

CAPACITY BUILDING: THE CHANGING LANDSCAPE OF HIGHER EDUCATION - A NEED TO CHANGE?

Professor Sid Nair

Executive Director, Tertiary Education Commission, Mauritius

E-mail: sid.nair@tec.mu

Abstract

Over the last decade, the higher education sector has undergone rapid expansion, but this alone was the beginning of the changing landscape. Currently, the sector is going through an upheaval in the way programmes are delivered. The qualifications of the past are considered by many as no longer having an effective correlation in the world where graduates are to be ready for jobs that have yet to be created and skills that have yet to be defined. With this changing paradigm the higher education sector is evolving with new courses, and new ways of delivery to ensure employment ready graduates.

Quality assurance is without doubt the guardian of higher education systems during this evolutionary period, but with the unparalleled challenges within the higher education landscape, professionals involved in QA may have to reevaluate the way systems and procedures are being applied to the sector. The question that is pivotal to these changes is that, is there a need to change the way we think of quality and way it is measured or monitored and is there sufficient know-how to handle the current and changing landscape?

This keynote addresses endeavours to look at the evolution of the higher education system to equip graduates of the 21st century and beyond but at the same time take a holistic view of capacity needed at the institutional and national levels.

Keywords: *quality assurance, paradigm shift, skills and competences of graduates*

Overview

At the dawn of the 21st century, there is widespread recognition of the importance of skills and human capital for the economic development and prosperity of nations. Indeed, we have realized that the economic success of any nation is directly determined by the quality of their education system - most effective factor of production is human capital expressed in knowledge, skills, creative abilities and moral qualities of individuals in society.

Higher education institutions are increasingly viewed as “economic engines” by policy makers and as essential for ensuring knowledge production through research and innovation and the continuous education of the workforce. Research findings indicate that expanding tertiary education may promote faster technological catch up and improve a country’s ability to maximize its economic output (Bloom, Canning, and Chan 2006).

Without doubt, the higher education sector has undergone significant transformation over the last decade. From traditional universities, a new higher education landscape is taking shape that is characterised by massive expansion and wider participation; the emergence of new players; a more diverse profile of HE institutions, programmes and students; varying modes of instructional delivery and an integrated use of communication and educational technologies.

In recognition of these underlying trends, countries are becoming conscious of the need for effective quality assurance and quality improvement of tertiary institutions so as to reassure the public about the quality of providers and the importance of ensuring that the higher education provision offered in whatever modes and forms meets acceptable local and international standards. The world itself has, in my opinion become one – as all of us are no longer citizens of one nation but part of a global citizenry.

Quality assurance (QA) has thus become a critical factor for ensuring educational relevance. Higher education is a means of sharpening our intellect and therefore is valuable in its own right. However, it should also prepare us for the world of work and enable us to lead independent lives as confident, engaged citizens. In rapidly changing job markets, higher education systems should provide graduates with relevant skills and competences. This is not only about finding employment after graduation, but also about being able to adapt to future labour market needs and adjust to career changes. A new range of competences such as adaptability, team work, communication skills and the motivation for continual learning have become critical.

This new configuration of the higher education landscape is being accompanied by unparalleled challenges with intense pressure being put on HE institutions to adjust their program structures, curricula, teaching and learning methods to adapt to these new demands. But it has concurrently triggered a paradigm shift not only in the way quality is perceived, but how the QA systems and procedures are being applied to the sector as well as how quality is measured or monitored.

The need for a new education

Conventionally, education has been understood as preparation for life, as personal realisation, and as an essential element in progress and social change, in accordance with changing needs (Chitty, 2002).

Orr (2004) declares that if certain precautions are not taken, education may equip people to become “more effective vandals of the earth”. He describes education of the sort we have seen thus far as a possible problem and argues for a new type of education:

“Education, in other words, can be a dangerous thing (...). It is time, I believe, for an educational perestroika’, by which I mean a general rethinking of the process and substance of education at all levels, beginning with the admission that much of what has gone wrong with the world is the result of education that alienates us from life in the name of human domination, fragments instead of unifies, overemphasizes success and careers, separates feeling from intellect and the practical from the theoretical, and unleashes on the world minds ignorant of their own ignorance.” (Orr, 2004: 17)

Education for Sustainable Development (ESD) has accordingly, emerged as a paradigm for revising and reorienting today’s education. ESD consists of new forms of knowing and learning how to be human in a different way. This education aims to contribute to the sustainability of personal integrity, or in the words of Sterling (2001), to the integrity of the spirit, heart, head and hands.

These principles for lasting human development, formulated at the 2002 World Summit on Sustainable Development in Johannesburg, imply lessons that largely coincide with the four pillars of education set out in the *Delors Report*: learning to know, learning to do, learning to live together and learning to be. In the context of ESD, UNESCO (2008) suggested the inclusion of a fifth pillar: learning to transform oneself and society.

In a sense, education must lead to empowerment: through education, individuals should acquire the capacity to make decisions and act effectively in accordance with those decisions, and this in turn entails the ability to influence the rules of play through any of the available options. Thus, education consists in developing not only personal but also social qualities.

Reformulation of higher education

Over the last decade, higher education has accordingly been placed high on national agendas worldwide. Though HE has so far demonstrated its crucial role in introducing change and progress in society, with the transformation taking place globally, current needs suggest that we must learn to view the world and therefore education, in a new way.

HE is today considered as a key agent in educating new generations to build the future. But this does not exempt it from becoming the object of an internal reformulation. According to the *World Declaration on Higher Education for the 21st Century* (1998), higher education is confronted with a number of important challenges:

- **Changes in universities**

Universities whose mission are to educate, train and carry out research need to revisit their approach to higher education with regard to such issues as ethics, autonomy, responsibility and anticipation.

- **Changes in knowledge creation**

Interdisciplinary and trans-disciplinary approaches to higher education need to be encouraged as well as the exploration of non-scientific forms of knowledge.

- **Changes in the educational model**

The way teaching/learning takes place needs to promote the development of critical and creative thinking. Furthermore, the world is undergoing rapid transformation with new jobs emerging that require different set of skills and attitudes.

- **The competencies common to all higher-education graduates**

Graduates should be determined and the corresponding expectations should be defined through desirable graduate attributes so that they possess the attributes that makes them readily employable after they leave the university.

- **Teaching and learning**

Must be more active, **connected to real life** and designed with students and their unique qualities in mind.

- **Changes for social responsibility and knowledge transfer**

The work of higher-education institutions must be relevant – what they do, and what is expected of them, must be seen as a service to society; their research must anticipate social needs; and the products of their research must be shared effectively with society through appropriate knowledge-transfer mechanisms.

- **Digital wisdom**

The potential of **ICT** in the creation and dissemination of knowledge should be fully tapped and create what Prensky (2009) calls *digital wisdom*.

Equipping students with 21st century skills

Thus, while we may not know exactly which jobs will come on stream now and possibly in next 5 to 10 years, we have a good idea according to current thinking of which skills will serve society best in the future – analytical thinking, problem-identification and solving, time management, adaptability, and the capacity for collaboration and effective communication. Yet it is currently recognised that this itself may be a limiting factor:

“...preparing students for jobs that don’t yet exist... using technologies that haven’t yet been invented... to solve problems we don’t even know are problems yet” Preparing Students to Meet Tomorrow’s Challenges in Education

Sally O’Connor, Program Director, National Science Foundation, USA. In world of education the buzz talk around is how to equip youth with 21st century skills. This topic is engulfed around employability. Complex problem solving is just one of the soft skills that employers across the world need today. Finding better ways to teach these skills is urgent for reducing unemployment around the world, especially for youth in emerging markets. Global studies indicate that around one-third of employers are unable to recruit due to a lack of

adequately trained applicants. The reasons for the mismatch are no mystery. The world of work has been changing far more rapidly and unpredictably than education provision. While traditional education evolves at the pace of a glacier, 90% of jobs created come from the private sector, where markets change constantly.

Employers worldwide need workers who blend soft and hard skills. They want workers who have technical expertise, and can hit the ground running, work collaboratively in teams and know how to analyse problems by thinking critically. The types of skills students need to succeed in today's knowledge-based, globally-competitive economy are very different from in the past; and traditional higher education programs don't often address this full range of qualities.

The development of 21st century skills is a stated priority in many countries. In discussing the types of skills necessary to prepare students for the workforce of the 21st century and beyond, the academic skills of the past are still relevant. The basics of Mathematics, English, and Science remain important but with broad access to information *via* the Internet, rote memorization of facts is no longer the skillset that is needed. A new set of skills is required that would create a complete leaner who is ready to enter and thrive in the workforce of the future. This new skill set should, amongst others, include such characteristics as:

- **Critical thinking and problem solving**

Businesses don't feel that many students enter the workforce with skills related to non-routine thinking and solving complex problems. From the perspective of employers, these are key skills for high-skilled, high-paid jobs.

- **Creativity and innovation**

Employers want individuals who think outside of the box and develop new solutions to complex problems. While such skills are extremely important, they can be hard to measure.

- **Collaboration & team work**

The workforce of the future will be diverse and globally distributed. Individuals must be able to collaborate and work across multiracial and multicultural environments.

- **Question formulation**

Ideal employees can formulate and ask appropriate questions, which show higher-order thinking. Some schools have begun adopting pedagogy that includes working with students to develop skills to formulate questions.

- **Global awareness**

In the past, students have been somewhat isolated. Going forward, employers want students with a sense of global awareness.

- **Communication skills**

Thinking and problem solving are critical, but solid oral and written communication skills are also essential, and often lacking today.

- **Technology skills**

All students need to be comfortable with, and able to use, technology

To summarise, every student in the 21st century needs to be able to have a set of skills apart from their technical know-how learnt in higher education institutions, which enable them to work in a global setting.

So if this is the expectation, it is without doubt that HE institutions must evolve to equip students with skills and capacities to allow them to fit into the global market place. Supporting this premise is that there already indications that young people today could have as many as 16-17 different jobs in 5 industries (Alan Ritacco, A. & McGowan, H.E Academic Impressions, 19 Sept. 2017).

However, this list of desirable attributes have been further extended in the last couple of years and this includes entrepreneurial skills, financial literacy, life skills, people skills, self-direction, personal and social responsibility, and character and citizenship.

Changing the educational paradigm to develop 21st century skills

HEIs worldwide need to embrace fundamental and systemic changes to develop the 21st Century skills. In this regard,

- There is a need to make big, bold changes which simply means the revamping of their sense of mission and purpose, a clear vision on the part of HEIs
- Leaders appointed must understand the educational environment and must drive the changes that are needed. Leaders with vision, courage, and the ability to attract others must lead these changes.
- We need to give greater attention to teachers in efforts to reform education. They should be protagonists of education transformation, and need to receive the necessary upskilling and preparation necessary to become empowered professionals and leaders of the process of change.
- There is much to learn from one another and especially from high- achieving countries (Singapore, Finland) in how they select top candidates for teaching, screen them rigorously, assess on the front end, invest heavily in professional development, and provide mentors, tools, and resources for support.
- Involving communities in broader educational efforts. This includes forming partnerships between HE institutions and Industry and the Community that create an overall culture and climate of achievement.

Existing means to assess quality in higher education

Quality assurance is crucial to bring about the much-needed changes that higher education requires. It is accepted today that quality has to be at all levels and should be assured internally and externally. Harvey and Green (1993) identify five categories or ways of thinking about quality. As cited in Watty (2003) key aspects of each of these categories can be summarised as follows: exception, perfection, fitness for purpose, value for money and transformation.

The debate about quality in HE has shifted from the role and forms of quality assurance required in HE to what should be the more effective approaches to quality assurance. The pressures of mass higher education and financial constraints have changed the conditions of higher education in such a way that the central component of higher education systems comprise both internal and external validated methods of quality control. Adding to these domains is the need to ensure employability of the stakeholders as a possible outcome.

Quality assurance

The traditional practices of assuring quality in HE is based mainly on national standards that relates to the establishment of universities and HE institutions and this has given rise to the emergence of agencies and organisations specifically designated to look into the quality assurance of institutions delivering programmes.

Growth in the number of institutions offering distance learning, and the higher numbers of students enrolled in DE poses serious challenges for quality assurance agencies. There is a greater number of providers of distance learning to be monitored, in a greater variety of learning sites and modes.

Another challenge is the growing trend of (international) student mobility. With greater number of students choosing to enrol in other countries as part of their degree programme; their study plan must be evaluated and benchmarked with the academic work they might have completed in their home country or institution. Difficult issues that quality assurance agencies have to come to grips with are thus the assessment and monitoring issues that will arise as increasing numbers of students seek to complete an entire degree programme or a specific component of a programme in another country. Thus, decisions are required to revisit assessment procedures to accommodate the variation in the study pattern that keeps on evolving.

As quality assurance agencies develop frameworks to monitor quality in HE, it is equally important that quality assurance procedures do not act as a barrier to the emergence of creative and innovative pedagogical developments and course design. Institutional strategies should set out a coherent framework for the development of new modes of delivery as part of an institution's offering, the embedding of innovative technologies and pedagogies curricula, and the provision of appropriate training for academic staff and student. Robust processes for assuring the quality of higher education provision is a fundamental requirement for instilling trust in and recognition of qualifications.

New ways of assessing quality in higher education?

As higher education evolves, it is evident that many challenges and issues will have to be solved and new ways of assessing quality be sought. Any country that wants to enhance the international competitiveness of their higher education, needs to embrace international standards of assessment or evaluation for their national quality assurance mechanisms, especially in fields such as engineering, architecture and medical science. International experts should be invited to participate in evaluation activities. Quality assurance mechanisms need to be more independent of government through a real third-party evaluation so that higher education can be more accountable and credible. This is a serious issue in developing countries where government involvement muddies the waters.

Review of frameworks

The frameworks of quality assurance of higher education must be adapted to each country and to all types of higher education institutions/providers: public/private, newly established, degree awarding, branch campuses, transnational, distance/online learning etc.

With new attention to learning, it is also necessary for quality assurance systems to re-examine the criteria for monitoring the quality of higher education institutions.

In traditional terms, many attributes of a university were considered when its education was assessed: its library and classroom quality, the strength of its staff credentials or the reputation it had for providing good education. Electronic methods of instructional delivery call into question whether and how such institutional characteristics matter. So too, international study challenges the relevance of physical setting putting into question the purpose of site visits of an institution.

Quality assurance agencies will need to work with higher education institutions to develop effective ways to assess learning accomplishment. They must also develop appropriate inspection methods with a new focus on learning, regardless of its setting or provider. New approaches and models including examinations and other methods must be developed to test students when they complete programmes or specific units of learning. Some developmental work has to be conducted in view of developing new and different assessment and inspection methods for different learning circumstances.

Value-added approach

A value-added approach is the best way to assess student learning and higher education has yet to commit itself to developing reliable measures to this end. Value-added means what is improved about students' capabilities or knowledge as a consequence of their higher education at a particular institution. Measuring value requires assessing students' development or attainments at the start of their higher studies and evaluating those same students after they have had the full benefit of their higher education. Value-added is the difference between their attainments when they have completed their education and what they had already attained by the time they began.

Assessing outcomes with new indicators

Measuring the outcomes of HE is to evaluate students as they graduate (or shortly after) on the skills and capabilities they have acquired or the recognition they gain in further competition. The most frequently used outcome is the measurement of *retention rates* but there

is a need for other indicators. There is a need for outcome measures that assess students' attainments along a variety of dimensions: communication skills- speaking and writing; quantitative abilities, problem solving, understanding of their own culture and of the cultures of others, development of a sense of civic responsibility, and the like. Such outcomes measures could be used in measuring value added. People with the right expertise and mobilisation of resources are needed to measure such outcomes.

Employer involvement

Employer involvement, either formally or informally, in the revision of study programmes would help identify the knowledge, skills, and attitudes graduates need. Employers can also revise programmes for students who are under their supervision as interns. Their feedback on student performance can be conveyed to the university and discussed by members of the programme review committee, supporting both the revision of existing courses and the introduction of new ones.

Embedding employability in the curriculum

Higher education institutions need to embed employability skills within their curricula but it is important **not** to see it as a 'bolt-on' to existing courses. Employability needs to be integrated into a course so that obtaining a broad range of employability skills is seen as an integral part of completing that course and, is delivered in such a way that it is obvious to the student why they are being equipped with those skills.

The responsibility for making employability provision work more effectively is neither just the responsibility of higher education providers to make it more central to the student experience, nor just the responsibility of students to make use of the existing provision. It is also necessary for employers to engage with the system. They need to engage with higher education providers by, for example:

- providing guest lectures
- giving advice on how to enter their sector
- supplying the work placements, internships, and workplace-based training opportunities that higher education providers and their students need.

Plus there is the need of regulators to ensure such involvement is not only incorporated but implemented to ensure skills are delivered. This is critical as higher education institutions market skills that will make the stakeholders employable on graduation.

Challenges and capacity enhancement needs

Effective quality assurance depends on the availability of highly qualified staff. Capacity building in HE institutions and Regulatory agencies are therefore key to driving quality in the HE sector. But what is really needed is the question? Should *status quo* be maintained? Or should we rethink what is required?

Technical capacity is the most pressing constraint in many countries. This manifests itself in three ways:

- insufficient numbers of adequately trained and credible professional staff in QA agencies to manage QA processes with integrity and consistency across institutions/programs and over time. This is a significant issue in developing countries;

- **Self-evaluations and peer review**

inadequate numbers of academic staff in HEIs with knowledge and experience in conducting self-evaluations and peer review, especially in countries that conduct system-wide reviews; and

- **Senior staff**

Strain on senior academic staff in HEIs many who are not grounded in QA having to support both their own internal quality systems as well as external quality assurance processes of their national agencies.

- **Assuring the quality of distance learning and new modes of delivery remain a challenge in most countries.**

Although QA agencies have responsibility over distance and e-learning, accreditation in these areas is still lacking. In most cases, national standards do not exist or are under development. Are those in QA agencies trained in assessing such modes.

- **Considerations for ICT-facilitated cross-border provision of higher education**

have not been adequately factored into existing quality assurance systems especially in developing countries. Development of quality standards and verification of compliance for distance education require new skills which are currently deficient in most countries. Given that resources are limited, networking and experience sharing at sub-regional and regional levels could accelerate the rate of diffusion of these skills.

- **Quality assurance and quality of graduates**

Little is known about the impact of quality assurance on the quality of graduates, employer attitudes towards graduates, and research outputs of tertiary institutions; that is, whether implementation of a rigorous QA system actually improves the quality of graduates that join the labour market and the research output of institutions. Though no studies have been undertaken, anecdotal evidence suggest that employers are paying attention to the results of program accreditation and ranking of institutions. However, hardly any information can be found on the impact of these processes on the quality of graduates joining the labour market as well as on research output.

Options for capacity enhancement

To address the above challenges, the following options are suggested for consideration by HE Institutions, policymakers and QA practitioners:

Adopt a stepwise development strategy.

Given existing pressure on HE systems and institutions to conform to international norms, a stepwise strategy is the most prudent approach. For many countries, the emerging convergence on rigorous QA practices is unaffordable, given existing constraints in capacity. Each country needs to assess its capacity and structure its QA system to match available resources.

Building a culture of quality within HEIs

Responsibility for quality of higher education ultimately rests with the HEIs. Capacity building efforts should be directed to building a culture of quality within HEIs. Without a strong culture of quality in institutions of higher learning, there is little chance of success at the national level.

Research based changes

One of the critical notions of quality is to ensure the research keeps up with the changes planned at institutions. Two levels of capacity building need to be considered. First and foremost are HEIs using such research in a timely manner with their visions to deliver quality courses? Second, consideration is – are the QA agencies keeping up with the pedagogical changes and using this as a possible yardstick to solicit the necessary changes to ensure skill sets are delivered.

Training of staff in self-evaluation and peer-reviewing

A necessary pre-requisite is training of staff in self-evaluation and peer-reviewing. Involvement of peer reviewers from other institutions within or outside the country in self-assessment exercises can enrich the process, but selection must be done carefully to justify the high costs involved.

Partnership with foreign institutions and QA agencies

This sound QA experience can help to supplement local capacity in the short-term and also bring in relevant experience from other regions. However, this must be weighed against the costs involved.

Technical assistance

The need for technical assistance to develop quality standards is urgent, particularly as regards regulation of e-learning, innovative teaching approaches and cross border delivery of tertiary education, where expertise is very limited.

Regional collaboration in quality assurance

This is particularly relevant to Africa, given the large number of small countries with fragile economies and weak higher education systems. Desirable forms of regional collaboration include peer reviewing for accreditation purposes, regional accreditation agency instead of national ones (especially for small countries), common standards and guidelines for cross-border education, mechanisms for credit transfer and recognition of qualifications, and sharing of experiences. But for regional collaboration to work well, increased commitment by governments and continued assistance from international development partners are critically necessary.

Governments and national agencies

There is a critical need to consider reviewing tertiary education funding policies such that allocation of public resources to tertiary institutions is linked to quality factors as a strategy for encouraging institutions to undertake quality improvements. Without such a linkage, effective response to quality assessment recommendations by public HEIs will be limited, and eventually, QA systems might lose credibility.

Further work on the link between QA and labour market

This I believe is critical in the current market place. Such links I believe will empower QA to a point where skills development needs are addressed ensuring higher probability of employment.

Concluding remarks

Governments, employers, civil and social leaders increasingly acknowledge that the HE system needs to develop a new set of 21st Century skills. Without sustained efforts to help students gain the competencies that prepare them to meet the demands of democracy, competitiveness and life, HE are increasingly irrelevant.

The development of these 21st Century skills though necessary is a challenging endeavour. New types of schools, leaders, instructional processes, and teachers are indispensable to successfully accomplish this effort. Governments have therefore the responsibility of providing policy direction, incentives and regulatory frameworks for structuring the supply of education services to accommodate student demand and producing a pool of educated citizens and workforce that would meet the community needs.

Responsibility for quality of higher education however ultimately rests with the HEIs. With the unparalleled challenges facing HE institutions to produce employment ready graduates, a paradigm shift is needed in the way we approach quality; that would instil a new quality culture within our HEIs and lays the basis for building sufficient knowhow to handle the current and changing landscape. Finally, quality agencies need to re-evaluate the way they go in to ascertain the achievements of higher education institutions.

Maybe the educational shift and challenges to measure quality is best summarised as follows:

“When you leave here the idea is not that you will get a job, but that you will create a job,”

First-year student, African Leadership Academy, Johannesburg, South Africa