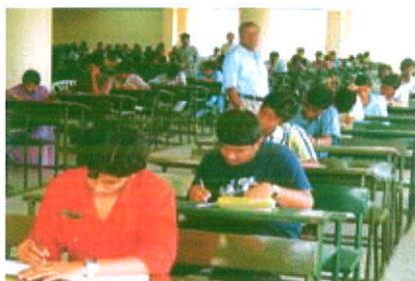


## Need For a Good Assessment System

*Avtar Singh*



*...at primary stage, assessment, diagnosis, and remediation will go a long way in improving the system. Likewise, some kind of comparability across Education Boards in terms of syllabus, question paper format etc. must be established. Boards should integrate school assessment with external assessment to have a better profile of student achievement*

Most of us are familiar with the terms Assessment, Evaluation and Examination but we rarely try to differentiate these. Rather, we use these interchangeably as the processes for awarding marks to students and classifying them into classes and categories and use them for certification and promotion. Among these, examinations are the one which are better understood because all of us have appeared in number of examinations in life. It is like a necessary evil. Even the brightest students fear the examinations because of the ambiguities, uncertainties and unreliability factors involved in them. These factors start from framing the question papers, administration of question papers, marking answers, tabulation and finally awarding marks to the students. There are a number of pitfalls in these examinations. These examinations are widely used to certify, rank and promote the students. These can make or mar the careers of examinees. Read inside the Box-1. Bullets one and two on basis of the research study conducted on the marked A/scripts of a national board. Bullet three was reported in the National Daily recently.

- In a board examination, a student re-writes the statements of questions in answer sheet. S/he secures 32 marks out of 70 marks in class 12 Science subject.
- A student writes answers to questions which he knew and very few of them were in the question paper. S/he secures 78 marks out of 100 in Social Studies in class 10
- A student of NIT is declared fail in one of the subjects in a semester. He commits suicide. When that paper got re-evaluated by his parents, he gets 48 marks out of 50. A precious life is lost due to wrong marking.

Assessment or Evaluation are more specific terms, focused on learning outcomes, diagnosis of learning difficulties and consequent remediation to improve learning. For instance, Continuous and Comprehensive Evaluation (CCE) was the concept to develop overall personality of the child and enhancement of learning to desired level before promoting to higher class. This was the main plank for implementing RTE Act, 2009. The

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1968, National Policy on Education- Framework-2005. Each one of these examinations guide the teaching and learning process. Teaching and testing should be integrated like two faces of a same coin.

**The Shift Needed**

We have been using Classical Test Theory(CTT) in all our measurements and assessments which have inherent limitations. It does not serve any purpose beyond certification. The modern testing methods have more scope in improving the testing and system over a period of time. Item Response Theory (IRT) is being used in all international studies like Program for International Student Assessment (PISA), Trends in Mathematics and Science Studies (TIMSS) and Progress in International Reading Literacy Study (PIRLS). The advantage of IRT is 1) it assesses the true ability of students irrespective of the difficulty of tests 2) uses multiple tests to have more number of measurements points 3) identify the strengths and weaknesses each item/concept and 4) compare students, real achievement over longer periods to gauge whether the system is improving or not improving. Two initiatives that have been taken in this direction are mentioned below.

1) India participated in PISA 2009+ cycle in 2010-11 by piloting PISA tests in two states; H.P. and Tamil Nadu with the objective of participating, understanding the process and seeing how our students respond to the type of questions which are specific to 16 years of age and does not cater to any specific course content. 74 countries participated in this study and our states fared next to Kyrgyzstan from the bottom. The results were on expected lines and should have been taken as a starting point for further international participation. PISA has become extremely influential to respond whether students have learned the ability to analyze, reason and communicate

Act ensures smooth completion of elementary education till class VIII of all children (6-14 years) stipulating non-detention or failing any student till class VIII. The vehicle to ensure this, while maintaining desirable educational standards was CCE. The whole concept of CCE was neither understood by the teachers, nor monitored during implementation by any agency.

For both students and teachers, it was a happy situation and the result is that students were completing elementary without acquiring reading, writing, mathematical and other basic skills.

The quality of education has suffered as indicated by the results of series of National Achievement Surveys (NAS) conducted by NCERT at different stages of school education. (Table-1).

**The Present Scenario**

A number of initiatives have been taken to revamp the present system but these measures always fall short of what is really needed. Efforts have also been made to have a good assessment system rather than the present examination system which is serving a limited purpose. There are a number of milestones in evolving the education system, starting with can play a better role by focusing on teaching learning. Thus, there

**Table-1: National Average Percent Score of Students of Class VIII in Different subjects**

Subjects	Language	Mathematics	Science	Social Studies
Cycle-2	56.57	41.30	37.78	44.15
Cycle-3	46.20	3.28	36.37	38.34

Source: National Achievement Survey of NCERT Cycle -2 (2006-08) and Cycle-3 (2011-13)

**Table-2:- Mean Score in PISA 2009 Cycle**

AREA	Brazil	Tamil Nadu	Himachal Pradesh	OECD Average*
Reading	412	335	314	493
Mathematic	386	350	338	496
Science	405	347	326	501

\*These are average scale scores on a scale of 0 to 700 points

The quality of education in school sector or in higher education sector is an issue today. All our efforts through SSA, RUSA or KUSA may not yield the desired results because these programs are implemented half-heartedly 2) the system has expanded 3) there is acute shortage of teachers at all stages. The expansion has more political reasons but the poor quality of teachers is the product of our present examination system. Today, we have more than 15 lakh schools, 35,000 degree colleges, 4500 technical institutes and about 660 universities etc. Then there are more than 40 School Education Boards, merely conducting examinations to declare students pass or fail. Besides examinations, the boards can play a better role by focusing on teaching learning. Thus, there

effectively and able to apply these skills in adult life. Many countries have been participating since first cycle in 2000, and their poor performance has proved that it is not a powerful tool in improving their schools and the system as a whole. The case of Brazil is an example to be quoted that had similar score in 2000 but continued to participate in PISA and improved its performance. (See Table-2)

At the national level, NCERT has made a beginning to make assessment of learning levels of children across the country on sample basis. Under SSA, baseline, mid-term and terminal studies were carried out to map the progress in learning levels as a result of various inputs provided in schools under SSA. Gradually, these measurements have been graduated to adopt IRT model in the terminal studies (Cycle-3) onward. These studies are now able to provide 1) item wise performance in each subject 2) identification of grey areas/ misconcepts in each subject and 3) overall Systemic Quality Index (SIQ) whether the system is improving. This is almost a regular activity and Cycle-4 is in progress. There is a need to strengthen this initiative and make use of the enormous data available for improving the education system. The states/UTs are active partners in this venture and have initiated similar state-wise studies. States are being provided a hand holding support by NCERT.

### The Way Forward

We need effective implementation of Assessment system covering three broad areas.

At the initial school stage, understanding and use of Language (any language) is the most important. Reading, writing and speaking are abilities to be developed, assessed and improved, otherwise it remains a big barrier facilitating dropouts, failures and poor interest in learning. Similar is the situation in Mathematics. Understanding and interest in these two subjects generally has a high correlation with success in career. Therefore, at primary stage, assessment, diagnosis, and remediation will go a long way in improving the system. Likewise, some kind of comparability across Education Boards in terms of syllabus, question paper format etc. must be established. Boards should integrate school assessment with external assessment to have a better profile of student achievement.

There are a large number of colleges, universities and other institutions having different types of examination systems but rarely a good assessment system. The outcome of the system is, by and large, of very poor quality. This is evident from a recent survey of BRICS<sup>2</sup>, where none of our institutes figures in the first 15. Only Indian Institute of Sciences, Bangalore figured at 16<sup>th</sup> position among 200 Institutes. A comprehensive system comprising of internal assessment, tutorials, presentations, projects

and external assessment reflecting what a student has actually achieved, must be reflected in the certificate/ portfolio on completion of the degree. UGC has recently initiated a credit-grade system to improve the quality and provide flexibility within the system.

With all experimentation, innovations and reforms, there is no 'health check' to tell us whether the health of the education system has improved or deteriorated. Is the new generation more knowledgeable and skillful? Also, there are multiple institutes engaged in conducting entrance examinations. To address these issues, we need an organization like Education Testing Service (ETS) Princeton, New Jersey, U.S. which should take care of above mentioned functions and also undertake longitudinal research studies. The NPE-1986 has recommended the establishment of a National Evaluation Organization (NEO), but it has remained only at the discussion stage.

### Endnotes

- 1 PISA 2009+ was re-run for countries who could not participate in of PISA 2009. The countries were; Costa Rice, Georgia, Malaysia, Malta, Mauritius, Venezuela, Moldova, UAE, India (H.P. and T.N.)
- 2 The Times Higher Education BRICS and Emerging Economies 2016-Ranking

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