

Need to Move to Paperless Examinations!

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Examinations constitute fundamental integrated element of education and training programs. They not only measure the competency of the candidates but also serve as potent stimulant for better training and learning. If they are defective they may produce catastrophic results. Traditional paper examinations have several serious problems that had led to their replacement with paperless examinations in many developed countries. US examinations for example Step 1, 2 (Ex ECFMG paper exams) are in vogue for some years. Thousands of medical graduates take these examinations across the world to qualify to enter in accredited residency programs in USA. Time has proven their validity.

Why countries like Pakistan must adopt paperless examinations? There are many good reasons which we may divide in following categories;

1. Quality of the questions and examination papers
2. Examination procedures
3. Examination conduction
4. Papers checking
5. Post examination questions analysis
6. Compiling of results
7. Others

Preparation of quality questions is not that simple. Perhaps this is the single most important element of the entire examination process. Input from several different centers is highly valuable. Thorough debate and seeing items from different angles is highly beneficial. Practice of copying questions from books and downloading from internet sources is extremely deplorable and condemnable. The questions must be in line with material taught to them and in the way they were taught. The questions must restrict to the learning objectives and those objectives must be realistic and cater to the vast majority of the patients. Too much and irrelevant and non-useful teaching contents break the back and the nerves of the students. Too much, burdensome curricula make students suffer from variety of psychological illnesses. Quality of the

questions and their relevance can be shared among members of close groups; each individual reviews each question and offers his/ her criticism and suggestions.

Examination procedures must include comprehensive and integrated team approach; time deadlines must be followed, only competent and suitable members are selected, questions generated, commented upon, statistical evaluations are made. These are conveniently accomplished in internet environment.

Examination conduction is no less important. If students can cheat and copy; all efforts to prepare high quality questions etc. are wasted. In this context paperless exams can do wonders. Each student may get entirely different paper or different combination of the questions. Not only static photos but also live videos can be used to assess all sorts and levels of assessments. In paperless exams the candidate will choose the answer by clicking it.

In traditional system hundreds of written papers are sent to extremely busy physicians for marking. I personally find checking these papers extremely boring. After reading first few papers one can't remain focused on reading same type of answers one after the other. As a result most papers are passed on to the junior house officers. They face the same problem and become rather clumsy in checking these papers. This problem is being solved to some extent by introducing central marking. Short answer questions (SAQs) or short essay questions (SEQs)! Again uniformity in marking these still remains a serious problem.

There is hardly any post examination question analysis in many developing countries. It's hard to apply sophisticated statistical tests on examinations conducted on papers; it could be done if questions stored in computers are subjected and student's responses are manually fed into the computers. But this will require a lot of additional work and time amounting to almost impossible. Without post examination analysis results of the examinations may be based on substandard questions and hence quality of the exams and results will be very much in question along with its all ill effects on the system and the society.

Compiling of results takes more time in manual checking and is very cumbersome. The results without true pre and post examination statistical analyses and corrections will still remain substandard.

One drawback of purely computer based examinations is lack of testing for writing power, expression and artistic abilities. To overcome we have to invent some sophisticated computer based tests which should not be impossible.

Paperless Examinations will require a large number of computers (one time investment) and having a few IT experts and trained medical educationalists. This will also require active collaboration with other institutions however the dividends are so great that it's very much worth it. It's high time to introduce total paperless examinations in developing countries. We must give serious thought to it and plan to introduce in all our academic institutions in near future.