

5

Academic Reforms

Introduction

The slow pace of internationalisation of Indian higher education is, to a large extent, due to the inflexibility in the academic structures and practices of most institutions; and the persistence in them of out-dated practices relating to method of assessment, conduct of examination and grant of equivalence to academic work already undertaken. An essential requirement for all institutions that desire to internationalise their education would, therefore, be to adopt academic practices that are in consonance with those prevailing in the developed countries. In view of the dominance of the United States in matters relating to higher education and research (as also in practically all other matters) the American pattern of education is one that could serve as a model, more so because it is highly flexible, accommodative and adaptive. There is a need for all Indian academic institutions to introduce examination reforms based upon the credit-based semester system, evolve a system of grading that is in consonance with international practices so that grant of equivalence could be facilitated, adopt appropriate credit-transfer mechanisms, accept the practice of 'collaborative degrees' and internationalise curricula. These aspects are reviewed in the following sections.

Examination Reforms

At the time of Independence, Indian universities were following the

traditional pattern of an annual examination involving both internal and external examiners. The system, which had its roots in British practices, was probably valid when higher education was elitist and the number of students small. Moreover, at that time the skills to be evaluated were restricted – largely those required for administrative work. It was then possible to make, through this system of examination, a comparative and realistic evaluation of students taught by a single teacher, or by a few closely-interacting teachers. With higher education becoming egalitarian, it is now necessary to evaluate a large number of students, coming from different backgrounds and institutions, for varied cognitive capabilities. Soon after Independence it was realised that the annual system placed a premium on information and encouraged learning by rote. Other aspects like comprehension, ability for analysis and synthesis, and application remained largely untested. Examination reforms were initiated in the 1960s and by the early 1970s the semester system, with continuous internal assessment and end-of-term examination as essential components, was implemented in all professional institutions and professional faculties of most conventional universities. The majority of conventional universities are, however, still following the annual system of examinations for the liberal arts programmes. In the changed international scenario, where mobility of students, recognition of qualifications and equivalence of degrees are important issues for all universities, the need to implement the semester system at all levels cannot be over-emphasised.

Grading

In India, evaluation of students is largely done in terms of marks, with 100 being the maximum, i.e. on the basis of a 100-point grading system. The minimum pass marks in most universities is 36 per cent. Students getting a minimum of 45 per cent (50 per cent in some universities) are declared to have been successful in Second Class/ Division. Students securing 60 per cent or above are awarded a First Class/Division. In many universities the words 'with distinction' are added to those securing a minimum of 75 per cent marks. In view of the facts that the evaluation process is largely subjective, and that thousands of students appear in many examinations, its efficacy has been questioned. In the mid-seventies of the last century the University

Grants Commission recommended the adoption of a 7-point letter grade system but the grade-system has not had many takers. Some universities have adopted the semester system but grade in terms of marks.

The credit-based examination system with letter grades and cumulative grade points has been introduced in many professional institutions. The Indian Institutes of Technology have adopted a 10-point letter-grade system. The letter grades and points used are: O (Outstanding) - 10 points, A (Excellent) - 9 points, B (Very Good) - 8 points, B1 (Good) - 7 points, C (Average) - 6 points, C (Below Average) - 5 points, D (marginal) - 4 points, E (Poor) - 2 points and F (Very Poor), I (Incomplete), NP (Audit Pass), NF (Audit Fail). The Indian Institute of Science also follows the Cumulative Grade Point Average (CGPA) method but with 8 points. The Agricultural Universities also follow a CGPA system. However, the scale of grading varies. At the Indian Agricultural Research Institute New Delhi followed a 4-point scale with the minimum passing grade being 2.5 CGPA. Most other Agricultural Universities (e.g. the Acharya N.G.Ranga Agricultural University, Hyderabad, the Gujarat Agricultural University, Krushinagar and Punjab Agricultural University, Ludhiana) have adopted a 10-point scale with the minimum requirement for passing between 6.0 and 7.0 CGPA.

There is a need for all Indian universities to adopt the credit-based semester system with the grading being done on the basis of minimum credits earned and result declared in terms of CGPA. Normally a credit corresponds to one hour of lecture or one period (1.5-2 hours) of practical work. A student can reasonably be expected to earn 30 credits in a semester. The first (Bachelor) degree is normally acquired in three years in the case of liberal-arts programmes and in four or four and a half years in case of professional/technical programmes. A Master degree takes two years. Universities could, therefore, conceivably grant a Bachelor degree in the liberal arts on the basis of accumulation of a minimum of 180 credits, a Bachelor degree in professional disciplines on accumulation of 220-240 credits, and a Master degree on the accumulation of 300 credits.

Credit Transfer

A frustrating feature of the Indian higher education system is that it is extremely difficult for a student to transfer from one university to another in the middle of a programme. In some cases transfer from one university to another in the same State is possible at the end of the first or second year of the Bachelors programme but this could entail the loss of the right to be given a class/division. For many years academics have been advocating the adoption of some mechanism of transfer of credit, but not much has been achieved. At present only about ten universities have provision for transfer of credit. The Pondicherry University has entered into an agreement for mutual transfer of credit, with the Indira Gandhi National Open University, and with a number of French universities (Patil and Marudanayagam, 2000). On the other hand foreign universities are now accepting transfers from Indian colleges and universities. An example is provided by the Purdue University at Calumet, which now accepts students from at least two engineering colleges, respectively affiliated to the Guru Gobind Singh Indraprastha University, New Delhi and the Uttar Pradesh Technical University, Lucknow. It is not clear if this represents an acceptance of the quality of education provided by Indian technical institutions, or merely a business initiative.

Feedback From Indian Universities

In July 2001, the Association of Indian Universities invited 39 Indian universities, who were admitting international students in significant numbers, to participate in a survey on student exchange programmes (Powar, 2002). The questionnaire circulated to them asked for information on the type of examination conducted, grading system adopted, provision for credit transfer and other related aspects. Responses were received from 26 universities including a mix of conventional universities and professional institutions. The salient findings of the survey are:

- Three universities (all conventional) had only annual type of examinations 12 have both annual and semester examinations, 10 (including all technical institutions) have only semester examinations and one both semester and trimester examinations.

- In 17 universities evaluation was done in terms of marks. Three universities awarded both marks and grades while eight universities (including all technical institutions) awarded only grades.
- Out of the 11 universities that awarded grades, 10 adopted a 10-point grading system while one (conventional university) adopted the 7-point grading system.
- Only six universities (Indian Institute of Technology, Chennai, Manipal Academy of Higher Education, Manipal, Birla Institute of Technology and Science, Pilani, Podicherry University, Pondicherry, Rajasthan Vidyapeeth, Udaipur and University of Pune, Pune) have a provision for transfer of credit. Out of the remaining 20 universities that do not have such a provision 17 universities are willing to consider the introduction of this provision.
- Twenty-three universities have agreed to accept the grades (awarded to Indian students abroad) by foreign universities.

This feedback suggests that the universities that are interested in internationalising their programmes are willing to make the necessary adjustments

Collaborative Degrees

During the last decade the practice of awarding degrees for programmes offered through the collaborative efforts of two or more universities has become common, especially in Europe. Here it is seen to be an important means of pushing forward the Bologna process and creating the European Higher Education Area. It is believed that such 'collaborative degrees' will promote joint quality assurance and facilitate the recognition of degrees and qualifications (Rauhvergers, 2002).

Degrees awarded through collaborative arrangements are of three types:

- Joint degrees in which there is a single degree certificate bearing the names of both, or all, collaborating universities/institutions. An underlying assumption is that both/all partners contribute to the development and implementation of the programme in equal measure.

- Dual degrees or Double degrees wherein separate certificates are awarded by more than one collaborating universities. Commonly the programme is developed by a consortium of universities but the degrees are awarded separately by the two or three universities that are involved in the teaching programme. It is also possible that the programme is a result of collaboration between only two universities but separate degrees are given to satisfy legal requirements (as that of jurisdiction).
- Single degree awarded by the university with which the student is registered, or from which he takes the majority of courses.

Collaborative degrees are most commonly offered at the Master and Doctoral levels. The disciplines in which they are most common are economics/business and engineering followed by law, management, social sciences and languages (Rauhvargers, 2002).

The practice of collaborative degrees is rare in India though in the recent past the Indira Gandhi National Open University and the Guru Jambheshwar University signed an agreement that led to, what is described above, as a single degree. The Karnataka State Open University has also entered into an agreement with the NIIT Academy for a single degree to be awarded by the former. A Memorandum of Understanding for a dual degree programme is known to have been signed, between an Indian and a foreign university, but not implemented.

Curriculum Development

Much has been said and written about the need to internationalise curricula. However, there is no easy way of achieving this, at least in India. It has to be noted that:

- In practically all universities curriculum change is a lengthy and convoluted process, especially at the Bachelor's level. The matter has to be considered at a number of levels starting with the Departmental Committee of the Department/Institution wishing to introduce the change. Subsequently it has to be reviewed by the Board of Studies in the subject, the concerned Faculty and the Academic Council before getting the formal sanction of the Executive

Council/Board of Management. With teachers from different affiliated colleges constituting these bodies, and each member having the interest of his institution in mind, consensus is not easy.

- With many of the universities that were established after Independence have a strong commitment to meeting the immediate needs of their own society it is difficult to dilute the 'local component' in a curriculum to incorporate international aspects.
- The need for putting in special efforts to internationalise curricula varies with disciplines. Subjects like Mathematics, Physics and Chemistry have curricula that are practically the same all over the world. Others, like Geology, may lay stress on national settings but already have papers like 'world stratigraphy' and 'global tectonics' that look at the world scenario. Science, engineering and technology, and medicine are already, in a sense, largely internationalised. The need to internationalise curricula is probably restricted to the humanities, social sciences, business and management.

Irrespective of the facts enumerated above it has to be conceded that bringing an international dimension into the curricula is necessary for broadening the outlook of students, and making them aware of what exists outside their own nations. That it is not easy to achieve this, is evident from the European experience based on the ERASMUS-SOCRATES project (Van Damme, 2001). The extent of internationalisation, even in the disciplines where it is considered necessary, will vary from country to country and institution to institution. As Van der Wende (1996) has found the extent of internationalisation may vary from a situation where the curricula has some international content, through curricula that address cross-cultural skills to curricula whose contents are internationally recognised at professional level.

Internationalisation of curricula has been relatively easy in the United States because the University teachers have a great deal of autonomy over the curriculum they themselves teach, and also academic freedom as regards what and how they teach (Schukoske, 2001). Thus, much depends upon the attitude of the concerned teacher. The relative ease with which new courses are approved is also relevant as far as internationalisation of programmes is concerned. It is also helpful if the

university or institution itself takes a positive attitude towards internationalisation. McBurnie (2000) cites the example of Monash University, Australia. He points out that in order to encourage the spread of an international perspective the university now requires the demonstration of an international dimension as an integral part of the normal approval and review process for all courses. A discussion paper of the university proposes additional strategies including holding of staff development and training programmes on 'internationalising the curriculum', providing funds for innovative projects on internationalisation of teaching and including 'internationalisation of curriculum' as an official criteria for career advancement.

As far as India is concerned, the above two situations seem to be utopian. For the present, internationalisation of curricula will probably have to be on a restricted scale. It could begin with introduction of an international dimension in the undergraduate curricula in the form of information that compares the Indian situation with that which exists abroad, and also relevant case studies that deal with international situations. Papers in postgraduate programmes could deal more extensively with the international situation as these programmes invariably allow choice from amongst 'optional papers'. It must also be mentioned that in fields like economics and management there are institutions offering specialised programmes like international finance, international business and foreign trade.

Equivalence

Globalisation of higher education has highlighted the need for equivalence of standards of degrees, diplomas and certificates awarded by higher education institutions all over the world. In fact considerable attention has already been given to this aspect. The UNESCO took an initiative in this matter about three decades ago by organising the first of six regional conventions on mutual recognition of higher education qualifications. Over 120 member countries have ratified the regional conventions, with India ratifying as late as September 2, 2000. The ultimate objective, of moving towards a single universal convention, is proving to be elusive because of the diverse nature of the educational systems that operate in the different parts of the world.

Hence, harmonising of the educational systems is now an important agenda. However, if true homogenisation of standards is to be achieved there has also to be a broad correspondence in the duration of the academic programmes, the system of assessment and the nature/nomenclature of grades.

Traditionally, the grant of equivalence to academic programmes has been based largely on the duration of study. Students in most countries have ten years of primary and secondary education, and two years of higher secondary education, before entering a university. A Bachelor degree programme is of three or four years duration and a Master degree programme of one and a half to two years. A doctoral degree normally requires three to four years, with or without course work.

It is now realised that rigid framework models (like 10+2+3 or 12+4) are not desirable and that there is a need for flexibility to accommodate the systems of different countries. The need to express duration of studies, not in terms of years, but in terms of academic credits is being increasingly accepted. The European Credit Transfer System (ECTS) can be taken as a model in this regard. The credit requirements for the first degree are 180-220 hours in case of liberal-arts programmes and 220-240 hours in the case of professional/technical programmes. A Masters degree requires a total of about 300 credits with about 90 credits at Masters level. In Europe there is a trend towards a 3-year Bachelor degree with a minimum of 180 credits. In the United States the Bachelors programme is of four years with 220-240 credits. However, some of the credits earned during the final year of the first-degree programme can be carried towards the Masters degree. Indian academics need to keep these international developments in mind while fine-tuning the credit system in India.

National Quality Framework

There is a growing perception that, apart from duration and credits, equivalence should also take into consideration outcomes in terms of accomplishments. Degrees and diplomas to be mutually acceptable must mean the same thing in different countries, and must convey the same sense of attainment in terms of knowledge, skills and

interpretational ability. In UK the Dearing Report (1997) called for “*greater explicitness and clarity about standards and the levels of achievement required for different awards*”. Quite a few countries, including the United Kingdom, Australia, New Zealand and South Africa, have prescribed Higher Education Qualifications Frameworks with ‘descriptors’ for different levels of qualifications. Hopefully, in the not too distant future the descriptors will be compatible.

The descriptors in the UK National Qualifications Framework could be a reference point for the developing countries. Admittedly they would be difficult to achieve in countries where the higher education system has undergone rapid expansion with consequent variations in the standard of education imparted by various institutions. Extracts of descriptors for Bachelors (Honours), Masters and Doctoral degrees (*c.f.* Randall, 2001) are reproduced below in order to give an idea of the goals that need to be set.

Bachelors degree with honours is awarded to students who have demonstrated:

- A systematic understanding of key aspects of their field of study, including acquisition of coherent and detailed knowledge.
- An ability to deploy accurately established techniques of analysis.
- Conceptual understanding that enables the student to devise and sustain arguments, to solve problems and describe and comment upon particular aspects of current research in (his/her) discipline.
- An appreciation of the uncertainty, ambiguity and limits of knowledge.
- An ability to manage one’s own learning.

Masters degree is awarded to a student who has demonstrated:

- A systematic understanding of knowledge, and a critical understanding of current problems and/or new insights.... At the forefront of the discipline.
- A comprehensive understanding of techniques applicable to his/her research or advanced scholarship.
- Originality in the application of knowledge.

- Conceptual understanding that enables him/her to evaluate critically current research and advanced scholarship in his/her discipline; and to evaluate methodologies and develop critiques of them.

Doctoral degree is awarded to a student who has demonstrated ability for:

- The creation and interpretation of new knowledge, through original research or advanced scholarship.
- Systematic acquisition and understanding of a substantial body of knowledge that is at the forefront of his/her academic discipline.
- Conceptualising, designing and implementing a project for the generation of new knowledge, applications or understanding at the forefront of his/her discipline.
- Understanding, in detail, applicable techniques for research and advanced academic enquiry.

The process of developing an Indian National Qualifications Framework of India is presently underway. At a national workshop organised for this purpose (National Institute of Educational Planning and Administration, 2000) it was agreed that the Indian NQF should cover three mega-levels (degree, non-degree and school) of both formal and non-formal education. Both vertical and horizontal mobility should be permitted. In the case of higher education four levels corresponding to certificate and diploma, Bachelors degree, Masters degree and Doctoral degree were identified. It was noted that NQF elements already exist in India. At the University level Boards of Studies and Academic Councils determine the level of competencies required for different qualifications. At the national level requirements for different degrees are being regulated by various statutory bodies. However, the need for developing a formal NQF is paramount and for this purpose a new set of generic parameters for each subject, with focus on skills and competencies as benchmark statements (descriptors), need to be developed. The overall responsibility for the development of a NQF could be assigned to the University Grants Commission with the National Institute of Educational Planning and Administration being the main developing agency.

References

- Dearing Report. (1997), *Report of the National Committee of Inquiry into Higher Education*, HMSO, London.
- National Institute of Educational Planning and Administration, (2000), *National Qualifications Framework*, (Unpublished Report on a Workshop on National Qualifications Framework), NIEPA, New Delhi.
- McBurnie, G., (2000), Pursuing Internationalization as a Means to Advance the Academic Mission of the University: An Australian Case Study, *Higher Education in Europe*, 25(1): 63-73.
- Patil, V.T. and Marudanayagam, P., (2000), Quality assurance in Higher Education: An Assessment of Choice Based Credit System of Pondicherry University, in K.B. Powar (Editor), *Higher Education for Human Development*, pp 116-124, AIU, New Delhi.
- Powar, K.B., (2002), Short-term Exchange Programmes and Study India Programmes in Indian Universities, in K.B. Powar (Editor), *Internationalisation of Higher Education*, pp 117-124, AIU, New Delhi.
- Randall, J., (2001), Defining Standards: Developing a Global Currency for Higher Education Qualifications, Conference Papers, pp 46-56(Annexure), *Quality Assurance in Higher Education: Quality, Standards and Recognition, 2001 INQUAAHE*, Bangalore, India
- Rauhvergers, A., (2002), Joint Degree Study, in Tauch, C. and Rauhvergers, A., *Survey on Master Degrees and Joint Degrees*, European University Association, Geneva.
- Schukoske, J., (2001), Academic Exchange, 'Global Literacy' and U.S. Higher Education, in K.B. Powar (Editor), *Internationalisation of Indian Higher Education*, pp20-31, AIU, New Delhi.
- Van Damme, D., (2001), Quality Issues in the Internationalisation of Higher education, *Higher Education*, 41: 415-441.
- Van der Wende, M.C., (1996), *Internationalising the Curricula in Dutch Higher Education: An International Comparative Perspective*, NUFFIC, Den Haag.