

**MINISTRY OF EDUCATION
ISLAMABAD**

**NATIONAL EDUCATION ASSESSMENT
SYSTEM (NEAS)**



**REPORT OF THE FIRST NATIONAL
STAKEHOLDER CONFERENCE**

March 2006

FOREWORD

Like many developing countries, Pakistan is also faced with problem of expanding enrolment while at the same time improving the quality of education remains a challenge. Little evidence, however, is available in Pakistan on the quality of assessment of student learning. Most of the assessment activities in the past have been project driven. To fill-in this gap, the need for a planned and properly executed national assessment on permanent basis was badly felt.

In order to institutionalize the assessment system, National Education Assessment System (NEAS) and its associated centres in the Provinces (Provincial Education Assessment Centres-PEACEs) and Areas (Area Education Assessment Centres-AEACs), have been established as a priority programme under the Ministry of Education's (MoE) Education Sector Reform Action Plan. A specific priority within the overall plan is to:

“build assessment capacity at the school, provincial and federal levels to better measure learning outcomes and improve the quality and effectiveness of programme interventions.”

The National Education Assessment System (NEAS) have succeeded in development and conduct of two cycles of national achievement testing, with the assistance of its two Partnering Institutions (Intuition of Education and Research (IER), University of Punjab, Lahore and Federal College of Education, Islamabad). This endeavour helped in examining systemic performance and identifying areas for future reform efforts with ultimate aim of improving the quality of education. Government of Pakistan, with the financial and technical assistance of The World Bank, Islamabad and DfID has been able to institutionalize the process of student assessment as an essential feed back mechanism to up date curriculum, textual material, teachers training and delivery of the teacher in the class room.

To achieve the broader objectives of NEAS and to develop a shared understanding on the goals and objectives of assessment procedures the holding of National Stakeholders Conference was a step forward in soliciting the support of the stakeholders. All the stakeholders including international agencies, officials of the education department, civil servants, representatives of civil society organizations, teachers, parents, representatives of private schools, and N.G.Os were invited to review, assess and evaluate the national assessment result of 2005. Stakeholder's conference was able to identify the missing links in the national assessment and suggested further actions as plug points leading towards providing reliable guidelines to the planners, technical experts, key decision makers, curriculum and textual material developers and teacher training experts.

I personally appreciate the initiative of NEAS, Ministry of Education to hold this timely and innovative conference, probably first of its kind in Pakistan. I also congratulate and appreciate the support of the Provinces/Areas, The World Bank, DfID and British Council in making this conference a reality.

Government of Pakistan, Ministry of Education takes this opportunity to reiterate its support for NEAS and undertakes to facilitate in coordinating assessment efforts including the process of development/conduct and dissemination at national and provincial/area levels to establish a sustainable assessment system, the result of which will be reliable and accepted at national and international level.

SAJID HASSAN

Education Secretary
Ministry of Education
Government of Pakistan

March, 2006 Islamabad

ACKNOWLEDGEMENT

NEAS and its associated centres (PEACEs, AEACs, and ATCs) would like to acknowledge with thanks the support they have received from the donors, stakeholders and the individuals for the First National Stakeholder Conference. Thanks are particularly due to:

- Lt. Gen (Retd.) Javed Ashraf Qazi, Federal Minister of Education
- Mr. Sajid Hassan, Federal Education Secretary
- Mr. Julian Schweitzer, The World Bank Sector Director (South Asia Human Development)
- Mr. Saqib Ali Khan, Joint Education Advisor, Projects Wing, Ministry of Education, who inaugurated the conference, many thanks Ms. Shahnaz Wazir Ali, Chair Person of Panellist and to all who presented papers at the conference.

These provided valuable information to the participants and also formed the many thanks to the panellists who were instrumental in identifying key factors in the development of NEAD as a quality institution.

Thanks also to the staff of NEAS and its associated centres without whom none of this work would have been possible.

In addition, thanks are also due to The World Bank, Department for International Development (DfID) and British Council for the support provided for holding the First National Stakeholder Conference.

SYED KAMAL-UD-DIN

National Project Coordinator
(NEAS), Ministry of Education

March, 2006 Islamabad

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ABBREVIATIONS

ACER	Australian Council for Educational Research
AEAC	Area Education Assessment Centre
AEPAM	Academy of Educational Planning and Management
AIOU	Allama Iqbal Open University (Islamabad)
AJK	Azad Jammu and Kashmir
ATC	Assessment Training Centre
BEd.	Bachelor of Education
CT	Certificate of Teaching
DfID	Department for International Development
DoE	Department of Education
EMIS	Educational Management Information System
ETS	Educational Testing Service (USA)
FANA	Federally Administrated Northern Areas
FATA	Federally Administrated Tribal Areas
FCE	Federal College of Education (Islamabad)
GCET	Government College for Elementary Teachers
IAEA	International Association for the Evaluation of Educational Achievement
ICT	Islamabad Capital Territory
IER	Institute of Education and Research (University of the Punjab)
IPI	International Partnering Institution
IRT	Item Response Theory
MEd	Master of Education
MCQs	Multiple Choice Questions
MoE	Ministry of Education
NAT	National Achievement Testing
NEAS	National Education Assessment System
NIP	National Institute of Psychology (Quaid-e-Azam University)
NISMED	National Institute of Science and Mathematics Education Development
NPCC	National Planning and Coordination Committee
NWFP	North West Frontier Province
PEACE	Provincial Education Assessment Centres

PITE	Provincial Institute of Teacher Educations
PPS	Probability Proportional to Size
PTA	Parent Teacher Association
PTC	Primary Teaching Certificate
SAT	Scholastic Ability Test
SD	Standard Deviation
SMC	School Management Committees
TA	Technical Assistance
TIMSS	Trends in Mathematics and Science Study
TOEFL	Test of English as Foreign Language
WBI	World Bank Institute

EXECUTIVE SUMMARY

The First National Stakeholder Conference was held on March 21, 2006 in Islamabad to deliberate upon the report of Grade-IV National Assessment 2005, conducted as a step towards not only improving the quality of education but also expanding enrolment in Pakistan.

The objectives of the stakeholders conference were to:

- build close working relationship with stakeholders and find ways of harnessing the support of stakeholders
- share information regarding NEAS/PEACEs objectives and activities with the stakeholders
- identify the interests of stakeholders and encourage the stakeholders to participate actively in different activities of NEAS
- identify potential conflicts and risks that could jeopardize smooth working of NEAS

Lt. Gen. (Retd.) Javed Ashraf Qazi, Federal Minister for Education was the Chief Guest at the inaugural session. Mr. Sajid Hassan, Federal Education Secretary presided over the session. The participants included Mr. Julian Schweitzer, The World Bank Sector Director (South Asia Human Development), Mr. Steve Passingham, Senior Regional Education Consultant Department for International Development (DfID), British High Commission, Islamabad, officials of the education department, NEAS stakeholders, civil servants, donors, teachers, parents and representatives of civil society organizations.

The Federal Minister for Education in his inaugural address said that the present Government is reviewing education system and taking steps not only to increase access to education but also to improve the quality of education through reforms in curriculum/textbooks, examinations, teacher education and training. The revision had become all the more emergent to make the curriculum more vibrant and responsive to the modern socio-economic, professional and labour market needs of the country and to make it compatible with the International standards. The Minister announced that the government will look into making NEAS a permanent part of the Ministry of Education.

The World Bank representative in his comments expressed his delight to learn about the results and said that NEAS-2005 data is one of the important sources of information for policy making in Pakistan. He suggested that the role of School Management Committees (SMCs) in utilization of resources for improving the learning environment needs to be looked into and the assessment should be a regular feature and he looks forward to NEAS-2006 report.

The following seven presentations were made during the conference spread over three sessions:

- i. *Two years of NEAS* (Prof. Syed Kamal-ud-Din, National NEAS Coordinator)
- ii. *Results of National Assessment – 2005* (Dr. Parveen Hassan, Resident Technical Advisor, NEAS)
- iii. *Implication of National Assessment for Policy Formulation* (Dr. Syed Fayyaz Ahmed, JEA Planning and Policy Wing, Ministry of Education)
- iv. *Curriculum and Textbooks in the context of National Assessment* (Mr. Arif Majeed, JEA, Curriculum Wing, Ministry of Education)
- v. *National Assessment and Students' Learning Environment* (Prof. Dr. Muhammad Zafar Iqbal, Department of Education, Allama Iqbal Open University (AIOU), Islamabad)
- vi. *Quality Assurance Imperatives for National Assessment* (Dr. Munawar S. Mirza, Chairperson, Department of Women's Studies, Punjab University, Lahore)
- vii. *Implication of Teacher Profile and Classroom Practices for National Assessment* (Prof. Dr. Hafiz Muhammad Iqbal, Director IER, Punjab University, Lahore)

The panel presentations provided an analysis of the implications of NEAS finding for policy formulation and also identified some of the significant variables that impact student learning. They also pointed out some areas which needed action by the government.

During the question/answer session the issues addressed included low student achievement, need for improvement in teacher training, assessment of private sector, revision of curriculum and textbooks, languages of assessments and need for further research analysis.

Concluding the conference Dr. Pervez A. Shami, Director General, Academy for Educational Planning and Management (AEPAM), Islamabad appreciated the efforts of National Project Coordinator (NEAS) and his team for NEAS-2005 report. He said that NEAS has provided a sense of direction that may help the policy makers and planners and hoped that the report could go a long way in achieving the objectives for which the institution has been created. He also appreciated the panellists' presentations through which they identified some of the significant variables that impact student learning.

1. INTRODUCTION

1.1 Background

Information dissemination is being carried out to make findings known to stakeholders, media and elected officials so that they understand what the findings imply for administration of the education system, resource allocation and potentially effective policy shifts. For this National Education Assessment System (NEAS), Ministry of Education has prepared a dissemination strategy. Stakeholders' analysis exercise was carried out by NEAS and its partnering institutions to identify primary, secondary and external stakeholders of NEAS.

The National Education Assessment System conducts a sample-based national assessment in the country. NEAS consists of a central coordination body and its associated centres (PEACEs, AEACs and ATCs). Within each Province, PEACE is defined as being responsible for developing items, administering and scoring instruments, entering data, organizing workshops, seminars and disseminating reports. The central NEAS has been given the responsibility for planning and coordinating all aspects of national assessment, monitoring and controlling quality, and preparing a national report.

The objectives of the system are focused on four main areas:

- i. *Informing Policy*: the extent to which geography and gender are linked to inequality in student performance
- ii. *Monitoring Standards*: how well the curricula are translated into knowledge and skills
- iii. *Identifying correlates of achievement*: the principle determinants of student performance and how resource allocation might be re-directed
- iv. *Directing Teachers' Efforts and Raising Students' Achievements*: Assisting teachers to use data to improve student performance.

NEAS aims at close coordination with its stakeholders to achieve its objectives. A dissemination strategy has been prepared which lays emphasis on reaching out to the stakeholders pro-actively. Stakeholders Conference forms part of a set of activities aimed at achieving these objectives.

1.2 Objectives of the Stakeholders Conference

The objectives of the stakeholders conference were to:

- build close working relationship with stakeholders and find ways of harnessing the support of stakeholders

- share information regarding NEAS/PEACEs objectives and activities with the stakeholders
- identify the interests of stakeholders and encourage the stakeholders to participate actively in different activities of NEAS
- identify potential conflicts and risks that could jeopardize a smooth working of NEAS

1.3 Participants:

The participants of the conference represented a wide cross-section of NEAS stakeholders including civil servants, officials of the education department, donors, representatives of civil society organizations, politicians, teachers, students and parents etc. A list of participants is attached at Annex 1.

1.4 Issues Addressed:

The following issues were addressed during the conference:

1.4.1 Low Achievement:

Regarding the low achievement, the consensus was that there is need to identify the reasons as this may not be because of the slow learners. The background, environment and other factors could be the reasons. In case it is because of slow learners then they are not to be thrown away but remedial measures/courses to be adopted for them.

1.4.2 Teacher Training

Present teacher training is more theoretical than practical and it has not made major difference. In service training is non-effective. On the whole the teacher training needs to be reviewed so as to meet the challenges of the modern times.

1.4.3 Assessment of Private Sector

NEAS- 2005 is only confined to Public Schools. Since the private sector is playing quite a significant role in education, the consensus was that in future private sector be included in the assessment.

1.4.4 Curriculum / Textbooks

Regarding the curriculum and textbooks, NEAS–2005 report will be given due consideration. In future the essential part of national curriculum will be printed at the end of each textbook/teacher guide. The quality of textbooks is not up to the mark and it will be ensured that this problem is overcome.

1.4.5 Languages of Assessments

To be taken into consideration in future assessments and regarding translation of items it was clarified that it was carried out only for the foreign consultants.

1.4.6 Further Research / Analysis

It has provided enough material for the Universities/Institutions for further research/analysis.

1.5 Outcomes of the Conference

- NEAS obtained feedback from the stakeholders on issues of common concern so that they could be taken into consideration in future assessments
- NEAS shared with participants the objectives aims and purpose of NEAS.
- NEAS and the stakeholders identified the steps for moving forward with NEAS activities.

2. PROCEEDINGS OF THE CONFERENCE

2.1 First Session

The Federal Minister for Education, Lt. Gen. (Retd) Javed Ashraf Qazi was the Chief Guest at the Inaugural Session of the Conference. Mr. Sajid Hassan Federal Education Secretary, Ministry of Education presided over the session.

2.1.1 Recitation from the Holy Quran

The conference started with recitation from the Holy Quran. Mr. Abdul Razaq, Provincial Coordinator PEACE Balochistan recited some verses from the Holy Book.

2.1.2 Welcome Address (Mr. Saqib Ali Khan, Joint Education Advisor (JEA), Projects Wing, Ministry of Education).

Mr. Saqib Ali Khan, Joint Education Advisor, Projects Wing, welcomed the participants and guests on behalf of NEAS, Ministry of Education. He said the objective of the conference was to achieve close coordination with the stakeholders and to mobilize support from stakeholders with the aim for not only expanding access to education but also for enhancing the quality of education in Pakistan. He further added that NEAS had become fully functional and appreciated the support of provincial and regional authorities in this regard and expressed his hope that the valuable suggestions from the stakeholders and the deliberations will be helpful in achieving the NEAS objectives. A copy of address is attached as Annex 2.

2.1.3 Two Years of NEAS (Prof. Syed Kamal-ud-Din, National Project Coordinator, NEAS)

Professor Syed Kamal-ud-Din provided a review of the first two years of NEAS functional life. He started with presenting NEAS Vision and Mission to the participants and then moved to explaining the concept and purpose of national assessment. He also elaborated how NEAS fits in the context of international assessments. He described NEAS assessment schedule and the way NEAS functioned as a research institution. He threw light on the three major project components namely; capacity building, implementation of assessment activities and information dissemination. He enumerated a range of in country and international capacity building activities undertaken by NEAS including training workshops, certificate courses, masters' degree programmes, sandwich degree, courses in assessment and study visits. He also presented a list of activities undertaken for implementation of assessment activities and explained the steps taken to implement NEAS dissemination plan. A copy of presentation is attached as Annex 3.

2.1.4 Results of National Assessment 2005 (Dr. Parween Hasan, Resident Technical Advisor, NEAS)

Dr. Parween Hasan presented the findings of NEAS assessment carried out in 2005. She started with explaining the NEAS sample to participants and the way sample was

drawn. She threw light on basic dimensions of NEAS dataset and the difference between intended and achieved sample. She said since purpose of assessment was to monitor trends, NEAS had adopted a standardised scale which makes it easy to follow variation in national performance.

She explained the performance of Pakistani students in assessments and compared NEAS national average with international average. In her presentation she explained achievement of students by different variables including gender, location, medium of instruction and school level. She also explained background and context variables in relation to students' achievement scores. The background context included availability of black board, library and national curriculum.

Impact of teachers' teaching practices on student achievement was also elaborated in the presentation. The variables explained included teachers' gender, teachers' academic qualification, teachers' highest level of professional training, teaching experience, multi-grade teaching, homework, reward and punishment, participation in co-curricular activities, classroom participation, presence of PTA/SMCs and supervisors visits.

Another set of co-relates elaborated in the presentation included student background characteristics and achievement including age and achievement in relation to home language, help with Urdu and Mathematics at home, student absenteeism, parental education and occupation.

Summing up her presentation, she said that NEAS, PEACEs and AEACs had limited human resource capacity; she also noted that findings must be interpreted and implemented with caution and follow up research was required to identify specific variables impacting achievement. A copy of presentation is attached as Annex 4.

[2.1.5 Remarks by The World Bank Representative: \(Mr. Julian Schweitzer, Sector Director \(South Asia Human Development\)\).](#)

The World Bank being the key stakeholder as it provides financial assistance in terms of soft loans was represented by Mr. Julian Schweitzer. He in his comments stated that NEAS-2005 report is a significant achievement and is delighted to learn about the results. It is one of the important sources of information for policy making in Pakistan. It sets trends for the future and also forms basis for government as to where to put the resources so as to further develop education in Pakistan because developing education in Pakistan is most important. The results are significant but needs further analysis for use of resources. In his speech he suggested the role of School Management Committees (SMCs) in utilization of resources for improving the learning environment needs to be looked into. He further elaborated that national assessment is a good exercise as through this you know as to where the country stands as compared to other countries. NEAS-2005 report is a matter of great satisfaction. It should be a regular feature and looks forward to NEAS-2006 report.

[2.1.6 Summary of Inaugural Address \(Lt. Gen. \(Retd\). Javed Ashraf Qazi, Federal Minister for Education\)](#)

The Federal Minister for Education in his inaugural address informed that the present Government is reviewing the education system and taking the steps not only to increase access to education but also to improve the quality of education through reforms in curriculum, examinations, teacher education, training and national assessment. He also pointed out the changes being carried out in the existing examination system. The revised system is knowledge based system of education and discourages selective studies. The new policy is forward looking.

Scheme of studies and national curriculum is being revised. Previously the contents were put irrationally in the curriculum. Language will be taught as a language, literature for the purpose of literature and there will be no overlapping. The revision had become all the more emergent to make the curricula more vibrant and responsive to the modern socioeconomic, professional and labour market needs of the country and to make it compatible with the international standards. He stressed that the working conditions of teachers are being improved and being made more attractive so that persons with right aptitude come into the profession.

The Minister appreciated the efforts of Federal Education Secretary for the promotion of education in the country. He also appreciated the efforts of NEAS for organizing the stakeholders' conference and also acknowledged the support of donors such as The World Bank for their cooperation and assistance to the government in its initiative for establishing a sustainable system of education assessment in Pakistan. A copy of address is attached as Annex 5.

2.2 Second Session

The Second Session was presided by Begum Shahnaz Wazir Ali, Executive Director, Pakistan Centre for Philanthropy (PCP), Islamabad.

[2.2.1 Implications of National Assessment for Policy Formulation \(Dr. Syed Fayyaz Ahmad, Joint Education Advisor \(JEA\), Planning and Policy Wing, Ministry of Education\).](#)

In his presentation, Dr. Syed Fayyaz Ahmad elaborated importance of the role of educational assessment. He said that the assessment plays a pivotal role in standard led reforms by communicating the goals, providing targets and shaping the performance of educators, students and schools. Assessment can motivate students to learn better, teachers to teach better and schools to be more effective, provided standards are in place. He was of the view that NEAS assessment is limited to the cognitive domain whereas assessment should cover cognitive, psychomotor and effective domains of the curriculum. Moreover, we have not been informed what percentage of assessment instrument covered the knowledge, understanding and application aspect of a subject. A copy of presentation is attached as Annex 6.

2.2.2 Curriculum and Textbooks in the Context of National Assessment (Mr. Arif Majeed, Joint Education Advisor (JEA) Curriculum Wing, Ministry of Education).

Education is being recognized as the most vital investment in human resource development. Human resources ultimately contribute towards sustainable economic development of a country. Every single individual, therefore, has to play due role to bring positive change in the behaviour and attitudes of the people and to create a sense of participation of all social groups and individuals in the promotion of education.

National Education Policy 1998 – 2010 emphasizes provision of universal basic education, diversified secondary education, high quality tertiary education and efficient decentralized management. In the area of quality education, the policy suggests the development of a continuous process for a unified curriculum and introduction of a competitive system of multiple quality textbooks in order to broaden the knowledge base of students. The policy also recommends that national, provincial and school level capacity should be developed to assess and improve students' learning.

In Pakistan, the demand for quality education continues to outpace supply. The Education Sector Reforms Action Plan was, therefore, launched into 2001 for ensuring increased access, enhanced equity and improved quality at all levels of education.

In his presentation Mr. Arif Majeed informed that National Education Assessment System has been developed as policy decision of the Government to institutionalize the assessments and monitoring mechanism in Pakistan. A copy of presentation is attached as Annex 7.

2.2.3 Remarks (Ms. Shahnaz Wazir Ali, Executive Director, Pakistan Centre for Philanthropy (PCP), Islamabad).

In her concluding remarks Ms Shahnaz Wazir Ali expressed her delight at NEAS-2005 report. She was of the view that the results of the national assessment should be widely disseminated. She said since it is a new idea in this country, media needs to be involved and there should be discussions and debates so that the general public could understand the difference between examinations and assessments.

She said there is a perception, and it is a perception that may or may not be true that the private sector is delivering quality education as compared to the public sector. The NEAS through its future studies can help to ascertain it and can further come up with results regarding performance and efficiency of the private sector and the public sector. She appreciated the NEAS efforts to arrange stakeholders conference to share the results of first national assessment with stakeholders. She expressed her thanks to the participants and the stakeholders for their active participation and valuable discussion.

2.3 Third Session: Panel Presentations

The Third Session was presided by Dr. Pervez Aslam Shami, Izaz-e-Fazeelat, Director General Academy of Educational Planning and Management (AEPAM), Islamabad.

[2.3.1 National Assessment and Students' Learning Environment \(Prof. Dr. Muhammad Zafar Iqbal, Department of Education, Allama Iqbal Open University \(AIU\), Islamabad\).](#)

Appreciating the work done by the NEAS, Dr. Muhammad Zafar Iqbal in his presentation expressed that NEAS had provided the diagnosis and it is for the stakeholders to move and tackle the problems. He said job satisfaction for teachers' needs attention. He found it astonishing that the presence of a library did not effect student achievement. He said the matter needed further investigation by researchers. He suggested that a separate comprehensive school survey on the basis of household survey at district, provincial and national level may also be conducted by AEPAM/EMIS and supplied to NEAS.

He said process of consultation involving parents, teachers, principals and other stakeholders may help all parties to reach an agreement on the need for certain intervention for home background. A copy of presentation is attached as Annex 8.

[2.3.2 Quality Assurance Implicative for National Assessment \(Prof. Dr. Munawar S. Mirza, Chairperson, Department of Women's Studies, Punjab University, Lahore\).](#)

Dr. Mirza said that despite the fact that the staff was new at NEAS, they had managed to come out with a report which could form basis for further development and research initiatives. She applauded the work done by NEAS.

She emphasized the need for collaboration between NEAS and universities, so that Ph. D students could be given assignments for research to take forward the work done by NEAS. She said separate reports should be prepared for various stakeholders making it easy for them to concentrate on the portion related to their field of interest.

Dr. Mirza advised that the practice of developing items in English and then translating them into Urdu or Sindhi should be discouraged. She also gave suggestions about the issues of secrecy. She further suggested that NEAS should concentrate on building its capacity and avoid sub-letting and contracting of tasks. A copy of presentation is attached as Annex 9.

[2.3.3 Implications of Teacher Profile and Classroom Practices for National Assessment \(Prof Dr. Hafiz Muhammad Iqbal, Director IER, Punjab University, \(National Partner Institution of NEAS\), Lahore\).](#)

In his presentation, Prof. Dr. Hafiz Muhammad Iqbal said that there was a lot for policy makers in the assessment results 2005 that can be used as a benchmark.

However he cautioned that no hasty conclusions should be drawn from NEAS-2005 report and there was a need for further analysis to isolate factors confounding/intervening variables.

He said that some of the results of the assessment were inconsistent with BRIGES study carried out in 1989, for example the finding that teachers' academic qualification had no impact on students' achievement.

He said there was a need to compare progress of Pakistani students with the international community, probably by joining next TIMSS. He offered the services of IER to further analyze the data. A copy of presentation is attached as Annex 10.

[2.3.4 Concluding Remarks \(Dr. Pervez Aslam Shami, Izaz-e-Fazeelat, Director General, Academy of Educational Planning and Management \(AEPAM\), Islamabad\).](#)

In his closing remarks Dr. Shami appreciated the panellists' efforts and lively discussion by the participants. He said that the panellists' not only provided food for thought to participants but also identified some of the significant variables that impact student learning. He hoped that the NEAS 2005 report could go a long way in achieving the objectives for which the institution has been created. He further said that the Government was committed to make progress on the front and NEAS has provided a sense of direction that may help the policy makers and planners.

2.4 Vote of Thanks

In the last Mr. Imtiaz Ali Qureshi, Deputy Director NEAS paid vote of thanks. He thanked all officials of Ministry of Education, panellists, donors, especially The World Bank, DfID and British Council, provincial and area assessment centres, assessment training centres, the stakeholders, the participants and all others who cooperated in holding the conference successfully.

ANNEXES

ANNEX 1**LIST OF PARTICIPANTS****Guests of Honour**

Lt. Gen. (Retd.) Javed Ashraf Qazi, Federal Minister for Education (Chief Guest, Inaugural Session).

Mr. Sajid Hassan, Federal Education Secretary, Ministry of Education.

Conference Panellists

Ms. Shahnaz Wazir Ali, Executive Director, Pakistan Centre for Philanthropy (PCP), Islamabad.

Dr. Syed Fayyaz Ahmed JEA, Planning and Policy Wing, Ministry of Education.

Mr. Arif Majeed JEA, Ministry of Education (Curriculum Wing).

Dr. P.A. Shami, Director General, Academy of Educational Planning and Management (AEPAM).

Prof. Dr. Hafiz Muhammad Iqbal, Director, Institute of Education and Research (IER), Punjab University, Lahore.

Dr. M. Zafar Iqbal, Professor, Allam Iqbal Open University (AIOU), Islamabad.

Prof. Dr. Munawar S. Mirza, Chairperson, Department of Women's Studies Punjab University, Lahore.

Federal Government

Mr. Saqib Ali Khan, Joint Educational Advisor (JEA), Projects Wing, Ministry of Education.

Maj. Gen. Shahid Mukhtar Shah, Director General, National Institute of Science & Technical Education (NISTE).

Mr. Talib Hussain Talib, Chief Education and P&D Director, P&D Division, Islamabad.

Mr. Ramzan Achakzi, Secretary, Inter Board Committee of Chairmen (IBCC), Islamabad.

Mr. Muhammad Aslam Rao, Secretary, National Book Foundation (NBF), Islamabad.

Prof. Mrs. Shamim Humayun, Director, Federal College of Education, Islamabad.

Mr. Dawood Shah, Joint Director, Academy of Educational Planning and Management (AEPAM), Islamabad.

Mr. T. M. Qureshi, Deputy Education Advisor, Policy and Planning Wing, Islamabad.

Dr. Muhammad Tahir, Consultant MP-1, National Curriculum Council, Ministry of Education, Islamabad.

Ms. Nighat Lone, Coordinator/Consultant, National Curriculum Council, Ministry of Education, Islamabad.

NEAS

Prof. Syed Kamal-ud-Din, National Project Coordinator (NEAS).

Mr. Imtiaz Ali Qureshi, Deputy Director (NEAS).

Mr. Muhammad Fawad Baig, Admin & Accounts Officer (NEAS).
Ms. Sadia Tayyab, Psychometrician (NEAS).
Mr. Jaffar Mansoor Abbasi, Subject Specialist Social Studies (NEAS).
Ms. Shafqat Rahman, Subject Specialist Urdu (NEAS).
Ms. Ghazala Yasmeen, Ex. Subject Specialist Science (NEAS).
Mr. Muhammad Farooq, Ex. Subject Specialist Maths (NEAS).
Ms. Zarina Akhtar, Ex. Test Development Specialist (NEAS).
Mr. Shafiq Ur Rahman, I.T Specialist (NEAS).
Mr. Muhammad Farooq, Test Administrator (NEAS).

Government of Balochistan

Mr. Mohammad Tariq Ayub, Secretary Education, Balochistan.
Mr. Abdul Ahad Achakzai, Managing Director, Balochistan Education Foundation (BEF).
Mrs. Sultana Baloch, Chairperson, Balochistan Text Book Board.
Mr. Sadullah Tokhai, Director, Bureau of Curriculum & Extension Centre, Balochistan.
Mr. Abdul Razaque, Coordinator, PEACE.

Government of NWFP

Mr. Shafi Ullah Khan, Special Secretary Education, School and Literacy Department, NWFP.
Mrs. Ali Begum, Managing Director, Frontier Education Foundation (FEF), NWFP.
Mr. Attaullah Khan, Chairman, NWFP Text Book Board.
Mr. Fazli Manan, Director Schools, Schools and Literacy Department, Peshawar.
Mrs. Farzana Baqir Sharif, Director, Directorate of Curriculum & Teacher Education, Schools and Literacy Department, Abbottabad.
Mr. Zulfiqar Khan, Coordinator PEACE, NWFP.

Government of Punjab

Mr. Hamayun Mazhar Sheikh, Additional Secretary, Education, Punjab.
Mr. Jehangir Aziz, Chairman, Punjab Text Book Board, Lahore.
Prof. Dr. Hafiz Muhammad Iqbal, Director IER, University of Punjab.
Dr. Rizwan Akram Rana, Associate Professor, Institute of Education & Research (IER), Punjab University, Lahore.
Dr. Muhammad Bashir Gondal, Coordinator, Punjab Education Assessment System (PEAS).

Government of Sindh

Mr. Abid Hussain, Additional Secretary Education, Sindh.
Sheikh Abdul Rehman, Public Relation Manager, Government of Sindh, Karachi.
Mr. Abdul Latif Siddiqui, Director, Bureau of Curriculum and Extension Wing, Jamshoro.
Mr. Mushtaque Ahmed Shahani, Director General, PITE, Nawabshah, Sindh.
Mr. Muhammad Dawood Memon, Coordinator PEACE.

Government of AJK

Sardar M. Ashfaq Ahmed, Additional Secretary Education, Muzffarabad AJK.
Mr. M. Younus Qureshi, Coordinator, Kashmir Education Assessment Centre (KEACE).

FANA

Mr. Akbar Shahzad, Deputy Director, Coordinator, Area Education Assessment System Centre FANA, Northern Areas, Gilgit.
Mr. Adalat Khan, Assistant Director Education, Directorate of Education, Northern Areas, Gilgit.

FATA

Dr. Abdur Rauf, Director Education FATA Peshawar.
Mr. Mir Aslam, Vice Principal Elementary College Jamrud, Education Department, FATA.
Ms. Neelam Azam, Coordinator, Area Education Assessment Centre, FATA.

Academic Institutions

Dr. Muhammad Memon, Director, AKU-Institute of Educational Development, Sindh.
Brig. Retd Dr. Allah Buksh Malik, Chairman , Department of Education, NUML, Islamabad.
Mr. Mohammad Asif, Principal, Tameer-i-Nou High School, Quetta.
Dr. Uzma Qureshi, Principal, Libral College of Arts, Education Foundation University, Punjab.
Prof. M. Ayaz, Ex. Principal, Divisional Public School and College, Rawalpindi.
Ms. Nadia Tariq, Research Officer, Pakistan Centre for Philanthropy (PCP), Islamabad.
Mr. Muhammad Usman, Computer Programmer, National Institute of Psychology (NIP), Islamabad.
Mr. Stephen Francis, Research Associate, Allam Iqbal Open University (AIU), Islamabad.
Maj. (Retd) Riaz Alam, Principal, APS, Islamabad.

Donors/International Organisations/NGO

Mr. Julian Schweitzer, Sector Director (South Asia Human Development), The World Bank, Islamabad.
Ms. Tahseen Syed, Senior Social Sector Specialist, The World Bank, Islamabad.
Syed Ameer Hussain Naqvi, Senior Education Sector Specialist (Consultant), The World Bank, Islamabad.
Mr. Hassan Saqib, Senior Financial Management Specialist, The World Bank, Islamabad.
Mr. Anwar Ali Bhatti, Disbursement Specialist, The World Bank, Islamabad.

Ms. Sofia Shakil, Senior Education Sector Specialist (Consultant), The World Bank, Islamabad.

Mr. Altaf Ahmed, FM Coordinator, The World Bank, Islamabad.

Mr. Steve Passingham, Senior Regional Education Consultant, DfID, British High Commission Islamabad.

Mr. Richard Martini, Deputy Head, DfID, British High Commission.

Ms. Nargis Sultana, Education Advisor, DfID, British High Commission.

Ms. Jo Bakowski, Director Islamabad/ Deputy Director Pakistan, British Council, Islamabad.

Mr. Nasir Sohail Kazmi, Director, Grant Funded Services (GFS), British Council, Islamabad.

Dr. Parween Hasan, Resident Technical Adviser, British Council, Islamabad.

Mr. Zaigham Khan, Dissemination Consultant, British Council, Islamabad.

Mr. Javed Akhtar, Contract Manager, British Council, Islamabad.

Mr. Zamin Gul, Project Support Coordinator, British Council, Islamabad.

Mr. Jorge Sequeira, Director/Representative, UNESCO, Islamabad.

Mr. Thorsten Bargfrede, Second Secretary, European Union, Islamabad.

Ms. Lisa Chiles, Mission Director, USAID, Islamabad.

Mr. Richard Cartier, Director, USAID (ESRA), Islamabad.

Mr. Salman Humayun, Deputy Chief, USAID (ESRA), Islamabad.

Mr. Tom Crehan, Education Officer, USAID, Islamabad.

Ms. Magdalena Moshi, Head of Programme, World Food Programme (WFP), Islamabad.

Ms. Samia Abbas, Senior Project Implementation Officer, Asian Development Bank, (ADB) Islamabad.

Ms. Noriko Hara, Project Formulation Advisor, JICA, Islamabad.

Dr. Reinhard Sauer, Principal Advisor, GTZ, German Agency for Technical Cooperation, Islamabad.

Ms. Cynthia B. Lloyd, Project Director, Population Council, Islamabad.

Dr. Fareeha Zafar, Director, Society for the Advancement of Education (SAHE).

ANNEX 2**SPEECH OF THE FEDERAL MINISTER OF EDUCATION**

In the name of Allah, the most Merciful, the most Compassionate

- Mr. John Wall, Country Director, The World Bank,
- Provincial Ministers of Education,
- Federal and Provincial/Area Secretaries of Education,
- JEA (Projects Wing),
- Representatives of Donors,
- Panel Chairperson and Panelists,
- Directors, Departments of Education, Bureaus of Curriculum, Text Book Board,
- Chairpersons of Provincial Education Foundations,
- Eminent Educationists,
- Representatives of the Print and Electronic Media, Ladies and Gentlemen:

It is indeed a pleasure for me to be here today amongst this distinguished gathering of a wide range of stakeholders including educationists, parents, administrators, policy makers, donors, curriculum and assessment experts and media persons, who are jointly working for the development of education in this country. I am optimistic that your participation in this first stakeholder conference will contribute to develop and execute a credible and useful assessment system at national level which would ultimately lead towards improving the quality of education at elementary.

The Government of Pakistan is committed to invest in education for enhancing the quality of education through effective delivery of educational services: curriculum, quality textbooks and proper assessment system of the students. This issue of quality comes on top of the present Government's reform agenda. This issue is perhaps more important at the elementary level as children are in crucial formative years of human development.

We need to devise a mechanism to monitor quality assurance of delivery services and achievement of targets, including achievement of students. One of the monitoring indicators is the assessment of the students learning achievement through standardized tests. NEAS is a step forward in this direction and I am glad that this institution is striving hard to achieve this national objective on a technically sound basis in collaboration with provincial arms.

Ladies and Gentlemen,

It can be seen from the forgoing that NEAS has gathered considerable momentum over the period of time since it started. This institution after completing the establishment of its infrastructure, developed and administered the tests and background questionnaires in 800 schools nationwide, on the pattern of international assessment organizations. Data was analyzed and reported to all levels of policy

makers. The practice of conducting assessments by following internationally accepted procedures to ensure the credibility of data has been operationalized by this organization. It would take the process forward by developing the blueprints for action in the form of a well built second cycle of assessment in the light of feedback from the stakeholders. The federal and provincial governments are expected to coordinate in the required complex technical and administrative components, including implementation, resource availability, human resource development and monitoring to ensure the sustainability of NEAS activities in the long term.

I would like to take this opportunity to thank all those present here, particularly the World Bank, DfID, British Council and other donors for their technical and financial assistance, without which this plan of the MoE could not have been converted into reality.

NEAS has been instrumental in implementing an important initiative of the Government of Pakistan. NEAS activities have supported the Government of Pakistan in taking concrete measures to fulfill its commitment to EFA which call for monitoring of standards through assessment of students and the educational system for sustainable capacity development. I assure all of you that on obtaining feedback from this stakeholder conference every effort will be made to make NEAS a permanent institution both at national and provincial/area level for making standardized assessment a regular feature of the education system. Government of Pakistan would consider declaring NEAS as a permanent Wing of the Ministry of Education after the project life to give sustainability to the much needed monitoring of the educational standards in the country.

I wish all success to the organizers and participants of this First National Stakeholder Conference and look forward to receiving your recommendations on assessment initiatives of Government of Pakistan for quality assurance.

Thank you

ANNEX 3**WELCOME ADDRESS****Mr. Saqib Ali Khan, Joint Education Advisor (Projects Wing), Ministry of Education, Islamabad**

- Honourable Federal Minister of Education
- Federal Education Secretary
- Mr. Julian Schweitzer, The World Bank Sector Director (South Asia Human Development)
- Representatives of Donors
- Panel Chairperson and Panellists
- Directors, Departments of Education, Bureaus of Curriculum, Text Book Board,
- Eminent Educationists
- Ladies and gentlemen

I take this opportunity to express my deep gratitude to all of you for sparing your precious time for this conference. I warmly welcome you all and hope that you will have a comfortable stay in Islamabad.

The objectives of the Conference are:

- i. To build close working relationship with stakeholders and find ways of mobilizing support for stakeholders
- ii. To share information regarding NEAS objectives and activities with the stakeholders
- iii. To identify the interests of stakeholders and to actively engage them in NEAS activities.

During this conference I hope the expertise and suggestions provided by all of you will be helpful to attain the general and specific objectives of the NEAS.

I feel pleasure to inform you that the NEAS is now functioning fully. The cooperation of the provincial/area government in the past to raise the quality of education in Pakistan is highly appreciated. I am sure that this cooperation will continue in future for successful implementation of the project activities.

I hope that the conference deliberations will be fruitful and effective in order to improve quality of education in the country.

I once again welcome you all and thank you for coming. I wish and hope all the participants a worthwhile learning experience. We look forward to receiving your suggestions, interaction and involvement provided by all delegates for the success of conference.

Thank you ladies and gentlemen once again.

ANNEX 4

Presentation: Two Years of NEAS**Prof. Syed Kamal-ud-Din, National Project Coordinator, NEAS****What is National Assessment ?**

- It is: objective process for monitoring student learning achievement on a **sample basis**.
- It is usually a "low-stakes" assessment for individuals and "high stakes" for the nation.
- The process of collecting, synthesizing and interpreting information to aid in decision making.
- It is not an assessment of individual students, teachers or schools
- A school or public examination for promotion or selection

1

NEAS Vision and Mission**Vision**

Promoting quality learning among children of Pakistan

Mission

To carry out fair and valid National Assessments with the overall objectives of enhancing quality, equity & access to education.

2

Purpose of National Assessment

To improve the quality of education through:

- providing feedback to improve the quality of services in education (curriculum, textual material, and teachers' delivery);
- monitoring how the education system is performing;
- introducing realistic standards;
- identifying correlates of achievement;
- providing information to policy makers for effective interventions;

3

NEAS in the context of International Assessments

- The public, policy makers, private sector and schools have an interest in international comparative assessments, using standardized procedures.
- TIMSS: Trends in Mathematics and Science Studies under the auspices of International Association for the Evaluation of Educational Achievement (IAEA).
- TIMSS uses:
 - school Science and Mathematics curricula as the basis for assessments,
 - surveys of teachers and students to explore the context in which learning takes place.

4

NEAS in the context of International Assessments

Year	Grade		Countries	
1995	4	8	12	40
1999	-	8	-	38
2003	4	-	-	25
2003	-	8	-	48

From developed to developing countries:
USA, Germany, Japan, ...
Morocco, Philippines, Iran, ...

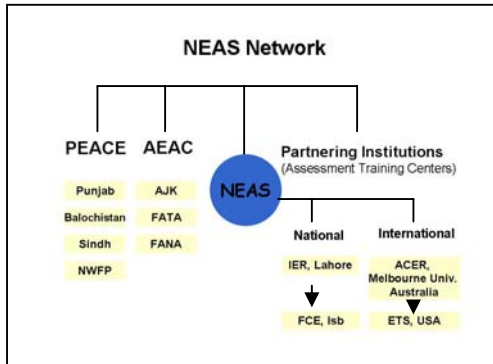
- Mediocre performance of students in some countries related to Mathematics and Science curricula, described as being "a mile wide and an inch deep"

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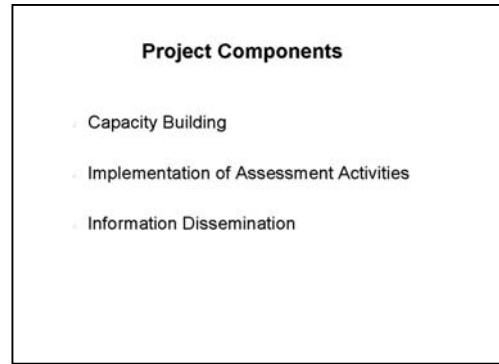
Assessment Schedule

Year	Grade & Subject	Test Type
2004	Grade 4 (Math, Languages)	Pilot Testing
2005	Grade 4 (Math, Languages)	Large Scale Testing
	Grade 4 (Social Studies, Science)	Pilot Testing
2006	Grade 4 (Math, Languages, Social Studies, General Science)	Large Scale Testing
	Grade 8 (Social Studies, Science)	Pilot Testing
2007	Grade 8 (Math, Languages)	Large Scale Testing
	Grade 8 (Social Studies, Science)	Pilot Testing
2008	Grade 4 (Math, Languages, Social Studies, Science)	Large Scale Testing
	Grade 8 (Math, Languages, Social Studies, Science)	Large Scale Testing

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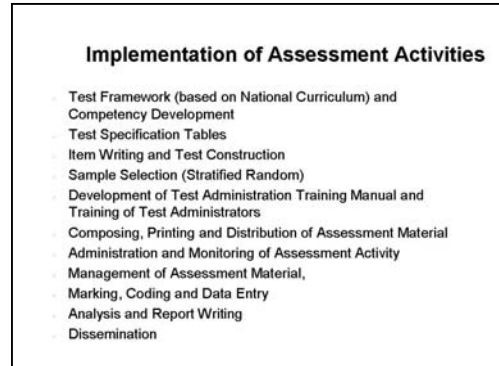
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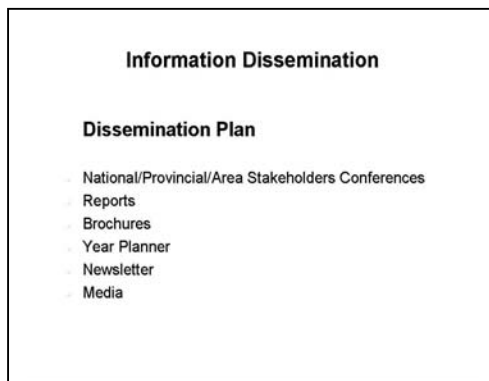
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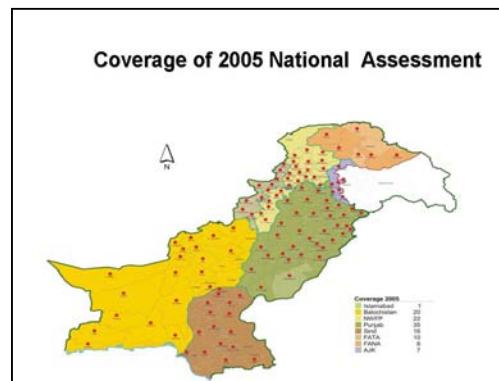
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ANNEX 5

Presentation: Results of National Assessment – 2005
Dr. Parveen Hasan, Resident Technical Advisor – NEAS

Basic Dimensions of NEAS Dataset

- Achievement Tests for Grade 4 students
 - Language (Urdu/Sindhi)
 - Mathematics
- Background and Context Variables
 - Questionnaires for:
 - Students
 - Subject Teachers
 - School Heads
- These were analyzed according to province, gender, location (explicit strata) and level of schools and age of students (implicit strata).

1

National Sample 2005

- Random stratified sample was drawn according to province/ areas, rural/urban; girls/boys categories covering the whole country.
- Schools were selected in fixed proportions from the defined groups (province/area, rural/urban, girls/boys)
- Total NEAS achieved sample in 2005 was 11,977 students of grade 4 from 784 schools in the NEMIS database.

2

National Sample – Intended and Achieved

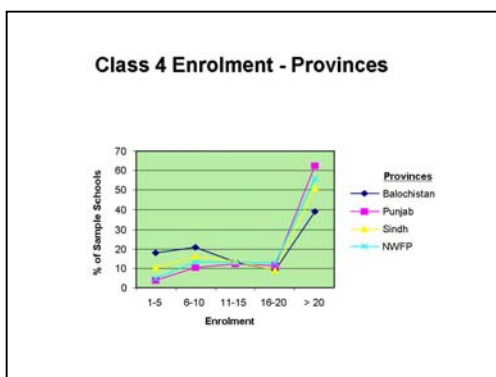
Province	Number of Schools		Number of Students	
	Intended	Achieved	Intended	Achieved
Balochistan	100	90	2000	1305
NWFP	100	99	2000	1630
Punjab	240	237	4800	4061
Sindh	150	152	3000	2128
AJK	60	57	1200	745
FANA	60	59	1200	719
FATA	60	60	1200	847
ICT	30	30	600	542
Grand Total	800	784	16000	11977
		98%		74.9%

3

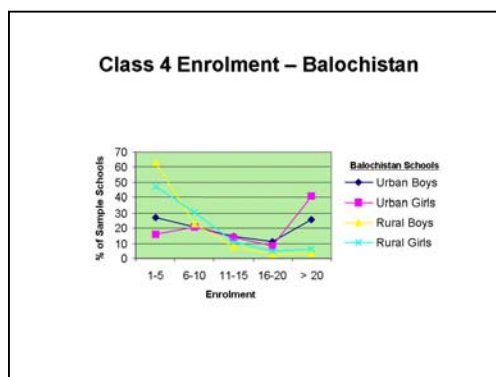
Sampling Outcome – Rural vs. Urban

	Rural	Urban
Intended	9300	6700
Achieved	5684	6293
Achieved %	61.12	93.93

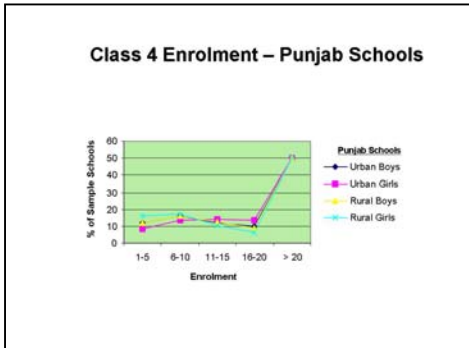
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6



7

School Levels in the Sample

School Level	% of NEAS sample	NEMIS %
Higher Secondary	1.1	0.7
Secondary/High	17.0	11.3
Middle	17.1	12.9
Primary	63.3	73.7
Mosque	1.6	1.2

8

- ### Students' Achievement in National Assessment
- Students' achievement is assessed on the basis of their scores on mathematics and language tests.
 - These scores provide a measure of how well the students can answer items (questions) based on the National Curriculum.
 - Scaled scores are used to prevent item selection having an undue influence on student scores.
 - The scale used in NEAS is the same as in TIMSS, SAT, TOEFL etc. The range of scaled scores is between 0-1000.
 - The achievement scales are constructed so that a student achieving 50% correct marks receives a scaled score of 500 and the standard deviation of the scale is set at 100.
 - These scores are used to report trends over time as well as the average and relative performance of different groups of students.

9

- ### Reported Significance Levels
- To check if differences in reported scores could have occurred by chance alone, differences in mean scores are reported as significant or not significant.
 - A difference is reported to be statistically significant if the chance of error is 5 out of 100 (significant), 1 out of 100 (significant) or zero out of 100 (highly significant).
 - Differences that could have occurred more than 5 times out of 100 are shown in the tables as n.s. (not significant).

10

How well did Grade 4 Students Perform in the Large Scale Tests – Nationally?

These scores are the achieved mean scaled scores for NEAS 2005 assessments on a national scale mean set at 500.

Subject	Scaled Mean Score
Mathematics	421
Urdu	369
Sindhi	362

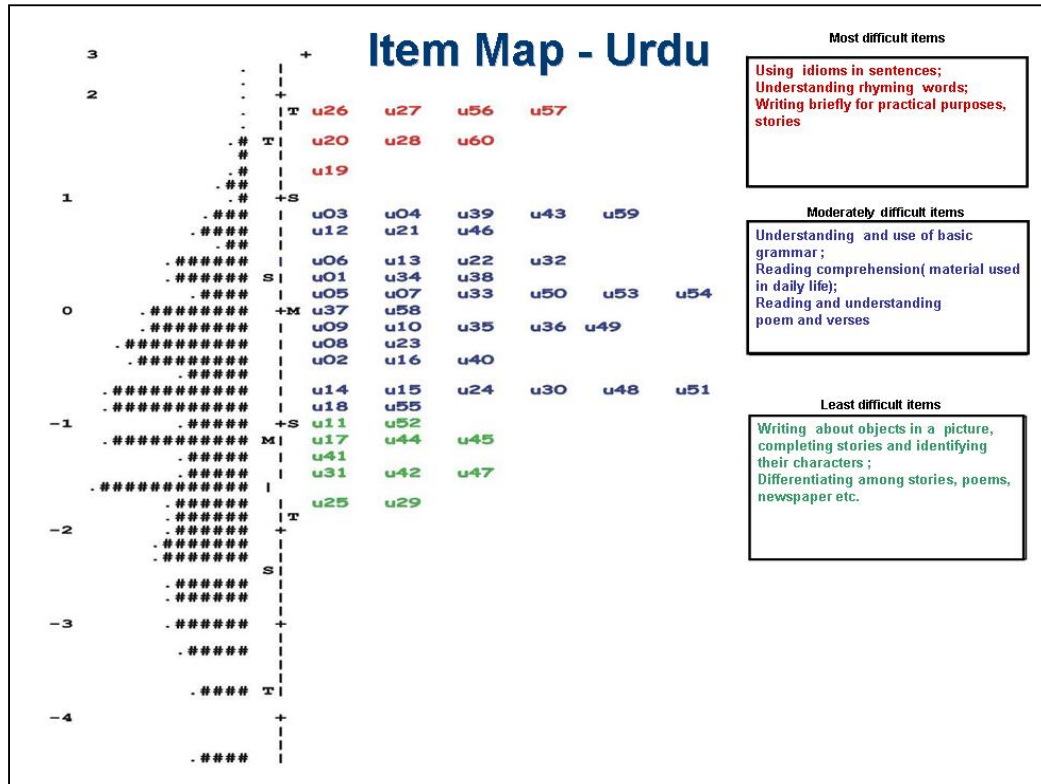
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NEAS National average scores vs. International average on Mathematics test

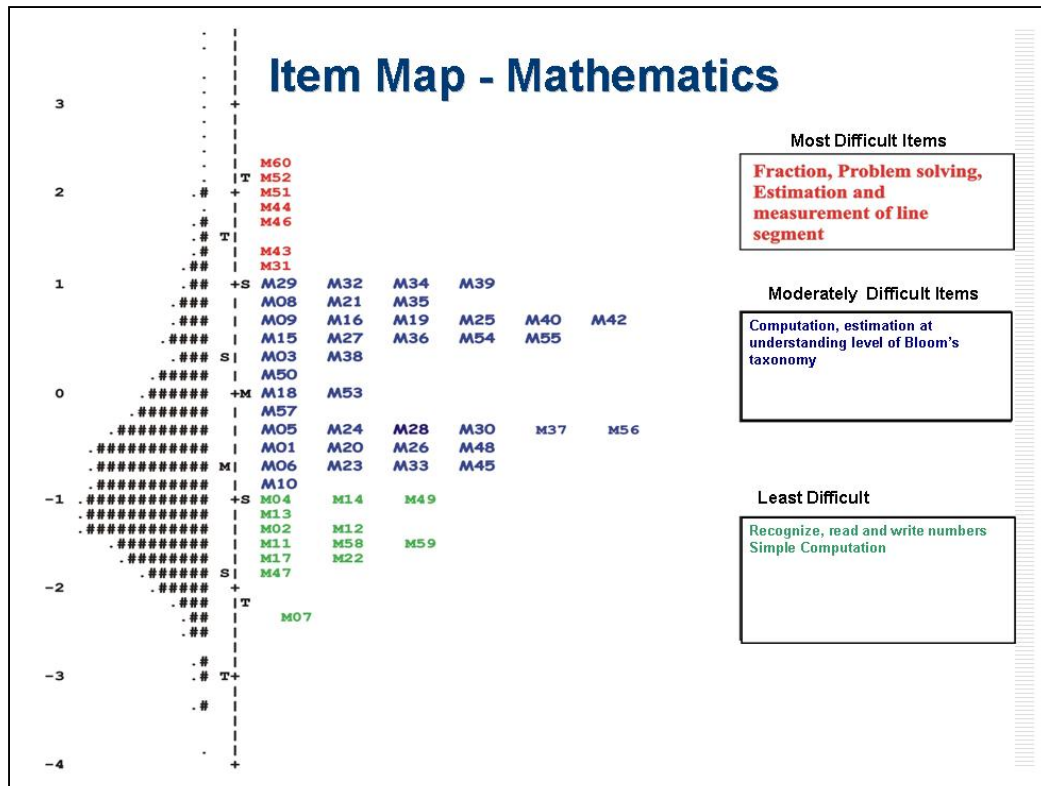
NEAS National Scores (2005)	International Scores (TIMSS, 2003)
421	495

- NEAS National Mathematics Scores are well below the international average score of 495 in TIMSS 2003
- The NEAS National scores and international average scores on mathematics test may be compared, considering the fact that NEAS used the same scale mean of (500) as TIMSS.
- However, this comparison should be interpreted with some caution because of the differences in:
 - Test framework
 - Sampling outcome
 - Test administration
 - Learning environment

12



13



14

NEAS National Average Scores vs. International Average on Mathematics Test

NEAS National Scores (2005)	International Scores (TIMSS, 2003)
421	495

- NEAS National Mathematics Scores are well below the international average score of 495 in TIMSS 2003
- The comparison of NEAS National scores and TIMSS average scores on mathematics test is only indicative as both assessments used the same scale mean of 500.
- However, this comparison should be interpreted with caution because of the differences in:
 - Test framework
 - Sampling outcome
 - Test administration
 - Learning environment

15

Average Mathematics Scores NEAS National vs. TIMSS Countries

NEAS National scores on Mathematics are relatively close to countries scoring low in TIMSS 2003.

Countries	Average Maths Scores: TIMSS 2003
Highest Scores	
Singapore	594
Hong Kong	575
Japan	565
Mid-level scores	
Slovenia	479
Armenia	456
NEAS National Scores (2005)	421
Lowest Scores	
Islamic Republic of Iran	389
Philippines	358
Morocco	347
Tunisia	339

16

Achievement by location

	Rural	Urban	Probability
Maths	418	430	n. s.
Urdu	360	399	0.000***

17

Achievement by Gender

Subject	Boys	Girls	Difference
Mathematics	424	420	n. s.
Urdu	350	405	Highly significant

18

Achievement of Sindhi and Urdu Medium Schools in Sindhi

Medium	Language Mean Score	Difference	Maths Mean Score	Difference
Sindhi	368		406	
Urdu	362 (in Sindhi)	n. s.	388	n. s.

19

School Level and Maths Achievement

School Levels	Mean Score by Level	Mean Score Other Schools	Difference
Higher Secondary	368	422	significant
Secondary/High	421	421	n. s.
Middle	412	423	n. s.
Primary	425	412	n. s.
Mosque	413	421	n. s.

- Mean Score of Grade 4 students in Higher Secondary Schools is significantly lower than mean score of Grade 4 students in other schools

20

School Level and Urdu Achievement

School Levels	Mean Score by Level	Mean Score Other Schools	Difference
Higher Secondary	354	369	n.s
Secondary/High	381	368	n.s
Middle	368	369	n.s
Primary	368	371	n.s
Mosque	362	369	n.s

- There was no significant difference in the performance of students belonging to different school levels on the Urdu test.

21

Background and Context Variables in Relation to Students' Achievement Scores

Findings of previous research in the field of achievement testing and educational research indicate that students' achievement is determined by:

- Student characteristics (e.g., home background, attitudes).
- Teaching- learning process/ teaching practices (e.g., teacher attitude, order and discipline, variety of teaching strategies, assignment of homework, students assessment, feedback).
- School conditions and climate (e.g., effective leadership, physical facilities, organized curriculum, flexibility and autonomy).
- Supporting inputs (e.g., Parent/ community support, effective support from education system).

22

Achievement in Relation to Availability of Blackboard

Availability of blackboard	Rural %	Urban %	Urdu Mean Score	Difference	Maths Mean Score	Difference
No	13	11	373.49	n.s.	398.17	Significant
Yes	37	89	368.85		424.06	

- Availability of blackboard significantly affected students mathematics scores not their Urdu scores.

23

Availability of Library and Student Achievement

Availability of Library	Rural %	Urban %	Urdu Mean Score	Difference	Maths Mean Score	Difference
No	78	68	367.45	n.s	418.65	n.s
Yes	27	32	380.63		427.98	

- Availability of library did not affect achievement scores in either Urdu or Mathematics.

24

Availability of MoE Curriculum (2002) and Student Achievement

Do you have the 2002 MoE approved curriculum?	%	Urdu Mean Score	Difference	Maths Mean Score	Difference
No	14%	362.46	n.s	411.52	n.s
Yes	86%	371.48		423.13	

- Reported availability of 'curriculum' in school did not contribute toward students' higher achievement scores in either subject. However, it is important to note that the 'curriculum' (nisaab) was probably interpreted by most of the schools as textbooks.

25

Teacher Gender and Student Achievement

Gender	Urdu Mean Score	Difference	Maths Mean Score	Difference
Male	351.42	Highly Significant	421.90	n.s.
Female	401.36		414.61	

- Urdu mean score of girls was very significantly higher than mean scores of boys.
- Additionally, there was a strong relationship between teacher and student gender. Majority of the girls (80%) and boys (90%) were being taught by teachers of their own gender.

26

Teachers' Academic Qualifications and Student Achievement

Teachers' Academic Qualifications	% Maths	% Urdu	Maths Mean Score	Urdu Mean Score
Secondary	35	36	430.02	368.56
Intermediate	20	19	427.87	387.27
Bachelors	30	30	402.75	355.67
Masters	15	13	420.70	369.80

None of the differences were statistically significant

- 15% of Mathematics teachers and 13% of Urdu were master's degree holders, but students of matriculate teachers performed equally well in comparison to students of teachers with master's degrees.

27

Teachers' Highest Level of Professional Training and Student Achievement

Teachers' Training	Urdu Mean Score	% Urdu Teachers	Maths Mean Score	% Maths Teachers
PTC	367	66	416	64
CT	377	16	446	18
B.Ed.	358	15	386	16

None of the mean score differences were significant

28

Achievement Scores in Relation to Teaching Experience

Teaching Experience (in years)	% Maths Teachers	% Urdu Teachers	Maths Mean	Urdu Mean
0 - 5	15	15	411.82	357.08
6 -10	16	14	414.54	354.54
11 - 15	26	27	421.92	374.36
16 - 20	24	24	433.95	390.07
21 - 25	9	11	428.35	338.41
26 and above	8	8	427.73	372.91

None of the differences were statistically significant

29

Multi-grade Teaching and Achievement

Multi-grade teaching	% Maths Teachers	Maths Mean Score	Difference	% Urdu Teachers	Urdu Mean Score	Difference
No	70	420.41		70	371.19	
Yes	30	408.48	n.s.	30	360.50	n.s.

- Students whose teachers took more than one class scored lower but these differences were not statistically significant for either Mathematics or Urdu.
- Highest percentage of multi-grade teaching was reported from FANA and FATA (53%-68%) and lowest from ICT and Punjab (12%-23%)

30

Homework and Achievement

Students' report of getting home work	% Students	Urdu Mean Score	Difference	Maths Mean Score	Difference
No	5	297.94		386.93	
Yes	84	376.52	Highly Significant	424.95	Significant

- Students who reported they got home work scored significantly higher on both the tests.

31

Reward and Punishment in School

Do you get any prizes or incentives?	Maths Mean Score	Difference
No (33%)	401.00	
Yes (67%)	433.88	Significant

Do you get punishment at school?	Maths Mean Score	Difference
No (60%)	432.07	
Yes (40%)	405.58	Significant

32

Participation in Co-curricular Activities

Do you take part in co-curricular activities?	% Maths	Maths Mean Score	Difference	% Urdu	Urdu Mean Score	Difference
No	20	402.45		22	346.81	
Yes	60	428.46	Significant	68	379.17	Significant

- Students participating in co-curricular activities performed better on both the tests than those who did not participate in these activities.
- Raw frequencies on co-curricular activities show that the highest majority of the students participate in Q'raat/Na'at, and games as compared to debates and drama.

33

Classroom Participation and Achievement Score

Does your teacher allow you to ask questions in class?	% Rural	% Urban	Maths Mean Score	Difference	% Urdu	Difference
No	10	09	382.73		287.80	
Yes	90	91	425.59	Significant	379.65	Significant

34

Presence of PTA/SMC in Schools

PTA/SMC	% Rural	% Urban	Maths Mean Score	Difference	Urdu Mean Score	Difference
No	10	8	436		404	
Yes	90	92	418	n.s.	369	n.s.

- Presence of PTA/ SMC did not significantly affect the performance in either of the subjects.

35

Supervisors' Visits in Rural and Urban Areas

Location	Weekly Visits %	Twice a Month %	Monthly %	Every Three Months %	Other %
Rural	12	13	46	19	9
Urban	20	12	40	18	10
Total	17	13	43	18	9

Frequency of Visits	Mean Score
Every Week	410.793
Twice a Month	420.618
Every Month	414.709
Every Three Months	415.385
Less Often than 3 months	451.897

- Fewer visits of supervisors' are linked with higher mean scores on mathematics achievement test.
- Highest mathematics mean score of students is in schools visited less often than once in three months.
- No significant difference in Urdu scores.

36

Age and Achievement

Age	%	Maths Mean Scores	Urdu Mean Scores
Less than 9 years	5.1	386.44	343.31
9 years	9.4	436.95	404.21
10 years	23.2	427.03	376.25
11 years	17.4	422.47	369.75
12 years	20.8	422.01	360.94
13 years	8.9	423.99	378.34
14 and above	6.4	417.86	358.42

- Nine year old students (the appropriate age group for grade 4) had the highest mean scores on both the tests.
- Scores did not increase with increase in age.
- Implication for the practice of grade repetition, delayed admission etc.

37

Achievement in Relation to Home Language

Language	Urdu Mean Score	Difference	Maths Mean Score	Difference
Urdu				
Yes	376.43		411.08	
No	369.84	n.s.	423.93	n.s.
Pushhto				
Yes	336.11		393	
No	378.33	Significant	429	Highly Significant
Sindhi				
Yes	370.99		405.94	
No	370.05	n.s.	424.15	n.s.

38

Achievement in Relation to Home Language

Language	Urdu Mean Score	Difference	Maths Mean Score	Difference
Punjabi				
Yes 35.54%	380.39	n.s	411.08	n.s
No	364.91		425.94	
Balochi				
Yes 0.09%	372.43	n.s	436.07	n.s
No	370.05		420.14	
Seraiki				
Yes 3.26%	441.59	Highly Significant	420.47	n.s
No	368.43		461.88	

39

Help with Urdu and Maths at Home

Who teaches at home?	Urdu Mean Score	Maths Mean Score
Nobody	314.54	393.47
Father	397.96	446.05
Mother	371.32	408.52
Brother	371.12	423.69
Sister	399.50	421.76
Tutor	388.93	429.94
Other	394.46	440.71

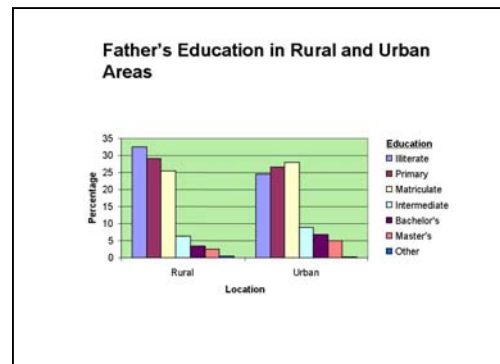
Students who reported that nobody taught them Maths or Urdu at home had significantly lower scores than students who were taught by father, brother, tutor or sister.

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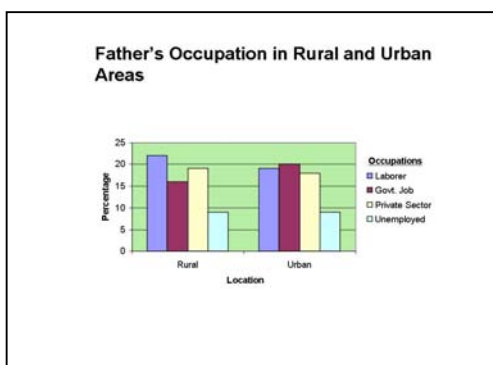
Student Absenteeism

Reasons for absence	Urdu Mean Score	Difference	Maths Mean Score	Difference
Illness				
No 16%	323	Highly significant	398	Highly significant
Yes 84%	384		431	
Babysitting				
No 85%	377	Highly significant	429	Highly significant
Yes 15%	328		393	
Harvesting				
No 80%	378	Significant	427	Highly significant
Yes 20%	333		403	

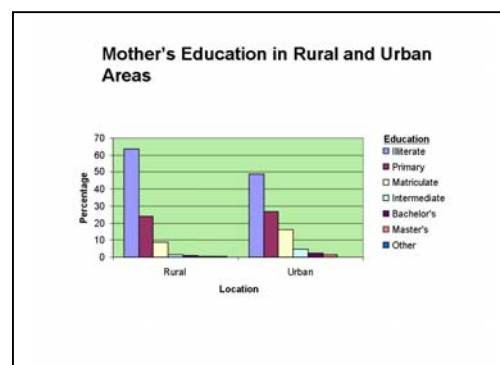
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About this Presentation

- First cycle on large scale, sampling the whole nation.
- Complexity of coordination, remote, small schools, Federal, Provincial, District, Tehsil, school levels involved.
- Limited technical and management HR capacity in NEAS, PEACEs, AEACs, understaffing, rapid turnover.
- Findings to be interpreted, implemented with caution.
- Follow up research studies needed to identify specific variables impacting achievement.

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Provinces/Areas vs. Rest of the Nation Scores on Urdu Achievement Test

	Province / Area	Provincial/ Area Mean	Rest of Nation	Difference
ICT and Balochistan scores were significantly higher as compared to the rest of the nation.	Balochistan	403	368	Highly significant
NWFP scores were significantly lower as compared to the rest of the nation.	NWFP	327	378	Significant
	Punjab	382	356	Significant
	Sindh	367	369	n.s.
No significant differences were found in the performance of students from Sindh, AJK, FANA and FATA.	AJK	359	369	n.s.
	FANA	375	369	n.s.
	FATA	345	369	n.s.
	ICT	433	368	Highly significant

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Province/Area Score in Maths in Relation to the Rest of the Nation

	Province / Area	Provincial/ Area Mean	Rest of Nation	Difference
Students from ICT got higher mean scores as compared to rest of the nation.	Balochistan	443	420	n.s.
	NWFP	415	426	n.s.
	Punjab	430	412	n.s.
Students from Sindh and AJK scored significantly lower than other Provinces/Areas.	Sindh	402	422	Significant
	AJK	395	422	Significant
	FANA	418	417	n.s.
	FATA	451	420	n.s.
	ICT	439	433	Significant

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Teacher's Performance on the Tests

Maths	Number	%	Urdu	Number	%
Up to 50%	45	7.54	Up to 50%	19	3.19
51-60%	45	7.54	51-60%	28	4.70
61-70%	75	12.56	61-70%	75	12.58
71-80%	127	21.27	71-80%	190	31.88
81-90%	186	31.16	81-90%	249	41.78
90%+	119	19.93	90%+	35	5.87
Total	597		Total	596	

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ANNEX 6

**Presentation: *Implications of National Assessment for Policy Formulation*
 Dr. Syed Fayyaz Ahmad, Joint Educational Advisor (JEA) Planning and Policy
 Wing, Ministry of Education**

It is a pleasure to address friends, colleagues and associates on what I believe to be important topic “Implications of national assessment 2005 for policy formulation”. Education reformers suggest that assessment play a pivotal role in standards led reforms by communicating the goals and providing targets and also shaping the performance of educators, students and schools. Assessment can motivate students to learn better, teachers to teach better and schools to be more educationally effective provided standards are in place and needless to mention the self-awareness of achievement. Assessment generally should cover cognitive, psychomotor and affective domain of the curriculum, where as this assessment is restricted to only cognitive domain. Moreover, we don’t know what percentage of assessment instrument covers the knowledge (30%), understanding (40%) and application aspect (30%) of a subject?

In this presentation, I wish to spend a brief amount of time in inferring policy elements, which can have a direct relationship with education management, quality school education, role of the community and assessment procedures. Some of the following findings, which may have implications for future policy considerations, are interpreted as under:

- i. Stratified random sampling has shown very low grade-IV enrolment particularly in the rural schools in Balochistan.

Explanation:

This reflects that school have been built in rural Balochistan without a proper school mapping as a result that there are more primary schools than the primary aged group children. One can also draw a conclusion that the schools are built under political influence without realization by our decision makers that investment in school construction will go waste if it is not optimally utilized for educating the children. One can also infer from this finding that the student dropped-out before they reached grade-IV.

- ii. Based line students score are below the scaled means (Average) scores of 500 (Maths=421, Urdu=369, Sindhi=368).

Explanation:

One can infer from this finding that our children of grade-IV has the analytical capacity to learn mathematics more effectively or they are more motivated to learn mathematic than languages or Maths teachers are more committed in their profession than the language teachers or may be due to home environment. Other conclusion for low score language can be that the textual materials for languages are not based on graded vocabulary. Urdu books/lessons may not be interesting, attractive and creative

resulting that both teachers and students lose their interest in language, which is different from mother tongue.

- iii. Maths scores did not differ significantly by gender (girls/boys or location rural/urban).

Explanation:

This finding shows that quality of our Maths teaching irrespective of gender or place of duty have the same scale of expertise. In order to facilitate the students to achieve average or higher than average our teachers need to be exposed to modern scientific skills in teaching of Maths through lab activities. This may facilitate the children to score more than average.

- iv. In Urdu, urban students had significantly high scores than rural students. Girls have significantly high scores than boys.

Explanation:

This finding is very much related to the school, home characteristics and teaching methodology. Student's background in urban schools is heterogeneous in nature, therefore, they communicate with each other in Urdu and moreover, the students also share their day-to-day experiences with parents and family members in Urdu as compared to rural students. On the contrary, rural students group are homogeneous, consequently they communicate among the peer student in the mother tongue, which is different from Urdu language. Furthermore, teacher explains Urdu lessons in their mother tongue. This students and teachers behaviour might have led to a low score in Urdu by rural students. Our rural students need to be provided with additional supplementary materials in Urdu language and be encouraged to read for better understanding of languages and its usage. Our Urdu teachers have to encourage their students to communicate with peer students in Urdu language during the language teaching.

- v. Above 90% of rural and Urban School reported having a PTA or SMC, there was no significant difference between the Urdu and Maths scores of schools, which had PTA/SMC, and that, which did not have.

Explanation:

This reflects that PTA or SMC may not be involved in monitoring of students achievement and teacher performance. These institutions are not functioning to its maximum capacity to meet its objectives. There is a need to empower PTA/SMC to monitor administrative as well as academic activities of school. PTA/SMC is still in its embryonic stage of development and likely to improve its functioning in the subsequent years. One can also conclude that member composition of PTA or SMC are not well qualified for monitoring the student achievements.

- vi. Age of grade-IV students as recorded in the school admission register ranged from less than 9 years (5%) to above 14 years (7%). Nine years old had the high scores in both Maths and Urdu.

Explanation:

This finding clearly spells that there is no proper admission policy in our school. Age recorded in the school register is not based on any proof / documentation. Achievement of higher score in language and Maths by 9 years old as compared to the 14 years students indicates that the mathematic and language lessons are according to the cognitive ability of the 9 years child. Higher age group children could not achieve required score due to lack of positive attitude for learning or they may be repeater and lost their interest in learning.

The explanation of the assessment findings 2005 provide following elements for our policymakers to review: (i) location process of schools in the rural setup of the country, (ii) school record keeping system and make it inconsistent with data collection instruments used for annual school survey (iii) efficiency and efficacy of PTC and CT credential, for teaching profession (iv) admission policy for PTC and CT courses with reference to the demand of school subjects (v) textbook for its improvement in the contents and provision of supplementary material in Maths and languages (vi) teaching methodology for language and Maths (vii) in-service teacher training program for Maths and languages and (viii) assignment and responsibilities for the members of SMC/PTA (ix) identify minimum standard criteria for each subject of each class and (x) to develop teacher competency for each subject and class-wise based on this standard (xi) remedial measures classes for slow learners

ANNEX 7

Presentation: *Curriculum and Textbooks in the Context of National Assessment* Mr. Arif Majeed, Joint Education Advisor (JEA) Curriculum Wing, Ministry of Education.

The Quest for Quality

Education is being recognized as the most vital investment in human resource development. Human resources ultimately contribute towards sustainable economic development of a country. Every single individual, therefore, has to play its due role to bring a positive change in the behaviour and attitudes of the people and to create a sense of participation of all social groups and individuals in the promotion of education. Educational development in a society depends upon the awareness, motivation, sustained efforts and increased provision of access to education for all segments of the society – poor or rich alike. Besides increased access, the quality in education develops analytical capabilities and critical thinking amongst the students to become a critical mass needed for a sustainable development of the economy.

Pakistan's concern for quality in education has been reflected in its Constitution and in all its policies and plans. Entry 38 to the Concurrent Legislative List of Fourth Schedule to the Constitution of Islamic Republic of Pakistan, 1973, among others, assigns curriculum, syllabus and standards of education to the Federal Government. This constitutional provision found expression in the enactment of "The Federal Supervision of Curricula, Textbooks, and Maintenance of Standards of Education Act, 1976". The Act empowers the Ministry of Education to design curricula and textbooks relevant to the nation's changing social and academic needs, to have textbooks of quality developed and to maintain the standards of education. Ministry of Education is, therefore, not only striving for increased access to education but also for improved quality in education.

National Education Policy 1998-2010 emphasizes provision of universal basic education, diversified secondary education, high quality tertiary education and efficient decentralized management. In the area of quality education, the Policy suggests the development of a continuous process for a unified curriculum and introduction of a competitive system of multiple quality textbooks in order to broaden the knowledge base of students. The Policy also recommends that national, provincial and school level capacity should be developed to assess and improve students' learning. It is, therefore, essential to know how effective is the

Process of learning, particularly how effective are the critical literacy and numeracy skills being developed among students.

In Pakistan, the demand for quality education continues to outpace supply. The Education Sector Reforms Action Plan was, therefore, launched in 2001 for ensuring increased access, enhanced equity and improved quality at all levels of education. Quality in education cannot be enhanced in isolation. There has to be concerted and coordinated efforts in all areas of education. The quality framework, therefore, can be defined as a series of linked outcome-based processes such as curriculum appropriateness, availability of quality textbooks and supplementary reading

materials, teachers' ability to deliver in class, evaluation mechanisms through classroom assessments and examinations, monitoring of educational inputs through assessing the competencies and learning achievements of students in different subjects and at different levels. As such, assessment of the learning achievements is crucial not only for monitoring the educational inputs but also for ensuring that learning objectives outlined in the curriculum are achieved fully to produce the kind of students needed for sustained development of education and the society.

The National Assessment

Since 1983 a number of studies to assess learning outcomes or learning achievements of students were conducted. In 2001 National Assessment Study based on the national sample was conducted by the Curriculum Wing of the Ministry of Education in collaboration with UNESCO to identify the strengths and weaknesses of the system inputs through assessing the learning achievements of Class IV students in the subjects of Urdu/Sindhi, Mathematics, Science and Social Studies. However, since all these studies were mostly project driven, these could not establish any ownership or sustainability as there was no institutional base at the federal and provincial levels to sustain assessment activities. The initiatives taken were on a small scale and needed standardization and comparability. National Education Assessment System was, therefore, developed as a policy decision of the Government to institutionalize the assessments and monitoring mechanism in Pakistan, to assess how the system of education has performed over the years, to identify strengths and weaknesses of the educational system as a whole and to recommend measures necessary for improving the curriculum, instructional materials, classroom delivery, school management and the whole lot of educational inputs.

The Context

Ministry of Education is currently engaged in the process of reviewing, updating and reforming the National Curriculum so as to bring it in line with the changing societal needs, global changes and job market requirements, and to provide the students better options to enhance their life skills and knowledge enabling them to become useful, productive and enlightened citizens of Pakistan. This will be followed by development of textbooks and learning materials compatible with the curriculum requirements and learning needs of the students. A strategic framework for policy dialogue and coordination in teacher education will also be designed for developing minimum standards of teacher competencies in line with the objectives and learning competencies outlined in the new curriculum. The findings of the National Achievement Test conducted by NEAS in Language and Mathematics of Class-IV students disseminated through National Assessment Report 2005 could be used as a feedback and an empirical evidence on the correlates of students' achievements in the context of existing curriculum and textual contents in use in determining the gaps and hard areas for the students in the whole learning process.

In line with the major objectives of NEAS as identified in National Assessment Report 2005 on (1) Informing Policy (2) Monitoring Standards (3) Identifying Correlates of Achievement and (4) Directing Teachers' Efforts and Raising Students' Achievements, the information from assessment could have been more useful if it provided:

- information on sub-domains of knowledge to point to strength and weaknesses within curriculum area, to show how intended curriculum is implemented in schools and in particular highlight such factors as gender, urban-rural location or performance at different times;
- evidence relevant to assertions made frequently by policy makers, educationists and other stakeholders that educational standards are falling by presenting objective findings on learning achievements;
- information on correlates of the outcomes of an education system like impact of in-service teacher training, emphasis on individual subject areas, assessment and supervision procedures, textbook contents, curricular contents and state policies on language instruction; and
- advice to the policy makers to bring teaching and learning into line with what is assessed, what is measured and what is tested as well as about the attitude of teachers towards work, moral values and social participation.

The findings contained in the National Assessment Report 2005 indicate that the students generally performed well in Mathematics as compared to Language although in Mathematics they are still marginally low as compared to the students of other countries. Reasons for such a low performance, therefore, needs to be further analyzed in the context of learning objectives, the teaching-learning practices and the outcomes defined in the national curriculum, the effectiveness or otherwise of the textual material in translating the intended curriculum and the manner in which the instructional material is delivered in the class. Such an analysis could be utilized:

- to provide feedback to policy makers, frontline implementers, curriculum and textbook developers to enable them to develop effective strategies and action plans for improving the quality of education
- to suggest measures necessary for improving curricula, textbooks, teacher education and training, school management, examination and evaluation, monitoring and supervision
- to lay a solid foundation for improving student learning and allowing the monitoring of schools, teachers' effectiveness and students' progress toward national educational goals
- to strengthen and enrich students' intellectual abilities by identifying the student achievement correlates including the instructional and background characteristics
- to analyze student performance with reference to variation in instructional context, student background and other factors affecting students achievement in order to identify the effectiveness of educational inputs and interventions
- to identify strong and weak areas of student learning with reference to the curriculum and target competencies for appropriate action
- to assess performance of teachers and educational institutions by relating it to the learning achievements of students.

Recently, 6th E-9 Ministerial Review Meeting at Monterrey, Mexico held from 13 to 15 February, 2006 also addressed the issue on "Policies and Systems for Assessment of Education" of E-9 countries. NEAS and its National Achievement Test 2005 results were presented as an intervention of the Government of Pakistan to assess quality of

education in a systematic and scientific manner. The Ministerial Review Meeting appreciated the efforts of the Government of Pakistan in designing such a monitoring mechanism for assessing the education system especially the quality of education. The Monterrey Meeting emphasized the “Development of Assessment as a powerful instrument and tool that will provide good information for sound political discussions, policy formulation and decision making”. This tool could, therefore, be used to assess the strengths and weaknesses of curriculum content, textual materials and the whole delivery system. Further assessment activities of NEAS in other subjects and for other classes would certainly help to build upon the on-going exercise of curriculum revision and textual material on the basis of NEAS results.

ANNEX 8**Presentation: *National Assessment and Students' Learning Environment*
Prof. Dr. Muhammad Zafar Iqbal, Department of Education, Allama Iqbal
Open University (AIOU), Islamabad.**

There is no doubt in the fact that assessment is a wider and probably less threatening term than either evaluation or examination, but perhaps carries with it much of an implication of 'value for investment in education' or 'accountability' for comfort. It is traditionally thought of as the only quality indicator for Monitoring the Education System. It is a little unfortunate that this simple idea of examining the students by us (organizers, administrators, examining bodies like boards/universities and teachers) have no uniformity of standards, is text book bound, do not yield results comparable across population and across time and do not co-relate data with factors effecting the student learning environment. This paper focuses upon a relation between student learning environment and national assessment conducted by NEAS.

At the outset, I feel it necessary to appreciate and congratulate NEAS that it has started a long awaited task of standardized and objective testing particularly at elementary level with the application of established procedures for development and analysis of instruments in the subject of Urdu and Mathematics. This two years dedicated and scientifically carried on work by the team of NEAS has provided us at least base line to analyze the implications of student learning environments on student achievements through national assessment.

Though the students learning environments are of very wide range but due to lack of time following five domains are specifically mention worthy taken into account for this purpose:

- Physical Facilities: like libraries, building, rooms, text books, curriculum, blackboards, electricity, playgrounds etc.
- Teaching Learning Resources (TLR): these includes trained teachers, teaching styles, classroom environment, teacher's qualifications, A.V aids in-service training programs, subject teachers, teacher expertise etc.
- School Environment: It includes co-curricular activities, recreations, extra curricular activities, safety of the students and staff.
- Students Home Backgrounds: It includes home language, social status, parents and family education occupation of parents/guardians, income, housing, values, disvalues, demographical factors (rural/urban), home assignments
- Administrative factors: It includes inter relationship (student/teacher, parent/teacher, teacher/administration), management styles, punishment /rewards, job satisfaction, morale of teachers, observant of teaching time blocks, punctuality and regularity by all stake holders, budgetary allocations and working conditions of employees.

The best and only practicable way to judge that how far students learning environment should have the impact on students' achievement in the light of findings of the study of NEAS is before this august gathering of all the stakeholders who constitute the students learning environment. The pilot study by NEAS covered some of the five parameters mentioned above. Our typical elementary schools reflect a typical norm of five of the main parameters almost in the same order with a little bit variations and relies upon the sensitivity of the men and materials. Evaluation studies commissioned so far have their own fantasies about the students' learning environment because opportunities of classical research situation of experimental Vs control groups have not been applied in Pakistan for this particular type of research. This is partly because many variables cannot be controlled at a time and thus the outcomes are so hard to classify in precise terms and we have to depend so much on the ground/soil in which the seed is planted. As one example of difficulty that: Assessment results in the subject of Mathematics and Urdu depends very much on the teacher's conception of textbook as the curriculum. The assessment is fair game by criticism any where. In Pakistan parents perhaps are not consulted / involved in teaching learning process as well as assessment process as much as they should be.

Physical Facilities

Seemingly a straight forward formula of positive co-relationship between facilities and performance of students at any level of learning. This is also evident from the NEAS study showing the significant difference in the scores of Mathematics of students from schools where blackboards and libraries were available than those of the students from schools where these facilities were not available. It may be felt that for every school there should at least be minimal level of availability of physical facilities with a brief record of its use in the classroom teaching and assessment. In the next phase of study it is desirable that NEAS should probe out the plausible reasons about both upon the non-availability of minimum facilities like blackboards, library, electricity, bottle necks curriculum and library periods in the school time table and if available then reasons, stigma and shame for not using the available facilities.

Recommendation: A check list of available facilities and part of the background questionnaire should contain questions for all stakeholders probing reasons for under utilization of these facilities. Records of continuing usage, attitude scales and comparison of the teacher /student statement may help to assess the things in proper way. A separate comprehensive school survey on the basis of household survey at district, provisional and national level may also be conducted by AEPM or EMIS and supplied to NEAS as NEAS can not do all that within the available agenda.

Teaching Learning Resources (TLR)

I feel it necessary to mention the astonishing findings of NEAS study that availability of libraries differs only slightly between Rural and Urban schools is beyond understanding because other researches have contradictory results regarding availability and usage of library in rural elementary schools. A further minute exploration is needed in this regard. Though Teaching Learning Resources has a wide canvas but training of the teachers both pre-service and in-service and teacher expertise in the subject has special reference to this study of NEAS, the focal point of discussion in today's panel of discussion. The assessment results of those students

were significantly high mean scoring of those students who were allowed to ask questions in the class than those who were not allowed to do so, indicates that we need redesigning of our teacher training model (both pre-service and in-service) and teacher recyclage. Let me not be ashamed to mention that teacher training and teacher recyclage is the most non-serious activity in our country. Available evidence show that in some of the assessment studies student outscored their teachers in the same test of mathematics in case of the elementary school teachers. We can give alternative explanation for this dismal situation but we will have to adopt a school base system of teacher recyclage in systematic, qualitative and out come oriented.

Recommendations: As a further strategy for encouraging teachers take responsibility of their own learning. It is but necessary to provide them the training in the standardized test developing and assessment procedures so that they can use it as routine matter. At present none of them is trained in this skill. This involves and emphasizes an inquiry and reflection through which teachers reflect and collect information as they attempt to develop their thinking and practice. It is essential to be extended techniques to be used by NEAS into the teacher's usual workplace to allow real possibility of continued use of the new way of working for assessing their students.

School Environment

The result of NEAS like significantly higher score in both Urdu and Mathematics students participating in the co-curricular activities, getting prizes & rewards and home work daily than those who are not is self explanatory. There are many lessons that can be leaned from this finding of the NEAS in order to encourage the students to become autonomous learners in order to realize the potentials of just these three factors a fundamental change in the attitude of teachers is required because of the fact that the behaviour of the teachers and administration is always appropriate for achieving specific and legitimate objectives of students enhanced achievements. But we seldom find their positive attitude and behaviour in the school environment in this regard. A crude example of such dissonant behaviour is that of the teacher who says that one of his objectives is to help students express themselves in public, but who talks so much in class himself that students get little opportunity, let alone encouragement, to speak.

The changes that are needed are: (a) The main aim of education must no longer be thought of as that of transmitting information, but rather that of encouraging antonymous learning ; and consequently (b) The relationship between teacher and student must be regarded not as that of giver and receiver of information, but as that of co-operating explores of knowledge.

Recommendation: The relationship between pupils, instead of being ignored as of neutral or negligible value in the education process, must be recognized and fostered as a powerful medium for interactive or collaborative learning. To stress increasing rapidity of social change as if it effects the student achievement is to indulge in platitude but concern with ways in which our teachers and schools may learn how to master change rather than be its passive victims can never be exaggerated.

Home environment

Each student has the chance to state the home environment without interpretation. Home environment which is composition of 101 elements including family background, parents education, income, social status of parents, housing, social facilities available, social models of home and society, stresses and emotions, tensions and anxieties, home language, recreation, customs, traditions, values, and even attention that he/she gets from others at home. All these home environmental factors have directly or indirectly effect on achievements of a student. Significant of these are a significantly lower mean score in both Urdu and Mathematics of students of Pashto as home language significantly higher mean score of Seriaki speaking students in Urdu, significantly higher mean score of students taught at home by their brothers and fathers. Several other studies support the findings of the NEAS and several new avenues have been opened for further exploration like that of the home language.

Recommendation: We need to take all these home environment factors along with many other for a deeper investigation. This field testing exercise may be conducted in collaboration with NEAS as background studies and then linked to the assessment results. Brainstorming sessions or Focus Group Discussions (FGDs) may be arranged with the stakeholders. All the stake holders will have to work on SQ3R model where S = Survey, Q = question, R = Review, R = Recourse, R = relate.

A conference between the parents, teachers, the principal and other stake holders may help all parties to reach an agreement on the need for certain intervention for home background.

Administrative Factors

Sometimes it would have been desirable to improve the school environment by improving the atmosphere of trust among triangle of teacher, administrator and student. Interrelationships, job satisfaction of teacher, morale, teaching time blocks, punctuality, regularity, budgetary allocations and working conditions of the school, all are directly related to the achievement of the students in the school. Scores of the research study at global and national level support this conclusion without exception. NEAS study results are no more different. The government school teachers in Pakistan work sometimes in overcrowded class, with little freedom and no time to make alternatives in time blocks and to the official curriculum and with very little, if any, support from their administration and other stakeholders regarding the working conditions of the school. It is noteworthy to mention that atmosphere between administration and the teacher is not congenial to boost their levels of morale and job satisfaction.

Recommendation: A cooperative and supportive spirit is needed to be generated between the three sides of the triangle of above mentioned triangle. It is advisable that in the next phase, NEAS may annex a scale for job satisfaction morale and interrelationship with the background questionnaires.

ANNEX 9

Presentation: *Quality Assurance Implicative for National Assessment*
Prof. Munawar S. Mirza, Chairperson, Department of Women's Studies, Punjab University, Lahore

Objectives

- The objectives of NEAS are to improve the quality of education through.
- Monitoring the performance of the education system in terms of student learning outcomes.
- Identify the determinants/correlates of student learning outcomes.
- Provide feedback to improve the quality of services (curriculum, learning material, teachers' delivery and other)
- Introduce realistic but globally accepted standards of learning outcomes.
- Provide information to policy makers.

1

Tasks of NEAS

- 1) Development of tests and tools for other information gathering.
- 2) Administration of tests and tools.
- 3) Tabulation and analysis of data.
- 4) Report writing for various stakeholders
- 5) Dissemination of results.
- 6) Capacity building at central, provincial and district levels.
- 7) Awareness and advocacy
- 8) Work as change agent to introduce Cont. Assessment.

2

Test Development

National curriculum/Test Framework Context

- Not available as no standard format of curriculum is followed at CW.

3

Test Framework NEAS

- Developed competencies but with limited human resources
- Short term foreign consultants.
- Ex-officio members from PEACEs. Areas & ACTs.
- Workshop mode
- Tight time frame

4

Item writing

- A highly skill full task
- Require concentration.
- Large item bank required on each competency for parallel items/forms, secrecy, discouraging cheating, providing training etc.

5

Item Writing at NEAS

- Short term consultants
- Ex-officio members from various PEACEs, ATCs etc.
- Workshop mode
- Items developed in English and translated in Urdu and Sindhi.
- Sometimes items extracted from foreign tests and translated.

6

Recommendations

- Permanent local subject experts at NEAS
- Constitute permanent subject groups with participation of ATCs, school teachers and other educationists.
- Contribute items continuously not at the time of test.
- Piloting and calibration of items.
- Items extracted from foreign tests be piloted and calibrated as well .
- Gradually reduce reliance on foreign experts.
- More Detailed Instruments.

7

Recommendations: Logistics of Delivery & collecting assessment data

- Big item bank for each competency
- Several parallel forms.
- Arrange private/reputed courier.
- Standard test administration procedure with proper training.
- NEAS person must be present during administration

8

Scoring and Analysis

- 1) The task was sub-let/contracted out
- 2) Results have been compared with TIMSS which is not appropriate.

9

Recommendation

- 1) Scoring Key should not be known to any one other than NEAS.
- 2) It is small sample scoring be Central.
- 3) Alternatively record responses on computer at district level and e-mail to NEAS for scoring.
- 4) Tasks like scoring, analysis should not be contracted out.
- 5) Instead of comparing results with TIMSS participate in TIMSS we may, PISA etc.
- 6) More sophisticated analyses.

10

Report writing

- Various types of analysis to the needs and consumption of relevant stakeholders should be performed. Reports should be prepared for
- School and District level
- Curriculum planners
- Textbook writers
- Policy makers.

11

Time Management

- 1) Activities be planned well ahead
- 2) Strict adherence to schedule be observed to avoid any inconvenience, avoid hurriedly done activities.

12

**Capacity Building of NEAS
Problems**

- 1) Most of the staff was new.
- 2) Turn over has been high.

13

Recommendation for Capacity Buildings.

- 1) Qualified staff be employed.
- 2) Contract employment for a short period leading to tenured jobs.
- 3) Training foreign and local staff in all activities relevant of NEAS.
- 4) Foreign/local consultants
On one aspect only one consultant/ group be engaged to ensure continuity of concepts/work
- 5) Short term consultancy only for discretely identified tasks.

14

ANNEX 10

Presentation: Implications of Teacher Profile and Classroom Practices for National Assessment-Presentation

Prof. Dr. Hafiz Muhammad Iqbal, Director IER, Punjab University (National partner institution of NEAS), Lahore.

Objectives of Assessment Studies

A studies like national Assessment 2005 are conducted to:

1. To monitor progress of students students achievement and change over time.
2. to dermis factors affecting students achievements
3. Providing feedback to stakeholders for making decision and improving curriculum, teaching methodologies and enabling environment

1

Studies conducted in the Past

Agency	year	class	Mean score
BRIGES	1989	V	Maths 26
IER	1995	IV	Maths 41.9
			Urdu 46.8
AEPM	1999	IV	Maths 75
			Urdu 67
UNESCO	2002	IV	Maths 31.1
			Urdu 40.5
NEAS	2005	IV	Maths 421
			(Urdu) 369

2

Teacher gender and student achievement

Gender	Mean Score			
	Urdu	p	Maths	p
Male	351.42	0.000***	421.90	n.s.
Female	401.36		414.61	

3

Teachers' academic qualification and students achievement

Teachers Academic Qualification	% Teachers		Students Mean	
	Maths	Urdu	Maths	Urdu
Secondary	35	36	430.02	368.56
Intermediate	20	19	427.87	387.27
Bachelors	30	30	402.75	355.67
Masters	15	13	420.70	369.80

4

The Majority of the mathematics teachers were matriculates or graduates.

15% of Mathematics teachers and 13% of Urdu were masters degree holders, but students of matriculate teachers performed equally well in comparison to students of teachers with masters degrees

Teachers with Intermediate Qualification performed better than Master degree holders, both in Maths and Urdu

No significance difference of teacher Academic qualification on students achievements

This finding is inconsistent with BRIGES studies 1989

5

Teachers' highest level of professional training and student achievement

Teachers' Training	Urdu Mean	Maths Mean
PTC	367	416
CT	377	446
B.Ed.	358	386

6

Teacher professional qualification does not seem to affect students achievements, although once again CT teachers performed better than B.Ed, in both the subjects.

Again this is inconsistent with BRIGES studies 1989.

7

IER Study 1995

Correlation between teacher competence and student performance

Competency	r	rank order
Cognitive competence	0.16	4
Pedagogical competence	0.19	3

8

National Assessment Study 2002

Correlation between teacher factors and student achievement

Factors	r
Teachers Qualification	-0.12
Teachers Mastery of competencies	+0.13
Teacher Work load	-0.07
Multi-grade teaching	-0.07

9

Achievement scores in relation to teaching experience

Teaching Experience (in year)	% Maths	% Urdu	Maths Mean	Urdu Mean
0-5	15	15	411.82	357.08
6-10	16	14	414.54	354.54
11-15	26	27	421.92	374.36
16-20	24	24	433.95	390.07
21-25	9	18	428.35	338.41
26 and above	8	11	427.73	372.91

Note: none of the differences were statistically significant

10

Multi-grade teaching and achievement

Do you teach two or more classes together in any one period?	Maths Mean	p	Urdu Mean	p
No	420.41	n.s	371.19	n.s
Yes	408.48		360.50	

Students whose teachers took more than one classes scored lower but these differences were non-significant for both Mathematics and Urdu achievement tests.

11

Multi-grade teaching-Urdu Teachers

Province	No	Yes
66.7% Urdu teachers from FATA and 55.1% Urdu teachers from FANA reported they had to teach multiple classes in one period. From ICT and Punjab only 12.2% and 22.6% teachers taught multiple classes in the same period.	Balochistan 74.3%	25.7%
	NWFP 69.7%	30.3%
	Punjab 77.4%	22.6%
	Sindh 61.8%	38.2%
	AJK 60.0%	40.0%
	FANA 44.9%	55.1%
30% Urdu teachers reported that they have to teach more than one class.	FATA 33.3%	66.7%
	ICT 87.8%	12.2%
	Total 69.6%	30.4%

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Multi-grade teaching-Maths Teachers

	Province	No	Yes
64.6% Mathematics teachers from FATA and 52.5% teachers from FANA reported they had to teach multi-grade classes in one period. From ICT and Punjab only 14.2% and 23% teachers taught multiple classes in the same period	Balochistan	74.1%	25.9%
	NWFP	66.3%	33.7%
	Punjab	77.0%	23.0%
	Sindh	66.7%	33.3%
	AJK	55.8%	44.2%
	FANA	47.5%	52.5%
	FATA	35.4%	64.6%
	ICT	85.8%	14.2%
	Total	69.9%	30.1%

13

Students assessment by teachers

- Class room observation is used by only 40% teachers to assess the students' performance.
- 81% teachers in the sample like to assess students performance by written tests.
- Monthly tests are arranged by 87% teachers.
- 71% teachers prepare regular progress reports.
- 89% teachers inform parents through progress reports.

14

Home work and achievement

	Urdu Mean Score	Maths Mean Score
Students' report of getting home work		
No	297.94	386.93
Yes	376.52 (p<.000)	424.95 (p<.003)
Teachers' evaluation of students by homework		
No	366.53	422.75
Yes	375.99 (p=0.494, n.s)	423.50 (p=.951, n.s)

15

Students who were assigned home work by teacher performed significantly better then those who were not assigned home work.

However, Teachers feedback or evaluation of students' by homework did not affect their performance.

16

Comments

1. Lack of uniformity in different studies
2. Difficult to make comparison
3. No information about student progress /change over time

17

Recommendation

- Data of National Studies 2005 needs further analysis to isolate effect confounding / interviewing variables.
- IER offers its services to further analyze the data and come out with appropriate conclusion and reconditions.
- There is a need to conduct studies in future on the same pattern to make comparison more easy and record progress over a period of time
- We also need to compare progress of our students with international community, probably by joining the forth coming TIMISS.

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ANNEX 11**PROFILES OF PRESENTERS AND PANELLISTS**

Mr. Saqib Ali Khan
Joint Education Advisor (JEA) Projects Wing,
Ministry of Education, Islamabad.



Mr Saqib Ali Khan has Master's Degree in Political Science from the University of Punjab, Lahore and Post Graduate Certificate of Academic Studies from Crew and Alsager College of Higher Education Crewe, England (U.K). He started his career as a school teacher in 1968 and science 1974 has served in a number of important positions in the Ministry of Education i.e. Population Education, Non-Formal Education, Planning and Development Wing, Technical Education Project, Federal Implementation Unit (FIU) and Population and Development Education for Youth as National Project Coordinator.

He has attended a number of International Courses / Workshops relating to Curriculum Development, Population Planning, Planning Strategies for Literacy and Non-Formal Education and Distance Education. Further he has vast experience in Audio-Visual Aids relating to Teacher Education Programs. Currently he is working as Joint Education Advisor (JEA), Projects Wing, Ministry of Education, Islamabad.

Ms. Shahnaz Wazir Ali,
Executive Director,
Pakistan Centre for Philanthropy (PCP),Islamabad.



Ms. Wazir Ali holds Master's Degree in Education from the University of Arkansas, USA and also a Master's Degree in Education Administration from Trenton College, New Jersey, USA. In addition, she has a Diploma in Principal's Certification from Harvard University, Cambridge, USA. Her Bachelor's degree in Mass Communication is from the American University, Washington, D.C.

Ms. Shahnaz Wazir Ali's career spans 35 years of experience in policy and practice in government and the private sector. Currently she is the Executive Director of the Pakistan Centre for Philanthropy (PCP), Islamabad.

From 1997 – 2001, she served as the Senior Education Specialist at the World Bank in Islamabad. Her principal assignment was to provide policy, program and technical advice and assistance to the Federal and the Provincial Governments to facilitate the implementation of the country wide Education Sector Social Action Program (SAP). It was in this period of her career that she was very actively involved in the planning for transforming the concept of institutionalized National Educational Assessment System (NEAS) within the Ministry of Education into reality, for monitoring and improving the quality of education in Pakistan.

From 1988 to 1990 and again 1993 to 1996, she had the unique opportunity to serve in key decision making position in government, in the first term as Member of National Assembly and Federal Minister of State for Education and subsequently, in the second term, as Special Assistant to the Prime Minister on Social Sectors.

**Dr. Syed Fayyaz Ahmad,
Joint Education Advisor (JEA),
Planning and Policy Wing,
Ministry of Education, Islamabad**



He holds a Ph. D. in Education from the University of California, Los Angeles and Master Degree in Botany from University of Dhaka, Bangladesh, in Public Administration from University of Southern California, Los Angeles and in Education from the University of California, Los Angeles besides a Post Graduate Diploma from the University of Reading UK. He started his career by teaching Biology at Intermediate level in 1969.

He has held a number of important positions in Education Ministry. He has a number of academic papers to his credit. Dr. Syed Fayyaz Ahmad is presently working as Joint Educational Advisor Planning and Policy Wing, Ministry of Education, Islamabad. He provides assistance in formulation of National Policies, Plans and Programs and disseminates them to all development partners and stakeholders. He also oversees functioning of the Academy for Educational Planning and Management.

**Mr. Arif Majeed,
Joint Education Advisor (JEA),
Curriculum Wing,
Ministry of Education, Islamabad.**



Mr. Arif Majeed has Master's Degree in Commerce from the University of Punjab, Lahore and Diploma in Educational Administration from University of Leeds; U. K. Mr. Arif Majeed has an excellent academic record throughout.

He has been professionally trained in Educational Administration, Educational Planning, Educational Finance and Educational Assessment. He has worked in the Ministry of Education in various capacities. He played an important role in the establishment of the NEAS. Mr. Arif Majeed has attended a number of workshops in Development of Competencies, Development of Test Items and table of specification organized by UNESCO, Ministry of Education (Curriculum Wing) and DFID, Islamabad and World Bank Institute (WBI).

Mr. Arif Majeed is presently working as Joint Education Advisor (JEA) in the Curriculum Wing of the Ministry of Education.

**Prof. Dr. Muhammad Zafar Iqbal,
Department of Education,
Allama Iqbal Open University, Islamabad.**



Prof. Dr. Muhammad Zafar Iqbal holds Ph.D in Education and has 37 years of experience in teacher training, curriculum development, policy planning, measurement and evaluation. Starting his career as a teacher at a secondary school in Lahore, Dr. Zafar served at Institute of Education and Research Gomal University, Dera Ismail Khan from 1977 to 1999 before joining AIOU.

He has provided consultancy services to a number of national and international organizations including NORAD, UNESCO and the Federal Ministry of Education. At present he is working as Professor Secondary Teacher Education Department, Allama Iqbal Open University (AIOU), Islamabad. His research interests include Teacher Training, Islamic Education, Economics of Education, Curriculum Development, Attitudinal Psychology, Comparative Education and Assessment. He has produced more than forty papers and has written a number of books.

He was awarded Seerat Award in 1989 by the President of Pakistan.

**Prof. Dr. Munawar S. Mirza,
Chairperson,
Department of Women's Studies,
Punjab University, Lahore**



Dr. Mirza is a renowned educationist who has served at University of Punjab for more than 37 years in various positions from Lecturer to Meritorious Professor in BPS-22, first Professor in the history of Punjab University and first women Professor in the country to rise to this level. She was Director of Institute of Research (IER) Lahore, a mini university with seven departments and fifteen post graduate degree programs, for more than seven years and Dean, Faculty of Education for more than six years.

She has conducted more than twenty four large scale research studies many of which have provided sound foundation for policy formulation. She has extensive experience of working with Governmental and International Organizations for improving educational system through consultancy, research and membership. Dr. Mirza has contributed considerably in developing National Education Assessment System (NEAS).

Her services have been recognized at National and International levels in the form of Izaz-e-Fazeelat, Best University Teacher Higher Education Commission (HEC), Star Award of Asia Publications, Fatima Jinnah Medal, Government of Punjab and UNESCO Comenius Medal.

**Prof. Dr. Hafiz Muhammad Iqbal,
Director IER (National Partner Institution of NEAS),
Punjab University, Lahore**



Prof. Dr. Hafiz Mohammad Iqbal, in addition to having formal education, has also received traditional religious / Madarasa Education. He started his professional career as a lecturer in Biology in various colleges in Punjab and thereafter worked as Subject Specialist in the Directorate of Staff Development. He joined the Institute of Education and Research, Lahore in 1991.

Dr. Iqbal has produced a number of research papers and conducted a number of workshops and seminars at the national and international levels. He has supervised more than fifty 50 Master level and three Ph.D dissertations. He is the first person in the history of Pakistan and Institute of Education and Research who has been awarded prestigious US Fulbright award in the field of Education to pursue post Doctoral Research in American Institution.

He is currently working as Director of the Institute of Education and Research (IER), Punjab University, Lahore.

**Prof. Syed Kamal-ud-Din
National Project Coordinator,
National Education Assessment System (NEAS),
Ministry of Education, Islamabad**



Prof. Syed Kamal-ud-Din holds Master's Degree in Chemistry from the University of Balochistan. He also has Master's Degree in Education from University of the Punjab and Diploma in Assessment and Evaluation of Textbooks from National Institute of Science and Mathematics Education Development (NISMED), University of Philippines.

He has vast experience of Curriculum Development, assessment and evaluation, monitoring, master trainer at various levels, establishment of Teacher Resource Centres (TRCs) community mobilization and teachers training at all levels. Prof. Kamal has attended a number of workshops in Development of Competencies, Development of Test Items and table of specification organized by UNESCO, Ministry of Education (Curriculum Wing) and DFID, Islamabad.

Further he has been Principal Researcher / Coordinator of many research studies carried out in Balochistan by UNESCO, Asian Development Bank and other Government and Private Organizations.

Since August 25, 2003 he is working as the National Project Coordinator in National Education Assessment System (NEAS), Ministry of Education, Islamabad. He is the recipient of Best Teacher Educator Gold Medal.

**Dr. Parween Hasan,
Resident Technical Advisor,
National Education Assessment System,
Ministry of Education, Islamabad**



Dr. Parween Hasan holds a Master's degree in English Literature from the University of the Punjab (Pakistan) and M.Ed. and Ph.D. degrees from the University of Edinburgh (UK). She trained in testing and measurement at Educational Testing Service (ETS, USA) and has held post-doctoral appointments at the Harvard Graduate School of Education, Harvard University and at Boston College (USA), where she carried out research in international student assessment practices.

Dr. Hasan started her career in 1958 as an English teacher in secondary schools, initially in Pakistan and subsequently in the UK. She retired from the Board of Secondary Education Karachi (Pakistan) as Director Educational Research in 1994. Since her retirement from the Board Dr. Hasan has worked as a consultant on school evaluation and student assessment projects in Pakistan and Bangladesh, supported by international development organisations. She is currently working as Resident Technical Adviser to the National Education Assessment System (NEAS) project in the Ministry of Education, Government of Pakistan.

ANNEX 12

**GLIMPSES OF THE
CONFERENCE**



Lt. Gen. (Retd.) Javed Ashraf Qazi, Federal Minister of Education addressing the inaugural session.



Mr. Julian Schweitzer, The World Bank Sector Director (South Asia Human Development) addressing the conference



Mr. Saqib Ali Khan, Joint Education Advisor (Projects Wing) welcoming the Chief Guest, Panellists and Participants



Prof. Syed Kamal-ud-Din, National Project Coordinator NEAS making his presentation



Panellists of the conference (L to R) Prof. Dr. Munawar S. Mirza, Prof. Dr. M. Zafar Iqbal, Ms. Shahnaz Wazir Ali, Mr. Arif Majeed, Dr. Syed Fayyaz Ahmed and Prof. Dr. Hafiz Muhammad Iqbal



A view of the participants



NEAS, PEACEs, AEACs and ATCs Team Members