Report of National Workshop on
"Examination Reforms in Higher Education"
Organized by
Association of Indian Universities, New Delhi and Human Resource Development Integral University, Lucknow
(October 8-10, 2018)

The Association of Indian Universities (AIU), New Delhi and HRDC Integral University, Lucknow organized a three-day National Workshop from October 8 to 10, 2018 on "Examination Reforms in Higher Education" at Integral University, Lucknow. This congregation of delegates from all over the country help facilitated the representatives from academia and administration from Educational Institutions put forth their views on Examination Reforms across table. Director HRDC, Prof. Aqeel Ahmad welcomed the delegates and appealed to the learned participants to give recommendations for making substantial changes in examination reforms, which could be useful on long term basis, by its implementation in letter and spirit.

Hon'ble Chancellor, the founder of Integral University, Prof. Syed Waseem Akhtar, the President of the Inaugural Session, the chief guest of the session, Prof. Furqan Qamar, Secretary

General, Association of Indian Universities, Prof. Aqil Ahmad, Acting Vice-Chancellor, Integral University, the Patron of the Workshop, Dr. Amarendra Pani, Deputy Director and in-charge, Research Division, Association of Indian Universities, the Special Guest of the session graced the occasion by their benign presence. Dr. Amrendra Pani, Dy. Director, Research AIU said that the basic objective behind the establishment of AIU is to improvise the present examination reforms in a more methodical and logical. Speaking further, Dr. Pani highlighted three major points as the major objective of AIU i.e. research based policy inputs; derive the policy of higher education and to reflect the skills of various universities. He said that the role of technology has become quite important and highlighted the importance of "cafeteria approach" wherein any individual from any field of study can take a course in any other field of study to pursue his passion, therefore, the change from rigid system to flexible system must be brought in. He also emphasized on the need to switch from compartmentalized classroom to smart classrooms. Prof. Aqil Ahmad, Vice-Chancellor, Integral University said that conducting of examination at different level has always been a challenging task.

Prof. Furqan Qamar, Secretary General AIU and Chief Guest of the session, admired the University, marching forward to organize this prestigious workshop on examination reforms by

providing the necessary infrastructure to carry out the event at such a large scale. In his address, Prof. Furqan Qamar said that delegates have shown their interest to attend this workshop in such a large number. He talked about the hard work done by academia in working over the logistics of higher education system that needs examination reforms at substantial level. He invited the participants to actively participate in the workshop and emphasized that we have to "trust the teacher" for assessment, examination and evaluation, or enhancing creativity. The delegates emphasized on Gurukuls and Madarsa system of examinations to current semester / annual system of examination and noted that there has been a paradigm shift in the examination system.

Major Recommendations

In three-day workshop, the delegates gave the following Recommendations:

1) Prof. Furqan Qamar recommended the concept of giving autonomy to teachers in conducting the examinations as opposed to the idea of having a well-defined controller of examination office as practiced by university system in the developed countries. In logistics there are so many issues i.e. delay in academic sessions, errors in evaluation of answer scripts, risk of question paper leaking. In essence, the quality mandate of UGC i.e. shifting from the present system of learning to the outcome based learning, be preferred and practiced.

2) Prof. S. W. Akhtar, Hon'ble Chancellor suggested that the first page of the Answer Books should have OMR sheet to help facilitate the smooth evaluation. He was confident that the workshop will certainly propose the solutions to the problems. Prof. Akhtar emphasized that the manual feeding of marks and coding of answer scripts are time consuming and they eventually produce delay in result declaration. The answer scripts should be given the form of an OMR sheet, which can go through scanner through some already developed computer program for the purpose, which would definitely speed up the process of evaluation and result declaration.

3) Prof. Basheer A. Khan, Advisor to the Hon'ble Chancellor, presented his views on "Feasibility of operationalisation of Examination Reforms System, at National and International level". Rudyard Kipling's practice keeping six wise men which included "Why, When, How, Who Which Where" be included in the examination practices which is quite relevant in this context. According to Prof. Baasheer, the present

examination system has many drawbacks which need to be debated to resolve certain ticklish and trivial issues. Gurukuls and Madarsas operate on simple concept of education i.e. "Listen and Keep in your mind". The current system of Indian examination was adopted by Brtishers during their rule which they had adopted from Chinese system of examination which traces back to 905 A. D.

India should now fully reject Macaulay's examination system because we have potential of making advancement in the system in a far better way. As examinations cannot be segregated from education, there is a need to overhaul it so as to make them tools of assessment rather than customary means to provide just a degree. He discussed the concept of on demand examination by citing a few examples from India as well as abroad. He even suggested the idea of getting away with examination and adopting continuous assessment which relates education with evaluation. Such a system inculcates traits which are readily accredited by society is need of the hour.

The Examination System followed by Sri Aurobindo School of International Education, Pondichery and Leeds University, U.K. where there are no examinations other than entrance examination. Thus the filter system should be made more efficient instead of spending precious resources on conducting examinations. He recommended that the practice of having external examiner should be discontinued on temporary basis to get the feedback from the experiment of dispensing with the external examination system. The question whether such practices of introducing external agency for conducting examinations in the university system can be adopted formally at large scale in the university system for contemporary examinations in the university system.

4) Prof. Rajeev Pandey, a Data Scientist from Lucknow University discussed about the adoption of "Blooms Model of Examination Reforms: Choosing Right Techniques." Quoting the phrase "India has examination system, not education," he emphasized that the examination system of India has turned out to be obsolete and is stress burdened. Examination is merely a deciding factor to evaluate the ability of a student and there is no place for the performance of a student in a full academic session is a debatable issue. The concept of evaluation in educational context which implies broader program than the examination in which achieving aptitudes, interests, personality traits and skill factors must be taken into consideration. The evaluation produces the data for cognitive, affective and psychomotor objectives being both qualitative as well as quantitative, which could be input for development of examination system.

Pondering over the key challenges in examination system in South East Asian Universities, Prof. Pandey discussed the administrative challenges; infrastructure challenges such as: resources allocation; and security challenges are some of the major issues in this context. The philosophy of "Powerful Tactics to Lead without a Title" by Robin Sharma, the world's premier motivational speaker on Leadership and Personal Mastery could be misnomer here in this context of the examination reforms. He recommended that various designations in any educational institutions / universities create unnecessary confusions thus there should be the only one designation i.e. 'TEACHER' / or the Faculty, but sincerity / hierarchy may not accept this proposal.

The main aim of education should be overall development of the students. He insisted on implementing BLOOM's Model which attempts to divide learning into the three main domains of student's personality i.e. cognitive, affective and psychomotor which in turn shall be resulting into a major components of examination system which has been so far ignored by our policy makers. To evaluate these three different domains the examination system should be designed in such a manner so that we could analyze the human personality, interest, aptitude, intelligence, emotions and tolerance of the students. Therefore, the conscious efforts be made to map the curriculum and assessment to these levels which can help the programs to aim for higher-level abilities which go beyond remembering or understanding to make the examination system convert our ordinary students with extraordinary aptitude.

It is, therefore, recommended that at Institution / University level, upper limit need to be arrived for lower order skills (for example, not more than 40% weightage for knowledge-oriented questions) after considering the pros and cons of the same proposition. Considering the fact that, as nature of every course is different, the weightage for different cognitive levels in the question papers can also vary from course to course. Further, higher order cognitive abilities like critical thinking, problem solving and taking rational decisions are also crucial for a graduate to succeed in the emerging world. Prof. Pandey emphasized that preference should be given on using Scoring Rubrics as assessment tool to measure a student's performance and learning across a set of criteria and objectives.

5) The "Experience Sharing" session of the delegates recommended that "Open Book Examinations" be conducted on experimental basis. The evaluation may also be done

digitally. The delegates recommended that the copies should now be essentially evaluated digitally. Script is scanned and each page has bar-code. This practice has resulted in significant reduction in evaluation time and zero totaling error. One lakh script could be evaluated, within twenty five days which would otherwise take three months. Many universities are following similar system, ensuring security system to be fool proof, thus, completely ruling out the chances of question paper leakage. Under QIP of UGC and AICTE such systems are taken care off. Question Bank provided by teachers with the help of auto generated by the system. Many universities i. e. GLA University Mathura also follow the question bank system by maintaining a pool of questions and also GNA University Punjab also conducted a pilot study by adopting a novel method of scanning and evaluating the answer scripts and found it to be a great success. The success is attributed to the efficiency of ICT service provider, thus again highlighting the role of ICT in the ease of evaluation process. Maharashtra Animal and Fishery Sciences University brought out a very transparent feature that Vice-Chancellor and Controller of Examinations can monitor the entire examination process from their respective offices through high tech CCTV cameras.

Exception has been found out of the experience of Karnataka University which had stopped digital evaluation after initial implementation of the system because of non acceptance of the system by the university teachers and non teaching staff. It was agreed that question uploading was decently mastered by various universities but digital evaluation of the scripts were still in its infancy stage and need more comprehensive analysis specially related to that of cost. Since high cost of digital evaluation is a major concern due to which it could not be implemented en mass and

therefore confined only to the specific courses/cases. At the University of Calicut, the student related tasks such as admission, verification; hall ticket printing etc. is done through online system. As far as the online evaluation is concerned they faced problem of minimizing the cost. They charge Rs. 33 per copy per exam but the real cost for online evaluation was around 50 Rupees.

Another case is that of Hindustan Institute of Technology and Science, Chennai conducting paperless examination by adopting an eco-friendly method where modus operandi is worth debating. All the students are provided I-pads for answering questions, using this method not only for multiple choice but descriptive questions can also be answered with much ease and in a less time consuming manner. They claimed to have observed a huge reduction in cost by deploying paperless methodology of conducting examinations. Manipur University (Jaipur) uses digital method for evaluation of scripts; they use this method for nine thousand students and aim to increase it to eighteen thousands. They also conduct open book examinations using digital pads or tablets where questions are uploaded and answers are recorded, in a high-tech manner.

6) Dr. Syed Nadeem Akhtar, Dean (Engg) and Director Planning and Research, Integral University, Lucknow talked about much debated "Choice Based Evaluation System and Credit Transfer" under the CBCS Scheme of UGC, which he recommended to be universally adopted in the colleges and university systems. According to him the existing evaluation systems and there are lots of difficulties in conducting the examinations even among the most flexible examination systems. The UGC has made

CBCS mandatory for all universities in 2016 but still it is not being implemented in its true spirit by most of the universities in India.

The credit based choice system is a systematic way of describing an educational program by attaching credits to its components. The definition of credits in higher education system may be based on different parameters, such as student workload, learning outcomes and other aspect. Credit system makes study programmes easy to read and compare for all students, local and foreign, facilitates mobility and academic recognition. The allocation of credits is normally based on the duration of a program. Credits are allocated to all educational components of a study program such as modules, courses, placements, dissertation work, etc. and reflect the quantity of work. Each component requires in relation to the total quantity of work necessary to complete a full year of study in the program considered.

Dr. Nadeem observed that CBCS has a symbiotic relationship among teachers, students and universities. The credit system allows students to study what they prefer in their own sequence as per their interests. He said students can learn at their own paces, and can opt for additional courses achieving more than the required credits. It provides freedom for an interdisciplinary approach to learning with inter college/university migration within the country and outside becomes easy with the transfer of Credits. The students have more scope to enhance their skills and more scope of taking up projects and assignments and vocational training, including entrepreneurship. The system improves the job opportunities of the students. The system will help in enabling potential employers assess the performance of the students on a scientific scale.

Dr. Nadeem emphasised that the main challenge in CBCS system is to estimate the Credit and the exact marks. Credit allocation varies among different universities and was brought about by comparing UGC system with ECTS (European Credit Transfer and Accumulation System), Technology guidelines of Kanpur (IITK) and guidelines followed by Indian Institute of Information Technology, Hyderabad.

It is recommended that to implement CBCS system in its true spirit, a well-equipped IT infrastructure is needed along with proper awareness among teachers is also require Relative Grading system can also be used to grade the student which may be based on comparative performance of the students rather than being absolute grading. Hence it can be advocated that the use of uniform CBCS system with the emphasis on the evolution of CBCS system. It is strongly recommended that there should be at least three-day workshop on CBCS system awareness be organised by AIU at Integral University so that academicians could understand that system well in terms of running the courses effectively and smoothly, through brain storming sessions.

Prof. Javaid Akhter, former Registrar, and Controller of Examinations AMU Aligarh discussed various issues of examination by citing example of the structure of admission and examination at Aligarh Muslim University. A reference was given to the participants / delegates about the admission quota of AMU which is based on internal and external standard Central government quota stratification and not on the religious basis as one of the recommendations which should be adopted by MHRD / UGC. Hence the teacher's role is of supreme importance in conducting speedy and secure examination. There should be continuous debate on the relationship between

accuracy and confidentiality of question paper. Here one has to compromise with accuracy to maintain confidentiality while conducting examination is again a matter of debate. The different group of delegates was made to discuss and debate upon various aspects of the examination reforms and they gave their respective groups' recommendations, which could be implemented on long term basis to stream line the overall examination system in educational institutions.

Group Discussions and Recommendations:

1) The first group of delegates discussed "Issues of Confidentiality in Examination" and emphasized that the confidentiality is important and it should be maintained at all the levels of the examination. It is recommended that question paper must not be opened on mobile phones and awareness should be developed against manipulations. For off-Line transfer of paper, postal services should be used. The paper in controller's office should be CCTV monitored, access to room should be biometrically monitored, and electronic

gadgets should be banned. In the control room CCTV monitoring must be done essentially at the printing question papers, and excessive number of papers should not be permitted. The printing and sealing of papers should be done by the licensed printing press in the presence of a university observer. Preferably, for maintaining confidentiality, during the conduct of examination, faculty / authorities should be present before the opening the seal of question papers. One of the major recommendations, here, could be the use of jammers and CCTV cameras and an encrypted bar-code answer booklets should be used which can only be decoded by the examination controller officials. They added that on screen evaluation and conventional evaluation should be done parallely and safe custody of answer booklets should be ensured. For data entry, double entry should be done so that errors can be weeded out and confidentiality of the examination should be maintained.

2) It is recommended that there should be a uniform system of evaluation of answer scripts and moderation of question papers throughout the country be practiced and implemented. A 3 tier evaluation system should be deployed in which separate marks should be awarded to the different part of a question and evaluators should be provided with the model answers. Non availability of competent evaluators is another constraint being faced during evaluation process. It was also highlighted that the utility of software in bringing-up the examinations and evaluation under a single umbrella be developed. This digitalization will definitely speed up the result declaration. All affiliated colleges should be instructed to observe strict confidentiality in evaluation and non-complying colleges should be de-affiliated. Uniform grading system should be followed in all universities. The delegates recommend that minimum passing marks should be prescribed universally

(fixed) uniform to 50% in Post Graduate courses and 40 % for Under Graduate Courses. Grades should be awarded in every subject so that it may help in employability of students and there should be post examination analysis, done periodically.

3) Prof. Ashok Meti recommended that Back paper system analysis, be taken seriously as there is need for the importance of post examination analysis. Almost all the universities have been following CBCS system from day one. There is a body called Subject Assessment Board (SAB) to be chaired by Dean of concerned faculty. They meet after each semester and do the post examination analysis with help of data. SAB also examines the aspects of course delivery to ensure that academic standards are met, based on the data compiled for the particular semester. Course Grade Sheets or Subject Assesment Board is preferred after each examination. More focus should be diverted on students who have not performed well. So these statistical tools act as indicators of performance. It compares the performance of a bright student with rest of the students of the class. Currently they are using it for M. Tech and B. Tech Programs for which Post Evaluation Examination analysis of results is done.

4) A special practice has been discussed by giving reference of Pondicherry University that entire question where paper setting is not given to a single examiner rather a particular question is allotted to them. Inter-examiner variation is very less in this practice. Post Examination analysis is also performed in which excel sheets and graphs and the distribution of marks are prepared and analyzed. It may also indicate the trends of marking which was too lenient or strict. It is observed that right shift in distribution indicates good performance by every student but the examination system do not take note

of such changes. To resolve any problem, a rule may be put in place that once the credit has been changed it will be valid for five years.

5) "Grievance Handling in Examinations" is a vital issue. The delegates recommended the use of 2-tier and 3-tier grievances system. It is observed that two Tier model is suitable for Universities with lesser number of students with no affiliated colleges and three tiers model suitable for Universities with larger number of students. The tiers consisted of various levels at Department, Advisory Committees and University level Board of Studies Grievance Adjudication Committees, chaired by the Vice-Chancellor.

6) The delegates advocated about the revision of internal marks before announcement of the results, followed by implementation of grievance redressal model in existing evaluation system. Grievance redressal model is based on double evaluation wherever possible, re-evaluation wherever necessary. Photo copies of the answer sheets given to students, scanned copy of the answer sheets can be mailed to the students, to invite their comments if any for re-evaluation. Here it is pertinent to mention that the rules have been changing in different State Governments regarding RE-EVALUATION, for example the state government of Uttar Pradesh has stopped the process of re-evaluation since last decade, which is of course a debatable issue.

7) The delegates addressed the preventive measures on the Redressal of Grievances about Question Paper pattern and systematic modifications in its settings. The participants brought out the importance of Examination Vigilance Squad at the University Level which can regulate and help student to understand the seriousness of examination. In essence, proper utilization of technology may pave the way in appropriate handling of examination and suggest reforms accordingly.

8) The delegates gave recommendations pertaining to the implementation of "Effective Examination Rules / Ordinances / Procedures" The delegates suggested to modify university ordinances for improving the examination reforms in university systems. Hence, the delegates highlighted feedback system to be developed by all universities.

9) The delegates recommended non-involvement of external examiners in setting of question papers and evaluation of answer sheets, because as a matter of fact, external paper setters may not be aware of the pedagogy of the university, syllabus content and intellectual proportion-cum-participation of the students in the overall system. It may also result in unnecessary delay and extensive follow-up in getting the question papers from the external examiners. Further in addition, they agreed that all the Universities should conduct awareness for all the students / SDP for all the students / faculties in regard to examination rules / ordinances. For this purpose COEs should organize Refresher Courses for the faculties. The delegates emphasized on the formula for conversion of CGPA into percentage should be common to all Universities.

10) Another recommendation was given by the delegates regarding "Role of Technology in Examination," which mainly focused on the use of Information and Communication Technology (ICT) in examination system in a holistic manner. The delegates suggested the division of Examination work-flow in three parts: Pre-Examination, During-Examination and Post-Examination.

In the valedictory session of the program, Prof. Syed Aqeel Ahmad welcomed the audience and congratulated them for their active participation. Later, the participants gave their feedback and Prof. A. K. Saxena, Dean, Faculty of Commerce and Management presented the comprehensive report of the workshop which included major

recommendations of resource persons / delegates and conclusions emanating from the group discussions and brain storming sessions. The report highlighted the rigorous sharing of knowledge and views presented by the period of workshop the delegates had over the last three day-workshop. AIU observer Dr. Pani thanked Integral University for providing enormous support to successfully organizing such a significant workshop. He also thanked all the delegates / participants for being a part of this mega event. Prof. Mohd Basheer Ahmad Khan suggested such workshops should be organized on regular basis with varied topics to strengthen our existing education and examination system in the university as well as technical / professional institutes. Dr. Syed Nadeem Akhtar, DPR (Director Planning and Research) and Dean Engineering opined that such workshop should not be taken as end but as a beginning and organized frequently by AIU. According to him, systems are intertwined and, hence, inseparable. He linked examination, evaluation, education and stressed upon that these systems cannot be segregated. Adding on to it, he said that the existing cumbersome system of conducting examination can be easily done and improvised with the use of ICT technology.

Vice-Chancellor, Prof. Aqil Ahmad stressed on the fact that the job of Controller of examination is most challenging and there is always a scope of improvement in the existing system. This was followed by Certificate distribution by the dignitaries to the delegates. Finally, Mr. Zishan Raza Khan, Dy. Director HRDC proposed the Vote of Thanks and the program concluded with the reciting of the Indian National Anthem by all and thereafter, the delegates and dignitaries had a group photograph.

HIGHLITHS OF RECOMMENDATIONS

1. More autonomy be given to teachers in conducting the examinations as opposed to the idea of having a well-defined Controller of Examinations office as practiced by the University System in developed countries.

2. The cover page of the answer book should have OMR sheet, to help facilitate the evaluating system.

3. Feasibility of operationalization of Examination Reforms System at National and Global level be ensured.

4. The present Examination System has many drawbacks which need to be debated to resolve certain trivial and ticklish issues.

5. The Government should now fully reject Macaulay's Examination System because we have potential of making advancement in the system in a far better way.

6. Adoption of Continuous Assessment and improvement examination mechanism, in place of semester and/or Annual Examination System, be practiced on present experimental basis to check feasibility of the new mechanism.

7. The practice of External Examination should be discontinued on temporary basis to get the feedback from the experiment of dispersing with external examination system.

8. Introducing of External Agency for conducting examination be practiced on experimental basis, for regular Examinations

9. Bloom Model of Examination Reforms may be introduced as suggested by one of the Resource Person, by dividing the learning into three main domains of students of personality i. e., cognitive, affective, and psychomotor, which in turn shall be resulting into a major component of examination system, which has been so far ignored by our policy makers.

10. It is recommended by the delegates that "Open Book Examination" be conducted on experimental basis, to check the feasibility of the system.

11. Fool Proof Security system be adopted by using CCTV Cameras and full proof other electronic gadgets be, to rule out the chances of Question Paper Leakage.

12. Quality Improvement Program (QIP) of UGC and AICTE be implemented for improvisation in Current Examination System as part Reform exercise.

13. Remuneration Rates for External and Internal Examiners be suitably enhanced to motivate the Examiners.

14. CBCS system of UGC be fully adopted as recommended by the UGC for Examination Reforms, with or without certain modification, wherever required.

15. AIU should frequently organized 1 to three-day workshops on "Examination Reforms in Higher Education" in Educational Institutes.

16. Credit allocation under CBCS varies among different Universities as per UGC Regulations, be compared with European Credit Transfer and Accumulation System (ECTS)/ IIT (K) and Indian Institute of Information Technology, Hyderabad, and be adopted suitably and selectively by the University System as part of Examination Reforms.

17. Examination Reform in Higher Education should go hand in hand with the structure of admission and examination conducting mechanism and accordingly modus operandi for the same be finalized, for its successful implementation.

18. Teacher's role is of supreme importance in conducting speedy and secure examination, and it should be never underestimated as Teachers are the back bone of any Examination system.

19. It is recommended that Question Papers must not be opened on mobile phones and awareness should be developed against manipulations. For off-line transfer of paper, postal services should be used.

20. The Papers in controller's office should be CCTV monitored, access to room should be biometrically monitored and electronic gadgets should be banned.

21. In the Control Room CCTV monitoring must be done essentially at the printing question papers and excess number of Papers should not be printed.

22. The Printing and Sealing of Papers should be done by the licensed printing press in the presence of a university observer.

23. One of the major recommendations here could be the use of Jammers and CCTV Cameras and an encrypted bar-code answer booklets should be used which can only be decoded by the examination controller officials.

24. On screen evaluation and conventional evaluation should be done paralleled and safe custody of answer booklets should be ensured.

25. For data entry, double entry should be done so that errors can be weeded out and confidentiality of the examination should be maintained.

26. It is recommended that there should be uniform system of evaluation of answer scripts and moderation of question papers throughout the country be practiced and implemented.

27. A-3tier evaluation system should be deployed in which separate marks should be awarded to the different part of a question and evaluators should be provided with the model answers.

28. The utility of software in bringing up the examinations and evaluation under a single umbrella be developed and highlighted.

29. The digitization should be practiced to speed up the result declaration.

30. Uniform minimum passing marks viz., 50% for PG courses and 40% for UG courses should be prescribed for the students.

31. Grades should be awarded in every subject so that it may help in employability of students and there should be post examination analyzing done periodically.

32. It is recommended that Back Paper System analysis, be taken seriously as there is need for the importance of post examination analysis.

33. A Body called Subject Assessment Board (SAB) should be constituted to be chaired by the respective Deans of the faculty.

34. A Question Paper should be set in parts by different Examiners based on their specialization.

35. Grievance handling and its Redressal mechanism should be developed in ordinance for examination system, for students vis-à-vis teacher and society.

36. Answer books should be shown to the students.

37. Re-evaluation system should be reintroduced selectively by the universities of State and Central Governments.

38. Examination invigilation squad should be developed at the university level by making provisions in the university ordinances.

39. Division of Examination workflow should be introduced in three parts: Pre-Examination, During Examination, and Post Examination.

40. Role of Technology in Examination, based on Information and Communication Technology (ICT) in Examination System in a holistic manner be implemented.