Improving Education through Large-Scale Testing?

A Study on Primary & Elementary Level Exams in Punjab



Why large-scale assessment?

If quality education is about imparting a measure of agreed upon knowledge and a set of skills to children, how are we to determine that such a process is indeed in place? How much do children in our schools really know? The answers to these questions have huge policy implications with regards to the allocation of both human and material resources. And, more than most, it is teachers who need to know the answer to these questions so that they can concentrate time and attention to where it is most needed.

In recent years large-scale assessments have become something of a norm. Notwithstanding this worldwide popularity, however, implementing high

quality large-scale assessment remains a complex undertaking with its own set of challenges. Punjab is the first province in Pakistan to opt for large-scale centralized assessments at the levels of Grade 5 and Grade 8. The Punjab Examination Commission (PEC) was established to conduct these examinations, and in 2011 alone PEC administered tests to a staggering 2.6 million students.

Assessment data can help guide a range of crucial actions from policy to pedagogical practice. The Society for the Advancement of Education (SAHE) was engaged to conduct a monitoring study of the PEC examination processes. The study entailed intensive data collection involving a review of the design process, observation of exam conduct in over 3,000 exam centers in 18 districts, re-marking analysis of over 2500 exam papers and 200 semi-structured interviews with stakeholders to understand data management and interpretation practices. This brief provides key findings and recommendations, which we hope, will provide insights into the nature of the PEC examinations.

Ensuring quality in exam design process

Ensuring quality in exam paper design requires following rigorous technical standards. Adequately measuring children's performance requires developing a framework that delineates relevant aspects such as content, skills and cognitive processes. The PEC design process is spread over 5-6 months, starting with two-week long workshops for each subject with item developers who are subject specialists. The items or questions are developed with a view to gauge what children know in accordance with Student Learning Outcomes (SLO) as outlined in the National Curriculum as well as their ability to relate and analyze, depending on their age and grade levels.

Exam design should fully take into consideration the rigorous standards adopted internationally. This is a pioneering effort on the part of PEC. Yet various challenges will have to be addressed in order for this assessment to properly serve its purpose. PEC still needs in-house content and psychometric experts for improving exam design. It is critical to establish difficulty levels for the individual test items before the assembly of exam papers; for this proper pilot testing is a must. The determination of item characteristics does not necessarily require the use of a particular taxonomy; what is required are statements of content expectations. PEC should convene deliberations to develop a simple categorization of cognitive domains.

Smooth conduct of exams and fair marking

Examining such a large number of students within a fortnight is a formidable task. Often schools designated as exam centers lack even the minimum requisite facilities and experience trouble ensuring adequate number of supervisory staff. All this has an impact on the school, where the students of senior classes are dislocated to make room for exam candidates and the staff responsible for them is engaged in the conduct of the exam and marking of papers. The quality of paper marking is compromised by the short timeframe and in some cases the lack of adequate subject specialization in examiners and timely sharing of marking guidelines.

To reduce the burden and ensure greater inclusion consider giving schools the shared responsibility to test certain subjects.

Given the very large number of exam centers, district and local-level decision-making in this regard should be encouraged. The Cluster-in-Charge, in consultation with the PEC Focal Person, should have a key role in organizing the conduct of the exam. They should develop clear guidelines and processes for selection of exam centers, ensuring adequately prepared supervisory staff and subject specialists for marking. Finally, the responsibility of holding selected exams can also be passed on to the district and school-level. This will mean greater involvement of schools and teachers in the process and improvement in the efficiency of exam conduct as a whole.

Determining results and their meaningful communication

The primary purpose of large-scale assessment should be the improvement of delivery of education to all children and exploring means for reducing achievement gaps. As things stand, the dissemination of the PEC results is not the most efficient, causing difficulties for end-users in obtaining results. It is also inadequate, as only aggregate or subject-wise scores for students are provided. If the intended purposes are to be met, then PEC will need to develop a comprehensive communication strategy which explains the exam design and its link to curricula as well as meaningful interpretation of student results tailored to different kinds of audiences.

In this regard, the teacher's role is critical. The key findings on student performance and their relevance for teaching along with student proficiency levels by reference to key SLOs should be developed and widely disseminated to teachers in the local language. Similarly, reports for district level performance and feedback for teacher training institutions will be necessary in order to ensure that these institutions receive critical feedback on how to improve their role in supporting teachers and schools.

While standardized assessments are a good way of ascertaining student learning, student outcomes should not serve as the sole determinant of teacher incentives and accountability.

Given that student performance is still not up to an acceptable standard, every year the pass percentage is adjusted by the Department of Education to ensure that a larger proportion of students pass rather than fail. The justification provided is that if passing marks are kept at 33%, a very small percentage of students would pass. And, regardless of performance, failing a large number of students is not an option due to the need to accommodate incoming students and the paucity of resources and space. So, upward adjustment is done. However, clearly this works against improving real achievement of children. Therefore, deliberation is urgently needed among PEC, schools and district authorities on how to gradually improve the standard according to which the pass percentage is determined. And to ensure that children who have been moved on to higher grades, despite below par performance, are able to cope.

Effective use of assessment results

Assessments then should be seen primarily as a mechanism for improving teaching not as a handy instrument for holding teachers accountable. Many complex factors go into producing student outcomes and teaching is just one of them. Many out-of-school factors, such as family income and education and future prospects, as well as in-school factors, such as poor infrastructure, discontinuous project-based interventions and lack of requisite support and development of teachers, also have a strong bearing on student achievement. Consequently, teachers should not be penalized or rewarded simply on the basis of PEC exam results. Meanwhile a serious effort needs to be made to improve the quality of teaching and learning through appropriate reform and the concerted effort of all stakeholders.

The Society for Advancement of Education (SAHE) is a non-governmental organization established in 1982 by a group of concerned citizens and academics. It builds on the belief that educational justice entails not just access to school, but to quality education, for all children in Pakistan. SAHE works through an extensive network, the Campaign for Quality Education (CQE), to conduct collaborative research and evidence-based advocacy on key issues to influence educational reform. For more information visit: www.sahe.org.pk & www.cqe.net.pk

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