A META ANALYSIS ON ASSESSMENT OF STUDENTS ACHIEVEMENT AT PRIMARY LEVEL IN PAKISTAN

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ABSTRACT

The purpose of this study was to analyse the methodology and results of previous researches (1990-2010) on assessment of students' achievement at primary level in Pakistan. Literature review covered with 40 researches articles, abstracts, manuals, booklets, books accessed electronically or printed materials were collected for reading purpose. Of these 19 studies were finally selected for meta-analysis on the basis of key assessment of students' performance through literature review. These include 17 Qualitative and 2 Quantitative studies. Results revealed that in most of the objectives of the study of primary education were not fully achieved. There were a few studies in which methodology was found not congruent with the nature or type of the study. The poor performance of the students may be linked with environmental and resource situations. The procedure of implementation of the policies and plans for primary education remained weak in Pakistan.

Key Words: Primary grade students, Achievement, Assessment, Meta analysis, Pakistan.

INTRODUCTION

Pakistan is a developing country of South Asia. Like other developing countries one of the main reasons for its underdevelopment is the low quality of education, which has in turn great impact on the country's social economic and political system. Talking in the perspective of low quality of education, especially at primary level, a number of factors related to school, head teacher, teacher, parent and community have a more or less impact. (Saeed, 2003). Low quality at primary level has been a critical issue since the nation's inception. A number of initiatives have been taken to enhance the quality of education but comparing it with the output, it can be said that we have not been truly successful to provide a strong base of education at primary and secondary level. The formal schooling system in Pakistan is marked by its multiplicity. There are government schools, semi-government institutions, independent private schools and private schools system. More the than one third of the school-aged children are still not attending schools. On the world scale, Pakistan has one of the highest numbers of illiterates. The situation is especially alarming for women. In 1951, the overall literacy rate was 16.41%; after 50 years in 2001, it was 49.51 % (Govt of Pakistan, 2005). The male literacy rate is currently around 60% while the female literacy rate is only 36% which clearly shows the meta family gap.

Primary education is the most important sub sector of the entire educational system. It is considered to be a key investment in human capital as it builds human capability which is vital ingredient for national building. Primary education can help in alleviating poverty by increasing income, improving health and nutrition and reducing fertility. Education for an independent sovereign state is almost different from a dominated nation. Pakistan on coming to being inherited many problems. Just after independence, in 1947, an All Pakistan Education Conference was convened. Need for the Universal Primary Education (UPE) was realized by the participants of the conference. The Education Policy (1972-80) reiterated free and its universal primary education and financial constraints were the major hindrances to its success. Benchmarks of National Education Policy and Implementation Programme 1979 about primary education were curious, novel and innovative. Mosque schools and community schools were the off-shoots of the policy but couldn't be a great success. The causes may be the ill-planning, financial limitations, growing imports, decreasing exports, challenged GNP and population explosion.

With an intention to implement objectives stated in the National Education Policy (1998-2010), the education sector action plan (2001-2005) of the Government of Pakistan envisages improving the quality of education through teacher training and use of innovative programs and public-private partnership (Shah, 2003). Most of the researches conducted within the last two decades investigated poor performance level of primary grader students. In a study carried out by the World Bank (1995), it was reported that students in all grades scored higher in knowledge/rote learning as compared to comprehension and application. Mirza and Hameed (1996) found that a real planning for the achievement of the cherished goals of providing equal opportunity to every child at primary level needs to be based upon establishing cost-effective good quality primary school for all children of the relevant age group. Under the Punjab Literacy Watch (1999) it was found that the students (of grade 3, 4 and 5) average percentage score was 22 in mathematics and 28 in Urdu. Boys scored higher in mathematic in all classes In other study conducted by the Ministry of Education AEPAM,(2002) it was found that students' achievement in all subjects was poor at primary level.

Assessment is the process of identifying gathering and interpation information about students' learning. The central purpose of assessment is to provide information on students achievement and progress and set the direction for ongoing teaching and learning. A policy could only be a success when; the existing shortfalls are made the footing, the match with the resources is sought and the viable methods of implementing the policies are suggested and followed. Policies normally encompass the targets to be reached, lime light the gray areas and the most tangible implementation strategies.

Assessment lies at the heart of the process of promoting children's learning. It provides a framework within which educational objectives may be set and children's process is expressed and monitored. Since independence, studies have been conducted on different aspects of primary education. But perhaps no comprehensive study has so far been conducted in the area of primary education, covering all the aspects i.e. curriculum, teacher training and examination system. Therefore, the study was undertaken to evaluate primary education in the context of analytical review of studies focusing students assessment.

METHODOLOGY FRAMEWORK OF STUDIES ON ASSESSMENTS

The study was to investigate, how far the methodology adopted in previous researches (1990-2010) on assessment of students achievement at primary level in Pakistan was congruent with the objectives and results. Literature review covered with the different types of studies around 40 researches articles, abstracts, manuals, booklets, books accessed electronically or printed materials were collected for reading purpose. Of these, 19 studies were finally selected for meta-analysis on the basis of key assessment of student's performance. These include 17 qualitative and 2 quantitative studies. These research was carried out in three steps. In the first step literature review was collected viae-access and hard form available in Journals reports and manuals. For electronic access and search and Advanced search on Google and PU online website, and <u>www.ask.com</u> were mainly used. In the second step, 40 researches articles published in journals between 1990-2010 and some other materials and manuals on primary education were photocopied or downloaded and printed for the reading purpose. The complete version of each article was read many times for a clear understanding in regard to the nature, methodology and results of the studies.

In the third step, the concept of assessment of students and key indicator which were more frequently addressed in most of these researches were identified with the view of analyzing the previous research on the basis of key indicators.

ANALYSIS OF ASSESSMENT STUDIES

The differential performance of various primary education delivery systems and their cost effectiveness were studied under PEP-III. Tests were developed to assess students achievement as well as behavior. These tests were administered to boys and girls studying in 472 schools of different type in Punjab, Sindh and KPK. The composite scores of students were correlated with the per student cost of different types of schools to determine the most costeffective delivery system. The report presented data to establish the cost effectiveness of different types of schools but did not mention the reasons for these differences.

The study on Basic Competencies of Children in Pakistan, conducted by Perves, (1995) identified four basic competencies; the 3R's and life skills knowledge. A model sampling design, recommended by the WHO, was adopted to select a representative sample of 11-12 year old children. The sample, thus, included children in school, children who had been to school and had completed different grades, and also children who had never been to school. The study did not determine learning achievement of primary school children.

The MSU for SAP study (1995) on "Determinants of Primary Students Achievement" focused on grade 5 students. An achievement test based on the curriculum and books taught in grades 3 and 4 was administered to grade 5 students. Thus the study sought to determine the extent to which grade 5 students learned the material taught in grades 3 and 4. The students were those who passed examination held at the end of grade 3 and later also passed the examination at the end of grade 4. Those who could not demonstrate learning at the end of grade 3 and later those who could not display learning at the end of grade 4 were excluded from the group tested. Only those who reached grade 5 were tested.

The AEPAM study (1999) entitled "Measuring Learning Achievement at Primary Level in Pakistan" sought to assess learning achievement of grade 4 students in Mathematics, Science and Language (Urdu). The tests achievement consisted of 33 multiple-choice items on Mathematics, 35 items on science, and 35 items on Urdu. The tests were administered to a sample of 1,411 students of 75 boys' schools and 1,383 students of 70 girls' schools in 28 districts of Pakistan. The number of schools and students included in the sample were not proportionate to the universe. Besides, the study reported differences in student performance without relating these differences to causative factors.

In another study conducted by IER, achievement tests in all subject for grades 1 to 5 were developed. It was the most comprehensive attempt at assessing the achievement level of primary students in the Punjab. These tests were administered to 8,792 students in 132 schools of four districts. Analysis showed that girls and urban students scored better in grades 1 to 4. Boys, in general, and rural students, in particular, improved their performance by the time they reach grade 5 so as to perform at par with others. This finding has implication for the age of entry into five, because of lack of stimulation at home. This results in their poor performance as compared to urban students. However, with maturity they catch up with their urban counterparts. The study also showed that students in all grades scored higher in rote learning as compared to comprehension and application questions (The World Bank, 1999)

The Punjab "Curriculum Development and Research Centre" (CRDC) analyzed the "contents of first 4 to 5 chapters of textbooks" to develop assessment objectives in the light of curricula relevant to these chapters (CRDC, 1999). The study reported that the test covered first three to four lessons in the text book of each subject to ensure that the test did not include material which was not taught to students by the time the tests were administered. The report does not specify whether the 'instructional objectives'

identified from analysis of textbook were got validated from classroom teachers. The instruments were reviewed by experts and pre-tested. Instruments were "modified in the light of review and observations of pre-testing"

The assessment data collected under the study shows that in all grades rural students performed better in Science and Mathematics and poor in Social Studies. Girls scored higher than boys in both Mathematics and Science in all grades while boys scored higher than girls in Social Studies, Girls scored better in Urdu in grade 3 but boys caught up in grade 4 and surpassed in grade 5. The average percent scores ranged between 21 and 51; the highest being in Science and the lowest in Social Studies. With minor fluctuations, the level of students performance in Punjab is maintained and improved from the grades 3 to all subjects except social studies. The study revealed that teaching of Social Studies needs to be strengthened in Punjab.

With support of UNESCO, the Punjab Literacy Watch (1999) conducted a survey of pupil achievement in six districts of Punjab, two in each of the Northern, Central and southern regions. The districts were: Attock, Chakwal, Lahore, Sialkot, Muzaffargarh and Layyah. Tests in mathematics and Urdu were administered to 1371 students of grades 3, 4 and 5 in 16 boys schools, 14 girls schools and one co-educational school. On an average, students were able to correctly answer only 25 percent questions. Students average percentage score was 22 in mathematics and 28 in Urdu. Girls scored higher than boys in Urdu in all classes, while boys scored higher than girls in Mathematics in all classes. Another significant finding was that the combined (Mathematics+Urdu) mean percentage scores were 26, 26.3 and 23.1 for grades 3,4 and 5 respectively. Thus, while students in grades 3 and 4 correctly answered 26 percent questions, students in grade 5 could answer only 23 percent questions correctly.

In Sindh, three learning achievement studies were conducted during the second half of the 90's. While two of the studies were conducted under the SPEDP, UNESCO sponsored the Bureau of Curriculum and Extension Wing. Provincial BCEW conducted the first study in 1996. For this study, teachers, LCs and Supervisors graded performance of students of grades 1 to 3 in all subjects on the scale A to D. Under the second study, conducted in 1998, achievement tests in Mathematics and Sindhi/Urdu were administered to students of grades 3 and 5 (The World Bank, 1999). In the third study by BCEW, Jamshoro, conducted in 2000 was sponsored by UNESCO. Students performance in Mathematics, Science, Sindhi, Social Studies and Islamivat was assessed through tests. Achievement data for the study was collected from five boys' and five girls' schools, each from the rural areas of Hyderabad and Dadu districts. Tests were administered to 50 boys and 50 girls in each of the grades 3 to 5. The mean percentage scores ranged between 8 in mathematics and 46 in sindhi language. Rural students in the province obtained very high scores in Sindhi language but performed poorly in all other subjects (Govt of Sindh, 2000). Students performance in Mathematics, Science, and Social Studies should be a matter of concern for the school administration. Student performance in rural Sindh showed a downward trend as they progressed through primary grades; performance in Sindhi language being an exception. Achievement scores in the terminal years were alarmingly low in all subjects except Sindhi language.

Two learning assessment studies were carried out in(Khyber Pakhtoon Khwa) during the 90's. The Educational Assessment Unit established under the PEDP carried out an assessment study in 1995-96 while the Provincial BCDES, Abbott Abad, conducted the UNESCO sponsored study in 1999. Student achievement data was collected from 6,946 students of grade 3 and 4,627 of grade 5 in Mathematics, Science, Urdu and Pushtu, (The World Bank, 1999). Students scored highest in Pushto followed by Urdu. Students of grade 3 scored higher in Science but their achievement remained low in grade 5. The reverse is the trend in achievement in Mathematics. Teaching of Science and Mathematics should receive greater attention in primary schools of KPK.

The UNESCO commissioned the Provincial BCDES, Abbottabad, to conduct a learning assessment of rural primary school children in District Mansehra. The study revealed extremely low level of achievement by rural children in all subjects and at all grade levels. The mean percent scores of students in KPK varied from grade to grade and subject to subject. Rural students in KPK performed better in Science and Social Studies followed by Mathematics and Urdu. Students in rural KPK did not maintain the level of performance as they progressed through grades, except in social Studies. Rural students, who have so little exposure to Urdu, performed well in these subjects in grade 3. Their performance keeps falling every year. The sudden drop in level of performance from grade 3 to grade 4 in Urdu needs further probing. It should be a matter of concern that student achievement level also dropped in Mathematics and Science between grades 4 and 5.

As part of the Social Action Program, the Northern Areas Education Project, supported by the World Bank, government, and DFID, conducted an assessment study during 1999-2000. Based on the national curriculum, tests in Urdu and Mathematics were developed for students of grade 4. Urdu test had four components-listening, loud reading, reading with comprehension and writing. Mathematics test items covered problems in the areas of Number, Money, Measurement, Geometry, Information Handling and problem solving. The average performance of students was good in listening, loud reading, and reading with comprehension, but poor in writing a story. In case of Mathematics, the average performance of students was good in Number, Money and Measurement, but poor in geometry, information handling and problem solving. The findings again brought out the almost complete reliance on memorization at the expense of creativity and problem solving in primary schools. Girls performed better than boys in the language tests, while boys performed better than girls in the mathematics tests. The mean percentage score was 66 on the listening test, 79 on loud reading, 54 on reading with comprehension, and 37 on mathematics tests.

The provincial BCEC conducted an assessment study in rural schools of Pishin district Baluchistan during 1999-2000 with UNESCO support. The results suggest that the achievement levels of rural and urban children were equally low. The study conducted by BPEDP, Quetta, collected achievement data from students of grades 3 and 5 in life Skills, Mathematics and Urdu. The study reported district-wise data. The range of district-wise achievement scores was analyzed by subjects and grades (The World Bank, 1999). Balochistan students scored lowest in Urdu. The range of scores tends to increased as the students moved from grade 3 to grade 5. The achievement in Urdu shows overall improvement as the students moved from grade 4 to grade 5. On the other hand, the performance in Mathematics and Science shows a downward trend.

In another study, data was collected through and achievement test of data from 447 male and 354 female students in mathematics, Science, Social Studies and Urdu. The study showed low achievement level of rural students in Pishin district. The mean percentage scores ranged between 55 in science to 28 in Urdu. The performance of rural students in Science an Mathematics tends to improve as they progressed from grade 3 to 4, but again slides back as they reached grade 5. The low in level of performance in Science and Mathematics after grade 4 was too steep to be ignored. The performance of rural students of Balochistan was consistently low in Urdu.

COMPARATIVE VIEW OF ASSESSMENT STUDIES

The assessment studies conducted in Pakistan between 1990 and 2010 had different objectives. While studies conducted by Pervez (1995) and MSU for SAP (1995) sought to assess competencies, IER (1995) and AEPAM (1999) concentrated on assessment of subject mastery. However, the number of test items used to assess each competency was too small. It is believed that other things being equal, the longer the test, the higher the reliability and validity.

A second feature related to the extent to which data was collected on factors affecting quality. While IER, Pervez, MSU for SAP, and BRIDGES studies by collected information on characteristics of students /schools, AEPAM and studies conducted by Provincial Bureau of Curriculum collected opinions of head teachers, teachers, learning coordinators, students and parents about factors affecting quality of education. BRIDGE's students and MSU for SAP administered the test meant for students to the teachers also. If assessment studies are to provide direction for policy initiatives for quality improvement, more substantive evidence on contributing factors/variables should be provided.

A third feature of these studies related to the coverage of subjects and grades for data collection. While some sought to assess the performance of children who were in the final year of primary education through tests covering material contained in textbooks for grades 3 and 4. Other researches tested students of grades 3 to 5 with tests based on curriculum objectives and textbook materials for their grade. The items were sometimes based on the first four to five chapters of textbooks. Thus the data did not provide evidence of level of achievement at the end of grade. Again, some studies collected student achievement data pertaining to Mathematics and Urdu, other included Science and / or Social Studies and also Islamiyat. The sampling techniques and population covered also varied from study to study. Pervez drew his subjects from the sampled clusters. The sample drawn for AEPAM study did not appear to be a representative sample as the sample size from different provinces was not proportionate to their population. When aggregated national averages are reported these are likely to be biased. Studies conducted by Provincial Bureau of Curriculum collected data from a purposive sample of rural schools only. The question of drawing a representative sample poses difficulties in view of wide variety of schools with markedly different learning environment. These features of the studies make any comparison of results difficult. However, the conclusion that primary school system is not working efficiently is obvious. This calls for urgent reform initiatives.

The results of assessment researches varied widely with time as well as with purpose, curricular dowmain, instrument, grade level, sampling procedure and instrument. MSU for SAP found in 1995 that grade 5 students could correctly answered 46 percent questions on the Mathematics test. AEPAM study of 1999 found that grade 4 students obtained average mean scores of 72 in Science and Urdu and 59 in Mathematics. On the basis of assessment an attempt was made to estimate the level of learning achievement of grade 5 students in Mathematics, Science and Urdu. The levels of learning assessment presented more impressionistic than based on any weight of scores from different studies. On the final analysis, it may perhaps be reasonable to conclude that, "on average, students do not achieve competency on more than half the material in the 5th grade curriculum"

All children have the potential to acquire competence in all the material taught in the class. All that is needed, according to educational theorists, is suitably designed curriculum, effective teaching methodology, proper learning material, well organized academic supervision and community support. In actual practice, however, student achievement varied widely. There is no universally agreed desired target that students in each country should attain. Taking the ground realities into account, each country should set the desired level of achievement for its students. To be able to monitor progress towards the target, it would be necessary to define the minimum learning level for each grade in each subject. Considering the current low level of achievement, the national target may be set at 80 per cent of the cognitive primary curricular objectives to be achieved by at least 80 per of students.

FINDINGS AND RECOMMENDATIONS

Evaluation and improvement in education suggest that each district, school or even class room is so complex and distinctive that only highly context-specific strategies are likely to modify and improve their central functions. In the view of the Meta analysis of 19 researches studies, it is evident clear that the

emphasis of the research is on improvement of the primary education in Pakistan. Among the factors affecting achievement are parental education, their occupation and guidance, social, status, transport facility, self study, book reading and home or all have a positive or negative correlation with students' achievement.

Meta analysis expressed that students' performance in Mathematics, Science and Social Studies is a matter of concern for the school administration. Students' performance in rural Sindh shows a downward trend as they progress through primary grades; performance in Sindhi language being an exception. Achievement scores in the terminal years are alarmingly low in all subjects except Sindhi language. The results again highlight the need for strengthening problem solving activities in schools. The achievement level reported in the study is higher than that reported in earlier studies. It may be due to inclusion of a large number of items with low difficulty level, particularly from the textbooks for grade 3. The performance of rural students in Science and Mathematics tends to improve as they progress from grade 3 to 4 but again slides back as they reach grade 5. The performance of rural students of Baluchistan is consistently low in Urdu. The survey revealed that, the low performance in arithmetic was attributed to low competence in solving narrative problems. This finding has implication for the age of entry into the primary school. Children in rural communities are not ready for school at age five, because of lack of stimulation at home. This results in their poor performance as compared to urban students. However, with maturity they catch up with their urban students.

The differential performance of various primary education delivery systems and their cost effectiveness were studied under PEP-III. Tests were developed to assess students achievement as well as behavior. These tests were administered to boys and girls studying in 472 schools of different type in Punjab. Sindh and KPK. The composite scores of students were correlated with the per student cost of different types of schools to determine the most cost- effective delivery system. The report presented data to establish the cost-effectiveness of different types of schools but did not mention the reasons for these differences.

The successful expansion of educational improvement can be brought to scale across many schools and children from varying contexts. At the same time, we do not suggest that schools and policy makers dismiss promising programs before knowing their potential effects. Instead, we challenge the developers and the educational research community to make a long term commitment to research proven educational reform and to establish a market place of scientifically based models capable of bringing comprehensive reform to the nation's schools. The findings of the study reveal that overall the achievement level of students of grade 3 and 5 is low in Punjab; the province which enjoy relatively better educational opportunities in the country. Gender-wise comparisons also match with the international studies that the performance of girls in language has been found relatively better than boys. In contrast boys performance has been investigated relatively better than the boys.

In Mathematics, the performance of boys was better than girls at both grade 3 and 5 level. This might be due to less educational opportunities like number of schools in comparison to their proportion in the country's population, prevailing physical facilities, lack of parental support especially in rural areas, lack of awareness, and lack of trained and highly qualified teachers. In Urdu, the performance of girls was found relatively better than their counterpart boys. These results seem to be in consonance with various other international and national studies which explore that boys are relatively better in mathematics than girls, who in turn perform relatively better in languages than boys. In the integrated test of life skills-science, social studies and Islamyat, the performance of students both in grade 3 and 5 was found relatively better than in mathematics and Urdu.

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Table 1. A List of studies included in meta-analysis

Sr #	Name of Article	Nature of the Study	Year	Authors	Sample	Instrument	Subjects	Conclusion/ Results
1	Valid assessment of English language ability of Baccalaureate honors students	Qualitative	2010	Douglas E.Trimble	Whole university	MCQs test	English	 According to the faculty survey, 90% of students were accurately placed in the appropriate level class. Analysis of course grades showed that 90% of students earned a grade of C or higher in the course in which they were placed; 65% earned and A or B in the course.
2	Assessing achievement of primary grader students and factors affecting achievement in Pakistan	Qualitative	2005	M.Saeed, M.Bashir Gondal and Bushra	1,080 students	Achievement test	Math, Urdu and life skills (Isl, S.St and Sc.)	•Among the factors affecting achievement were parental education, their occupation and guidance, social, status, transport facility, self study, book reading and home or all have a positive or negative correlation with student's achievement.
3	A study on comparing school performance to understand which schools are doing better by assessing and comparing quality of education	Qualitative	2004	Ministry of Education, Islamabad	3442(1943 boys and 1499 girls), 1724 urban and 1718 rural. 172 head teachers and 300 teachers (133 167 female)	Standardized test	Math, Sc. Urdu	• Teacher's academic and professional qualification had a positive influence on their students achievement in general and particularly on the achievement of girls' and urban students.
4	Factors associated with learning achievement of grade-5 students in public schools	Qualitative	2002	AEPAM (MOE) Islamabad	Sample was consisting of 2,794 grade V pupils	Achievement test	Math, Urdu,Sc.	 The children of educated mothers had better scores. Education for girls up to secondary schools appears to be of fundamental importance.
5	Baseline Survey of Learning Achievement	Qualitative	2000	Bureau of Curriculum and Extension Wing Government of Sindh	50 boys and 50 girls	Achievement test	Math, Sc. Sindhi, S.St, Isl.	 Students performance in rural Sindh showed a so downward trend as they progressed through primary grades; performance in Sindhi language being an exception. Achievement scores in the terminal years were alarmingly low in all subjects except Sindh, language.

Sr #	Name of Article	Nature of the Study	Year	Authors	Sample	Instrument	Subjects	Conclusion/ Results
6	Comparative analysis of public, private and NGO school	Qualitative	1999	Action Aid Pakistan Islamabad	965 students of grade 4 students	Achievement test	GK	 A much higher proportion of students from private schools obtained 80% or more marks than students from public and NGO schools. The proportion of students scoring 80% or more marks was 47 in private schools as against only 25% and 31% from public and NGO schools.
7	Measuring Learning Achievement at Primary Level in Pakistan	Qualitative	1999	AEPAM (MOE) Islamabad	2,794 students of grade 5	Achievement test		 The results again highlight the need for strengthening problem solving activities in schools. The achievement level reported in the study is higher than that reported in earlier studies. It may be due to inclusion of a large number of items with low difficulty level.
8	Level of Pupil Achievement in Rural Primary school of Punjab	Survey	1999	Punjab Literacy Watch	1371 students of grade3,4 and 5 in 16 boys schools and 14 girls schools	Achievement test	Math, Urdu	• While students in grades 3 and 4 correctly answered 26 percent questions, students in grade 5 could answer only 23 percent question correctly.
9	Learning Achievement of Grade 3 to 5 children in Rural Primary schools	Qualitative	1999	Bureau of Curriculum and Extension Center Quetta, Balochistan	Rural primary school children in Districts Mansehra N.W.F.P.	Achievement test	S.St	 The sudden drop in level of performance from grade 3 to grade 4 in Urdu needs further probing. It should be a matter of concern that student achievement level also dropped in Mathematics and Science between grades 4 and 5.

Sr #	Name of Article	Nature of the Study	Year	Authors	Sample	Instrument	Subjects	Conclusion/ Results
10	Northern Areas Assessment study	Qualitative	1999- 2000	World Bank, Government and AFID	Students of grade 4	Achievement test	Urdu, Math	 The performance of rural students in Science and Mathematics tends to improve as they progress from grade 3 to 4 but again slides back as they reach grade 5. The performance of rural students of Baluchistan is consistently low in Urdu.
11	Learning Achievement of Grade 3 to 5 children in Rural Primary schools of District Pishin, Balochistan	Qualitative	1999	Bureau of Curriculum and Extension Center Quetta, Balochistan	447 male and 354 female in District Pishin,	Achievement test	Math, Urdu, S.St	 Girls performed better than boys in the languages test, while boys performed better than girls in the mathematics tests. The mean percentage score was 66 on the listening test, 79 on loud reading, 54 on reading with comprehension, and 37 on mathematics tests.
12	Learning achievement of Grader 3 to 5 children of Kasur district	Qualitative	1999	The Punjab Curriculum Research Development Center (CRDC)		Pre-tested experts	Math, Urdu, Sc, S.St	 The average percent scores range between 21 and 51, the highest being in science and the lowest in social studies. With minor fluctuations, the level of student performance in Punjab is maintained and improved between grades 3 to 5 in all subjects except social studies.
13	BPEDP	Qualitative	1998	Primary education directorate, Quetta, Baluchistan	District wise	Achievement test	Math, Urdu life skills	 Baluchistan students scored lowest in Urdu. The range of scores tends to increase as the students progress form grade 3 to grade 5.

Sr #	Name of Article	Nature of the Study	Year	Authors	Sample	Instrument	Subjects	Conclusion/ Results
14	SPEDP studies	Qualitative	1996	Bureaus of Curriculum and Extension Wing Jamshoro, Sindh	Teacher LCS and Supervisors	Achievement test	Math, Urdu Sindhi	 Students scored highest in Pushto followed by Urdu. Students of grade 3 scored high in science but their achievement becomes low in grade 5, but trend is reverse in case of achievement in mathematics.
15	PEDP Assessment	Qualitative	1996	North West Educational Assessment programme	6,946 students of grade 3 and 4, 627 of grade 5	Achievement test	Math, Sc, Urdu, Pushto	 Students scored highest in Pushto followed by Urdu. Students of grade 3 scored high in science but their achievement becomes low in grade 5, but trend is reverse in case achievement in mathematics.
16	Basic competencies of children in Pakistan	Qualitative	1995	Dr.Muhammad Pervez	11+ children	Achievement test	Math, Urdu	• The study reflects efficiency and effectiveness of primary education delivery system and revealed basic data required for developing school improvement initiatives.
17	Determinants of primary students achievement National survey results	Survey	1995	Multi-Donor support Unit for the social Action Programmed (MSU-SAP)	527 government, private commercial and NGO/Trust schools in Balochistan, Punjab and Sindh	Questionnaire	Math, Urdu, GK	 The overall performance of children was rather satisfactory in general knowledge and Urdu comprehension (69% questions correctly answered), performance in arithmetic was quite low. The low performance in arithmetic was attributed to low competence in solving narrative problems (only 35% questions in this area could be correctly answered).

Sr #	Name of Article	Nature of the Study	Year	Authors	Sample	Instrument	Subjects	Conclusion/ Results
18	The IER assessment study under PEP	<i>.</i>	1995	IER	8,792 students	Achievement test	All subjects	 Children in rural communities are not ready for school at age five, because of lack of stimulation at home. This results in their poor performance as compared to urban students. However, with maturity they catch up with their urban students. The study also showed that students in all grades scored higher in rote learning as compared to comprehension/application questions.
19	Differential activeness of primary age children and the effectiveness by school type	Qualitative	1994	Munawar Mirza ,Abdul Hameed	1883 students of grade 3 and 3, 108 Student of grade 5		Behaviour assessment	• The students of primary section of the middle schools and the five-teacher- primary-schools performed better than students of the primary sections of high schools. Furthermore, students of mosque schools had lowest scores.