Examination Reform Policy

BCCM

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Introduction

Globalisation of the world economy and higher education are driving profound changes in Management Education System. Worldwide adaptation of Outcome-Based Education (OBE) framework and enhanced focus on higher-order learning and professional skills necessitates paradigm shift in traditional practices of curriculum design, education delivery and assessment. In recent years, worldwide sweeping reforms are being undertaken to bring about essential changes in management education in terms of what to teach (content) and how to teach (knowledge delivery) and how to assess (student learning).

Examinations/student assessments play a very important role in deciding the quality of education. The academic quality of examinations (question papers) in Indian education system has been a matter of concern from a long time. The reforms in examination system has been desired to meet the challenges of emerging management education landscape. In addition to the student's assessment in terms of grades, examinations need to ensure that the desired learning outcomes are achieved. The program outcomes and objectives are very crucial in nature and their achievement need to be proved through accurate and reliable assessment methods.

To improve the quality of examination system, reforms are crucial and need to be adopted on a regular basis.

Outcome based Education and Assessment

1. **Mapping Program Outcomes (Pos) to Assessments/Examinations:**

    Attributes articulate the generic abilities to be looked for in a postgraduate management degree program. They form the Program Outcomes (POs) that reflect the skills, knowledge and abilities of post graduates regardless of the field of study. This does not mean that POs are necessarily independent of disciplinary knowledge. Rather, these qualities may be developed in various disciplinary contexts.

    In outcome-based education, a "design down" process is employed which moves from POs to Course Outcomes (COs) and outcomes for individual learning experiences. Outcomes at each successive level need to be aligned with, and contribute to, the program outcomes.

    Courses are the building blocks of a program. Teaching strategies, learning activities, assessments and resources should all be designed and organized to help students achieve the learning outcomes at the course level. In the assessment activities, students demonstrate their level of achievement of the course learning outcomes. In a constructively aligned program, the courses are carefully co-ordinated to ensure steady development or scaffolding from the introduction to mastery of the learning outcomes, leading to achievement of the intended Pos for the effectiveness of the program, the achievement of Pos is crucial which needs to be proven through accurate and reliable assessments.

2. **Clarity about POs:**

   POs give useful guidance at the program level for the curriculum design, delivery and assessment of student learning. However, they represent fairly high-level generic goals that are not directly measurable. Real observability and measurability of the POs at course level is very difficult. To connect high-level learning outcomes with course content, course outcomes and assessment, there is a necessity to bring further clarity and specificity to the program outcomes. This can be achieved through the following two-step i.e. process of identifying Competencies and Performance Indicators (PI).

   (1) **Identify Competencies to be attained:** For each PO, competencies need to be defined. Different abilities implied by program outcome statement that would generally require different assessment measures. This helps us to create a shared understanding of the competencies we want students to achieve. They serve as an intermediate step to the creation of measurable indicators.

   (2) **Define Performance Indicators:** For each of the competencies identified, define performance Indicators (PIs) that are explicit statements of expectations of the student learning. They can act as measuring tools in assessment to understand the extent of attainment of outcomes. They can also be designed to determine the appropriate achievement level or competency of each indicator so that instructors can target and students can achieve the acceptable level of proficiency.

3. **Program Outcomes – Competencies:**

   Examinations/student assessments play a very important role in deciding the quality of education. They must not only assess student's achievements (and grades) but also measure whether the desired learning outcomes have been achieved. The achievement of objectives and program outcomes are crucial and needs to be proven through accurate and reliable assessments.

   The quality of examinations (question papers) in management education system has been a matter of concern from a long time. It is widely acknowledged that "assessment drives learning'', what and how students learn depends to a major extent on how they think they will be assessed. The question papers that require simple memory recall will not ensure deep, meaningful learning. High expectations for learning motivate the students to rise to the occasion. The assessment (examination) must embed those high expectations to ensure that the learner is motivated to attain them.

4. **Bloom's Taxonomy for Assessment Design:**

   Bloom's Taxonomy provides an important framework to not only design curriculum and teaching methodologies but also to design appropriate examination questions belonging to various cognitive levels. Bloom's Taxonomy of Educational Objectives developed in 1956 by

Benjamin Bloom was widely accepted by educators for curriculum design and assessment. In 2001, Anderson and Krathwohl modified Bloom's taxonomy to make it relevant to the present-day requirements. It attempts to divide learning into three types of domains (cognitive, affective, and behavioural) and then defines the level of performance for each domain. Conscious efforts to map the curriculum and assessment to these levels can help the programs to aim for higher-level abilities which go beyond remembering or understanding, and require application, analysis and evaluation.

Revised Bloom's taxonomy in the cognitive domain includes thinking, knowledge, and application of knowledge. It is a popular framework to structure the assessment as it characterizes complexity and higher-order abilities. It identifies six levels of competencies within the cognitive domain which are appropriate for the purposes of management educators.

According to revised Bloom's taxonomy, the levels in the cognitive domain are as follows:

Level	Descriptor	Level of Attainment
1	Remembering	Recalling from the memory of the previously learned material.
2	Understanding	Explaining ideas or concepts.
3	Applying	Using information in another familiar situation.
4	Analyzing	Breaking information into the part to explore understandings and relationships.
5	Evaluating	Justifying a decision or course of action.
6	Creating	Generating new ideas, products or new ways of viewing things.
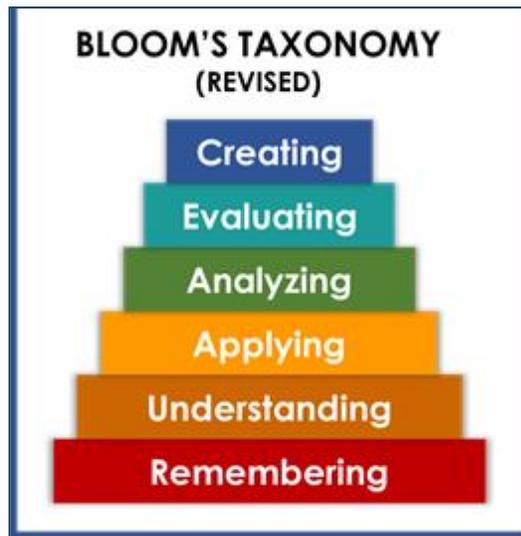
Fig 1: Revised Bloom's Taxonomy

Bloom's taxonomy is hierarchical, meaning that learning at the higher level requires that skills at a lower level are attained.

5. **Action Verbs for Assessment:**

    Choice of action verbs in constructing assessment questions is important to consider. Quite often, the action verbs are indicators of the complexity (level) of the question. Over time, educators have come up with a taxonomy of measurable verbs corresponding to each of the Bloom's cognitive levels. These verbs help, not only to describe and classify observable knowledge, skills and abilities but also to frame the examination or assignment questions that are appropriate to the level we are trying to assess.

6. **Assessment Planning**

    While using Bloom's taxonomy framework in planning and designing of assessment of student learning, following points need to be considered:

    1. Normally the first three learning levels; remembering, understanding and applying and to some extent fourth level analysing are assessed in the Continuous Internal Evaluation (CIE) and Trimester End Examinations (TEE), where students are given a limited amount of time. Abilities, analysis, evaluation and creation can be assessed in extended course works or in a variety of student works like course projects, minor projects, Internship experience and Final year projects.

    2. Before adopting this framework for reforms in examination system of a Institution, it is worthwhile to study the present pattern of assessment in each of the course in the program to gain insight about:

        a) Alignment of assessment questions with course learning outcomes

        b) Whether all the learning outcomes are tested. Sometimes some learning outcomes are over tested at the expense of others which may be not tested at all.

        c) Overall weightage in the assessment to each of Bloom's learning levels.

        d) Assessment methods used to adequately assess the content and desired learning outcomes.

        Based on the study, improvement priorities for each of the above factors need to be arrived at. The reform process needs to be well planned and implemented through institutional strategy and communicated to all stakeholders particularly to the students.

    3. A good and reasonable examination paper must consist of various difficulty levels to accommodate the different capabilities of students. Bloom's taxonomy framework helps the faculty to set examination papers that are well balanced, testing the different cognitive skills without a tilt towards a tough or easy paper perception. If the present examination questions are more focused towards lower cognitive skills, conscious efforts need to be made to bring in application skills or higher cognitive skills in the assessment.

        It is recommended that at institution level, upper limit need to be arrived for lower order skills (for example, no more than 40% weightage for knowledge oriented questions). It is important to note that as nature of every course is different, the weightage for different cognitive level in the question papers can also vary from course to course.

Assessing higher order skills and professional skills

In the 21st century, professional skills (also known as soft skills, generic skills or transferable skills) have emerged as important attributes of a management trainee. Studies show that Industry/ employers around the world value these abilities more than the disciplinary knowledge. This is also reflected in the NBA graduate attributes wherein six out of twelve attributes belong to this category, i.e. (1) communication, (2) teamwork, (3) understanding ethics and professionalism, (4) understanding global and societal contexts, (5) lifelong learning, and (6) knowledge of contemporary issues. Further, higher-order cognitive abilities like critical thinking, problem-solving and making informed decisions are also crucial for a student to succeed in the emerging world. Though the employers consider these professional skills and higher abilities as important, students are weak in them. The main challenge surrounding them is that they are difficult to assess through existing conventional examination system.

1. **Innovative Educational Experiences to teach and assess:**

   One of the main obstacles in addressing these outcomes is the limitation of educational experience we create within our management program. Most of the coursework in our programs are oriented towards teaching technical knowledge and skills; hence, the assessment is limited to those abilities. However, acquiring the professional outcomes may not result simply from participation in a particular class or set of classes. Rather, these outcomes are more often acquired or influenced through sources both in and outside the classroom

   To address these challenges, comprehensive reforms are needed in the way we design our curriculum, student learning experiences and assessment of the outcomes. Worldwide several attempts are being made to address these challenges. Following are the few educational experience that are recommended to teach and assess professional outcomes and higher order cognitive abilities:

   - Course projects.
   - Case Analysis
   - Project based learning modules.
   - MOOCs
   - Co-Curricular experiences.
   - Minor projects
   - Final year projects
   - Internship experiences
   - E-portfolios of student works.

2. **Using Scoring and Rubrics as Assessment tools**
   To evaluate the above, student works for attainment of course outcomes and hence POs, it is of utmost importance to have reliable methods / proper assessment tools. Rubrics provide a powerful tool for assessment and grading of student work. They can also serve as a transparent and inspiring guide to learning. Rubrics are scoring, or grading tool used to measure students' performance and learning across a set of criteria and objectives. Rubrics communicate to students, your expectations in the assessment, and what you consider important.

There are three components within rubrics namely (i) criteria / performance Indicator: the aspects of performance that will be assessed, (ii) descriptors: characteristics that are associated with each dimension, and (iii) scale/level of performance: a rating scale that defines students' level of mastery within each criterion.

3. **Open-Book Examination**

It was noted that the traditional written examinations have a significant weakness that they tend to encourage rote learning and more superficial application of knowledge. This deficiency can be overcome by "open-book examination". Open-book examination is similar to time constrained written examinations but designed in a way that allows students to refer to either class notes, textbooks, or other approved material while answering questions. They are particularly useful if you want to test skills in application, analysis and evaluation, i.e. higher levels of Bloom's taxonomy. However, in a program, the courses or the curriculum areas that are best suited to an open book exam are to be carefully chosen.

Advantages of open-book examinations

1. Less demanding on memory and hence less stressful.
4. Questions can emphasize more on problem-solving, application of knowledge and higher-order thinking rather than simple recall of facts.
5. Assessment questions can reflect real-life situations that require comprehension, information retrieval and synthesizing skills of the students to solve.

Designing a good open-book examination

1. Set questions that require students to do things with the information available to them, rather than to merely locate the correct information and then summarize or rewrite it.
2. The questions in open-book exam must take advantage of the format, and give more weightage to the application of knowledge, critical thinking and use of resources for solving real problems.
3. As the nature of questions is complex, it is to be ensured that the students get enough time. Open book test questions typically take longer time compared to traditional examinations. It is advisable either to set less number of questions that encompass 2 or 3 concepts taught or allocate longer duration of time for the examinations.

Conclusion

The examination reform policy is very important tool to develop a student to face ever changing challenges in this competitive world. We, at Bhavan's Centre for Communication and Management, Bhubaneswar, always strive for quality education. To achieve our objective, we always try to bring out reforms in the examination system which is in line with the Examination Reform Policy of AICTE.

References

https://www.aicte-india.org