



CURRICULUM REFORMS IN TEACHER EDUCATION WITH SPECIAL REFERENCE TO EXAMINATION REFORMS IN TEACHER EDUCATION

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Introduction

The question of changing the pattern of examination along with changing the educational system in the country has been engaging the attention of the government, educationists, teachers, researchers ever since India attained independence. The un-suitability and inadequacies of the educational system to meet the needs of the Indian Society have been highlighted by commission after commission. Study Team have made recommendations and these have been debated in academic bodies and government departments but all these efforts have failed to bring about any noticeable change either in the educational system or in the examination pattern. So much and so often has been said against the present educational system that it stands thoroughly condemned and has lost its credibility in every body's eyes. We have lost confidence in the present system but no substitute seems to be emerging nor is it likely to do so in the immediate future.

Teacher Education for Curriculum Renewal

Though the professional preparation of teachers has been recognized as crucially important since the 1960s, the ground reality remains a matter of great concern. The Kothari Commission (1964–66) emphasized the need for teacher education to be brought into mainstream academic life, but teacher education institutes continue to exist as insular organizations. The Chattopadhyaya Committee (1983–85) recommended that the length of training for a secondary teacher should be five years following completion of Class 12; it also suggested that colleges of science and arts introduce an Education Department to allow students to opt for teacher education. The Yashpal Committee Report (1993), Learning without Burden, noted: "The emphasis in these programmes should be on enabling trainees to acquire the ability for self-learning and independent thinking."

Present Concerns in Teacher Education

Teacher education programmes today train teachers to adjust to a system in which education is seen as the transmission of information. Attempts at curricular reform have not been adequately supported by the teacher education. Large-scale recruitment para-teachers has diluted the identity of the teacher as a professional. Major initiatives during the mid 1990s were focused on in-service training of teachers. This has accentuated the divide between pre-service and in-service teacher education. Pre-primary, primary and secondary teachers continue to be isolated from centres of higher learning, and their needs for professional development remain unaddressed. Existing teacher education programmes neither accommodate the emerging ideas in context and pedagogy nor address the issue of linkages between school and society. There is little space for engagement with innovative



educational experiments. Experiences in the practice of teacher education indicate that knowledge is treated as 'given', embedded in the curriculum and accepted without question. Curriculum, syllabi and textbooks are never critically examined by the student-teacher or the regular teacher. Language proficiency of the teacher needs to be enhanced, and the existing teacher education programmes do not recognise the centrality of language in the curriculum. It is assumed that links between instructional models and teaching of specific subjects are automatically formed during the programme. Most teacher education programmes provide little scope for student-teachers to reflect on their experiences and thus fail to empower teachers as agents of change

Vision for Teacher Education

Teacher education must become more sensitive to the emerging demands from the school system. For this it must prepare the teacher for the roles of being an:

- encouraging, supportive and humane facilitator in teaching-learning situations to enable learners (students) to discover their talents, realize their physical and intellectual potentialities to the fullest, and to develop character and desirable social and human values to function as responsible citizens; and
- active member of a group of persons who makes a conscious effort for curricular renewal so that it is relevant to changing societal needs and the personal needs of learners.

Major Shifts in Teacher Education Programme.

<i>Major Shifts</i>		
<i>Sr.</i>	<i>From</i>	<i>To</i>
1	Teacher Centric, Stable Design	Learner Centric, Flexible design Process
2	Teacher Directions and Decisions	Learner autonomy
3	Teacher guidance and Monitoring	Facilitates, supports and encourages leaning
4	Passive Reception in Learning	Active participation in leaning
5	Leaning within the four walls of classroom	Learning in the wider social context
6	Knowledge as “given” and fixed.	Knowledge as it evolves and is created
7	Disciplinary focus	Multidisciplinary, educational focus
8	Linear exposure	Multiple and divergent exposure
9	Appraisal, Short, Few	Multifarious, Continuous

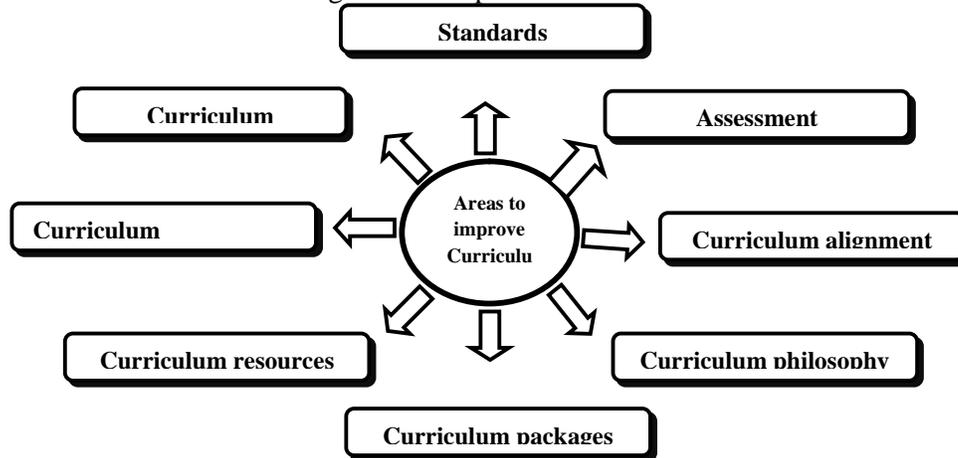
Curriculum means

The term **curriculum** refers to the lessons and academic content taught in a school or in a specific course or program. Depending on how broadly educators define or employ the term, it may refer to the knowledge, skills, topics, and concepts that are taught to students or to the lessons, units, assignments, readings, and materials used to deliver knowledge and

skills. In dictionaries, curriculum is often defined as the courses offered by a school, but it is rarely used in such a general sense in schools.

Reform means

Since curriculum is one of the foundational elements of effective schooling and teaching, it is often the object of reforms, most of which are broadly intended to either mandate or encourage greater curricular standardization and consistency across states, schools, grade levels, subject areas, and courses. The following are a few representative examples of the ways in which curriculum is targeted for improvement:



Examination Reform: Why is it needed in Indian Context?

- Because the examination system of India has remained unchanged from so many years.
- Because Indian school and colleges exams are largely inappropriate for the ‘knowledge society’ of the 21st century and its need for innovative problem-solvers.
- Because they do not serve the needs of social Justice.
- Because the quality of question papers is low. They usually call for rote memorization and fail to test higher-order skills like reasoning and analysis, let alone lateral thinking, creativity, and judgment.
- Because they are inflexible. Based on a ‘one-size-fits-all’ principle, they make no allowance for different types of learners and learning environments.
- Because they induce an inordinate level of anxiety and stress. In addition to widespread trauma, mass media and psychological counselors report a growing number of exam-induced suicides and nervous breakdowns.
- Because while a number of boards use good practices in pre-exam and exam management there remain several glaring shortfalls at several boards.
- Because there is often a lack of full disclosure and transparency in grading and mark/grade reporting.
- Because there is need for a functional and reliable system of school-based evaluation.

Reform the Examination System

In Indian context examination reformation is a need of time. We must think on the following things:

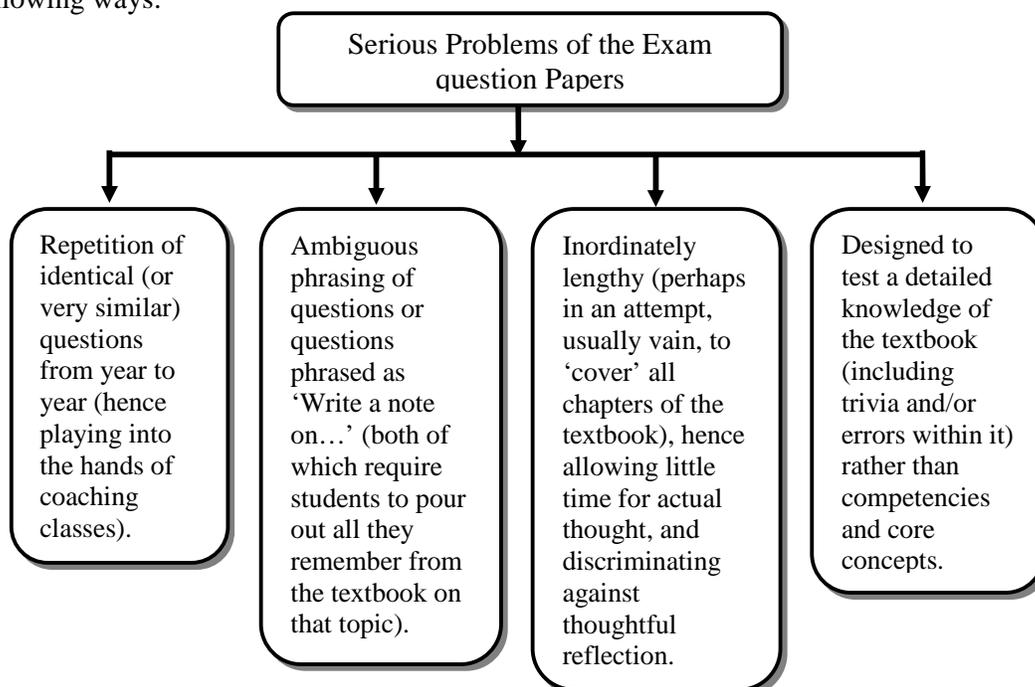
Paper Setting, Examining and Reporting

In order to improve the validity of current examinations, the entire process of paper setting needs to be overhauled. The focus should shift to framing good questions rather than mere paper setting. Such questions need not be generated by experts only. Through wide canvassing, good questions can be pooled all year round, from teachers, college professors in that discipline, educators from other states, and even students. These questions, after careful vetting by experts, could be categorized according to level of difficulty, topic/area, concept/competency being evaluated and time estimated to solve. These could be maintained along with a record of their usage and testing record to be drawn upon at the time of generating question papers. Compelling teachers to examine without paper offering adequate remuneration makes it difficult to motivate them to ensure better quality and consistency in evaluation.

Considering in the way of improving the quality of evaluation with computerization, it is much easier to protect the identity of both examinee and examiner. It is also easier to randomize examination scripts given to any particular examiner, thus checking malpractices and reducing inter-examiner variability. Malpractices such as cheating with help from outside the examination hall can be reduced if candidates are not permitted to leave the exam centre in the first half time, and also are not permitted to carry question papers out with them while the examination is still going on. The question paper can be made available after the examination is over.

Testing with Examination

Indian school and colleges exams are rarely valid tests of desired competencies and broader curricular objectives, even within the cognitive domain. The core of the exam system is the exam paper. The question papers themselves remain seriously problematic in the following ways:





Analysis

Paper-setting, Paper checking and Evaluation needs drastic reform. In fact, as has been successfully tried in Maharashtra. Written by different paper setters at different times, questions should be categorized according to level of difficulty, topic area, competency being evaluated, and usage and testing record. A small expert group can then assemble individual questions into a paper. It should not be necessary that individual questions are written by experts. Good questions should be canvassed from teachers, college professors in that discipline, and educators from other states, ex-students, and even students. After a question has been selected and used in a paper, the question writer should be suitably compensated—this should provide incentives to write better and more innovative questions. A type of question that has great untapped potential is the multiple-choice question (MCQ). Well-designed multiple-choice questions with plausible distracters have the following advantages over ‘short answers’:

1. They can be machine-marked and, hence, are entirely ‘reliable’.
2. Very quick results are possible.
3. Copying problem can largely be eliminated by shuffling of question numbers.
4. Extensive syllabus coverage is possible due to the brief time needed per question.
5. Lower student anxiety levels, higher pass percentages, and lower urban–rural score disparities are reported by DSERT in Karnataka, where MCQs have been tried extensively in recent years for 60%

The Need for Flexibility

Exam systems need to be more flexible. Just as we must ensure that education and assessment systems are fair to all social groups, we should ensure that they do not discriminate against particular kinds of learners. There is a lot of psychological data to suggest that different learners learn differently, and, hence, to test all learners through a written test of the same type in subject after subject is unfair to those whose verbal proficiency is superior to their writing skills, those who work more slowly but with deeper insight, or those who work better in groups than individually.

Examination reform propose the following solutions;

1. There should be more varied modes of assessment, including oral testing and group work evaluation.
2. Do not expect everything of everybody in every subject; just as we allow students and schools some element of choice in the choosing of their subjects, they should have the choice of picking one of two levels within that subject. Of, say, six subjects, every student would choose to do 3 (or 4) exams at the higher level and 3 (or 2) exams at the standard level. Though set on the same curriculum, higher-level exams would have a larger component of high-order-skill testing and demand greater speed, conceptual understanding, and depth of insight than the standard-level exams.
3. Flexibility in when exams are taken; If it is accepted that learners learn at different paces We recommend that students be allowed to clear some (up to two, perhaps) subjects at the end of the XI (or the IX grade for the secondary exam). This would not only reduce stress a year later but also make for better long-term learning—and cause very little inconvenience to exam boards.



4. Enhanced reporting of performance (or comparing apples with apples).

Reduction of Exam Stress & Anxiety

Examinations are artificial situations created for the convenience of the system & not the individual learner. By given the time-bound & 'one shot' nature it is not surprising that exams in their current form will induce anxiety.

We recommend the following measures for reducing exams anxiety

1. A lot of stress is related to the excessive length of the question papers shorter exams leave time for deliberation & periodic rest. The exam length (usually 3 hour per subject) should be reduced (2.5 hours for higher level exam and 2 hr for standard level), remember that the paper setter's quest to cover all section of the syllabus and the expected answer in the given time should be reduced and 95% student will be able to be completed. Pilot project should be initiated.
2. Questions that required to draw on 2 or more areas of the syllabus would also allow more comprehensive testing within lesser time, education all about making lateral linkages or creating "ecology of knowledge in the brain".
3. A shift in emphasis from 'short answer' to MCQs designed to test real understanding of core concepts.
4. Student should be able to take the exam in their home school in order to reduce stress caused by unfamiliar environments.
5. A long term move towards open book exams can be envisaged and is one of the pilot programs mentioned at the end of the report. Candidates doing chemistry paper give the periodic table & bond angle value examinees in math & physics should be given trigonometric identities & formula otherwise have to be learnt by rote. The focus of question should likewise, move to genuine application from mere plug-in type problem in history question which tell whether student know where each of the Indian nation congresses met (pure rote) be replaced question such as mention 8 causes of the event of 1857 this would not only be more humane and less stress-inducing, it would also call upon students to organize their thoughts into an argument and demonstrate higher-order interpretive skills.
6. Elimination of the term fail not appear on mark sheets can be replaced by phrases such as unsatisfactory or better needs, more work to attain desired standards.
7. There will always some individual who cannot demonstrate such satisfactory completion. So they provide number of chances to retake one or more exams there should be elimination of the pass/fail concept by permitting repeated retake.
8. The focus group is not convinced that boards today work (singly or collectively) toward ensuring that the pass mark represents a meaningful and carefully calibrated cut-off designed to certify satisfactory completion of a course. Papers in all subjects and all boards should be designed so that the pass mark is not just an arbitrary cut-off but actually measures the attainment of desired competencies.

Following the principle that exams are an evil, if a necessary one, there should be no exams than are strictly and absolutely necessary. The tenth grade exam should be made optional forthwith. They continue in the eleventh grade at the same school, and do not need board certificate and free to take a school conducted exam instead of board exam.



Good Management of Examination

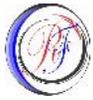
In the non-academic side of exam management, there has been a significant improvement in recent years. Aided by computer technology, the whole process from registration to generation of exam tickets and generation of mark sheets has become seamless and largely error-free in many states. Most states also now release results within 45 days from the last exam.

Some ‘best practices’ recommended for adoption by all states.

- **Pre-exam**
 - Choice of exam centers; during exams, students should not be expected to travel much more than their daily trip to their school. When a school is large enough and has the requisite infrastructure to be a centre, students should be able to appear for their exams there itself in a familiar environment. This will have the benefit of reducing stress on candidates.
 - Exams should never be postponed, as it causes considerable hardship and unnecessary anxiety to candidates and undermines their faith in the system.
 - By protecting the identity of candidates and examiners from each other, a lot of post exam malpractice can be checked.
 - Paper setting the question/paper setters must produce the initial mark scheme for that paper in addition to the paper.
- **Conduct of Examinations:**
 - Candidates should not be disturbed in the course of their exam and if disturbance must be caused (e.g., for mass checking of entry tickets to detect impersonation), compensatory time should be given to candidates.
 - Electronic surveillance by hidden electronic eyes and the use of technology such as magnetic strips on doors.
 - Seals on the question paper packet should be opened and signed, just prior to the exam-start, by three individuals: chief invigilator, police/security chief of the centre, and a student candidate. Likewise, answer paper packets should be sealed and similarly countersigned before their departure from the exam hall.
 - Toilets are often used by candidates as repositories of crib sheets and must be monitored throughout the exam as closely as the exam hall itself.
 - Responses to the paper just concluded should be invited from teachers for a period of 24 hours.
 - One area of immediate concern is the widely varying concessions and facilities available to students with physical or learning disabilities. Some boards have not taken up this issue in earnest and need to be acquainted with more progressive measures taken by other boards.

Transparency and Honesty in Marks/Grade Reporting

Greater transparency is an unstoppable force. It is the product of growing demand from everybody with an interest in any education system. Greater transparency generally leads to greater accountability and better exam behaviour. It is the product of growing demands from everybody with an interest in any education system. Rapid technological



changes, above all the spread of the internet, makes it easier for board to supply information and harder for them to keep secrets with greater transparency.

- As a lot is at stake in exams, it is only natural that many candidates would want to be doubly sure that they have not been victims of systemic error. Exam boards should not only be transparent but also be seen to be transparent with respect to answer paper, re-grading, re-checking etc.
- Detailed mark schemes should also be made public, and posted on official websites for scrutiny, as soon as reasonably possible in the interest of transparency. Where several question papers have been used simultaneously (to prevent malpractice), they need to be standardized for the level of difficulty, and scaling done if one is appreciably more difficult than another.
- Enough time (at least two weeks) should be provided between the delivery of scanned/photocopied answer papers and the end of the period for appealing a grade. All re-marking should be done by experienced examiners. If the final marks change by more than 5% there has clearly been slip-up on the part of board and as a gesture of good will, the rechecking charges should be refunded to the candidates.
- To prevent frivolous grade appeals examination board should reserve the right to rise as well as lower marks/grades if the deviation upon re-marking is found to be greater than 5%.
- The above point presupposes that examiners are volunteers eager to do a good job. This can only happen if they are paid a fair wage for their important work. The practice of forcing teachers to examine is highly unlikely to lead to good examining and should be abandoned forthwith. We laud the efforts of these and other states to make their systems transparent. One can also be fairly sure that the more casual examiners in these states now do their job more diligently.
- As we recommend, state boards introduce more open-ended and free-response questions and eschew false objectification. Some states already do this.
- It is recommended that examiners generally grade papers at regional centers set up for the purpose and not at home.
- Honesty in mark sheets: grades do have one clear advantage over marks. They are more honest. Grades also have some other minor advantages over marks. They may also play some role in reducing stress and anxiety. It will be needed to convince end-users, especially universities, of the value and necessity of grades. Standardization of a nine-point grading scale, for both 10th and 12th grade exams is also needed in order to offer inter-board comparability of results. Till such time as this consensus is reached, we recommend that marks be reported alongside grades to avoid sowing confusion.
- Transparency and fairness in mark sheets: A reform which we believe to be of at least equal importance (as the issue of replacing marks by grades) is a fuller disclosure of how the student fares relative to his or her peers. Absolute marks/grade percentile rank among all candidates of that subject and percentile rank and among peers. Too



long in India, we have reduced merit to a single mark per subject and a single overall percentage. Merit is rather more complicated concept.

- School boards cannot force university admission committees, or the job market, to consider these factors. But printing this data on the mark sheet constitutes a start toward a fairer definition of merit.

School-based Assessment

This Focus Group was to suggest reforms for exams.

1. Continuous and comprehensive evaluation (CCE)

School-based continuous and comprehensive evaluation system be established in order to;

(i) Reduce stress on children. (ii) Make evaluation comprehensive and regular. (iii) Provide space for the teacher for creative teaching. (iv) Provide a tool for diagnosis and for producing learners with greater skills. The CCE scheme should be simple, flexible, and implementable in any type of school from rural or tribal areas.

Issue of CCE certificate:

To make CCE effective, some weight to school-based Assessment (SBA) should be given by State Education Boards. The certificate in terms of grades should be issued along with the board certificate by the board. The two types of assessments, i.e., internal and external, should, be shown separately in the certificate, 20% weight age may be given to CCE for class X.

3. Keeping internal assessment honest

Designated samples of internally assessed work must be sent to the board in each subject. In cases where the board is satisfied with the quality, they should get its mark of approval. Otherwise, the remark accompanying the CCE mark on the mark sheet will read: 'Declared by school with no board authentication.'

4. Practical Examinations

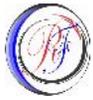
The shabby assessment of science practical's by schools, in most boards, with a majority of candidates getting full or near-full marks (often without even the experiment having taken place) is a good illustration of what happens when boards abdicate their responsibility to monitor and moderate samples of school-based evaluation. The checks suggested in the preceding paragraph need to be implemented without delay. If they cannot, the farce of school-assessed practicals must end and the science marks be given entirely on the basis of theory exams. It would be unfortunate if it has to come to this as good experimentation and experimental skills are at the heart of the scientific enterprise. Unless laboratory assessment is made less farcical, the quality of the country's scientific manpower is under serious threat; the number of students interested in scientific pursuits is already stagnating in several states.

Plurality of Textbooks

The writing of textbooks requires a range of capacities that include academic and research inputs, understanding of children's developmental levels, effective skills of communication and design, etc.

Encouraging Innovations

Individual teachers often explore new ways of transacting the curriculum in addressing the needs of students within their specific classroom context (including constraints



of space, large numbers, absence of teaching aids, diversity in the student body, the compulsions of examinations, and so on).

NEW PARTNERSHIPS

Role of NGOs, Civil Society Groups, and Teacher Organizations

NGOs are playing a major role in creating innovative models of schooling, training of teachers, development of textbooks and curricular materials, community mobilization and advocacy. Their formal association with schools and resource centers would be extremely important for curriculum development, academic support, as well as monitoring and research.

Conclusion

It should be clear from the above that College examinations in India need serious re-examining, at the same time, it should be recognized that exam reform has the potential to lead educational reform.

Reforming exams alone will attain very little unless it is accompanied by other basic reforms: improvement of teacher training, teacher quality and teacher-student ratio. In addition, making textbooks and the curriculum more relevant and interesting and challenging; and spending more on education (at all levels but now especially for the secondary level) will be vital. At the same time, it should be recognized that exam reform has the potential to lead educational reform. It has often been lamented that in Indian education the tail (assessment) has usually wagged the dog (of learning and teaching). The charge is a fair one and de-emphasizing exams will certainly liberate the learning and teaching process from its straitjacket. But this pivotal position of exams in the educational system can be used to leverage advantage—to hasten reform within Indian education as a whole.

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