

Post Covid Examination System: The Necessity of Scientific Question Bank Development in Higher Education

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Abstract

The present research is regarding examination. Learning is the most important thing in the whole education system. Before long back the education system was teacher centered. That's why more importance was given to the teaching. After Independence, Radhakrishnan Commission had strongly suggested to improve our examination system. University Grant Commission had started the movements to remove the faults in the examination and evaluation in seventeenth decade. Association of Indian Universities had given suggestions to reform the examination system. As per the research findings we all were trying to improve our examination system at each level. But suddenly at beginning of year 2020, Covid has come and changed the whole world. Not a single person is left by Covid hurricane all over the world. It totally changed the daily rutin of a man. Our education system is going to change because of Covid. We already changed our implementation of examination system in last two academic years. The assessment of learner needs to be comprehensive and for this purpose the question paper must be prepared from a question bank. The assignments for self-evaluation, internal assessment and end examinations be prepared from such comprehensive question banks. It will help the evaluators for making a comprehensive assessment of the learner. The quality of the questions shall determine the quality of assessment which is a level of quality of learner. While assessing, openness is to be maintained. A learner must have a choice of using his own time for writing answers for his assessment. It is possible when environment to learner is provided for writing the answers with the help of this new evaluation strategy.

In 1857 three Universities were established in our country. These Universities were Mumbai, Chennai and Kolkata. The discussion regarding examination was started from that time. In 1883 the Hunter Commission said, "It is beyond doubt that the greatest evil from which the system of Indian University Education suffers is that teaching is subordinated to examination and not examination to teaching."

The same opinion has been given by 1902 Commission. In fact, learning is more important than teaching and examination. But learning is the most important thing in the whole education system. Before long back the education system was teacher centered. That's why more importance was given to the teaching. We all knew that Elalavya did not need teacher and teaching. That's the education should be learner centered. This fact was accepted by the educationist little late all over the world.

In 1917-119 Kolkata Education Commission pointed out many problems in higher secondary stage of education. Frequency of examinations, method of assessment, gracing and condonation, optional questions in the question papers were the main points of the discussion. According to 1929 Commission. The only objective of our education and examination system is not capable to give life time education to

the students. In 1944 Sargent plan also pointed out this thing. Here the whole development of education and student was expected from examination. It was very surprising because this is not a responsibility of examination. To test the learning level and achievement of educational objectives is the accountability of examination and evaluation.

After Independence, in 1948 Dr. Radhakrishnan Commission had strongly suggested to improve our examination system. The well known educationist Dr. Benjamin Bloom was invited to India in 1957. He had taken many workshops in our nation. Dr. H.J. Taylor had come to India and studied our examination system. He had given many suggestions to improve the examination system. Meanwhile Mudliyar and Kothari Commission had made many recommendations to improve our examination. Testing of non-scholastic areas and Preparing Questions, Question Papers and Model Answers were some of the important recommendations.

After 1970 University Grant Commission (UGC) has started the movements to remove the faults in the examination and evaluation. Association of Indian Universities. (AIU) had given suggestions to reform the examination system. 'A plan of Action' was suggested to all Indian universities for examination reforms.

We all were trying to improve our examination system at each level. Suddenly at beginning of year 2020 Covid has come and changed the whole world from A to Z. Not a single person is left by Covid harricane all over the world. It totally changed the daily rutin of a man all over the world. Well framed education system is very badly affected by Covid. All schools and colleges were closed for a long time. Covid forced to start online teaching and examination. All types of examinations were conected 'online' in this period. And our society understood that, the next education and examination system would be Online. Online education is physically, socially and economically benifital to our country. With the help of technology, in this way we are entering in the era of online education and examinations. For online examination system we will required quality question papers. And for required quality question papers, we need quality questions/items. Means we need to develope quality question bank in open education as well as traditional education system.

Open and distance education has to accept openness in its system at every stage. Today the traditional education system also come for flexible education. This task has to be achieved by the all universities, while imparting various types of vocational or non-vocational programmes. Every activity must provide a freedom to the lerner for learning at his own convenient situation. IT provides an emphasis to the 'lerner-centered' education. The need is to assess the level of learners and then provide education accordingly. It is essential to throw light from various-corners, so that, the darkness may not prevail at any point of learning domain. This objective directs us to gear up the whole system and its various activities for making the learner to learn upto his optimum level.

Lerner assessment is one of the aspect in this system and it should also help the learner to learn. The procedure of assessment in our education system must have techniques in use, for providing the examinee an environment in which he/ she may express himself/herself upto his/her full capacity and may get feedback for his/her rest learning. The need is to develop an evaluation technology whose application will help the learner to learn upto an optimum level. Before this technology is discussed for

framing the question papers, it is essential to analyse various assumptions behind the system. It will help in deciding the features and characteristics of an item/question for the question banks in education system.

Assumptions behind the philosophy of education system

Today, traditional and open education system has been well established in many countries. Various thinkers of open education system have described the system should be accepted by our traditional system. This system is very much essential for the country like India. In Maharashtra, per year near about seven lakh students are taking admission for various courses through Open and Distance mode. In each system the needs of students are more important than anything.

Independent study

Two thinkers namely have given emphasis to independent study and pleaded for self directed learning. This independent study consist of various forms of teaching-learning arrangement in which teachers and learners carry out their essential tasks and responsibilities apart from one another communicating in a variety of ways. Its purposes are to free on-campus or internal learners from inappropriate class pacing or continue learning in their own environment and developing in all learners the capacity to carry on self directed learning, the ultimate maturity required of the educated person.

Media Support/ Technology Support

The learner needs an effective two way communication for his needs. The learners have basically some general needs and some specific needs to be met by remaining at a distance from the teaching system. Otto Peter has very rightly described this system as an industrialized form of teaching and learning. Borje Holmberg felt a need for guided didactic conversation, which will meet and answer, all the queries and worries of the way learner regarding leaning. John Bath pleaded for establishing a support with the help of multi-media to meet the learner's needs. It is essential to maintain the autonomy of the learners while meeting the learner problems.

Human Support

David Sewart felt a vital need for human support in education system because of

- (a) Infinite variety of learners and their problems.
- (b) Immediate feedback and
- (c) Peer group interaction for all sorts of confusions/ queries.

The learner can have two types of interactions as (a) among the learners and (b) between the learner and the teacher/counselor. All these theories have the basic idea of managing learner needs in such a way that the motivational level of the learner is maintained by generating interest for learning and developing a positive favorable attitude towards the process of education.

Specific Characteristics of a learner in higher education

Every learner joining the system has three basic needs as

- (a) Knowledge,
- (b) Skills, and
- (c) Attitude

These needs are to be met by the system. If any one of these needs are not fulfilled, the learner may not learn as per his expectations. Before the system manages to meet these needs, it has to take care of a variety of characteristics of different learners. He may be in some job and wants to continue studies by remaining in job. He may have some curiosity of gaining the knowledge and updating his cognitive domain with the latest information. He might be filling a gap in comparison to other fellow learners. Because of certain requirements for upgrading in job he wants to learn during service. He is aware of his educational needs and might be anxious to his abilities, knows his weaknesses and his strengths.

Evaluation Technology in education system

Every technology has basic idea of providing and environment/situation in which a person may perform his task smoothly and with less effort. Evaluation technology is a science of techniques which helps the learners/examinee in expressing himself in a better way by less effort. In fact, there is an urgent need of creating an environment during testing hours. (Three hours examination time for final test/writing assignments/appearing for viva) So that the examinee may express him with least confusions, tensions. It requires a specific type of items/questions to be stored in the question bank. The stored items should not test only memory level of the learners. But also various abilities of an examinee related to the subject matter in reference. It requires a well developed question bank having questions/items of various types covering various abilities to be tested. This task needs a long orientation of item writers, who should be skilled with various characteristics and features of an item/question to be framed for open and distance education system.

Student's Assessment in Higher Education

An item or a question is an 'instrument' that is used to measure the 'learning outcome'. One's learning is measurable by another only when it is demonstrated in observable behaviourable patterns. So, an item is treated as an instrument to measure learning. The question bank must have a variety of education system the problem is 'how to assess a learner and side by side another problem is what to assess. Bloom's taxonomy for cognitive domain having Knowledge, Comprehension, Application, Analysis, Synthesis and Judgment capabilities are to be assessed. Assessment of memorizing capability, copying habit are not to be done now. For this purpose the question bank be made more comprehensive by having one question in six forms assessing various stages of Bloom taxonomy. Thus the question bank will have some questions in six forms.

In order to make an overall and more comprehensive assessment of distance learner, the question paper must have coverage of the entire syllabus. For this purpose a variety if question covering whole syllabus. For this purpose a variety of paper. Objective type questions are good for covering the syllabus, but expert have to take more efforts to development the higher abilities of cognitive domain. So a limited number of objective type questions in section 'A', and essay type having long answer and short answer questions be kept in section 'B'. At first the section 'A' be given to the learners in the examination and when he/she completes it, section 'B' be given to them. These two sections are to be completed within three hours of givan time. The learner must enjoy the freedom of having his/her own speed of writing the answers.

Therefore, imposing time limit for different sections will be against the characteristics of openness. Since the system has to maintain openness at each and every stage, and so, in learner's assessment too. The learner in this system learns at his own rate, pace and time, and so he/she should be examined when ready for the examination. 'On demand examination' & 'Online examination' are the strategies for maintaining openness in learner's assessment. Looking to these situations the system has to specify certain characteristics of an item/question for learner's assessment.

Characteristics of an Item / Question

The question / item should make a learner 'to act' or 'to behave' or 'to respond' so as to demonstrate his/her mastery or the extent of mastery in the task given to them. The item has to present a stimulus to the learner. It may be in the form of a task which may require the learner to do a descriptive and /or a practical activity. The item should specify precisely the task to be done by the examinee. Three points formula is to be kept in mind by the evaluation experts while selecting an item/question for the examination,

- (a) What the learner is to do,
- (b) The condition under which it is to be done, and
- (c) To what level/standard it is to be done.

Therefore, the item/question should have a clear language with no chance for any confusion in the mind of an examinee. Few specific characteristics are described with example ahead.

The item/question should measure a learning outcome

The question asked must specify the ability and a module of learning tested. If learning outcome is not clear, the distance learner may lose his level of aspiration and may become confused. The learner is quite different to his/ her counterpart in the conventional system. Where face to face instruction regarding type of answers are given. Below is an example of faulty question and its modified form.

Confusing question : What do you know about Naturalism? Explain with details.

Modified form of the question : Why has 'freedom to learner' been given importance in Naturalism? Explain with details.

The item/question should motivate the learner to express himself/herself

In higher education, every word is to be communicated to the learner in writing. The learner needs motivation before appearing for examination. In conventional system the teacher motivates the learners face to face verbally, but in open education the learner needs a language which must motivate the learner for using the optimum capability to express his/her knowledge. Below is an example of faulty/Confusing question and its modified form.

Confusing question : Explain the role of a teacher in classroom.

Modified form of this question : You are asked to take over as the principal of some school. How will you explain your colleagues about their role in the classroom ?

The item should test the reasoning capability of the learner

The learner should get chances for interaction with others. He/She should be provided an environment during examination for reacting with the situation and a

freedom to express his/her own views. Below is an example of a confusing question and its modified form which provides freedom to the learner to interact and express his/her own views.

Confusing question : Explain S-R theory if learning.

Modified form of the question : A good stimulus provides a right type of response from the learner. Do you agree or disagree with it ? Explain why in about 300 words.

The item should test various stages of cognitive diomain as,

Bloom has developed six stages of cognitive domain as (i) knowledge (ii) Comprehension (iii) Application (iv) Analysis, (v) Synthesis and (vi) Judgement. He has suggested in his taxonomy that a question may test any of the abilities if its form, language and intention is changed. Below is an example of a knowledge question and its modified form which test analyzing capability if the learner.

Original question : Describe the importance of blackboard in classroom teaching (Knowledge)

Modified form : How can the process of teaching learning be made more effective by using blackboard in classroom ? (Analysis)

The item should mention a limit of approximate words

The learner is an open learner with variety in age, writing speed and style of expression, and so a word limit shall help him in maintaining speed and finishing the task in time. The long answer questions be of about 300 words reply but the short answer questions be of about 150 words answer/reply. The long answer question may be of ten marks while the short answer question may be of five marks. The multiple choice type question should be of one word answer to be selected from four given options.

Tasks to be done by long / Short answered question

Various functions or tasks may be assigned to the questions depending upon the requirements and testing environment. Below are some of the situations which test the learner's ability to perform various tasks.

Selective recall

The learner be given some basis on which he may explain his answer. An example is given below.

Simple question : What is the utility of video tape in classroom teaching ?

Modified question : Video tape is more useful than Audio tape in learning sunrise and sunset situation. Comment upon this statement.

Comparison of two things on a single designated basis

Comparison of two things is best possible, when both are kept in same new situation. Below is an example of question making the comparison on a single designated basis.

Simple question : Compare and contrast the chalk and talk strategy with Video film demonstration.

Modified question : A student is unable to understand Pythagoras theorem. Which if the two (i) chalk and Talk method and (ii) Video film demonstration method, will be more beneficial and why ?

Comparison of two things in general

Any general comparison also needs the creation of a situation which is similar to both objects. Below is an example showing the comparison.

Simple question : Compare the philosophies of idealism and naturalism.

Modified question: The philosophy of naturalism is more applicable than idealism in the process of learning. Explain in about 300 words.

Decision

Taking a decision without any situation may be not correct and so, before expressing the opinion either in favor or in against must have some practical situation before the examinee. Below is an example of it.

Simple question : Explain the utility of Adult education Programme.

Modified question : Comment for or against the provision of Adult education programme in Indian scenario in about 300 words.

Cause of effect

Any cause or its effect can well be assessed if a learner is asked to be in a situation in which the effect of that cause may take place. Below is an example showing the cause and effect relationship.

Simple Question : why is it essential to pay attention towards handwriting ?

Modified question : Will motivating a learner for better hand-writing shall affect the overall performance of students ? Explain.

Explanation of the use of exact meaning of same phrase or statement in a passage

A phrase or a statement reminds the examinee to some particular situation and assuming to be in that situation, he/she can correlate the phenomenon and explain in a better language. Below is an example of the question framed to test the learner's ability for writing the exact meaning.

Simple question : How can you explain the phenomenon of learning by individual ?

Modified question : You can bring the horse to the pond, but you can't make the horse to drink. How can you explain the learning as an individual phenomenon with the help of above phrase ?

Summary of some units/the text/ some articles read

While asking for summarizing same text, it is better to name the unit and indicate the number of words required. Specific mention of the task and its quality must be mentioned. Below is an example of the question asking for the summary of some task.

Simple question: Give the details of educational ideas of Mahatma Gandhi.

Modified question : Write in your own words the educational philosophy of Mahatma Gandhi in 300 words based in the course and book prescribed for your B.Ed. programme.

Analysis

A practical situation may help the examinee to analyse it into a specific factors. Therefore, analyzing capability needs some practical situation for help to the examinee. Below is an example of a question testing the analyzing capability of the examinee.

Simple question: Which of the elements constitute the process of learning ? Explain.

Modified question: A boy attends his classes daily, but finds himself very dull in

comparison to other students. Analyse and explain the probable causes of his illness.

Illustration with some examples

If the examinee is an adult learner, He might be having a low memorizing capability. The examinee should be given a situation in which he should be asked to apply some principles/theory. It will help him to express his knowledge well. Below is an example of a question stating the situation and then asking for explanation.

Simple question : How is motivation affecting the learning process ? Explain with an example.

Modified question : You must have motivated some learners in your classroom. Explain what changes did you observe in their learning activities.

Classification

The learner should not be asked to classify the things by mere recall. He/She should be explained the whole classification and then be asked to explain its reason. Below is an example of a question stating the classification and its explanation is required to be given by the examinee.

Simple question : Discuss Bloom's contribution in the field of Evaluation.

Modified form of question : Bloom's Theory has three main stages as (i) Cognitive Stage, (ii) Affective Stage, and (iii) Psychomotor stage. How can this classification cover all the learning abilities of a learner ? Explain in about 300 words.

Application of rules or principles in new situations (Transfer of training)

Transfer of training has an advantage of assessing learner's capability in other situation. The ability of the examinee is tested in applying the learning phenomenon in other situation. Therefore, the question must have some situation for assessing his application ability. Below is an example of a question which tests the application ability of an examinee.

Simple question : Knowledge of Educational technology raises the quality of teaching learning process. Discuss this statement in about two pages.

Modified form of the question : Your students have still some confusion regarding Solar eclipse and lunar eclipse even after two hours lecture. How can you apply your knowledge in Educational Technology for making these concepts clear to them ? Explain in about 300 words.

Discussion

Instead of asking a direct question and knowing his memory level, it is better to create a situation and ask the examinee about the reason for that situation. It will test his reasoning and describing capability. Below is an example stating such question

Simple question : Explain the concept of population education.

Modified question : Discuss the situation which has necessitated our country to start Population education in school curriculum.

Statement of aim

The adult learner has a very rare chance for human support, and so, he might be not aware of the style of writing the answer. Also, if the question is not pinpointing, the examinee may write anything. Therefore, the question must be pinpointing, clearly stating and directing the examinee about what to do and how to do. Below is an example of this type of question.

Simple question : Explain ‘Socrates’ philosophy about education.

Modified question : In your book for course one there is some content stating the philosophy of Socrates and its application in education. What is the author’s view behind this content writing ?

Criticism as to adequacy, correctness or relevance of the content or statement.

Critical study and correctness of some idea, principle, theory be not asked directly. The examinee should be given full freedom to choose a theory of his/her choice and make its critical analysis. Below is an example of this type of question.

Simple question : The idea of pragmatism is very much relevant to Open Education System. Comment upon it.

Modified question : Which of the educational philosophy is very much relevant to Open Education System ? Comment upon the adequacy and relevancy in Indian Scenario.

Conclusion

Our education system is going to change because of Covid. We already changed our emplementation of examination system in last two academic years. The assessment of learner needs to be comprehensive and for this purpose the question paper must be prepared from a question bank having the items/questions of above type. The assignments for self evaluation, internal assessment and end examinations be prepared from such comprehensive question banks. It will help the evaluators for making a comprehensive assessment of the learner. Other techniques may not be applied for learner’s assessment except his periodic assessment. The quality of the question shall determine the quality of assessment which is a level of quality of learner. While assessing, openness is to be maintained. A learner must have a choice of using his own time for writing answers for his/her assessment. It is possible when environment to learner is provided for writing the answers with the help of this new evaluation strategy.

References

1. Anastasi A. (1968). *Psychological Testing*. The MacMillan Co., 3rd edition, New York.
2. Bloom B.S. & Others (1987). *Formative and Summative Evaluation of Student’s Learning*, McGraw Hill Book Co., New Delhi
3. Bhargava M. (1985). *Adhunik Manovigyanik Parichay Evam Mapan*. Modern Printer, Agra.
4. Ebel R.L. (1965). *Measuring Educational Achievements*, Prentice Hall, New Delhi.
5. Harper A.E. & Harper E.S. (Jr.) and (1990). *Preparing Objective Examinations – A Handbook*, Prentice Hall of India.
6. IGNOU (1992). *Evaluation, Prescribed for Dip. In distance Education Programme*, Offered by I.G.N. Open University, New Delhi.
7. IGNOU (1993). *Evaluation, Prescribed Growth and Philosophy of Distance Education- Philosophical foundations Prescribed for Dip. In distance Education Programme*, Offered by I.G.N. Open University, New Delhi.
8. Mukhopadhyaya M. (1991). *Third year Book on Educational Technology, All India Association for Educational Technology*, New Delhi.
9. Natarajan V. (1974). and Kulshreshta S.P. *Assessing Non-Scholasti Aspects of learner’s behavior*, Association of Indian Universities, New Delhi.
10. Nelson C.H. (1969). *Measurement and Evaluation in the Classroom*, The MacMillan Co.,Ltd., London.
11. Thorndike R.L. & Elizabeth P.H. (1969), *Measurement and Evaluation in Psychology and Education*, Fourth Edition, Wiley Eastern Ltd. Madras.