u>

Edwards, V. & Li, D. (2011) Confucius, constructivism and the impact of continuing professional development on teachers of English in China university of Reading: ELT Research Papers 11–03, British Council 2011 available at www.britishcouncil.org Google Scholar

Fleming, M., & Chambers, B. (1983). Teacher-made tests: Windows on the classroom. In W. E. Hathaway (Ed.), Testing in the schools: *New directions for testing and measurement*, No. 19 (pp.29-38). San Francisco: Jossey-Bass.

Google Scholar

Gay, L., & Gallagher, P., (1976). The comparative effectiveness of tests versus written exercises. *Journal of Educational Research*, 70, 59-61.

Google Scholar

Golding, L. & Gray, I. (2006). Continuing professional development for clinical Psychologists: A practical handbook. *The British Psychological Society. Oxford: Blackwell Publishing.*Google Scholar

Grauwe, Anton De. (2004). Decentralization and School Improvement: A Comment on Research in West-Africa". International Institute for Educational Planning. *International Working Group on Education*. Washington, 19-21 October 2004.

Google Scholar

Gullickson, A. R., & Ellwein, M. C. (1985). Post hoc analysis of teacher-made tests: The goodness-of-fit between prescription and practice. *Educational Measurement: Issues and Practice*, 4 (1), 15-18. Google Scholar

Haynie, W. J. (1983). Student evaluation: The teacher's most difficult job.Monograph Series of the Virginia Industrial Arts. *Teacher Education Council, Monograph* No.11.Google Scholar

Haynie, W. J. (1990a). Effects of tests and anticipation of tests on learning via videotaped materials. *Journal of Industrial Teacher Education*, 27(4), 18-30.

Haynie, W. J. (1991). Effects of take-home and in-class tests on delayed retention learning acquired via individualized, self-paced instructional texts. *Journal of Industrial Teacher Education*, 28(4), 52-63.

Google Scholar

Haynie, W. J. (1992). Post hoc analysis of test items written by technology education teachers. *Journal of Technology Education*, 4(1), 27-40.

Google Scholar

Haynie, W. J. (in press). Effects of in-class tests and post-test reviews on delayed retention learning acquired via individualized, self-paced instructional texts. *Journal of Industrial Teacher Education*.

Google Scholar

Herman, J., & Dorr-Bremme, D. W. (1982). Assessing students: Teachers' routine practices and reasoning. Paper presented at the annual meeting of the *American Educational Research Association*, New York.

Google Scholar

Houghton et al., (1997). Revised 1996 IPCC Guidelines for National Greenhouse Gas Inventories: 1, (2) and 3. J.T.

Google Scholar

HO, S.K & Wearn, K. (1996) A higher education TQM excellence model; HETQMEX", *Quality Assurance in Education*, .4 (2):35-42.

Google Scholar

Jasper, M. (2006). *Professional development, reflection, and decision-making*.

Oxford: Blackwell Publishing.

<u>Google Scholar</u>

Kardar, Shahid (2005). Funding of In-Service Teacher Training in Sindh and Baluchistan.

Google Scholar

Mehrens, W. A., & Lehmann, I. J. (1987). Using teacher-made measurement devices. *NASSP Bulletin*, 71(496), 36-44. Google Scholar

National Professional Development Center on Inclusion. (2008). What do we mean by professional development in the early childhood field?". Chapel Hill: The University of North Carolina, FPG Child Development Institute.

Google Scholar

Newman, D. C., & Stallings, W. M. (1987). Teacher Competency in Classroom Testing, Measurement Preparation, and Classroom Testing Practices. Paper presented at the Annual Meeting of the National Council on measurement in Education, March. (In Mehrens & Lehmann, 1987)

Google Scholar

Nungester, R. J., & Duchastel, P. C. (1982). Testing versus review: Effects orientation. *Journal of Educational Psychology*, 74 (1), 18-22.

Google Scholar

Siddique, A., (2011) Teacher education and CPD model. DSD Punjab, Lahore.

Google Scholar

Speck, M. & Knipe, C. (2005) Why can't We get it Right? Designing High-quality Professional Development for Standards-based Schools (2nd ed.)

Thousand Oaks: Corwin Press.

Google Scholar

Stiggins, R. J., & Bridgeford, N. J., (1985). The ecology of classroom assessment. *Journal of Educational Measurement*, 22(4), 271-286.

Google Scholar

Stiggins, R. J., Conklin, N. F., & Bridgeford, N. J. (1986). Classroom assessment: A key to effective education. *Educational Measurement: Issues and Practice*, 5 (2), 5-17.

<u>Google Scholar</u>

Thorndike, R. L., & Hagen, E. P. (1977). Measurement and Evaluation in Psychology and Education. New York: Wiley.

Google Scholar

Wiggins, G. (1993). Assessment: Authenticity, context, and validity. *Phi Delta Kappan*, 75 (3), 200-214. Google Scholar

Parker, Ben (2002). "Roles and Responsibilities, Institutional Landscapes and Curriculum Mindscapes: A Partial View of Teacher Education Policy in South Africa, 1990-2000".

Google Scholar

UNESCO (2001). Learning Achievement in Primary Schools of Pakistan: A

Quest for Quality Education. Islamabad: UNESCO. Google Scholar