



Critical analysis of open book exams as the result of TQM success in education

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Abstract

The assessment methods in the recent years were focused on remembering the information. Now with the availability of abundant information, it is important to shift the focus towards processing the information and finding the application of their knowledge. Recently the National education policy (NEP) 2020 stressed that curricular design should also a 'robust system of continuous formative/adaptive assessment to track and thereby individualize and ensure each student's learning'. Using the open book examinations for the development of critical thinking, problem solving skills and provide to the lower stress level for the students. The purposes of the open book examination system are the student's cantered approach, to keep lowest anxiety among student. Open book exams have gained popularity as an alternative assessment method, allowing students to refer to resources during the exams. Total quality management (TQM), a management approach emphasizing continuous improvement and customer satisfaction, can be applied in education. Using the Open book examination method we can improve the critical thinking, problem solving approach, motivation, performance continuous learning and process improvement among the students and try to achieve the TQM success for the effective teaching and learning process. When students are informed that they are going to take open-book tests, their first reaction is very positive. However, lazy (and just poor memory) students, who are the first to welcome this innovation, when explained how the exam will be held, are really disappointed. Yes, the stress on their memory is removed, there is no need to prepare cheat-papers and no risk being caught and punished for their application. But, alas, the tasks (we will discuss them a little below) are not the ones which permit, so to say, "legal cheating", vice versa, they are intellectually highly demanding. Besides, they do demand Factual knowledge and being well acquainted with the materials under study. However surprisingly it may sound, it is the clever students who are finally happy. These hopeful intentions must be converted to realistic implementations for objectives to be realized, and assessment plays a pivotal role in the same. A natural transition from closed book or traditional examinations to open book exam may assist in students being able to apply acquired knowledge rather than recalling retained information.

Keywords: Open book exam, total quality management, customer satisfaction, critical-thinking, problem-solving

Introduction

In a country like India, where education has been constitutionally kept as a fundamental right, its qualitative approach cannot be denied. The purpose of education is not fulfilled only by reading and writing or by making the person literate, but it is to prepare the person with those specific skills to lead a dignified life with the help of which the person can occupy a planned place in the society without any need and could get it with difficulty. The objective of the national education policy 2020 has also been to develop completeness within the students so that the Indian knowledge system, self-understanding, holistic development as well as regional knowledge can be given a place on the national platform. In any teaching work along with the teacher, the curriculum and the learner Has important place. To achieve the objectives of the curriculum, the teacher uses his content knowledge as well as pedagogical knowledge so that all the concepts can be explained to the learner in a simple manner and he can use the learned knowledge in his daily life. Assessment has an important place within the teaching work. In fact, the purpose of assessment is to continuously improve the level of knowledge learned by the student and through which a feeling of completeness is created in the students. Open book exam in India not a new concept, in 2014 CBSE introduced open text-based assessment (OBTA) which was implemented in class 9 (Mathematics, Hindi, Science, English and Social science) and class 11 (Biology, Geography and Economics). It was

aimed to ease the burden of rote learning and promote information processing skills. However, it was discontinued in the 2017-2018 academic year due to its failure to develop critical thinking skills among students. In the process of opted to open book exam in Indian education system we have to consider it's maintaining the quality. Open book exam is a well-proven procedure that evokes learning most constructively, and allows students to use multiple resources to achieve the desired level of proficiency at a reduced level of stress and anxiety. This inculcates ownership of learning and eventually promotes students' thinking rather than memorizing. Furthermore, it's provided increased opportunities for self-awareness and self-evaluation, and prepress students for life by facilitating practice opportunities where all cognitive domains of Bloom's Taxonomy can be integrated into problem-solving similar to those encountered in real situation. After the post COVID, new method of teaching and learning has opened up in India. Online education using appropriate technology has come to stay, though there are operational challenges with regard to mindsets of teachers and students and the preparedness in terms of resources, systems and technology. While changes and reforms are made in the teaching-learning process, efforts are also being made to facilitate learning through designing and implementing suitable assessment. When students are informed that they are going to take open-book tests, their first reaction is very positive. However, lazy (and just poor memory) students, who are the

first to welcome this innovation, when explained how the exam will be held, are really disappointed. Yes, the stress on their memory is removed, there is no need to prepare cheat-papers and no risk being caught and punished for their application. But, alas, the tasks (we will discuss them a little below) are not the ones which permit, so to say, “Legal cheating”, vice versa, they are intellectually highly demanding. Besides, they do demand factual knowledge and being well acquainted with the materials under study. However surprisingly it may sound, it is the clever students who are finally happy. The reference material used during the open-book exams may be known and beforehand accessible to the students (such as handouts distributed earlier), or it may be newly supplied material not previously seen by the examinees. Besides, the permissible material may be identical for all students (such a textbook or datasheet), or it may be selected or prepared by the examinees themselves (such as notes, portfolio of classroom work, formula sheet, or choice of books). In this process we can’t ignore the quality aspects of the learning. We have to try without the compromising of the objective of the examination process and we have to ensure the all stakeholders concern which are related to examination process. Total Quality Management is the process to ensure is to improve the quality of the examination systems and focused to the all elements, especially customer focused (student) level of quality. It is process thinking. A process is a series of steps that take inputs from the teacher and transformed them into outputs that are delivered to students in the form of knowledge. The steps required to carry out the process are defined that is the teaching methods, and performance measures are continuously monitored in order to detect unexpected variation and this process is known as continuous assessment process or formative assessment of the student’s knowledge. There are so many TQM principles which we can apply and get positive aspects in the process of open book exam system. In the perspective of TQM, the students are the customers and our foremost objective should be the satisfaction of the customer and in this process the open exam cater to their learning needs.

Open Book Exam

An open book exam allows students to use their books and notes while answering questions. This system introduces for the transforming the entire assessment process, empower students to synthesize, organized and analyze problem and to develop problem solving skills and promote critical thinking in the students. There are two types of Open book exam- Restricted type in which student can only approved study material allowed and second one is Free type in which students can use any relevant material. Open-book exams are one of the tools increasingly offered today in order to reduce test anxiety and to help students demonstrate their knowledge and abilities and, correspondingly, have a more positive attitude towards exams. According to the Online Merriam-Webster Dictionary (n.d.), an open-book exam is a written examination during which an examinee is permitted to consult references to answer questions calling for organization, analysis, or judgment. Vyas & Vyas (2009, p. 164) define an open-book exam as “one in which examinees are allowed to consult their class notes, textbooks, and other approved material while answering questions”. We think that the second definition is more appropriate as the exam may be oral as well (one of us took an open-book exam in

the history of the English language in Tbilisi, Georgia, as early as in 1977). Open book exams, as the name suggests, allow students to access their textbooks and other resources during the assessment process. Unlike traditional exams that primarily test memorization skills, Open book exams focus on evaluating student’s ability to understand, interpret, and apply the concepts they have learned. In this examination process the focus of the test is knowledge application and stress level for the students is lower than the traditional examination system. Open book exam system also encourages the noble and innovative ideas and knowledge retention is high in this examination systems. NEP 2020 highly emphasis in the 21st century skills and soft skills, in this dynamic technological era we have to maintain the quality and transparency in the entire process of examination system is a big challenge.

Total Quality Management

Total quality management is a management approach that focuses on continuous improvement customer satisfaction, and employee involvement to achieve educational excellence. TQM in education is a holistic approach to improving educational quality, focusing on continuous improvement, student satisfaction, and stakeholder involvement. In the implementation of the TQM process the educational institution can improve student outcomes, enhanced teacher morale and engagement, increased parental satisfaction, better resource allocation, and Improve institutional effectiveness.

Open Book Exam and Total Quality Management

Unlike traditional exams that often emphasize memorization, open book exams encourage students to understand concepts and apply knowledge effectively without the any negative impact upon the quality perspective in the whole examination process. The approach mirrors real-world situations, where resources are readily available, and the challenge lies in utilizing them efficiently. The essence is open book exam is not the availability of resources but the ability to apply the information contained within them to solve problem. Open book exam are more than the just an alternative assessment method they are a preparation for real-life problem-solving where resources are not a limitation. This form of examination encourages students to engage in research, enhance their critical thinking skills and cultivate a lifelong learning attitude, which is indispensable for professional success. With the help of TQM process the teacher should implement highly quality oriented product and involvement in the entire process.

Advantage of Open Book Exam with TQM

- This exam process provides a better understanding of the material through application and analysis of the concept. Open-book exams, though they have been sometimes used and studied before, are still not a widely spread practice. This is why students often do not know how to prepare for them.
- They reduce exam stress in the students and creating a healthier learning environment. Open book examinations decrease the anxiety in students both while they prepare for and fulfill tests
- They encourage collaborative learning and the development of research skills. According to some

researchers, at least some subgroups of students perform at lower levels on open book tests than those taking traditional examinations.

- With the implementation of the TQM principle the students will be able to improve satisfaction level, enhance their learning outcomes, increased critical thinking and problem-solving skills, reduce stress level and anxiety level among the students, encourage the lifelong learning and foster collaborative environment within the school.

Disadvantage of Open book exam with TQM

- If students know they can bring their materials in an examination they won't be highly motivated for the study and result of lack of the motivation they may not develop strong memorization or critical thinking skills.
- The availability of different resources can create inequality among students. Those with better access to high-quality materials may have an advantage over their peers. To set up questions papers for an open book exam is the very difficult task for the teacher.
- Real world situations necessitate quick decision-making and recall of basic information is crucial, such as in emergency or time-sensitive situations. Students may not spend too much time searching for information in their materials leading to incomplete or rushed answers. Some students may underestimate the level of understanding required and assume they can solely rely on the materials.

Challenges

Open book exam isn't simpler compared to traditional exams. They are crafted to evaluate comprehension beyond mere facts and definitions. Crafting questions for an open book exam can be challenging for teachers because, unlike traditional exams, questions cannot be straightforward. In this examination system is need to train students on how to write an open book exam and develop the necessary skills of analyzing concepts to get the benefits of open book exam. Students should be taught comprehensively all year long so that they can tackle questions analytically. Implementing open book exams requires clear guidelines on permissible materials, training for students on effective note-taking and designing questions that test analysis, synthesis, and application. The challenges include ensuring academic integrity and developing assessment criteria that focus on critical thinking. Leveraging technology can offer solutions to these challenges, ensuring effective monitoring and facilitation of exams. In this entire process, how can we ensure the customer centric approach to cater their learning needs, to encouraging the continuous learning and improvement, to students actively involving in the learning process, to develop the strategic thinking and problem solving are the key factors in the perspective of the to maintain Total Quality Management in the open book examination system.

Conclusion

By integrating TQM principles with open book exams educators can create a learner-centered environment that fosters critical thinking, problem-solving and continuous improvement. The future of exam is leaning towards more

practical and application-based assessment. Incorporating technology can create dynamic and interactive exam environments, preparing students for the complexities of the modern workforce and society. A testament to growing acceptance of open book exams is the CBSE in India, which has initiated a pilot run of open book exams in select schools in the year 2024. This innovative step, aimed at evaluating student understanding and application of knowledge rather than rote memorization, represent a significant shift in educational assessment. Stress levels are notably Low in open book exams, and the preference for this type of assessment has been growing among both educators and students. Furthermore, long-term knowledge retention is higher after open book exams, underlining their effectiveness in education. In tandem with National Education Policy 2020, no mention of open book exams but it suggests a transition from rote memorization to competency-based learning. National curriculum framework for school education also suggests assessment that can accommodate different learning styles of students, provide constructive feedback, support learning outcomes and minimize rote learning. In higher education there are several central universities who maintain the TQM process in the implementing the open book exams conducted in their examination system in the pandemic situation. Open book exams represent a forward-thinking approach in education. One that prioritizes understanding, application, and critical thinking over rote memorization. As we move towards a future where adaptability and problem-solving are key, embracing open-book exams could be the catalyst for developing more competent, prepared and resilient learners. The journey ahead for education is one of transformation, and open book exams are a pivotal part of this journey, promising a more inclusive, effective, and realistic assessment method for all students. With the help of TQM approach emphasizing continuous improvement and customer satisfaction, can be applied in education. A natural transition from closed book or traditional examinations to open book exam may assist in students being able to apply acquired knowledge rather than recalling retained information.

References

1. Clift JC, Imrie BW. Assessing students, appraising teaching. New York, 1981.
2. Crooks TJ. The impact of classroom evaluation practices on students. Review of Educational Research, 1988;58(4):438–481.
3. M P. Open and closed book testing: Expectancy effects. Dissertation Abstracts International, 1983;45(06B).
4. FJ. The effect of methods of presentation and examining conditions on student achievement in a correspondence course. Journal of Applied Psychology, 1954;3:253–255.
5. Feldhausen JF. An evaluation of college students' reactions to open book examinations. Educational and Psychological Measurement, 1961;21:637–646.
6. Feller M. Open Book Testing and Education for the Future. Studies in Educational Evaluation, 1994;20(2):235–238.
7. Francis JC. A case for open-book examinations. Educational Review, 1982;34(1):13–26.

8. Ioannidou M. Testing and Life-long Journey: Open Book and Closed Book examination in a University Course. *Studies in Educational Evaluation*,1997;23(2):131–139.
9. Gupta MS. Open-book examinations for assessing higher cognitive abilities. *IEEE Microwave Magazine*,2007;46–50.
10. Jehu D, Pincton CJ, Cher S. The use of notes in examinations. *British Journal of Educational Psychology*,1970;40:353–357.