

## Assessment in Education in India

**Dr Tapas Kumar Sarkar**

*Itachuna Government; Sponsored Primary Teachers' Training Institute;  
Itachuna Dist. – Hooghly; West Bengal, India  
[sarkartapaskumar@hotmail.com](mailto:sarkartapaskumar@hotmail.com)*

### Abstract

This paper provides an overview of Assessment in education in India. Assessment refers to collecting information on the progress of learners' learning using a variety of procedures, and evaluation refers to making judgments on the basis of the information collected. Primary enrolment rates in India are now close to universal. However, despite progress, attendance and retention rates are not close to universal, secondary enrolment rates and learning achievement levels are not satisfactory. Teaching for successful learning cannot occur without high quality assessment. Assessment, therefore, needs to be integrated with the process of teaching and learning. Assessment needs to be designed in such a manner that it becomes a powerful means of influencing the quality of what teachers teach and what learners learn.

In the Indian education system, the present trend in evaluation lays too much emphasis on scholastic aspects, ignoring co-scholastic ones. Memorization of facts is given precedence over abilities and skills involving higher mental operations such as problem solving and creative thinking. In effect, the real potential of the student is not assessed.

Firstly, the paper traces the development of India's assessment system in education starting from primary to university level. Secondly, it provides a brief statement about the legislation and policies on education. Thirdly, it puts the focus on the new trends for education in India and on 'Sarva Siksha Mission' (Education For All). Lastly, the paper deals with different International Assessment systems used in Indian schools.

### Introduction

The story of India's educational achievements is one of mixed success. On the down side, India has 22 per cent of the world's population but 46 per cent of the world's illiterates, and is home to a high proportion of the world's out-of-school children and youth (Geeta Gandhi Kingdon, March 2007)<sup>[1]</sup>.

On the positive side, it has made encouraging recent progress in raising schooling participation. While the base line of India's education pyramid may be weak, it has emerged as an important player in the worldwide information technology revolution on the back of remarkable numbers of well-educated computing and other graduates.

This paper presents a critical overview of the assessment in school and university education sectors in India including the newly released survey of international methods.

### Evaluation and assessment

According to Dr Kirti Kapur (21 Jul 08/IST 11:05)<sup>[2]</sup>, Evaluation is the systematic determination of merit, worth and significance of something or someone and assessment is the process of gathering and analyzing specific information as part of an evaluation process. In the context of school education, evaluation stands for a structured process of collecting, analyzing and interpreting students' progress and achievement both in curricular and non-curricular areas. It involves taking into consideration factors like the content,

classroom processes and the growth of individual learners along with the appropriateness of the evaluation procedures. Assessment is also a means to provide constant feedback to the learner to make the course effective.

### **The education system in India**

Education in India is provided by the public sector as well as the private sector, with control and funding coming from three levels: federal, state, and local. Child education is compulsory. The Nalanda University was the oldest university-system of education in the world<sup>[3]</sup>. Western education became ingrained into Indian society with the establishment of the British Raj. Education in India falls under the control of both the Union Government and the states, with some responsibilities lying with the Union and the states having autonomy for others. The various articles of the Indian Constitution provide for education as a fundamental right. Most universities in India are controlled by the Union or the State Government. India has made progress in terms of increasing primary education attendance rate and expanding literacy to approximately two thirds of the population.<sup>[4]</sup> India's improved education system is often cited as one of the main contributors to the economic rise of India.<sup>[5]</sup> Much of the progress in scientific research, especially in Higher education, has been credited to various public institutions. The private education market in India is merely 5% although in terms of value is estimated to be worth \$40 billion in 2008 and will increase to \$68 billion by 2012. However, India continues to face stern challenges. Despite growing investment in education, 25% of its population is still illiterate; only 15% of Indian students reach high school, and just 7% graduate.<sup>[6]</sup> As of 2008, India's post-secondary high schools offer only enough seats for 7% of India's college-age population, 25% of teaching positions nationwide are vacant, and 57% of college professors lack either a master's or PhD degree.<sup>[7]</sup> As of 2011, there are 1522 degree-granting engineering colleges in India with an annual student intake of 582,000,<sup>[8]</sup> plus 1,244 polytechnics with an annual intake of 265,000. However, these institutions face shortages of staff and concerns have been raised over the quality of education.<sup>[9]</sup>

### **Present education in India**

India's education system is divided into different levels such as pre-primary level, primary level, elementary education, secondary education, undergraduate level and post graduate level.

#### **Overview**

The National Council of Educational Research and Training (NCERT) is the apex body for curriculum-related matters for school education in India.<sup>[10]</sup> The NCERT provides support and technical assistance to a number of schools in India and oversees many aspects of enforcement of education policies.<sup>[11]</sup> In India, the various curriculum bodies governing the school education system are:

- The state government boards, in which the majority of Indian children are enrolled;
- The Central Board of Secondary Education (CBSE) board;
- The Council for the Indian School Certificate Examinations (ICSE) board;
- The National Institute of Open Schooling (NIOS) board;
- International schools affiliated to the International Baccalaureate Programme and/or the Cambridge International Examinations;
- Islamic Madrasah schools, whose boards are controlled by local state governments or autonomous, or affiliated with Darul Uloom Deoband. Autonomous schools like Woodstock School, Auroville, Patha Bhavan and Ananda Marga Gurukula. In addition, NUEPA (National University of Educational Planning

and Administration)<sup>[12]</sup> and NCTE (National Council for Teacher Education) are responsible for the management of the education system and teacher accreditation.<sup>[13]</sup>

### Legislation and policies on education

#### Right to Education Act, 2009 <sup>[14]</sup>

In line with the goal of nation building, India has been committed to providing free and compulsory education to all children. Towards this end the Indian Parliament has enacted a legislation making free and compulsory education a Right of every child in the age group from 6-14 years which has come into force from 1st April, 2010.

**Table –1. General details and literacy in India <sup>[3]</sup>**

<b>General Details</b>	
Primary Languages	Hindi, English, or State language
System Type	Federal, state, private
Established Compulsory Education	1-Apr-10
<b>Literacy (2011)</b>	
Total	74%
Male	82%
Female	65%

#### The Constitution

Provision of free and compulsory education to all children up to the age of fourteen years is, in general, the concurrent responsibility of the Union and the States.

Local authorities (*Panchayats* and Municipalities) are to be assigned a suitable role in education (especially School, Adult and Non-Formal Education) through individual State legislations. State Governments and Local Authorities are expected to provide facilities for instruction in the mother tongue at the primary stage of education.

#### Important Legislations

The University Grants Commission Act, 1956

The Copyright Act, 1957

The Institutes of Technology Act, 1961

The Apprentices Act, 1961

The All India Council for Technical Education Act, 1987

The National Council of Teacher Education Act, 1993

The Persons with Disabilities (Equal Opportunities, Protection of Rights and Full Participation) Act, 1995

The National Council for Minority Educational Institutions Act, 2004

National Institutes of Technology Act, 2007

#### Policy framework

National Policies on Education (NPE)

National Policy on Education, 1968

National Policy on Education, 1986

National Policy on Education, 1986, as modified in 1992

Extracts from the National Common Minimum Programme (NCMP) of the UPA Government relating to Education

Policy Decisions on individual issues taken from time to time, as needed - in the form of Resolutions, Schemes, Guidelines, Orders, etc.

### **Salient features of NPE'86 <sup>[15]</sup>**

- 1) Important role of education.
- 2) National system of education.
- 3) Education for equality.
- 4) Promotion of adult education.
- 5) Elementary education and operation black board.
- 6) Pace setting or Navodaya Vidyalaya School.
- 7) Promoting Vocational aspects of education.
- 8) Raising the status of the teacher.
- 9) Accountability is education.

### **Major features of NPE'86**

- 1) Common educational structure:

The national system of education envisages a common education structure. The 10+2+3 structure has now been accepted in all parts of the country. Regarding the further break-up of the first 10 years efforts will be made to move towards an elementary system comprising 5 years of primary education and 3 years of upper primary, followed by 2 years of high school.

- 2) National curriculum framework with a common core:

The national system of education will be based on a national curriculum framework which contains a common core along with other components that are flexible. The common core will include the history of India's freedom movement, the constitutional obligations and other content essential to nurture national identity. These elements cut across subject areas and will be designed to promote values such as Indian's common cultural heritage, egalitarianism, democracy and secularism, equality of sexes, protection of the environment, removal of social barriers, and observance of the small family norm and inculcation of a scientific approach. All educational programmes will be carried out in strict conformity with secular values.

- a) Minimum levels of learning:

Minimum levels of learning will be laid down for each stage of the education process. Steps will also be taken to foster among students an understanding of the diverse cultural and social systems of the people living in different parts of the country.

- b) Priorities of educational reforms:

The nations as a whole will assume the responsibility of providing resource support for implementing programmes of educational transformation, reduction of disparities, universal access to elementary education, adult literacy, scientific and technological research etc.

- c) Meaningful partnership:

The centre and states will make their partnership in the field of education meaningful.

### **SARVA SHIKSHA MISSION (SSM)**

(Education for All)

The former *Sarva Shiksha Abhiyan* (SSA) has been changed to *Sarva Shiksha Mission* (SSM). Literally *Sarva Shiksha Abhiyan* (SSA) is the Campaign for Universal Education. It is India's flagship programme for making elementary education universal (grades 1 to 8) by the year 2010. The scheme is sponsored by the Central government and it is funded out of revenue from a new cess, equal to 2 percent of all taxes, which was introduced in 2004 (increased to 3% in March 2007) <sup>[18]</sup>. *Sarva Shiksha Mission* provides additional funding to states to enrol out-of-school children and to improve school quality.

SSM funds civil works (capped at 33 percent of total cost); salaries of additional teachers to reduce Pupil-Teacher ratio to 30:1; establishment of alternative schools and Education Guarantee Scheme (EGS) schools in sparsely populated areas; establishment of block or Cluster Level Resource Centers (CLRC); establishment of bridging- courses for dropouts; in-service training for teachers; and grants for teaching-learning materials. As well as these supply-side interventions, SSM includes demand-side measures to close caste and gender gaps in education. These include free textbooks to all students, special facilities for girls and grants to districts to support students with disabilities. SSM also funds a national component covering capacity building, technical support, financial management, monitoring and evaluation, etc.

So far, there is no rigorous evaluation of the impact of this massive intervention or its individual components. Two recent impact evaluations of the District Primary Education Project (DPEP) the predecessor to SSM/SSA and quite similar to it are by Schmid (2006) [16] who uses a treatment intensity approach, and Jalan and Glinskaya (1999)[17] who use a propensity score matching approach. The treatment intensity of a certain age group in a specific district depended on the years DPEP was in place and on the number of years that the group was in school-going age during this time period. While both studies find substantial programme impacts and find that impacts were greater for low caste children, Schmid finds that effects were stronger for girls but Jalan and Glinskaya find they were negligible, although the latter evaluated the impact of only the first phase of the DPEP while Schmid evaluated the impact of all three phases.

### **Trends for education in India - 2011**

The Indian education sector gained significant attention from policymakers, investors, and the media in the years 2009 and 2010. There was great enthusiasm at one level and anxiety at another level. The year 2011 will continue to be an important year with increasing demand for education and corresponding new ways of meeting those demands. In the Indian educational context Internationalization as a strategy for building reputation ranges from establishing international collaborations for student/faculty exchange programmes, to joint research projects and offshore campuses. Increasingly, international collaborations will go beyond American universities as more European universities are expected to show interest in India. Innovation universities planned by the Indian government may also attract some big names. Both the Indian and foreign universities are eagerly awaiting policy clarifications on the foreign university bill, which would help in formal campus-based presence for foreign universities (not-for-profit will not be welcomed). The quality of the Indian higher education system has lagged behind the growth in quantity. Given the unfortunate state of regulatory mechanism in India, there are several changes expected in the direction of transparency and stricter norms. Several institutions need to shape up to fulfil the norms. For example, UGC's (University Grants Commission) mandate that all institutions should have NAAC

(National Assessment and Accreditation Council) accreditation and that this should be deemed as standard university process, is being reviewed. Likewise, AICTE (All India Council for Technical Education) is planning for more information sharing and accountability from institutions. Given the resource constraints, the majority of the institutions will continue to offer a mediocre quality of education. On the other hand, a handful of institutions like ISB, Manipal and SP Jain, will continue to strengthen/achieve global benchmarks. New age universities like the NIIT University, Vedanta University, Azim Premji University and Reliance University will also create new standards of quality. Competition and opportunity would compel institutions with resources to gain scale, by moving beyond their traditional markets and to be innovative in their educational offerings. Multicampus models led by institutions like Amity, IBS and IIPM will continue to thrive. Even reputed institutions will be expanding. For example, Symbiosis is expanding and Narsee Moonjee is entering Bangalore. Despite significant interest from the 'for-profit' sector both in India and abroad, 2010 is unlikely to bring any change in the policy that would openly support the 'for-profit' sector. Having said that entrepreneurs/investors with 'for-profit' models will have significant opportunities in the informal education sector (skills development, e-learning) or support services (technology, test prep.). With the growth in scale of the institutions and multi-campus models, there will be an increasing need for streamlining and controlling processes. Technology solutions in the form of campus management software packages will gain ground. Even course management tools will become prominent among faculty for efficiently organizing their classes.

Companies like Educomp and Everonn at one level will continue to grow with the adoption of technology-enabled learning and support systems for educational institutions. On the other hand, e-learning organizations, like Tata Interactive, serving corporate training and the development segment, would also continue to grow. At the student level, test prep websites like ndvtutor.com and learnhub.com, which are leveraging social networking and technology platforms for improved assessment, information sharing and learning will also become popular.

The Indian education sector is growing at a fast pace but the professionals including faculty and administrators are lagging behind both in quantity or quality. Further growth will pose an even greater threat to the availability of faculty. The expansion plans announced by the Indian government and entry of many more private players will require more faculty members. Given the dire shortage of faculty the institutions will either start to compromise on the quality of teaching or projects will be delayed / aborted. On the administrative front, the issue is not only about the availability of education managers, but more about the lack of recognition of the 'profession of education management' itself.

More institutions, which are aiming for high quality offerings, will recognize that building world-class institutions requires world-class talent. Efforts of FICCI, EDGE and magazines like EDU will sensitize and advance the professionalization of higher education management.

### **Assessment for improving learning in schools in India <sup>[2]</sup>**

Assessment which promotes learning is characterized by the fact that:

1. It is embedded in a view of teaching and learning of which it is an essential part;
2. It involves sharing learning goals with pupils;
3. It aims to help pupils to know and to recognize the standards they are aiming for;

4. It involves pupils in self-assessment;
5. It provides feedback which leads to pupils recognizing their next steps and how to take them; and
6. It is underpinned by confidence that every student can improve. It involves both teacher and pupils reviewing and reflecting on assessment data. (Assessment Reform Groups, 1999)

Portfolios which have long been a standard form of assessment can be defined as “a purposeful collection of a student’s works that exhibits to the student (and/ or others) the student’s efforts, progress, or achievement in a given area” (Northwest Evaluation Association, 1991: 4, cited in Wolcott, 1998) <sup>[19]</sup>.

Hamp -Lyons and Condon (2000) <sup>[20]</sup> have suggested nine characteristics that are present to a greater or lesser degree in portfolios:

- A portfolio is a collection of written works, rather than a single writing sample.
- It enables the writer to display a range of writing performances, in different genres and for different audiences and purposes.
- A portfolio possesses context richness insofar as it reflects closely the learning situation and demonstrates what the writer has accomplished within that context.
- An important characteristic of most portfolio programmes is delayed evaluation, giving students both the opportunity and the motivation to revise written products before a final evaluation is given.
- Portfolios generally involve selection of the pieces to be included in the portfolio, usually by the student with some guidance from the instructor.
- Delayed evaluation and selection offer opportunities for student-centred control, in that students can select which pieces best fulfil the established evaluation criteria and can revise them before putting them into their portfolios
- A portfolio usually involves reflection and self-assessment, in that students must reflect on their work in deciding how to arrange the portfolio, and are frequently asked to write a reflective essay about their development as writers and how the pieces in the portfolio represent that development.
- Portfolios can provide a means for measuring growth along specific parameters, such as linguistic accuracy or the ability to organize and develop an argument.
- Portfolios provide a means for measuring development over time in ways that neither the teacher nor the student may have anticipated. (Weigle, Sara C. 2002, p. 199) <sup>[21]</sup>.

### **Assessment at the elementary school level of education**

#### **Assessment at the elementary level by educational initiatives**

'Educational Initiatives <sup>[22]</sup>' (EI) is an Ahmadabad-based consultancy working in educational research and assessment in India. The aim of this company is to promote an atmosphere of quality within India's primary school system. It pursues this by raising concerns related to the quality of learning, by providing services related to assessment, by undertaking professional development of teachers, by addressing the curriculum and pedagogical issues, and by influencing educational policy, especially in the realm of assessment. It takes a systems approach in order to improve the quality of learning. It uses a cycle of problem discovery, cause identification, solution implementation and feedback (which may lead to a deeper level of problem identification); a positive spiral towards improvement. Educational Initiatives has over 10 years of expertise in education, with a deep understanding of child psychology and efficient methods of teaching, based on detailed research and a formidable database of student learning through

ASSET (Assessment of Scholastic Skills through Educational Testing). Educational Initiatives assists thousands of teachers to improve their students' achievements through its interactive tools such as Mindspark (digital self-learning program), ASSET, Detailed Assessment, CCE Certificate Course, Teacher Evaluation Program, Teacher Sheets and more. EI operates in India, USA, Singapore, Dubai, Kuwait and Bangladesh. EI is also working with leading organizations such as the World Bank, the Michael and Susan Dell Foundation, Google, the Azim Premji Foundation, Duke University, USA, and is conducting large-scale assessment projects with various state governments. EI has recently been recognized as an official Supplement Educational Service provider in Texas, USA.

### **ASSET**

ASSET is the scientifically designed diagnostic test, which stands for Assessment of Scholastic Skills through Educational Testing. Through multiple-choice questioning, ASSET focuses on determining the level of conceptual understanding in students and not how much they have mugged up on. The test generates detailed reports for students indicative of their progress and on aspects that require attention and improvement. The teachers receive a special report which indicates the class performance as compared to the other divisions as well as other schools on a national level. The reports are accompanied by an instructional supplement suggesting the future course of action for both students as well as teachers. Every year more than 0.35 million students from over 1000 schools in India, Gulf and Singapore take the ASSET test.

### **MINDSPARK**

Mindspark is a computer-based program of EI designed to revolutionize the study of Mathematics. It focuses on self-learning with a curriculum-integrated database. An interactive product, from the makers of ASSET, Mindspark has been developed from the belief in personalized learning. It is specially designed to assist the user to learn at his or her pace without rushing them through the syllabus.<sup>[23][24]</sup> Students learn best at their own pace. With an inter-active and detailed database, Mindspark monitors the level of understanding in each concept and patiently helps the students when they are in doubt by resolving errors and misconceptions through explanations.

For example, if a student from the 8th grade does not have clarity on the core concepts of Algebra, the system automatically offers inputs in the form of questions that will help build the fundamentals of Equivalence (which is a critical point in understanding Algebra). Currently more than 50 schools spread across India have integrated Mindspark into their Math's curriculum teaching.

### **DETAILED ASSESSMENT**

Detailed Assessment, a topic-wise testing tool, aims at providing immediate feedback to teachers on the current level of student understanding on the topics taught and completed in the classroom. DA is a futuristic assessment tool that formulates customized assessment programmes in accordance with the school curriculum and presents immediate detailed feedback on individual student performance. Detailed Assessment reduces the stress on teachers by preparing the assessment papers according to the curriculum taught in the class and provides test results and feedback within 48 hours of the assessment.

## **RESEARCH PROJECTS**

### **Student Learning Study**

This is a bench-marking study of student learning conducted by Educational Initiatives (EI), with financial support from Google.org, USA. The test was developed in 13 languages and administered to more than 0.1 million students in about 2399 schools in 48 districts in the 18 participating states and 1 Union territory. This is a diagnostic study which provides granular information on the quality of children's learning and this provides insights that can help various stakeholders – ranging from policy makers to curriculum designers to teachers and parents – to take appropriate steps to improve the educational quality.

### **UNICEF Learning Assessment Study for Quality Education**

This study assessed mathematics and language acquisition among primary school children in the UNICEF quality package schools in 13 states of India. The tests were standardized across 9 languages and involved a very intricate development cycle involving language experts from all over India.

### **Bhutan Annual Status Student Learning Study**

This study was done in partnership with Royal Education Council and Ministry of Education Bhutan. Nearly 34000 students in classes 4, 6 and 8 are tested for learning in Language, Math and Science in 424 schools. <sup>[25]</sup>

### **Andhra Pradesh Randomized Evaluation Study**

This study was done in partnership with Harvard University, Azim Premji Foundation, World Bank and the Government of Andhra Pradesh. This is a longitudinal study over 8-9 years and covers currently 100,000 elementary school kids and measures the impact of various inputs (e.g., block grants, additional teachers) with outcome-based teacher incentives. <sup>[26]</sup>

### **Assessment of Student Learning in Sarva Shiksha Abhiyan – RGSM, Chhattisgarh**

The test was developed in Hindi and administered to approximately 0.3 million students in about 1900 schools in 16 districts in Chhattisgarh states. The tests have already been conducted for students of class 3 to 8 for Language and Math and the report has been submitted to RGSM.

### **Municipal School Bench-marking Study**

Supported by ICICI Bank, this study assessed learning in 35,000 municipal school students from class 2, 4 and 6 across the 6 biggest towns in five states- Gujarat, Andhra Pradesh, Rajasthan, Chhattisgarh and Uttarakhand.

### **Teacher Needs Assessment**

This is a census study that has been initiated by the Royal Education Council, Government of Bhutan. In this project all teachers of Bhutan are assessed for their general ability, competence in subject knowledge and pedagogical practices.

**Table - 2. Existing time schedule in elementary level**

Periods / Week	Teaching–Learning Hours / week	Age group (years)	Class of study
23	17.5	5 <sup>+</sup> & 6 <sup>+</sup> Years	I and II
33	25	7 <sup>+</sup> to 9 <sup>+</sup> Years	III to V

**Table – 3. Working days and hours in an Academic year \* [3]**

(As per the Right to Education Act, 2009)

Class	Working days	Working hours	Working hours per week for the teacher (including Preparation hours)
I to V	200	800	45
VI to VIII	220	1000	48

**Source:** The Gazette of India Extraordinary, Ministry of Law and Justice, New Delhi, the 27<sup>th</sup> August, 2009.

**Table – 4. Grading system in elementary level of education for EE and DAT System used by West Bengal Board of Primary Education for External Evaluation (EE) in Class – II And Diagnostic Achievement Test (DAT) in Class – III**

Grade	Percentage of marks	Significance
A	41 – 50	Very good
B	33 – 40	Good
C	26 – 32	Satisfactory
D	18 – 25	Average
E	0 -17	Not Satisfactory

**Table – 5. Grading system in elementary level of education for CCE**

System used by Govt. and Govt. -Aided Primary Schools for Continuous and Comprehensive Evaluation (CCE) in Class – I to Class – IV.

Grade	Percentage of marks	Significance
A	81 – 100	Very good
B	66 – 80	Good
C	51 – 65	Satisfactory
D	36 – 50	Average
E	21 – 35	Poor
F	0 – 20	Not satisfactory

**Table - 6. Grading system in secondary level of education**

Grade	Percentage of marks	Significance
AA	90 – 100	Outstanding
A+	80 – 89	Excellent
A	60 – 79	Very Good
B+	45 – 59	Good
B	35 – 44	Satisfactory
C	25 – 34	Marginal
D	0 - 25	Not Satisfactory

### **Assessment in secondary School level of education**

#### **Secondary education**

The National Policy on Education (NPE), 1986, has provided for environmental awareness, science and technology education, and for the introduction of traditional elements such as Yoga into the Indian secondary school system.<sup>[27]</sup> Secondary education covers children between the ages of 14–18 which covers 88.5 million children according to the Census, 2001. However, enrolment figures show that only 31 million of these children were attending schools in 2001–02, which means that two-third of the population remained out of school.<sup>[28]</sup>

A significant feature of India's secondary school system is the emphasis on inclusion of the disadvantaged sections of the society. Professionals from established institutes are often called upon to support vocational training. Another feature of India's secondary school system is its emphasis on profession-based vocational training to help students attain skills for finding a vocation of his/her choosing.<sup>[29]</sup> A significant new feature has been the extension of SSA to secondary education in the form of the Madhyamik Shiksha Abhiyan<sup>[30]</sup>. A list of Boards and Councils is given in Table – 8.

A special Integrated Education for Disabled Children (IEDC) programme was started in 1974 with a focus on primary education.<sup>[31]</sup> But which was converted into Inclusive Education at the Secondary Stage<sup>[28]</sup> Another notable special programme, the *Kendriya Vidyalaya* project, was started for the employees of the central government of India, who are distributed throughout the country. The government started the *Kendriya Vidyalaya* project in 1965 to provide uniform education in institutions following the same syllabus at the same pace regardless of the location to which the employee's family has been transferred.<sup>[32]</sup>

A multilingual web portal on Primary Education is available with rich multimedia content for children with forums for discussion on Educational issues. India Development Gateway<sup>[33]</sup> is a nationwide initiative that seeks to facilitate rural empowerment through the provision of responsive information, products and services in local languages.

### **Council regulations for ICSE examinations**

Guidelines for conduct of examinations<sup>[34]</sup>

#### **CLASSES 5 – 8**

In these classes 20% of the marks in each examination are allotted for internal assessment based purely on one of the items given below or on a combination of more than one item as per subject & teacher:

1. Unit/Periodical class tests. (Allowed only in 1st Term and that in exceptional circumstances only).
2. Practical.
3. Projects – group / sub-group/ individual.
4. Activity-based learning.
5. Case Study.

A minimum of one each of such above assessments is required to be recorded for 1st Term Examination and for the Annual Examination The terminology used in the Council Internal Assessment Guidelines needs to be understood.

The internal assessment need not always be submitted individually as a written project. The submission of written work may also be allowed on CD instead of in a register / folder.

Generally for the 1st Term Examination the projects should be based on group / sub-group work to be presented orally Presentation through performing arts and via the use of multimedia is also encouraged. Also consideration should be given to reaching out to other teachers involved with other subjects to try to achieve integrated learning through common projects. A common project might well be devised but the output of students should clearly show the work of two subjects. Example: A history project on The Battle of the Bulge can incorporate an English poem such as *The Charge of the Light Brigade*. This approach should not only be used to improve learning skills of the students but to improve the teacher's own imagination & new thinking. It should be used as a chance to bring about change that the teacher might always have wanted, to initiate. For languages, book reviews both oral and written should be considered. Incorporation of the assessment system as laid down for classes 9 & 10 would be advisable. Project compilation should, for the most part, be done in the class room.

Preparatory / preliminary / collection of data may be undertaken at home. Projects should be closely related to learning skills, where students gain knowledge on their own with regards to topics in the syllabus. Dates and deadlines in the project work should NOT be flexible and should be made known well in advance to the students.

### **Important extracts from the council regulations for ICSE examinations with regards to internal assessment [34]**

“If no marks, or the letters ‘AB’ appear in the column entitled ‘Total Marks’ against a candidate’s name the result of the subject will be shown as ‘Absent’ when the results of the examination as a whole are issued irrespective of whether or not the candidate appeared and obtained a result in the written paper”. Thus, if the projects are not submitted on or before the last date as per school directive the student will be treated as absent as in the case of any external paper for which the student does not appear. The Marks for internal assessment for such cases will be entered AB in keeping with the guidelines of the Council.

### **Internal assessment for class IX & X based on CISCE guidelines**

In the column of the mark sheet(s) entitled ‘Total Marks’ the results of each candidate in SUPW should be given in terms of a grade, namely A, B, C, D or E based on the five point scale as follows:

**Table – 7. Five point grading system based on council of ISCE guidelines**

<b>Grade</b>	<b>Standards</b>
A	Very Good
B	Good
C	Fair
D	Satisfactory
E	Unsatisfactory

Grade E is the fail grade and candidates awarded this grade will not be eligible for the award of a Pass Certificate.

**Table – 8. List of Education Boards and Councils in different states /union territories in India**

<b>Serial No.</b>	<b>Name of Board/Council</b>	<b>State/Union Territory/Central</b>
1	Andhra Pradesh Board of Secondary Education	Andhra Pradesh
2	Assam Board of Secondary Education	Assam
3	Bihar School Examination Board	Bihar
4	Central Board of Secondary Education	Central
5	Chhattisgarh Board of Secondary Education	Chhattisgarh
6	Council for Indian School Certificate Examination	Central
7	Goa Board of Secondary & Higher Secondary Education	Goa
8	Gujarat Secondary Education Board	Gujarat
9	Haryana Board of Education	Haryana
10	Himachal Pradesh Board of School Education	Himachal Pradesh
11	Jammu & Kashmir State Board of School Education	Jammu & Kashmir
12	Jharkhand Academic Council Ranchi	Jharkhand
13	Karnataka Secondary Education Examinations Board	Karnataka
14	Kerala Board of Public Examinations	Kerala
15	Madhya Pradesh Board of Secondary Education	Madhya Pradesh
16	Maharashtra State Board of Secondary & Higher Secondary Education	Maharashtra
17	Manipur Board of Secondary Education	Manipur
18	Meghalaya Board of School Education	Meghalaya
19	Mizoram Board of School Education	Mizoram
20	Nagaland Board of School Education	Nagaland
21	National Open School	Central
22	Orissa Board of Secondary Education	Orissa
23	Punjab School Education Board	Punjab
24	Rajasthan Board of Secondary Education	Rajasthan
25	Rabindra Mukta Vidyalaya (West Bengal State Open School)	West Bengal
26	Tamil Nadu Board of Secondary Education	Tamil Nadu
27	Tripura Board of Secondary Education	Tripura
28	Uttar Pradesh Board of High School & Intermediate Education	Uttar Pradesh
29	Uttaranchal Siksha Evm Pariksha Parishad	Uttaranchal
30	West Bengal Board of Primary Education	West Bengal
31	West Bengal Board of Madrasa Education	West Bengal
32	West Bengal Board of Secondary Education	West Bengal
33	West Bengal Council of Higher Secondary Education	West Bengal

### **School guidelines for internal assessment for class IX & X based on CISCE guidelines**

[34]

#### **Science subjects:**

- 1.) 1st Term (Both Classes) marks will be based on Practical Work done and maintained in the laboratory manual as laid down in Syllabus ,plus a Practical Test to be marked equally as laid down in the Syllabus & conducted during this period.
- 2.) Preliminaries (Class X)/Annual Examination (Class IX) marks will be based on Practical Work done and written up in the laboratory manual after the first term as laid down in the Syllabus plus a Practical Test to be marked equally as laid down in the Syllabus & conducted during this period. These marks will also be considered for final ICSE Examination submission. (Class X)
- 3.) Complete year Laboratory Manual will be submitted.
- 4.) Practical Examinations to be conducted and recorded in the Laboratory Manual itself. There will be no external Examiner for Class IX.
- 5.) (Class X Only). The external examiner will mark Lab Manual work done in the 2nd Term and the practical examination held at the time of the Preliminaries.

#### **Computer application:**

- 1.) 1st Term (Both Classes). The students should complete a number of laboratory assignments during this period (1st Term), as laid down in syllabus, to reinforce the concepts studied in the class. The Lab Manual will be marked for 1st Term work done up till then (1st Term-25 Marks) plus the students should build one real life project using the concepts taught (50 Marks) plus complete a timed laboratory assignment (25 Marks).
- 2.) Preliminaries (Class X)/Annual Examination (Class IX). The students should complete a number of laboratory assignments during this period (2nd Term), as laid down in the syllabus, to reinforce the concepts studied in the class. The Lab Manual will be marked for 2nd Term work done up till then (25 Marks) plus the students should build one real life project using the concepts taught (50 Marks) plus they should complete a timed laboratory assignment (25 Marks). These marks will also be considered for final ICSE Examination submission. (Class X)
- 3.) Complete year Laboratory Manual will be submitted.
- 4.) Timed laboratory assignments should be conducted and recorded in the Laboratory Manual itself. There will be no external Examiner for Class IX.
- 5.) (Class X Only). The external examiner will mark Lab Manual work done in the 2nd Term and the timed laboratory assignment held at the time of the Preliminaries.

#### **Environmental education:**

- 1.) 1st Term (Both Classes). Students should complete one project as per the syllabus.
- 2.) Preliminaries (Class X)/Annual Examination (Class IX) Students should complete one case study as per the syllabus.
- 3.) For final ICSE Examination submission (Class X) both of the above will be submitted for evaluation to an external examiner. The average of both examiners on both assignments will be considered as the final mark.
- 4.) All assignments to be compiled into a single folder.

**Mathematics:**

- 1.) 1st Term (Both Classes). Students should complete one assignment to be done during the year, as assigned by the teacher.
- 2.) Preliminaries (Class X)/Annual Examination (Class IX) Students should complete two assignments to be done during the year, as assigned by the teacher.
- 3.) For final ICSE Examination submission. (Class X). All Three assignments will be submitted for evaluation to external examiner. The average of both examiners on all three will be considered to be the final mark.
- 4.) All assignments are to be compiled into a single folder.

**Geography:**

- 1.) 1st Term (Both Classes). Students will be required to prepare a project report on any one topic.
- 2.) Annual Examination (Class IX). A record file having any three of the exercises mentioned in the syllabus must be maintained.
- 3.) Preliminaries (Class X) Students will be required to prepare a project report on any one topic. These marks will also be considered for final ICSE Examination submission. (Class X)

**History:**

- 1.) 1st Term (Both Classes). Students will be required to prepare a project report on any one topic.
- 2.) Preliminaries (Class X)/Annual Examination (Class IX). Students will be required to prepare a project report on any one topic. These marks will also be considered for final ICSE Examination submission. (Class X)

**Commercial studies:**

- 1.) 1st Term (Both Classes). Students will be required to prepare project reports on any one topic.
- 2.) Preliminaries (Class X)/Annual Examination (Class IX). Students will be required to prepare two project reports on any two topics. These marks will also be considered for final ICSE Examination submission. (Class X)
- 3.) For final ICSE Examination submission (Class X) all three assignments will be submitted for evaluation to an external examiner. The average of both examiners on all three assignments will be considered to be the final mark..
- 4.) All assignments are to be compiled into a single folder.

**English language (Introduced W.E.F Batch appearing in ICSE Mar 2012 Examination):**

1. Skills assignments:

1st Term (Both classes). Students will be required to attempt each of the Listening and Speaking Skills assignments.

2. Annual Examination:

Class IX Students will be required to attempt two each of the Listening and Speaking Skills assignments (One each in English 1 and ECN subject). There will be no external examiner for Class IX (English 1 teacher to compile).

3. Preliminaries:

Class X Students will be required to attempt one each of the Listening and Speaking Skills assignments.

4. Final ICSE Examination:

For final ICSE Examination submission (Class X) both the assignments (1st Term and Preliminaries) will be evaluated by an external examiner. The average of both examiners' marks on both assignments will be considered as being the final mark. (The External Examiner will be the English Teacher of the respective sections of class VII).

5. Assignments:

A continuation folder of all assignments, briefs, remarks and marks will be maintained from class IX onwards.

6. Record sheet:

A standard record sheet will be introduced in due course, in the meanwhile each teacher is to make an individual student compilation sheet from Class IX onwards.

7. Listening Skills or Aural Comprehension:

A passage of about 300 words will be read aloud by the examiner twice, the first time at normal reading speed (about 110 words a minute) and then at a slower speed. Candidates may make brief notes during the readings. They then answer an objective type test based on the passage, on the paper provided. The recommended number of candidates at a sitting is 30.

8. Speaking Skills:

Each candidate is required to make an oral presentation for about two minutes, which will be followed by a discussion on the subject with the examiners, for about three minutes. Subjects for presentation may include narrating an experience, providing a description, giving directions how to make or operate something, expressing an opinion, giving a report, relating an anecdote or commenting on a current event. A candidate may refer to brief notes in the course of the presentation but reading or excessive dependence on notes will be penalized. It is recommended that candidates be given an hour for preparation of their subject for presentation and that they be given a choice of subject.

9. Award of Marks:

Listening Skills and Speaking Skills are to be marked equally.

10. Records:

The school is required to maintain a record of all assessments conducted in Listening and Speaking Skills for students of Classes IX and X. These include copies of the assessment tests, topics for presentation and marks awarded. The record will be maintained for a period of 2 months after the ICSE examinations of the candidates concerned. The English I Teacher will be responsible for compilation of this record.

### Literature in English:

- 1.) 1st Term (Both Classes). Students will be required to do one assignment of approximately 300 to 400 words in Class IX and not exceeding 1500 words in total in class X.
- 2.) Preliminaries (Class X)/Annual Examination (Class IX) Students will be required to do one assignments of approximately 300 to 400 words in Class IX and not exceeding 1500 words in total in class X.
- 3.) For final ICSE Examination submission (Class X) the results of both assignments will be submitted for evaluation to the external examiner in a single folder. The average of both examiners marks for both assignments will be considered as being the final mark.
- 4.) The External Examiner will be the English Teacher of the respective sections of class VIII. There will be no external Examiner for Class IX.

### Second language:

#### 1. Skills assignments:

1<sup>st</sup> Term (Both classes). Students will be required to attempt one each of Listening and Speaking.

#### 2. Listening skills:

A passage of about 300 words is read aloud by the examiner twice, the first time at normal reading speed (about 110 words a minute) and then at a slower speed. Candidates may make brief notes during the readings. They then answer an objective type test based on the passage, on the paper provided. The recommended number of candidates at a sitting is 30.

#### 3. Speaking skills:

Each candidate is required to make an oral presentation for about two minutes, which will be followed by a discussion on the subject with the examiners, for about three minutes. Subjects for presentation may include narrating an experience, providing a description, giving directions how to make or operate something, expressing an opinion, giving a report, relating an anecdote or commenting on a current event. A candidate may refer to brief notes in the course of the presentation but reading or excessive dependence on notes will be penalized. It is recommended that candidates be given an hour for preparation of their subject for presentation and that they be given a choice of subject.

#### 4. Award of marks:

Listening Skills and Speaking Skills are to be marked equally.

#### 5. Records:

The school is required to maintain a record of all assessments conducted in Listening and Speaking Skills for students of Classes IX and X. These include copies of the assessment tests, topics for presentation and marks awarded. The record will be maintained for a period of 2 months after the ICSE examinations of the candidates concerned. The teacher teaching the language will be responsible for compilation of the record.

#### 6. Preliminaries:

(Class X)/Annual Examination (Class IX) Students will be required to do one written assignment of approximately 300 to 400 words in Class IX and an assignment not exceeding 1500 words in total in Class X. These marks will also be considered for final ICSE Examination submission. (Class X).

### **Central board of secondary education (CBSE) new grading and assessment system** <sup>[35]</sup>

The Central Board of Secondary Education is shortly going to introduce its new grading and assessment system. The system will be helpful to schools to get rid of rote learning. The following are the details of this system.

#### The academic session

Each academic session in Class IX and X will comprise two terms and students will have two term-end exams called summative assessments. The CBSE provides a question bank to schools, from which they then prepare their question papers for the term-end exam and evaluate papers internally. Continuous evaluation will take place through formative assessment and will comprise class work, homework, oral questions and quizzes, projects and assignments. "There are four formative assessments in one academic session carrying 40 per cent weightage".

#### A continuous process

Continuous and comprehensive evaluation will not only take into account the academic performance of a child but also focus on scholastic and co-scholastic activities. Scholastic areas would include work experience, art education, general knowledge and computer science. The bigger challenge would be grading students on thinking and emotional skills, attitude towards teachers, schoolmates and public property. The development in the creative skills like debate, creative writing, recitation, drawing etc. is also assessed.

#### The grading system

The marks given in exams will be replaced by grades. Although Class X students will have a Board exam this year, they will be graded and not marked. (See box above). However, a student can find out his/her percentile, but it will not be recorded on the report card.

#### Exam-on-demand

The CBSE will conduct an exam on-demand for Class X students who want to sit for a Class X final exam. According to HRD Minister Kapil Sibal, the test can be taken and the student will be given a CBSE certificate in case he/she wants to go to another school or join pre-university. The student can choose from a number of dates on which the exam will be held. The pattern will be the same as in SAT. Online and offline exams will be available and the question paper will be different for each student.

#### Moving out of system

In states where the CBSE schools run up to class X, students who have to enter pre-university can ask the board for marks. For instance, in Maharashtra, many CBSE students prefer to opt for pre-university after Class X since it makes it easier for them to get admission into undergraduate courses. If a student wants to switch to the state board system, the system will provide the original marks in terms of numbers.

### **Cumulative grade point average (CGPA): a new system in CBSE schools [36]**

#### **Class XI Admissions based on CGPA**

Following reservations expressed by various schools over the Class XI admissions from this session, CBSE is planning a Cumulative Grade Point Average (CGPA) system to help schools.

Under the system, average grades obtained by students in each subject will be considered while allocating them different streams in Class XI.

With grades replacing marks from this year in Class X, schools are uncertain about the admission criteria to be followed for Class XI. Schools believe that grades will make allocation of streams in Class XI difficult as a large number of students will have the same grade.

With CBSE planning to introduce the CGPA system, schools can heave a sigh of relief. CBSE chairperson Vineet Joshi said, “We will come up with detailed guidelines for schools by March end. Our guidelines will clarify how to break a tie. It is a pilot test and we hope it will work well.”

The CBSE will soon be issuing an advisory to all affiliated schools. Up until last year, schools would allocate streams to students based on pre-Board results or on the basis of a test that they would conduct after Class X. The CBSE will award grades on a nine-point scale to “indicate subject-wise performance”. Students scoring A1 grade will be given 9 points, a student getting grade A2 will get 8 points and so on.

R K Sharma, principal of Ahlcon Public School, said, [36] “Schools can calculate average grade points in all subjects. For admission in the Science stream, a school can take the average of grade points in Mathematics, Science and English”.

### **Centre for assessment, evaluation and research (CAER) in CBSE [37]**

CBSE has decided to establish a Centre to develop international capabilities and resources for its Schools and Teachers. The Centre will establish best practices in school-based assessment, entrance examinations, conduct research into policies and programmes that can improve teaching quality and strengthen student learning. These policy programmes might include adapting, developing assessments and related resources, defining assessment frameworks, professional learning, teacher evaluation, professional recruitment amongst many other issues.

The Centre will create research capability and assessment resources of international quality. Through diagnostic testing it will establish a system to provide input to CBSE regarding student learning as well as providing professional development and leadership training. The Centre will also conduct research into policies and programmes that can improve student learning and teaching quality.

The Centre will be developed using a three-year phased approach and it is expected that it will be a well-established self-sustaining institute by the end of this period. Resources created or research undertaken in any work of the institute will use as a foundation the National Curriculum Framework of NCERT and the CCE guidelines.

## Departments

The Centre will have the following departments:

- Department of Research & Assessment ;
- Department of Professional Development and Leadership; and a
- Publications Department.

### Department of Research & Assessment

The Department of Research & Assessment will be responsible for establishing school-based assessment guidelines and will aim to create, test and support the implementation of school-based assessment. The Department of Research & Assessment will also review the Medical and Engineering Entrance Examination Capacity building in the areas of:

- School based Assessment ;
- Entrance Examinations ; and
- International Curriculum and Assessment Resources.

### School-based projects

The Department of Research & Assessment will be involved in the creation and / or adaptation of proficiency and diagnostic tests to track and report student learning. This will be followed by the identification and establishment of core subject groups who will then continue to create, test and support implementation of resources for school-based assessment.

The Department will also help schools to identify and train one resource person either from within their current group or from outside to assume the role of a Trained Assessment Professional. This Professional will be responsible for guiding new and current teachers of the school regarding the school's assessment policies and resources.

It is expected that in the first two years of its functioning, the Department of Research & Assessment will be able to create enough assessment resources and guidelines to enable teachers to implement School-Based Assessment as per the CCE guidelines.

The Department will also aim to collect student data from all schools to track and report on student learning and will identify areas particularly where improvement is needed or where there is inadequate resourcing.

### Higher Education Entrance Examinations

The core group identified for the Medical and Engineering Entrance Examination will review the Examination, redesign the framework and move towards online testing, as well as assuming responsibility for developing and designing of a SAT equivalent assessment.

### Department of Professional Development and Leadership

The Department of Professional Development and Leadership will aim to strengthen the teaching profession and to monitor the progress and achievements of educational leaders and teachers. The roles carried out by the Department will also possibly include professional recruitment, initial teacher education

and induction, professional learning and leadership, the establishment of professional learning communities, teacher evaluation and career development.

### Teacher Professional Development

Schools and school systems must realize the importance of and the need for major investment in the professional development of their teachers. Teachers should be expected to:

- master their subject matter;
- facilitate student learning;
- encourage students to become life-long learners; and continually develop themselves and their teaching practices and contribute to their schools.

Some key considerations characterizing professional development today are outlined below:

- The focus must be on teachers acquiring the knowledge and skills which will enable them to utilize information technology to create learning environments very different from most of those which characterize the traditional classroom. The profession's best practitioners in this area, those who understand how quality learning can be structured and achieved through information technology, should be called upon to develop these skills in others.
- Teachers with particular interests and skills must be allowed to learn to an advanced level and be accredited for their knowledge and skills. These teachers should have a leadership role in the schools where they teach, directly influencing and supporting the professional practice of their colleagues.
- Teachers need ready access to information arising from research into the implications of pedagogy. Schools and employers should make the provision of this information a priority as part of their larger commitment to improving teacher quality.
- Accredited schools will be invited to make use of the TT programs. Non-accredited schools will also be
  - a. **Teacher Self-Development:** A teacher sends in a request for undergoing a programme in a particular area of interest and need as perceived. It could be subject-matter related, leadership skills, management skills or any other teaching related skills; and
  - b. The student data collected by the Department of Research & Assessment will be expected to identify and provide areas for Professional Development and the workshop calendar will be designed accordingly able to participate.

### Role of the Department of Professional Development and Leadership

The Department will be responsible for the following areas:

- Making available specialized training and certifying teachers;
- Developing an annual list of short-term courses on topics of interest related to best practices in the international education field;
- Working closely with the education authorities and institutions to design programmes meeting specific requirements.
- Identifying Indian resource people and inviting them to undertake required courses and programmes, to equip them with skills to implement and monitor assessment programmes;
- Bringing in international resource professionals with different areas of expertise;

- Providing teachers with advice on professional development pathways. This support will include the identification of appropriate courses, advising on programme availability, as well as monitoring the quality of the courses. Relevant research concerning continuing professional development will also be identified.
- Establishing a National Professional Learning Association; and
- Recruiting new teachers. New schools and existing schools face difficulty in identifying good quality teachers. The department will establish a procedure and group to address this need and will support schools in recruitment in India and outside.

### Department of Publication

The Department of Publication will be responsible to select, produce and publish resources including tests, kits, books for professional practitioners in education, psychology, parent education, special needs etc. Journals will be published periodically. The partner organization will work with and advise the following Departments within the Centre:

1. Department of Research and Assessment ;
2. Department of In-service Teacher Training and Leadership;
3. Department of Publication ;
4. Establishing principles of learning; and
5. Introduction to Planning models and Frameworks.

### The plan should include

- a. adapting/ creating assessments as per the requirements of CCE;
- b. developing / creating teacher assessment resources;
- c. establishing assessment standards to improve student learning;
- d. improving the skills and competencies of existing and prospective teaching professionals;
- e. improving the skills and competencies of existing and aspiring Heads of CBSE Schools;
- f. introducing schools to international best practices in pedagogy;
- g. establishing ‘train the trainer’ models;
- h. conducting research and providing advice on the introduction of new teaching approaches.
- i. describing teaching standards; and
- j. establishing international links for India by way of conferences and exchange programmes

### **CCE grading system of CBSE [37]**

#### The new order

With Board exams being made optional from the academic year 2010-11, a new system of evaluation – Continuous and Comprehensive Evaluation (CCE) – based on grades has been approved. It comprises formative and summative assessment of the student to be done over two terms – first and second - during the year-long academic calendar.

**Table – 9: Summative Assessment and Formative Assessment**

<b>Summative Assessment: Based on the term-end examination</b>	<b>Formative Assessment: To evaluate and grade class work, homework, assignment and project work</b>
1) There will be two evaluations each in the	1) There will be one term-end exam for each

first and second terms. 2) Each evaluation will carry 10 marks apiece.	term. 2) The first term-end exam will carry 20 marks. 3) The second term-end exam will carry 40 marks.
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How CBSE'S new grading system will work

1. All students will be awarded grades, not marks.
2. The practice of declaring Compartment/Fail has been discontinued.
3. The result of candidates is now declared in two categories: Eligible for qualifying certificate (QUAL) and Eligible for improvement of performance (EIOP).
4. All candidates, even if they have failed in all subjects will now have five chances to improve their performance without having to repeat a year.

### Evaluation

Students of class IX and X will be evaluated on a 9-point grading system. Each grade, given on the basis of both formative and summative assessments, will correspond to a range of marks as indicated below:

**Table - 10: New Grading System of CBSE**

MARKS RANGE	GRADE	GRADE POINT
91-100	A1	10.0
81 -90	A2	9.0
71 -80	B1	8.0
61-70	B2	7.0
51 -60	C1	6.0
41 -50	C2	5.0
33-40	D	4.0
21-32	E1	
00-20	E2	

Points to Remember:

- (i) Assessment of theory/practical papers in external subjects shall be in numerical scores. In addition to numerical scores, the Board shall indicate grades in the mark sheets issued to the candidates in case of subjects of external examinations. In case of internal assessment subjects, only grades shall be shown.
- (ii) Subjects of internal examination in Class X the assessment shall be made on a five point scale i.e. A, B, C, and D & E.
- (iii) The grades shall be derived from scores in case of subjects of external examination. In case of subjects of internal assessment, they shall be awarded by the schools.
- (iv) The qualifying marks in each subject of external examination shall be 33%. However at Senior School Certificate Examination, in a subject involving practical work, a candidate must obtain 33% marks

in the theory and 33% marks in the practical separately in addition to 33% marks in aggregate, in order to qualify in that subject.

Important:

- (a) In case of a tie, all the students getting the same score will get the same grade. If the number of students at a score point needs to be divided into two segments, the smaller segment will go with the larger.
- (b) Method of grading will be used in subjects where the number of candidates who have passed is more than 500.
- (c) In respect of subjects where total number of candidates passing in a subject is less than 500, the grading would be adopted on the pattern of grading and distribution in other similar subjects.

### **International assessment for Indian schools (IAIS\_IAS) [38]**

The International Assessments for Indian Schools, more popularly known as IAIS, is an educational measurement and assessment service that helps students realize their optimum potential to grow and reach international standards.

IAIS is offered in partnership with Educational Assessment Australia (EAA) of the University of New South Wales, Sydney, Australia.

IAIS aims to assess the academic skills of students in key learning areas:

1. Critical thinking;
2. Reasoning, Comprehension, Problem-solving;
3. IAIS is open to students of Classes 3 to 12; and
4. Subjects offered are English, Mathematics, Science and Computer Skills.

IAIS enables schools to:

1. Monitor and compare student performance within the school;
2. Identify student potential for growth and follow up with revision;
3. Discover students' latent potential; and
4. Compare students' performance with those of the rest in the country.

### **Subjects Assessed by IAIS\_IAS**

English, Science, Mathematics and Computer Skills are assessed by IAIS\_IAS.

Understanding, interpreting and analyzing the given text matter are pre-requisites to excelling for the assessment.

English is the tool which helps the students to excel in other subjects and to explore and interact with the world. Revealing the student's ability to understand and use English is like reading the blueprint of his/her future.

The compelling need that the students experience, especially before the school leaving examinations, to know their current levels of academic achievements as well as their potential in Mathematics and Science establishes the need for examining the student potential in these two subjects.

Computer Skills go hand in hand with the way the students will work in the global world.

IAIS/IAS has surely made the right choice to assess the students in:

- English Classes 3 to 12
- Mathematics Classes 3 to 12
- Science Classes 3 to 12
- Computer Skills Classes 3 to 10

## **Skills Assessed**

### **English**

Reading and language skills fall within a range of texts. Students are required to locate, identify, interpret, infer and synthesize information in and about texts, focusing on the aspects of reading for meaning in literary texts; reading for meaning in factual texts; and textual devices, syntax and vocabulary.

The International Assessments for Indian Schools (IAIS) –In English there will be an assessment of reading and language skills in a range of contexts. The following aspects of texts are assessed and reported on: reading for meaning in literary texts, reading for meaning in factual texts, textual devices, syntax and vocabulary. The questions require students to locate, identify, interpret, infer and synthesize information in and about texts. Students read a variety of texts which narrate, describe, explain, argue, persuade and review. The types of texts include extracts from novels, short stories, poems, play scripts, transcripts of interviews, letters, diary entries, advertisements, WebPages, reports and explanations, opinion pieces and reviews. These texts may include tables, diagrams, maps and other visual information. The texts which students read will increase in complexity from Paper A to Paper J, starting from simple texts dealing with familiar structures.

### **Science**

Scientific skills will be assessed in the subject contexts of Earth and Beyond, Natural and Processed Materials, Life and Living, and Energy and Change, including:  
Knowledge, Measuring and Observing, Interpreting Data, Predicting / Concluding from Data, Investigating and Reasoning / Problem Solving.

The International Assessments for Indian Schools (IAIS) – Science assesses skills in the areas of Interpreting data, including:

Observing, measuring, interpreting diagrams, tables and graphs.

Applying data, including:

Inferring, predicting and concluding.

Higher order skills, including:

Investigating, reasoning and problem solving.

These skills are embedded in the syllabus documents of all the key learning areas and are meant to be taught in context.

The skills are tested in contexts drawn from four Science knowledge areas:

- Earth and Beyond (incorporating the Earth Sciences and Astronomy)

- Natural and Processed Materials (incorporating Chemistry)
- Life and Living (incorporating Biology and Ecology)
- Energy and Change (incorporating Physics)

## Mathematics

Mathematical skills in a range of contexts from the following areas: Number and Arithmetic, Algebra and Patterns, Measures and Units, Space and Geometry, Chance and Data.

The International Assessments for Indian Schools (IAIS) – Mathematics assesses five strands:

### Number and Arithmetic:

This strand involves types of numbers, their properties and operations on numbers. The strand has strong links with Measures & Units, Algebra & Patterns and Chance & Data. It also has some links with Space & Geometry.

### Algebra and Patterns:

This strand involves patterns of numbers, relationships between numbers and the use of symbols to stand for unknown or variable numbers.

### Measures and Units:

This strand involves properties of the physical world that can be measured, the units used to measure them and the process of measurement.

### Space and Geometry:

This strand involves the properties of two-dimensional and three-dimensional space.

### Chance and Data:

This strand involves mathematical treatment of data and statistics.

There are some broad differences in content between papers:

### Papers 3, 4, 5, 6 and 7:

Calculators are not permitted.

Formal algebra is not tested: the emphasis is on pattern, structure and puzzles

Formal geometry is not tested (except for a small amount in Paper E): the emphasis is on spatial skills.

### Papers 8, 9, 10, 11 and 12:

Calculators are required.

Formal algebra is tested and students are expected to be familiar with some conventions of algebra.

Formal geometry is tested and students are expected to be familiar with some conventions of geometry.

## Computer Skills

General computer skills using familiar contexts, including:

- Common operating systems and hardware;
- Word processing, Graphics and multimedia;
- Spreadsheets and databases;

- Internet and email; and
- Programming and scripting. \*

The International Assessments for Indian Schools (IAIS) – Computer Skills assesses skills and knowledge in the areas of:

- operating systems and computer hardware;
- networks and other communications systems;
- word processing, graphics and multimedia ;
- spreadsheets;
- databases;
- internet use and email programs ; and
- programming (papers G and H only).

The use of technology in the classroom by students is embedded in the syllabus documents of all key learning areas and is most effective if it is taught in this context.

### **IAIS/IAS Diagnostic Reports**

All participating students receive a comprehensive diagnostic report of their strengths and weaknesses, including their comparative performance. Schools receive an in-depth report on each class group, indicating strengths and weaknesses, comparison and tracking of class-level progress from one year to the next.

From 2008, Comparative Performance information is also available on each student report. This information provides students with historic tracking, outlining the results they achieved in the assessment in previous years. Students and their parents can then observe and monitor progress and development from year to year.

EAA has developed a new report format to provide more comprehensive information in an easier-to-read form. The new reports contain detailed information for schools and teachers about the performance of students at a school compared with all other participating students. They also contain new reports for parents that provide enhanced and accessible diagnostic information about their child's performance.

The main benefits of the new format are that the reports are easier to read and understand. They now contain more information that helps schools track the progress of clusters and individuals over time. This helps teachers and parents target exactly what the students know and do not know in order to better plan their future teaching and learning.

The new student report contains the following:

- The student's raw score;
- A series of line graphs comparing the student's overall scores and average with the averages of other participating students, for all the different areas assessed;
- A graph comparing the student's performance this year compared with previous years and showing the mean score for the class level in the year ahead.; and
- A table showing all the questions in order of difficulty, and highlighted to show which the student answered correctly or incorrectly. This table also shows which answer the student chose and indicates areas of relative strength or weakness.

The new school reports contain the following:

A summary providing information on how a school performed compared with other schools participating in the Assessment. It shows the average score achieved by students at the school and by other students participating and gives a graphical comparison of the performance of students in the school compared with others.

A graph comparing the performance of each cluster of students within the school and the region\* on a common scale. The common scale is developed through a statistical process called equating and allows for legitimate comparisons of performance to be made. The graph shows changes in performance across class levels. A section analyzing the performance of students of a school in the skill areas tested and comparing them with other participating students.

A table listing all the questions in order of difficulty and showing percentages of students in the school and the region\* answering correctly. This table also shows the strengths and weaknesses of students in the school. Each question is described with a summary of the skill that is being tested.

A table listing all the questions in order and showing percentages of students in the school choosing the responses available. This table allows for an analysis of incorrect answers, which can point to specific areas of weakness or target teaching points for future lessons. A table listing students in alphabetical order showing achievement by certificates awarded and percentile ranking for school and region\*.

A graph ordering questions from easiest to hardest and students from highest to lowest scores. This ordering generates a 'Gutman' pattern: a visual representation of the strengths and weaknesses of individuals and groups in the school. A graph comparing the performance over a number of years of one group/class level in the school with corresponding students in the region\*.

The second graph compares the performance over a number of years of different groups/class level in the school with corresponding students in the region\*.

\*Region refers to participating students of all countries where the assessment is held.

### **Format and Duration**

The Assessments consist of a range of multiple-choice and free-response questions. For the multiple-choice questions, students will have to choose the best answer from the four possible options. For the free response questions, students will have to write the answers in the boxes provided. Each question is worth one mark. The total score is the number of correct answers. No marks are deducted for wrong answers. Papers are ordered from the easiest items to the most difficult items. The items towards the end of the paper are designed to provide an opportunity for the most able students to demonstrate a high level of skill. The questions are carefully graded to cater for a wide range of student abilities using contexts that stimulate students' interest and engage their attention. Students at all levels of competency stand to benefit from participation in the competitions.

**Table –10 Subject-wise number of questions and duration of examination [38]**

<b>English</b>		
<b>Classes</b>	<b>No of questions</b>	<b>Duration</b>
3 & 4	45 multiple-choice	45 minutes
5 & 6	50 multiple-choice	50 minutes
7 & 8	55 multiple-choice	55 minutes
9 to 12	60 multiple-choice	1 hour
<b>Mathematics</b>		
<b>Classes</b>	<b>No of questions</b>	<b>Duration</b>
3 to 5	40 multiple-choice	1 hour
6 to 12	35 multiple-choice and 5 free response questions	1 hour 20 minutes
<b>Science</b>		
<b>Classes</b>	<b>No of questions</b>	<b>Duration</b>
3 & 4	30 multiple-choice	45 minutes
5 & 6	40 multiple-choice	55 minutes
7 to 12	45 multiple-choice	1 hour
<b>Computer Skills</b>		
<b>Classes</b>	<b>No of questions</b>	<b>Duration</b>
3 & 4	30 multiple-choice	30 minutes
5 & 6	35 multiple-choice	35 minutes
7 & 8	40 multiple-choice	40 minutes
9 & 10	45 multiple-choice	45 minutes

### **National assessment and accreditation council (NAAC) [39]**

#### **Profile**

The National Assessment and Accreditation Council (NAAC) is an autonomous body established by the University Grants Commission (UGC) of India to assess and accredit institutions of higher education in the country. It is an outcome of the recommendations of the National Policy in Education (1986) that laid special emphasis on upholding the quality of higher education in India.

The system of higher education in India has expanded rapidly during the last fifty years. In spite of the built-in regulatory mechanisms that ensure satisfactory levels of quality in the functioning of higher education institutions, there have been criticisms that the country has permitted the mushrooming of institutions of higher education with fancy programmes and substandard facilities and consequent dilution of standards. To address the issues of deterioration in quality, the National Policy on Education (1986) and the Plan of Action (POA-1992) that spelt out the strategic plans for the policies, advocated the establishment of an independent national accreditation body. Consequently, the NAAC was established in 1994 with its headquarters at Bangalore.

#### **Governance**

The NAAC functions through its General Council (GC) and Executive Committee (EC) where educational administrators, policy makers and senior academicians from a cross-section of the system of higher education are represented. The Chairperson of the UGC is the President of the GC of the NAAC,

the Chairperson of the EC is an eminent academician in the area of relevance to the NAAC. The Director of the NAAC is its academic and administrative head, and is the member-secretary of both the GC and EC. The NAAC also has many advisory and consultative committees to guide its practices, in addition to the statutory bodies that steer its policies. The NAAC has a core staff and consultants to support its activities. It also receives assistance from a large number of external resource persons from across the country that is not full time staff of the NAAC.

The activities and future plans of the NAAC are guided by its vision and mission that focus on making quality assurance an integral part of the functioning of higher education institutions.

### **The Vision of the NAAC**

The vision of the NAAC is to make quality the defining element of higher education in India through a combination of self and external-quality evaluation, promotion and sustenance initiatives.

### **The Mission of the NAAC**

The mission statements of the NAAC aim at translating the NAAC's vision into reality, defining the following key tasks of the organization:

- To arrange for periodic assessment and accreditation of institutions of higher education or units thereof, or specific academic programme or projects;
- To stimulate the academic environment for promotion of quality of teaching-learning and research in higher education institutions;
- To encourage self-evaluation, accountability, autonomy and innovations in higher education;
- To undertake quality-related research studies, consultancy and training programmes; and
- To collaborate with other stakeholders in higher education for quality evaluation, promotion and sustenance.

Guided by its vision and striving to achieve its mission, the NAAC primarily assesses the quality of institutions of higher education that volunteer for the process, through an internationally accepted methodology.

### **The Methodology**

For the assessment of a unit, the NAAC follows a three-stage process which is a combination of self-study and peer review. The three stages are:

- The preparation and submission of a self-study report by the unit of assessment.
- The on-site visit of the peer team for validation of the self-study report and for recommending the assessment outcome to the NAAC.
- The final decision by the Executive Committee of the NAAC.

The self-study report to be validated by peers is the backbone of the whole exercise. Manuals have been developed to suit different units of higher education, with detailed guidelines on the preparation of the self-study report and the other aspects of assessment and accreditation.

### **Higher education in India [40]**

India has one of the largest numbers of higher education institutions in the world comprising at least 490 universities and 20,769 colleges. More than 160,000 students leave Indian shores annually to study at universities abroad. Educational institutions have made a foray into India, but their involvement has been limited. There are at least 100 foreign educational institutions offering programmes in the country, most of which are vocational or technical. The Cabinet recently approved a Bill that seeks to allow foreign university campuses in India. The move will open up a huge market but foreign universities will have to adhere to some guidelines. Foreign institutes will need to deposit Rs.50 crores as corpus fund. Each institute will have to be registered with the University Grants Commission or any regulatory body. The government will have the right to reject an application from any foreign university on the grounds of safeguarding 'national security'. Foreign institutes will not be able to repatriate profits. They will be liable to spend this on further expansion. No 'quota' law will be applicable to foreign universities setting up campuses in India. Institutes will have to submit details of fees charged, syllabi and teachers salaries to the regulator.

### **All India entrance examination & tests [40]**

SuccessCDs.net provides information and alerts on Entrance Exams in India, Admission and Test Notification and Free Alerts. It is one of the leading Portals on Entrance Examinations, Admission Notifications, Important Exam Dates, Eligibility, Exam Syllabus, Test Preparation CDs, Entrance Test Solved Question Paper Books and career information to help students make informed decisions about their education - Competitive Exams covered are CAT, MAT, XAT, ATMA, MBA CET, ICET, TANCET, MHCET, AIEEE, IIT JEE, VITEEE, BITSAT, NIMCET, MHTCET, EAMCET, PTU CET, Delhi CEE, Delhi PMT, Jammu CET, Haryana PMT, AIPMT, JIPMER, AIIMS, AFMC, BVP, Pune University PG Medical, CLAT, Law CET, IPU CET Bhrath University, BITS, COMEDK, GUJRAT CET, JAMIA MILIA, EAMCET, ASSAM JAT, KIIT, KCET, KEAM, MPPET, MHT-CET, Manipal UGET, GOA CET, Rajasthan PET SLIET SASTRA Jharkhand JCECE, UPSEE, VITEEE, Vinayak Univ. Engg WBJEE, IP University, ICFAI, Orissa JEE, CENTAC, BCECE, Punjab CET, India Education, Admission, Naval College DCE CEE HP CPET Railways - SCRA and admission test of Most of the Institutes and Universities in India.

### **Entrance exams in India (At a glance) [40]**

ENTRANCE EXAM DATES

CBSE CLASS 12 DATE SHEET

ALL INDIA ENTRANCE EXAMS

STATE LEVEL ENTRANCE EXAMS

CCE CBSE (CONTINUOUS AND COMPREHENSIVE EVALUATION)

BANK PO EXAMS

ENTRANCE TEST PREPARATION CDS

COMMON ENTRANCE TEST (CET)

LATEST ENTRANCE EXAM NOTIFICATION

MBA ENTRANCE EXAMS

ENGINEERING ENTRANCE EXAMS

MEDICAL ENTRANCE EXAM (MBBS)

NEET 2012 - National Eligibility cum Entrance Test 2012

PG MEDICAL ENTRANCE EXAMS

UPSC EXAMS

UPSC Civil Services Question Papers (Latest Updated)

MCA ENTRANCE TEST

BANK PO EXAMS

LAW ENTRANCE EXAM

HOTEL MANAGEMENT ADMISSION

BOARD EXAMS

ENTRANCE EXAM SYLLABUS

ENTRANCE TEST SOLVED QUESTION PAPERS

ENTRANCE TEST PREPARATION

**All India entrance examination & tests (in detail) [40]**

IIT JEE 2012 - IIT Joint Entrance Examination

IITJEE 2012 India - IIT JEE Exam, JEE Examination Admission to UG Courses in IITs

NATBOARD Fellowship Entrance Exam (FEE) Exam Pattern, Test Centers, Eligibility etc

UGC NET JRF December 2011 National Eligibility Test

UGC National Eligibility Test for Junior Research Fellowship - Eligibility Lectureship. University Grants

Commission National Eligibility Test (NET)

GATE - 2012 Graduate Aptitude Test in Engineering

National Eligibility cum Entrance Test 2012 (NEET-UG & NEET-PG)

Common Written Examination (CWE) 2011, Common Bank PO Management Trainee recruitment  
Entrance Exam

CBSE AIPMT All India Pre-Medical/Dental Test 1

All India Entrance Test (CET) for Bank Jobs from 2011

All India Common Entrance Test for Bank Jobs (Clerical & POs) in India

NIFT 2011 Entrance Exam

National Institute of Fashion Technology (NIFT) - Written Entrance Examination

AIPGMEE 2011 Entrance Exam

AIPGMEE 2011 - All India Post Graduate Medical / Dental Entrance Examination for admission to  
MD/MS, PG Diploma and MDS courses in Medical and Dental Colleges in India

National eligibility-cum-entrance test 2011 (NEET 2011) by Medical Council of India for admission to  
Medical Colleges in India

All India Common Medical Entrance Test for MBBS and PG likely from 2011 planned by Medical Council of India

All India Bar Examination for admission to practicing law in India conducted nationally by Bar Council of India

NIMCET 2010 NIT MCA Entrance Test 2010 (NIMCET-10) for admission to MCA Programs in National Institute(s) of Technology

NIPER JEE 2010 Joint Entrance Exam for admission to M.S. (Pharm.), M.Pharm. M.Tech. (Pharm.), M.B.A. (Pharm.)

ENET 2010 EPSI National Admission test (ENET) Entrance Examination for admission to Manipal University, Swami Vivekanand Subharti University, Sharda University , Vel Tech Dr. RR and Dr SR Technical university, Manav Rachna International university, Jayoti Vidyapeeth , Bhagwant university, St Peter's University, Suryadatta Group of Institutions, Mitcon Institute of management, Massco Media -for B.Tech., MBBS, BDS, B.Pharm, BPT, BIS, BBA, BSc, BJMC, BSc-Nursing, B.Ed, BPed., Fashion Design, LL.B etc., M.Tech, MD, MDS, MBA, MSc., M.Lib, MJMC, M.Ed, MPed, LLM, Hotel Management Courses

Combined Biotechnology Entrance Exam 2010 (CBEE-2010) for M.Sc. Admission

Combined Biotechnology Entrance Examination (CBEE 2010) for Admission To M.Sc. (Biotechnology) M.Sc. (Agri.) M.V.Sc (Biotechnology) & M. Tech (Biotechnology) Programmes by JNU

VITEEE Engineering Entrance Exam

VITEEE Entrance Exam Dates, VITEEE Entrance Exam, VITEEE Examination. Check out Detailed Syllabus, Important Dates, Examination Pattern

AIEEE 2011 All India Engineering Entrance Examination

AIEEE 2011 All India Engineering/Architecture Entrance Examination, AIEEE India, AIEEE Entrance Exam, AIEEE Examination.

MAT 2010 - Management Aptitude Test

for admission to MBA Programs in Management Institutes participating in MAT by AIMA .MAT 2010 Management Aptitude Test 2010 (MAT), AIMA MAT, Participating Institutes, , MAT Eligibility, MAT Pattern Management

AIIMS Entrance Examination

For admission to MBBS, PG, MD, MS, Biotechnology, Nursing Courses and Programs in All India Institute Of Medical Sciences, Delhi.

UPSC Exams - NDA, Civil Services, CDS and others

For admission to NDA, CDS, IAS< IPS, IFS, Medical and Engineering Services.

CAT - Common Admission Test by IIM

CAT 2009 Online - Computer Based Test (CBT) like GRE and GMAT

CLAT-Common Law Admission Test 2010

Law Admission Test for admission to National Law School of India University, Bangalore; National Law Institute University, Bhopal; West Bengal National University of Juridical Sciences, Kolkata; National Law University, Jodhpur; and Hidayatullah National Law University, Raipur and GNLU.

MCI proposes All India Entrance Test for MBBS Admission

Medical Council of India (MCI), the regulatory body for medical education, has proposed one entrance examination for all medical colleges in the country. This will cover 290 medical colleges, both private and government-run.

NCHMCT Joint Entrance Exam (Hotel Management)

NCHMCT JEE Hotel management Courses, Hotel Management Entrance, Hotel management Admission, Hotel management institutes, NCHMCT, Joint Entrance Examination , NCHMCT JEE .

## **Conclusion**

In a rapidly changing world, the education system in India is re-shaping and refreshing itself day by day. The most sensitive part of curriculum change is change in the Assessment and Evaluation system. For quality assurance and for maintaining public confidence, links with authorities like International Assessments for Indian Schools and distinguished foreign institutions are thought to be vital. The Government of the Republic of India through the Ministry of Human Resource Development is the controlling authority of the assessment systems and procedures. The Educational Boards and Councils in different states and union territories are applying their own strategies to assess and evaluate the learners keeping a similarity with the standard and norms as used in CBSE and ICSE. A number of national levels Councils NCTE, IMC, AICTE, NCERT etc. are also directly involved in this system. It seems that assessment will continue to be a contentious issue and Indian students will continue to take part in the national and international tests. The key factor for the system and the educational institutions is to establish equilibrium between measuring and assessing achievements and the practical consequences on the teaching -learning process. Because the educated members of the élite society are no longer of the opinion that the learners should be accessed through global standard norms and criteria, some Universities and Academic Institutions of national and international reputation are introducing their own admission tests.

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