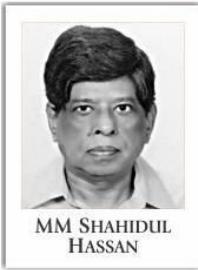


Creating a generation of learners and innovators

How learning-based curriculum development in universities can make a difference



MM SHAHIDUL
HASSAN

THE curriculum for any undergraduate programme is highly influenced by the social, physical, economic and cultural environment. Consequently, with the change of any such setting(s), its development process

will also change. The great economist and Nobel Laureate, Wassily Leontief, wrote in 1953 that "labour will become less and less important. ... More and more workers will be replaced by machines."

However, an insightful way to understand the overall effect of new technology on the number of jobs in the economy is to look at it as a race between two dynamic processes. Automation tends to take jobs away while the invention of new complex tasks creates new jobs. In this context, there is an increasing demand for graduates who can speak and write effectively, have high-quality interpersonal (teamwork) and creative thinking skills, are innovative and have some understanding of world affairs, and can work effectively with individuals from different cultures and backgrounds. Universities in developed countries as well as in many developing countries are paying greater attention to the quality of education they provide to students, and to redesigning

curricula. These institutions are constantly rethinking their goals and priorities, their curricula, and the way learning takes place.

The present curriculum development process is different from that of traditional curriculum development. In the traditional process, the curriculum is a collaborative effort of senior faculty members and course teachers. Course teachers are involved as they know the contents of the courses and the way courses are taught. The curriculum focuses on a specific body of knowledge to be transmitted to students and relies heavily on memorisation and drilling of facts and formulas. Education systems founded on traditional curricula often focus solely on the subject matter being taught and favour measurement of educational objectives via a great deal of testing. Statements of programme outcomes do not exist for curricula and courses. Traditionally, course improvement has been the responsibility of individual faculty, and efforts to redesign curricula have usually been assigned to departmental committees established specifically for this purpose.

Designing a quality course or curriculum is always difficult, time-consuming, and challenging. A curriculum must be developed sequentially, beginning with aligning programme educational objectives with the institutional statement of vision and ending with the assessment of each student before and after graduation. It requires thinking about programme educational objectives and

programme outcomes for students, the demands of accreditation agencies, competencies and skills required at jobs, and how a teacher can facilitate the learning process.

Programme educational objectives are broad statements that describe the career and professional accomplishments of graduates. Keep in mind that although programme educational objectives are long-range and focused on performance well after graduation, it is possible within an undergraduate programme to identify the skills, attitudes, and understandings that are the underpinnings of these long-range objectives. On the other hand, programme outcomes must be achieved during the academic programme. Each programme must have documented student outcomes that prepare graduates to attain the programme educational objectives.

As the design process starts, from defining programme educational objectives to developing programme outcomes and course outcomes and then course-by-course outcomes, the statements become increasingly specific. The design of each course, the selection of instructional methods, and student assessment are based on these statements. The process of moving from a statement of objectives and outcomes to deciding on and implementing a programme and relating individual courses to the curriculum requires careful planning. If, for example, speaking skills are identified as a basic competency that

every student must have by graduation, public speaking must be initially taught and then reinforced, and *no student should be able to graduate without receiving appropriate instruction and practice in this skill*. Courses must be analysed to identify where this skill is introduced and then reinforced, and the curriculum must be structured so that every student has the opportunity to acquire speaking skills. In the case of developing competencies in speaking, the required courses will most likely be those with smaller enrolment, or lecture courses that have discussion sessions associated with them. Developing and using interpersonal skills, problem-solving, critical thinking, basic statistics, and so on, are widely listed core objectives and can be an integral part of most courses.

In every institution, the final determinant of the quality of the academic programme is the performance of its graduates. The degree of success will depend on how well the curriculum is delivered through its courses and other learning experiences provided to students. Every student must have the opportunity to reach and demonstrate every stated basic competency. Carefully articulated learning outcomes must be the basis on which instructional methods are chosen and the criteria by which competency must be measured. The effectiveness of an institution or programme and of individual faculty members is then determined by the ability of students to meet these objectives and

outcomes. At the same time, it must be recognised that not all students will reach these goals, because their attitudes, willingness to work, and ability also play an important role in determining success. It is the responsibility of an institution to do everything to facilitate the learning that is required and to give each student a fair opportunity to succeed.

Higher education generates broader economic growth as well as individual success. For example, a recent study determined that universities contributed nearly 60 billion pounds to the economy of the United Kingdom in 2007-08 (Drew Gilpin Faust, June 30, 2010). Therefore, universities in Bangladesh can also change the society and remain the centre of change and economic development. In that case, universities need to produce graduates with high-level skills, critical thinking competency and innovative quality; and such graduates can get jobs in national and global markets, and also can be successful as entrepreneurs and self-employed workforce. Such dispositions demand changes in curricula, and teaching and assessment methods to create a young generation of active learners and creators. The primary task lies with universities in Bangladesh to develop curricula for programmes following the widely accepted development process.