Examinations: The Central Governance Concern in Indian Universities

Akash Marathakam, Vimal Mathew, Zuhara Mariyam and M. K. Unnikrishnan*

National College of Pharmacy, Kozhikode – 673602, Kerala, India;
unnikrishnan.mk@nationalcollegeofpharmacy.org

Abstract

Examinations, chiefly for historic reasons, have been a crushing preoccupation for students, schools, universities, and the Indian society at large, particularly for many monolithic faculty-universities awarding coveted professional degrees in healthcare and engineering. The stress on bureaucratic expediency and confidentiality, fear of public disapproval, dearth of manpower, media sensationalism, litigations and the genuine threat of corruption, together compel universities to allocate bulk of their resources (human as well as capital) towards adopting a brutally centralized governance model for achieving an ostensibly "transparent" evaluation system. Although the university administration spends most of its time in planning, scheduling, organizing and conducting examinations, nearly 70% of student-evaluation, ironically, occurs in a single sitting lasting three hours and the answer paper is typically valued in about 8 minutes. Consequently, such evaluation systems ignore the functions and purpose of examinations, its content and construct validity, reliability, objectivity, its timing and timeliness, thereby perpetuating a ritualized, self-defeating, stagnating curriculum. While decentralisation of evaluation through autonomy is most desirable, training teachers to prepare question papers amenable to objective evaluation, with question papers validated for content/difficulty levels, might help in the near term.

Keywords: Governance Models, Higher Education, Universities

1. Introduction

Indian society holds all examinations sacrosanct. It is not uncommon to see parents going on leave when their children, even those in primary schools, are preparing for the annual examinations. Examinations are not just educational events but inescapable social engagements.

Distrust and suspicion are the central premises upon which our examination systems operate. There is history to this misfortune. British first established universities in India to serve their own interests. They wanted clerks to serve the British administration. They looked upon Indians with suspicion. Consequently, the mandate of the Bombay, Calcutta and Madras Universities became the conduct of examinations[1].

What should not have happened is the fervent perpetuation of the same old system after more than a century. As examinations still remain most vulnerable to corrupt practices, administering the examination continues to be the most important function of the affiliating university. CNR Rao summed it up in a sentence: "We do not have an educational system, we only have an examination system"[2].

We see this distrust manifest itself in many dimensions of educational governance. The result is an oppressively overloaded administrational set up for the conduct of examinations. This is in

---

*Author for correspondence

sharp contrast with the universities in the West, emulation of which is the professed purpose of our educational system. Without reforming the examination system, there is little hope in raising standards of our curriculum.

2. The Function and Purpose of Examinations: The Good and the Bad about Examinations

Examinations define the *de facto* curriculum[3]. Examinations are looked upon as career-clinching events in the life of aspiring breadwinners, especially in developing countries.

Ideally speaking, learning is its own reward. Until university education became a sanctuary for social wellbeing, learning proceeded mostly by voluntary effort. Darwin did most of his work at home, and often spending his own money. The reward was intrinsic to the act of learning. When educational enrollment increased manifold, the structured curriculum evolved out of a social need for certification of eligible candidates from a multitude of aspirants.

Literature on the potential hazards associated with examinations in India has been scanty. Despite being well known for a plethora of unintended side effects, including suicides, the style and substance of the examination systems have not changed for decades. India has the highest suicide rates among youngsters between 19 and 29, and examinations account for about 25% of them.

Prejudicial aspects of examinations alter student behavior even before testing begins. Examinations drive the Pygmalion Effect, in which exam scores can propel self-fulfilling prophesies[4]. When education serves an extrinsic need, such as a job, social position etc, examinations can become a nasty social concern. When learning is subordinate to exam grades, strategies tend to focus on cheating the system. India, in particular, is a victim of such maneuvers. Students pursue the "hidden curriculum", identify and ignore what is not important for exams, swap tasks -- "I shall write your records, you give me your notes!"

ingratiate the teacher, resort to copying, impersonation and bribes. When the stakes are high, there is an organized effort that leads to scandalous question paper leaks (frequently reported in the newspapers)[5,6]. Even degree certificates are up for sale![7]. Examinations also drive the proliferation of coaching centers and teaching shops. There are nested loops of entrance examinations; for instance there are training centres to coach aspirants crack 'entrance examinations' conducted by prestigious entrance coaching institutes[8].

Despite the potential for throwing up a plethora of hazards, examinations have a valuable role in education and the society at large. Examinations serve to implement the curriculum and serve as a feedback, on the progress of the curriculum, to both teachers and students[6]. Without examinations, it would be impossible to maintain curricular standards, chiefly because education serves an extrinsic need for the majority of students. When examinations became an essential component of all certification processes, grades become a powerful incentive for motivating students to learn. Thus examinations, despite all its shortcomings, is widely believed to be the driving engine of curriculum[9].

The trouble begins when flawed examination systems begin to define the *de facto* curriculum. This amounts to an inescapable over reach. Consequently, whatever is ignored by the examinations, howsoever important, gets excluded from the functional curriculum. Students adopt strategies that focus on success in exams rather than educational achievement *per se*. Even deeply motivated students, when facing an exam, begin to switch from deep learning to strategic learning and eventually to surface learning[10]. Beating the test becomes the natural priority of the student. Competing institutions adopt strategies that improve exam performance rather than excellence. Coaching gets priority over teaching. Rewarding teachers who bring success in examinations hurt teachers who pursue excellence in research and creative ventures. Eventually, the exam-driven competition becomes counter productive, and inimical to excellence.

3. The Tyranny of Numbers

There was an explosive growth in privately funded professional education since the nineties[11]. More significantly, most of these new colleges were for awarding coveted degrees in medicine, engineering, pharmacy, dentistry, management etc., all of which translated into an immediate job and prospects of a bright career. To begin with, the new professional colleges were affiliated to universities that already operated in the same region. The mushrooming of privately funded colleges in healthcare and engineering, though essential for sustaining the country's growth, was perceived to be a potential threat to the society because admission was not always merit (defined by marks and ranks) based.

When government-run universities could not keep pace with the sudden increase in the number of affiliated colleges awarding professional degrees, preserving 'standards' in medicine and engineering became a socio-political priority. Thus was born the idea of creating a university for each faculty. Surprisingly, this is against the norm in the West, which encourages diversity in their campuses. Isolating a faculty into a university also violates the guidelines in the Yashpal Committee report[12].

Karnataka, which pioneered the expansion of privately funded professional education, also witnessed one of the earliest experiments with faculty universities, with the founding of the Rajiv Gandhi University of Health Sciences, Bengaluru, in 1996.

Pasted below is an account from the RGUHS website[13].

"The phenomenal increase in the number of institutions and students admitted to various courses of medical and allied health sciences warranted the need to regulate, monitor and standardize the curricula as well as the evaluation systems. The product of medical and health science professional education was to meet the societal needs for better healthcare."

Health Universities and Technical Universities (devoted to engineering) somehow caught on, and proliferated rapidly. Health and Engineering universities quickly became unmanageably large. The Rajiv Gandhi University of Health Sciences, for instance, has about 500 affiliated colleges awarding degrees in allopathy, Ayurveda, Unani, naturopathy, dentistry, nursing, pharmacy and allied health sciences, enrolling a total of about 40,000 students. The idea of faculty universities later expanded to other domains, even to include language universities. Faculty universities, like any other Indian university, developed into outfits conducting examinations in medicine, pharmacy, engineering etc.

When examinations cater to large populations, as with the rapidly proliferating mega faculty-universities, need for administrational efficiency brings in bureaucratic systems that may not be in the best interest of the student or the learning content. Objectivity becomes a key requirement for speed. In fact, the ubiquitous MCQ in entrance tests was the result of bureaucratic pressure for speedy evaluation. What is more, examinations tend to focus on what is easily measurable, rather than what needs to be measured.

Bureaucratic expediency pushes the examining body to disregard a lot of educational reality for the sake of convenience. For instance, most examination bodies in Indian universities insist that all question papers should be set in a certain pre-determined pattern. Interestingly, the pattern is limited to the distribution of marks and the number of questions, not the quality of the questions themselves. Neither do these question papers consider what aspects of the curriculum those questions profess to assess. In other words, it is the structure of the question paper that is more important than the curricular content it attempts to test. Guidelines do not address more important concerns such as 'how well the questions are sampled from the learning material', or 'whether the questions address an appropriate level of learning' etc. In the bargain, exams trivialize the learning effort[14].

Introducing MCQs could have made a difference. It is not true that objective questions cannot test problem solving. IIT entrance examinations, the mother of all entrance examinations, for instance, employ objective questions, including MCQs, to test reasoning. However, good quality MCQs are very difficult to set without special

training. Surprisingly there has never been any effort in training individual teachers in the art of preparing MCQs.

The ultimate result of this pervasive malady has been a ritualized evaluation system that is no more than a memory drill. This is particularly true for the various disciplines under the information-loaded healthcare university, the focus of this paper. While healthcare should demonstrate minimum tolerance for errors, the prevailing assessment systems, in the context of a very large student population, stresses excessively on bureaucratic expediency.

4. Pharmacy Examinations under the Health University: A Study

We shall discuss the B Pharm exams at a typical pharmacy college affiliated to a typical Health University. This study would illustrate the many dimensions of distrust and the consequent administrative pressure the university is subjected to, in addition to loss of time and resources. We believe that these problems are very generic in nature, and therefore similar to what many other colleges face. Most of these difficulties are the result of centralized governance systems designed to deal with large numbers. Outlined below are some of the major flaws that need a careful analysis.

4.1 Most of the Evaluation Occurs During a Single Exam Session Lasting Three Jours. (Continuous Evaluation is Ineffective)

Most health universities in this country, like its prototype Rajiv Gandhi University of Health Sciences, allow affiliated institutions to conduct, without university supervision, a series of three class tests annually, lasting 90 min each[15]. This is supposed to reflect periodic assessment. The average scores are sent to the University before the stipulated deadline. The combined contribution from the three tests lasting about 4.5 hours is only 50 marks while the terminal exams conducted by the university carry 100 marks. More importantly,

the study material for the university examinations consists of the entire year's study, while each class test is based on a much smaller volume of study material. Despite all this, the university exams, lasting just three hours, contribute to nearly 70% of the final score. Continuous evaluation remains ineffective. Formative assessment is rare. The final result is mostly dependent on university examination scores.

4.2 Question Paper Setting is not Given due Importance

Typically, a request for submitting two or three sets of question papers is sent to selected senior teachers from other universities. A brief outline of the syllabus and the expected "pattern" of the question paper (distribution of marks etc.) act as the only guidelines. Papers set in this fashion tend to be both repetitive and heavily focused on recall of facts. Problem solving and critical thinking are rarely addressed[14,11]. Students tackle the university examinations by going through the previous question papers. Teachers, in turn, select topics from the 'prescribed syllabus' (very sketchy; learning objectives rarely spelt out) based on whatever appeared frequently in previous question papers[16]. In the end, strategies employed by the university are often defeated by counter-strategies honed by survival needs.

There have been occasions when a question paper is repeated. Students do not complain because it is customary to prepare for questions that figured in previous question papers.

4.3 Theory Examinations: Bureaucratic Concerns are not Aligned to Educational Priorities

Procedures for the conduct of theory examinations employ multiple control systems, foolproof procedural locks, and many officials: Chief Superintendent, Invigilators, Observers, Nodal officers and more.

Theory examinations are very cumbersome, complex procedures, with every step ensuring, ostensibly at least, confidentiality and secrecy. RGUHS, the primordial prototype for

most health universities in India, operates as a model. Examination procedures mostly begin with the formal registration of eligible candidates. Scheduling the exams is an onerous task. The university should anticipate umpteen disruptions such as weather, religious festivals, elections, and hartals, particularly in Kerala.

During the time of the examinations, some universities also appoint observers, for selected theory examinations (probably chosen at random) to ensure that the exam procedures are scrupulously followed to the letter of the law. Observers are appointed from outside the college to prevent nepotism. They are always chosen from a different faculty to discourage involvement. Thus, the pharmacy teachers may go as observers to Nursing, MBBS, Ayurveda examinations, but never for pharmacy examinations. All this makes bureaucratic sense.

The chief superintendent and observers, if any, spend an entire day at the examination hall, and are forced to give up their teaching. A 'Squad' is sometimes deployed, to make surprise visits and spot 'examination malpractices'. The question paper is downloaded from the university website with the help of passwords shared between the Principal and Chief superintendent. More importantly, the PDF copy of the question paper can be downloaded not earlier than 45 minutes prior to the commencement of exams. As an additional security measure, the PDF remains locked until a third password reaches the chief superintendent through the website, just 30 minutes before the exams commence. The third password lets you open the PDF file and get the question papers printed. The students should be in the exam hall when the third password is released, to preempt any desperate, last minute 'question paper espionage'. To make it even more fool proof, the exam hall is under CCTV surveillance during the entire process. After each examination, the time-stamped CCTV footage should be downloaded, copied on a CD, and sent to the controller of examinations, along with the sealed bundle of answer papers. All this, generally, proceeds with clockwork precision. The software employed is efficient and quick[17].

The complexity discussed so far is only the tip of the iceberg. Many question papers (set by outsiders) may not conform to the stipulated conditions spelt out by the university. (Remember that question papers are set by teachers outside the university) Some questions may be 'out of syllabus' (an inviolable norm) or may be inappropriate in some fashion or the other. In such situations, students or invigilators can identify the errors and bring them to the notice of the chief superintendent, who, in turn can contact the Nodal officer (in charge of question paper editing/correcting etc). This should be done within the first thirty minutes from the commencement of the examinations. Nodal officers, if convinced, will communicate an appropriate correction or even change the question. The action of the Nodal officer is nonnegotiable. Exactly 30 minutes after the exams start, a corrected version of the question paper would appear as a password protected PDF on the university website. The chief superintendent is expected to announce these corrections in the examination hall. The corrections are expected to be noted in the question paper by the students themselves.

In such situations, where a correction is announced, the Chief superintendent should get a signed attestation from a student each in the front and the back rows, in order to convince the university that the announcement has not been omitted.

Corrections, such as the above, can play havoc with evaluation. Those students who had already attempted the question before the correction was announced, must rewrite the answer all over again. In some situations, a correctly attempted question by a student would become invalid because it has been replaced. Coupled with this confusion is the lost time. There are occasions when errors are too many, and the examination hours are extended to make up for lost time.

Another major issue is 'examination malpractice'. There are elaborate procedures for its recording, filing, communicating, enquiring etc. Matters can go out of hand because the invigilator and chief superintendent have to report such cases to the university, with evidence, and possibly face harassment from both the university and

the students/their guardians. The final decision is taken only after cross examining the victim and the officials who reported the case. Most of the enquiries take place in the university office and would involve travel and further loss of time. The procedures are so complex that anecdotal reports suggest that malpractices are sometimes hushed up.

4.4 Central Valuation: Bureaucratic Expediency is the Foremost Priority

All papers, duly packed, signed and sealed, are sent to the university headquarters by registered post on the same day. Central valuation is conducted at the 'Valuation Camp' (expensive built up space in the university building, specifically for this purpose), and is headed by a Camp Officer, not a teacher but a person chosen from the ministerial staff serving the university. It can be a long drawn affair lasting about a week for each year of study. 'Valuers' are typically chosen from the teachers handling the respective subjects. Those with about three years or more of teaching experience are typically eligible to value B Pharm papers. Every subject is headed by a chairman, who prepares an 'Answer Key' and conducts a discussion about it with fellow valuers. This discussion is supposed to iron out differences between valuers regarding the allocation of marks, expected content, etc. The discussion is supposed to precede the allocation of a bundle of about 15 answer books, to be valued over a period of 2 hours. Amount of time allocated for valuing a paper is typically not more than 8 minutes. In other words, the fate of a student, who underwent about 200 instructional hours on a given subject, is sealed in 8 mintues. A teacher is not allowed to correct more than a certain number of papers (typically about 45) per day with some 5 working hours. While there is no way to check if the teacher actually spent the allotted time for reading and valuing the paper, his or her physical presence in the room alone is verifiable.

That the valuer cannot be trusted is a dogma that is built into the university's system of examination. That is why there is a procedure called "Double Valuation". Every paper is valued by at least two teachers. If the difference between the marks awarded by the two valuers is more than the acceptable upper limit of 15%, the paper is sent for 'Third Valuation'. Interestingly the 15% variation is not with respect to the scores awarded to the candidates by the two valuers. In other words, if one valuer gives 2 marks and the other gives 16 out of a total score of 100 (700 % more than lower score and 87.5% less than the higher score) the variation falls within acceptable limits, and the average of 2 and 16, *ie*, 14 becomes the final score. Anecdotal reports suggest that even greater variations are encountered. The number of papers subject to third evaluation is an indicator of poor reliability, but the universities do not report any data on that. Anecdotal reports suggest a substantial number.

Upon interacting informally with individual teachers, we have come to learn that some valuers play safe by awarding average scores to most students, thereby keeping variations within the 15 mark limit. The good students lose and the bad students gain if such a practice exists. It is also a disincentive for serious learning. However, such issues are too subtle to be perceived as bureaucratic impediments.

There are logistic problems in double valuation. Anecdotal reports suggest that the third valuation is not necessarily conducted by a teacher who has taught the subject. This is indeed possible because the valuation of a single subject takes about 4 to 5 working days. Because only a limited number of teachers are eligible (experience requirements) they must value twice the number of papers submitted by his or her institution (double valuation!). This leads to a search for eligible teachers, and the university is forced to appoint somebody who is available. For instance, someone who has been teaching medicinal chemistry may be asked to be the third valuer for biochemistry. As exam duties are not usually declined, teachers generally go through the ritual in good faith. Results can be adverse.

There is substantial variation between the marks awarded by the first, second and third valuers, and the whole exercise simply overlooks 'reliability' and 'reproducibility', two fundamental principles in educational assessment[18]. Despite

the valuation system being designed in the best interest of the student, by attempting to maximize transparency and minimize individual variations, the outcomes are educationally futile and a logistically cumbersome.

We have not yet looked at the supplementary examinations, in which candidates repeat exams in the subjects they fail. Supplementary examinations further disrupt the flow of the regular curriculum.

It would be difficult to go into details of the re-evaluation procedures, announcement of results etc., which are nearly as tedious and time consuming.

4.5 Practical Examinations

The practical curriculum in pharmacy remains virtually unchanged over the past 20 years. One possible reason for this stagnation lies in the manner we conduct examinations. As this paper focuses on the conduct of examinations rather than its content, let us focus on its execution. Practical examinations involve a number of teachers, simultaneously engaged in multiple tasks. One defining feature of the practical examination is the presence of an External examiner who arrives from a different college just for the conduct of the practical exam. In case of PG examinations, the external examiner may be chosen from a different university. Then there is an Expert and a Lab technician who together do most of the benchwork. Practical examinations also require the full time supervision of a chairman. The chairman's role is primarily to oversee the online marks entry after the practical examination is completed. Unlike theory examinations, the valuation is not centralized; it is the joint effort of the external and internal examiners. This is an advantage over theory because there is no need for a centralized valuation at a remote location.

Practical marks entry by the chairman is performed online, in the presence of both the internal and external examiners, soon after the practical examinations are completed. But the whole exercise is tedious and takes away a whole working day for the internal and external examiners in addition to the chairman, the college office and the principal.

This does not include the hours spent on outstation travel, 'local conveyance' (from bus stand/railway station to college) arranging local hospitality (hotel room/guest house) ordering refreshments, packing and sealing examination stationery etc. A practical examination amounts to a day lost from the academic calendar, not just for teachers and ministerial staff, but also the bystanders in the very elaborate procedural ritual.

4.6 Drain on Resources

The most important problem with the prevailing system of examination is the drain on resources, whether it is time, human capital or money.

Unfortunately, most of the resources, human as well as material, are spent for the execution of the terminal examinations, which contribute disproportionately towards the final grades awarded to students. The internal evaluation, which engages the students on a periodic basis, for at least three sessions, is relatively inexpensive. This difference is all the more striking because the terminal university examination, which occurs in three hours in a single sitting, costs much more. The extra cost is entirely the result of centralisation.

A careful reading of the educational regulations for B Pharm will show that a B Pharm student, over four years of study, will receive about 1600 hours of theory instruction in about 25 subjects and another 1575 hours of practical training in about 20 lab subjects. The above scheme applies to the annual system of education rather than the semester system, which has been implemented only from the current year (2017-18).

A comparison between the hours spent on instruction vs university examinations reveals startling results. On an average, a middle level teacher handles two theory and two practical subjects each per year. Each theory and practical subject requires 75 hours of instruction. In other words, a teacher spends 300 hours teaching both theory and practicals over an academic year. Interestingly, he/she would spend a total of about 260 hours per year on conducting, invigilating, observing, chairing, paper setting and valuing the university examinations during the same period. When the teacher spends 150 hrs teaching a given subject, university

examinations consume at least 130 hours of the teacher's time. (See Table 1 for details).

Despite the teacher spending 130 hours conducting theory/practical examinations, the students undergo only 7 hours of theory/practical exams. In other words, 7 hours of student evaluation by the university takes 130 hours of teacher's time. Productivity of a teacher would improve greatly if examinations were decentralized.

5. Exams Impede the Flow of the Curriculum

The administrative effort behind the streamlining of examinations in many of these universities deserve praise but what truly boggles the mind is how examinations have been allowed to swallow up the curriculum. Are we not straining the gnats and swallowing camels? Most pharmacy colleges under these mega health universities, spend more time, energy and effort on examinations than teaching, mentoring or research.

A major problem with the complexity of the prevailing system is that it renders the Principal, Professors and many important senior teachers educationally dysfunctional. All around the year, at any given time, an examination is invariably going on or about to take place. The most experienced teachers are the ones who invariably get consumed by the administrative and logistics burden of examinations. They are the ones who must take up the responsibilities of the chairman, nodal officer, chief superintendent, external examiner, question paper setter, valuer, observer, etc. In a way, these senior teachers become an extension of the ministerial staff of the college office, spending a good part of their teaching hours in supervising and performing unskilled housekeeping functions. The irony is that they receive the highest salaries for performing the least educationally enriching duties.

Students' perception of examinations in India is not well-researched. Many teachers honestly believe that it is no business of the student. Students' perceptions need to be rigorously investigated, particularly because victims can interpose the most eloquent narratives.

The net result is the paralysis of the curriculum. Ideally, the most experienced teachers should be driving the curriculum forward. They should be taking steps to revise the syllabus, elicit, collate and analyze feedback from stakeholders, (especially potential employers) train junior colleagues, mentor students, introduce pedagogic innovations, implement technology enabled learning solutions etc. The prevailing system of examinations, with its oppressive schedules and procedural complexities will not allow any such innovation to proceed. The current governance model for examinations is a liability for the society at large and the students in particular.

6. Is There a Way Out?

It is not that the hazards of examinations have never been noticed or discussed. Far from it. Sir CV Raman had already raised his voice against university exams in his convocation address at BHU in 1927[19].

"Our universities are so engrossed with the task of conducting examinations. That they have no time to stimulate intellectual activity and advance knowledge... There is a danger today of its being forgotten that examinations are only a means to an end and not an end in themselves..[20]"

This is not a stray incident. Many great Indians have spoken against the manner in which we conduct examinations. The University Education Commission [1959][21], headed by S Radhakrishnan observed : "If we have to suggest one single reform in university education, it would be that of examination".

The Kothari Commission[22], going deeper into the problem in 1966, said: *"The greatest problem in our examinations lie in our question papers"*. Even after zeroing in on the question paper there has been no obvious attempt at reforms. Most of our education commissions have done well in diagnosis, but the remedy seems far away.

The reason perhaps lies in our social set up. To quote Prof Yashpal, (former Chairman National Advisory Committee to Reduce Burden on School children)[23].

"I am.. unable to persuade myself that the state of our school education is an independent variable -- that it could be altered without altering a lot of things in our social set-up!"

The problem is partly with the society that places exams on a pedestal. There is plenty of history to this. An interesting study by Dave and Hill in 1974[24] attributes this inappropriate reverence for exams to a new socio-political order that challenged the caste system, which had formerly guaranteed a non-negotiable social status (whether high or low) to every individual. The breakup of the caste system generated opportunities for social ascendancy on the one hand and threatened time-honoured sovereignty on the other. For the backward sections of the society, examinations became the most popular device to transcend social barriers. On the other hand, upper castes, particularly those from the middle class, found it increasingly necessary to preserve their social rank by proving, if only to themselves, their ability to do well in examinations, particularly the key entrance examinations (E.g. Joint Entrance Examinations to the IITs) By enabling entry to a club of elites, entrance examinations have become a proxy to scaling the caste ladder.

Given the societal pressures, it is not surprising that India continues to thrive on the notion that examination is the only way to incentivize learning and that grades alone reflect scholarship.

Interestingly, the best universities in this world witness nothing of this paranoia in the conduct of examinations. The curriculum is governed by the faculty and driven by the alumni. Each teacher is entrusted with his own devices for ensuring learning outcomes and student quality. Tests are frequent, rigorous, personalized, continuous. The curriculum is more engaging, interesting and rigorous, keeping students a lot busier.

7. A Tentative Remedy

Autonomy is the real solution, the only long term solution. But what about an interim arrangement? The answer lies in the Kothari commission report. Improve the question papers. It is not easy, but possible. Outlined below is a step by step action plan.

- Let a standard text book define the syllabus in each subject (undergraduate). The syllabus would not need to be updated because every new edition would automatically incorporate all that is worth updating. The textbook should settle disputes about whether a question is part of the syllabus or not.

- Depute teachers to the University headquarters for a week at a time. Appoint experts to train them in preparing questions that meet international standards of objectivity, content validity, reliability etc. Strictly forbid vague essay questions and 'short notes'. Let there be more questions carrying fewer marks. Make teachers prepare exhaustive question banks in every subject, every topic. Let the answers to each question be traced to pages in the prescribed text book. (This would render the answer key redundant) Let questions be restricted to the contents discussed by the prescribed standard text book. Prepare at least a certain proportion of questions with greater emphasis on problem solving and logical thinking. The questions should touch upon every topic, in proportion to its importance and relevance. Validate them, prioritise them, grade them on the basis of level of difficulty.

- Compile an exhaustive library of questions. Subject the compilation to quality checks and periodic revisions.

- Select a typical set of questions from the library and send them periodically to the affiliated colleges. Let these questions become a part of formative evaluation, preferably before each of the three class tests. Perceptions about the quality of questions would change the strategy of teachers, students, valuers and the university as a whole.

- Do away with the system of requesting outsiders to set question papers. Questions may be selected from the question bank. The questions selected should represent the syllabus in a predictable manner. A specification table should declare the marks allotted to each topic. There should be questions at different levels of difficulty and relevance.

- Make a beginning by executing a trial run on a couple of subjects.

Old problems do not have quick solutions. But there is hope on many counts. Most of the teachers in these fledgling colleges are young. They can be easily persuaded to adopt new systems. Moreover, this does not require much money. The salary paid to expert trainers can easily be saved by reducing time spent at the 'valuation camp'. Valuing objective questions will require less time. Recruiting trainers to individual colleges would reinforce the theme and bring about an attitudinal change. Question paper setting is a skill that surely improves with appropriate training. Prescribing a standard text book would improve standards of teaching and do away with 'out of syllabus' complaints. This proposal would also introduce formative evaluation, a very useful exercise in improving learning outcomes.

8. Conclusion

Quoted below is a slightly modified passage from section 2.3.4 of the Report of the National Commission to Review the Working of the Constitution[25]. Pasted below is a paraphrased version of the above, substituting 'Country' with 'University' and 'Constitution' with 'Curriculum'.

"A university may make a curriculum but a curriculum cannot make a university ...No curriculum... is worth more than the political temper of the community allows it to be worth. A curriculum, however lofty it's exhortations and sentiments, is not a self executing document. It requires human agency to implement.. It's essence is its practice".

Unfortunately, politicians are controlling education[26]. Gone are the days when we had politicians who had both wisdom and humility to seek advice from academic experts. Political decisions are behind the collapse of governance systems in education. The appointment of key persons in the educational set up, including vice chancellors, have become predominantly political. That is why autonomous universities, free from political manipulation are doing better. Many autonomous private universities are indeed doing well, even better than government universities.

Privately funded education, which was formerly looked upon as illegitimate, has almost become the norm today. But the pendulum has swung too much in the other direction. Acute scarcity has now been replaced by a sea of mediocrity. This glut was the creation of the governments. Politicians could have easily reined in growth and inspired quality.

And yet, in the middle of all this muddle, we see many private players rise into prominence. Autonomous private universities such as the Amrita University, Manipal University etc have risen to the forefront in both teaching as well as research. There was a time the government colleges dismissed them as irrelevant. Students today prefer Manipal to many Governement institutions that had previously held Manipal in contempt. Even the government-run universities are doing well only when there is autonomy. Take for instance the IITs and IIMs. Blaming universities like the Rajiv Gandhi University of Health Sciences is not the solution. They are just cogs in the wheel, swamped by numbers, challenged by endless legal wrangles. A casual search at the website of Indiankanoon.

Table 1. Time Spent on Teaching vs. Examinations (per subject)

	Theory (hrs)	Practical (hrs)	Total Hours	
			Spent by Teacher (hr)	Benefit to Learner (hr)
Instructional hours	75	75	150	150
University Exam hours	* Invigilation = 16 Valuation = 24 Travel = 32	Internal exam = 12 External exam = 12 Travel = 32	120	7

*One invigilator is needed for 25 students. A college with 100 students needs 4 invigilators.

org yields over 1800 results for Rajiv Gandhi University of Health Sciences[27]. The failure of governance systems is mostly the result of political decisions, whether proximate or ultimate.

9. References

1. Basu A. Indian higher education: Colonialism and beyond. From Dependence to Autonomy. Springer. 1989; p. 167-86. https://doi.org/10.1007/978-94-009-2563-2_7

2. India has exam system, not education system [Internet]. Available from: https://timesofindia.indiatimes.com/india/India-has-exam-system-not-education-system/articleshow/7977172.cms. Access date: 2017 Jan 31.

3. Unnikrishnan MK. Pressing Need for Examination Reforms in the Coming Millenium: The Sine Qua Non for Good Educational Practices. Indian Journal of Pharmaceutical Education and Research. 2000; 34(1):23-6.

4. Rosenthal R, Jacobson L. Pygmalion in the Classroom: Teacher Expectation and Pupils' Intellectual Development, by Robert Rosenthal, Lenore Jacobson. Rinehart and Winston. 1968.

5. CBSE question paper leaks [Internet]. The New Indian Express. 2018. Available from: http://www.newindianexpress.com/nation/2018/mar/30/cbse-question-paper-leaks-here-are-the-major-developments-so-far-1794712.html. Access date: 2018 Apr 17.

6. Rowntree D. Assessing students: How shall we know them? Taylor & Francis. 1977.

7. Delhi police busts fake degree racket [Internet]. First Post. Available from: https://www.firstpost.com/india/delhi-police-busts-fake-degree-racket-involving-sale-of-50000-forged-certificates-three-persons-arrested-4325863.html. Access date: 2018 Apr 17.

8. Hemali Chhapia. JEE questions identical to 2016 test in coaching class? [Internet]. The Times of India. 2018. Available from: https://timesofindia.indiatimes.com/home/education/jee-questions-identical-to-16-test-in-coaching-class/articleshow/63704055.cms. Access date: 2018 Apr 17.

9. Gortney JS, Bray BS, Salinitri FD. Implementation and use of the Pharmacy Curriculum Outcomes Assessment at US schools of pharmacy. The American Journal of Pharmaceutical Education. 2015; 79(9):137. https://doi.org/10.5688/ajpe799137 PMid:26839427 PMCid:PMC4727371

10. Marton F, Saaljo R. On qualitative differences in learning - ii Outcome as a function of the learner's conception of the task. British Journal of Educational Psychology. 1976; 46(2):115-27. https://doi.org/10.1111/j.2044-8279.1976.tb02304.x

11. Yeravdekar VR, Tiwari G. Internationalization of Higher Education in India: How primed is the country to take on education hubs? Procedia - Social and Behavioral Sciences. 2014; 157:165-82. https://doi.org/10.1016/j.sbspro.2014.11.020

12. Yashpal. Yashpal Committee Report [Internet]. 2009. Available from: https://www.aicte-india.org/reports/overview/Yashpal-Committee-Report. Access date: 2018 Apr 17.

13. Official website of Rajiv Gandhi University of Health Sciences, Karnataka [Internet]. Available from: http://www.rguhs.ac.in/about_rguhs.html. Access date: 2018 Jan 31.

14. Unnikrishnan MK AKS. Question paper: A great Hazard in Student Evaluation. Indian Journal of Pharmaceutical Education and Research. 1999; 33(3):135-7.

15. Kerala Government Gazette [Internet]. No.2891/ACI/GENA2/KUHS/2017 Kerala/India. 2017 p. 22. Available from: http://14.139.185.154/images/kerala/kuhs/syllabus/regulations_2017/KUHS_Regulations_2017_Kerala_Gazette_No_1447.pdf

16. Unnikrishnan MK. Syllabus Manufacturing: The Grand Plans vis a vis Staggering Blunders. Indian Journal of Pharmaceutical Education and Research. 2001; 35(1):4-5.

17. Sudhir PK, Kuttichira P, Harilal K, Mohandas K. A SWOT analysis of the new pattern of examinations of the Kerala University of Health Sciences. 2014.

18. Martin S. Two models of educational assessment: a response from initial teacher education: if the cap fits…. Assessment & Evaluation in Higher Education. 1997; 22(3):337-43. https://doi.org/10.1080/0260293970220307

19. V.A. S. Banaras Hindu University 1905-1935. Banaras Hindu University. p. 430-50.

20. Unnikrishnan MK. Rajiv Gandhi University of Health Sciences and the Pharmacy Curriculum : Fruits of Brutal Centralisation. Indian Journal of Pharmaceutical Education and Research. 2003; 37(3):118-20.

21. Radhakrishnan S. The University Education Commission [Internet]. 1959. Available from: http://www.educationforallinindia.com/1949 Report of the University Education Commission.pdf.

22. Kothari DS. Indian Education Commission [Internet]. 1966. Available from: http://www.teindia.nic.in/files/reports/ccr/KC/KC_V1.pdf.

23. Biman Basu. Yash Pal, A Life in Science. First. Vigyan Prasar, Department of Science and Technology. 2006; p. 103.

24. Dave RH, Hill WH. Educational and Social Dynamics of the Examination System in India. Comparative Education Review. 1974; 18(1):24-38. https://doi.org/10.1086/445753.

25. Venkatachaliah MN. The National Commission to review the working of the Constitution (NCRWC). 2002.

26. Aaron S. Rot in education [Internet]. Hindustan Times. 2016. Available from: https://www. hindustantimes.com/india-news/rot-in-education-students-suffer-as-corruption-politics-plague-the-system/story-cNnB8ZoPgXpbVnrZjy0nIM.html. Access date: 2016 Apr 17.

27. Indian Kanoon [Internet]. 2016. Available from: https://indiankanoon.org/search/?formInput=rajiv+gandhi+university+of+health+sciences. Access date: 2018 Apr 14.