The Kerala State Higher Education Council

NATIONAL SEMINAR

June 4 & 5, 2012

Thiruvananthapuram

Theme Paper

Higher Education 2.0 - Illumine the Future

India is on the threshold of becoming one of the poles of a new multipolar world. The new rights, privileges and obligations of such a status are as yet indeterminable, but they will be of dimensions that have not been known in the past. The human resources of the country will have to cope with unprecedented demands at every level from sagacious political leadership to cutting edge technological manpower. The higher education in the country needs immediate upgradation to be able to create a new generation of enlightened graduates in different disciplines. The time has come to design, in the language of technology, Higher Education 2.0, to illumine the future.

The higher education system in India has played a crucial role in bringing India to the present state of development by creating a large pool of qualified manpower, essential for economic growth. But, as the Committee on Corporate Sector Participation chaired by NR Narayana Murthy, which has just submitted its report to the Planning Commission points out, "the higher education system seems to be plagued by several problems- inadequate number of institutions to educate eligible students, poor employability of the graduates produced by the universities, low and declining standards of academic research, an unwieldy affiliating system, an inflexible academic structure, an archaic regulatory environment, eroding autonomy and low level of public funding levels, to name a few."

The Committee observes “the Indian higher education system also lags significantly in comparison to global standards as illustrated below:

India has a low Gross Enrolment Ratio (GER) of 20% compared with 84% in the US, 59% in the UK, 55% in Japan and 28% in China.

Higher education spending in India is only 1.1% of GDP. The US spends 3.1% of its GDP on higher education while South Korea spends 2.4%of its GDP.

No Indian college or university ranks among the top 300 as per the prestigious Times Higher Education Supplement (THES) which is based on peer evaluations. Only one Indian university forms part of the 2011 rankings of the Shanghai Jiao Tong University’s Top 500 (based on research output and impact) whereas China has 23 institutions in Top 500.

As pointed out by the National Knowledge Commission, during the period 1991 to 2001, growth in the number of doctorates has been 20% in India compared 85% in China. Less than 1% of those completing undergraduate degrees currently opt for doctoral studies in India and a substantial number of students prefer to go abroad.”

The generation, which is entering the portals of the universities today, is the generation that will lead the country in the next twenty to thirty years. Considering the changes that have occurred in the last twenty or thirty years, it is not difficult to envisage the extent of the changes that will confront that generation, if not their precise characteristics. Their tasks and tools will be radically different from ours and the challenge is to prepare them for both. In these circumstances, today’s planners can endeavor only to give them excellence in the frontiers of knowledge presently available in the expectation that they will be enabled to adapt themselves to unknown challenges, just as the present generation managed to deal with the technological revolution of the end of the last century and the beginning of the present one.

Infrastructure

Low living and high thinking may be a desirable state in a philosophical sense, but excellence is not always attainable in miserable living conditions. The first priority, therefore, in Higher Education 2.0 is building of infrastructure conducive to comfortable living and provision of technological support, which will promote innovation and inventiveness. Convenient and well connected study and work environment has engendered more products and processes than sweatshops and crumbling tin sheds. For genius to flourish, not only freedom and imagination, but also the necessary facilities and a sense of security are essential. Adequate investments in infrastructure, by themselves, will transform the educational scene into a fountain of creativity.

A study of infrastructure quality of 1471 colleges and 111 universities by UGC revealed that 73% of the colleges and 68% of universities fall under medium or low quality. The situation in Kerala may be far worse. KSHEC has before it a proposal to constitute a Kerala University Grants Commission to ensure that the support given to aided colleges are disbursed and utilized on time. Other innovative methods for improving the infrastructure may be devised.

Broadband Connectivity

Internet connectivity in the education sector is far below optimum in most of our states. Among students, even at the postgraduate level, the percentage of those who have full connectivity is not high. Those who use the Internet for learning and teaching are very few. The advent of the Internet should have reduced the burden of the teachers, who were the only sources of information for the students in an earlier era. Availability of broadband connectivity should turn the teachers from repositories of knowledge to guides and mentors, who can point to available knowledge, instead of delivering it. Instead of providing the same fare to different grades of scholars, each can be guided to the source of knowledge, which the individual can digest.

KSHEC has been seeking to conduct a survey of the actual utilization of connectivity in the colleges. The available data are not adequate, but a guesstimate is that only about 20% of the institutions make good use of the Internet. Substantial investments are required for enhancing connectivity in a country, which is considered a software super power. Recommendations for supply of adequate hardware and software should be made to the Government. Industries and voluntary organizations must be brought in to contribute.

Social Networking as Educational Tool

The last decade has witnessed a tremendous information explosion through the medium of the Internet, which has turned over a new leaf in the process of teaching and learning in a conventional classroom. Web platforms like Google, Wikipedia, and WordPress have unfurled a a brand new way of acquiring information almost instantly, which aids in exploration of varied subjects, taking it much beyond the walls of a traditional classroom. Be it exploring the relics of the ancient Inca civilization in Machu Pichu, or updating oneself about the latest revelations about Mars made by the NASA; be it the famous mountaineer's narration of the expedition of the Mt.Everest or the analysis of the latest budget presented; the students can access them at the tap of a finger. Classrooms, schools and even districts are able to share and collaborate in private social networks, expanding collective knowledge and relationships to new horizons. The Internet has allowed education to broaden beyond local resources, and draw from a vast library of knowledge that organizations and businesses are actively contributing to everyday.

Social companies have created tools that offer free platforms for blogs, wikis and private social networking sites. These simple tools are allowing all of academia to contribute to the ever-expanding online repository of knowledge. Blogs, wikis and private social networks are exerting a prominent influence on how teachers teach, and students learn.

Online publishing and sharing tools will make a lasting impact on the future of education.

These tools are not providing one stop solutions for the gamut of challenges faced by the education sector today, but they are certainly helping teachers and students with newer and creative ways of interaction in the classroom. These newer modes of interactions are shaping the communication habits of young people, who will soon shape the destiny of the world. Higher Education 2.0 is starting a communication shift in the classroom, one that is leading to a collaborative and knowledge sharing workforce in the future.

Faculty- Recruitment, Training, Incentives

The selection of teachers and their training have to change radically to meet the educational needs of the new generation. The quality of the education received by the teachers will continue to be a criterion for selection, but the screening for eligibility for teaching will have to be rigorous. The teachers should have the ability to go beyond the knowledge they have acquired and lead the students to new pastures that will help them to master the latest in every field. They should provoke original thinking and innovation among students. The present escalator system of professional advancement must give way to need based retention and reward for exceptional talents. The remuneration and service conditions of teachers should attract the best and the brightest to the profession. Fulfillment of efficiency criteria established by the supervising staff and the students should be the basis for renewing contracts annually. The emphasis must be on quality of teaching, not the employability of teachers. The teacher-student ratio should be brought to manageable levels to make the interaction meaningful and assessments accurate. Merit and dedication should be rewarded, just as mediocrity and lethargy should be discouraged. Teachers must have the leisure and the facilities to improve their skills through training and refresher courses in the country and abroad. Greater

investments in today's teachers will produce the teachers for the new generation.

As per a FICCI report, 45% of the positions of professors, 51%positions for readers, and 53% positions of lecturers were vacant in the Indian universities in 2007-08. According to statistics from the Ministry of Human Resources Development, the student to teacher ratio in an average higher education institution is 26:1, compared to the norm of 15:1. It is also quite adverse in comparison to national and international benchmarks. This ratio is 11:1 for the Indian Institutes of Management. According to the Princeton Review, it is 7:1 for Harvard University and 5:1 for Stanford University.

Specific recommendations are sought to fill the existing faculty vacancies and to improve the students-teachers ratio. New standards of recruitment, training and incentives need to be set.

Research

Learning in the universities should be oriented towards creation of new knowledge so that every generation of students and teachers is able to leave its imprint. What makes our universities different from world-class universities is the fact that research is nominal in our case. Result oriented research with clear objectives must be undertaken instead of mere compilation of available knowledge to be stored for posterity. Archives are essential for us to trace the path that we have traversed, but new light of knowledge is essential to illumine the path ahead. Every graduate should have a record of having addressed an existing problem or mystery, or explored a new concept, whether it is in science, arts, humanities or commerce. In subsequent stages of education at the postgraduate and research levels, he or she should be able to pursue those leads and make a substantial contribution to knowledge.

Side by side with acquisition and creation of knowledge, the education system should promote communication and linguistic skills, which should enable graduates to articulate their knowledge and learn further by interaction. Silent and dormant knowledge is as good as non-existent wisdom. English remains the closest possible approximation to a global language for India and there is no alternative to comprehensive study of English to equip our future generations for India's advancing role in the global order.

Kerala Government has already proposed new arrangements for teaching of English. Such arrangements should take the nature of a popular movement. Spoken language should be given high priority in the curriculum. Group discussions, debates and conversations should become important components of study.

Internationalisation

Knowledge should have no barriers and it should be allowed to sweep through our universities, regardless of their origins. Reinventing the wheel is both redundant and expensive. Our universities must be open to scholars and teachers from around the globe and our own scholars and teachers should reach out to knowledge available beyond the seas. It is no longer necessary to travel far and wide in search of knowledge, as it is available literally at our fingertips. We need to use the www as a platform to illustrate our research interests and areas of study to the rest of the world to attract scholars from abroad. Knowledge acquired through such transnational interaction should not only be acknowledged, but also recognized and rewarded by devising a method by which it can be tested and certified by qualified institutions. It should be possible to earn degrees without going to a classroom, except for peer interaction necessary to transform skills mastered through machines into human education.

Internationalization of education, like globalization, is a reality that cannot be wished away. Competitiveness should not be confined to a state

or a country, but it should be tested in unfamiliar lands and unknown situations. A generation, which may well migrate to other planets cannot insist on controlled conditions for human habitation. Nor can it say that skills acquired in one country are sufficient in alien lands. Teachers and students in universities should be able to move freely between nations and continents and such a network can be established only if Indian universities reach the levels of the best universities in the world. Patriotism does not lie in closing our doors to alien influences, but in imbibing them for the common good of mankind.

Linkages with Industry

A Committee on Corporate Sector Participation in Higher Education, set up by the Planning Commission under N.R.Narayana Murthy has established that corporate participation in higher education sector is essential in many ways. "To encourage this participation, it is important to create an enabling environment in the existing higher education system that allows existing institutions to become world class, as well as facilitate the establishment of world class institutions."

The Committee's recommendations include enabling provisions such as autonomy, resources, fiscal incentives, enabling environment, freedom to accredit and access to funds. The provisions for improving quality include research focus and faculty development. Specific recommendations towards creation of new infrastructure through corporate investment include setting up new facilities, new universities and developing new knowledge clusters.

A resource requirement of Rs.4,13,368 crores has been projected for the 12th Five Year Plan for higher education. The Committee is of the view that this large amount is not likely to be made available. The corporate sector can play a pivotal role in making up the gap in resources in a variety of ways, ranging from direct ownership and management of institutions to collaboration with the higher education institutions in

research, faculty development, infrastructure creation, student scholarships and governance. The committee has recommended that the corporate sector should provide Rs. 20,000 crores out of a possible investment of Rs.40,000 crores in the higher education sector during the 12th Five Year Plan.

KSHEC has established a Committee to explore modalities for greater collaboration between industry and higher education. The committee will study the Narayanamurthy report in the context of Kerala and make recommendations.

Accreditation and Assessment

An appropriate assessment mechanism for institutions and teachers is a prerequisite for launching the Higher Education 2.0. A Committee of experts, set up by the KSHEC is engaged in designing an institution to grade teachers and institutions. The assessment will be compulsory and institutions of excellence and high-grade teachers will be identified so that additional resources and attention could be directed to the appropriate areas.

Semester System

The semester system introduced at the graduate level in the Universities in Kerala at the instance of KSHEC is under review to remove its anomalies and deficiencies. But the semester system will continue to be implemented and the postgraduate programmes amended accordingly.

Higher Education Policy

An experts group is in the process of formulating a policy on higher education in Kerala. The deliberations of the Seminar and its recommendations will be submitted to the Committee.

Review of University Acts

The time has come to review the Acts of the Universities in Kerala to bring about uniformity among them. A model Act may be prepared for consideration by the Government.

Higher Education 2.0 should have many more ingredients than those enumerated here. The debate should begin forthwith to search for those ingredients, which will shape a new generation of higher education, which will illumine the future. It is expected that the Seminar will make a set of recommendations in this regard.

T.P.Sreenivasan
Vice-Chairman and Executive Head,
Kerala State Higher Education Council

The Kerala State Higher Education Council

National Seminar

"Higher Education 2.0- Illumine the Future"

June 4th & 5th 2012 : Thiruvananthapuram