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Implementation of Generic Skills in the Curriculum

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ABSTRACT

In many cultures and countries including Malaysia, the issue of incorporating generic skills into the curriculum taught to students in higher learning institutions has gained momentum in recent years. The raison d'être to inculcate generic skills among students is to enable the country to meet human resource requirements which will be more competitive in the advent of a borderless world. Growing concerns of the employability of graduates and the expansion in the size and diversity of student populations also form the basis to implement the generic skills program in universities. All undergraduate programs offered in public higher learning institutions in Malaysia are now required to incorporate generic skills in the curricula. This generic skill requirement is subject to reviews when programs are accredited and rated for quality assurance by the Ministry of Higher Education. In order to satisfy this requirement, Universiti Malaysia Terengganu (UMT) as a new university has been proactive in redesigning the existing curriculum to be more competitive and marketable by integrating and implementing generic skills in the curriculum. This paper will discuss the approaches taken by UMT in integrating elements of generic skills in the teaching and learning activities. The experiences and challenges in the planning, implementing and assessing generic skills components are also elaborated. Finally, this paper ends with suggestions and recommendations with respect to further initiatives to enhance the employability of the graduates.

Keywords: generic skills, employability, curriculum, teaching and learning

INTRODUCTION

The issue of employability of graduates has become very serious and critical in many countries including Malaysia. The biggest challenge facing institutions of higher learning (IHL) is to develop employable skills, enhance knowledge and make local graduates more attractive to employers. Both local and global workplaces are demanding workers that are able to transform knowledge and skills learnt into successful workplace performance. Evidence from surveys suggested that employers are more concerned about soft skills or attitudes rather than technical knowledge or competencies. Empirical studies on work found soft skills such as leadership, communication, team building and entrepreneurial interest have become critical for hiring and promoting employees to key positions (Audibert and Jones, 2002). A study done by Evers, Rush, and Berdow (1998) indicated that the competencies students need to develop in order to enhance their employability are self-management; communications; managing people and tasks; and mobilizing innovation and change. In a survey of 400 employers on their perception of workplace basic skills and competencies required for current and potential employees, the employers said that they want entry-level workers to possess employability skills rather than technology competencies, and the most important to these employers (rating over 92.6%) were basic skills, thinking skills, personal quality skills, and interpersonal competencies (Richens and McClain 2000).

According to Wilhelm (2002), employers assert that too many high school and college graduates do not possess the skills necessary to contribute productively in their jobs without extensive employer training. Soft skills are important in virtually every profession especially when one has reached the level of sales manager or agency owner, working with and through others. Therefore, when evaluating candidates, organizations will look for someone who has good people skills and is a team player. Somerset (2001) and Bunker and Wakefield (2004) stressed the importance of soft skills in contributing to organizational success in the workplace for an employee, manager or leader. Those who aspire to become leaders are not likely to succeed without highly developed skills in these areas. Being a leader, proficiency in soft skills is critical. To be an effective leader, thinking systemically and acting strategically is very important, but superb soft skills are necessary to enable one to articulate a vision; to enrol others in possibilities; and to communicate values, standards, and expectations. Muir (2004) found that soft skills are the essential tools enabling employees to contribute to their fullest potential.

At the same time, economic and social changes are modifying and upgrading the profile of basic skills that everyone should have as a minimum entitlement, enabling active participation in working life, family life and all levels of community life. In the process of improving and upgrading the quality of students, institutions of higher learning are required to consider a better and improved curriculum in order to produce students of strong motivation and capabilities upon graduation. These challenges are not any different for a country like Malaysia and among the challenges faced by IHL in Malaysia are: globalization of education; competition; k-economy; sustainable development of human capital; quality assurance; value added and cross border education. This paper will discuss the approaches taken by UMT in integrating elements of generic skills in the teaching and learning activities. The experiences and challenges in the planning, implementing and assessing generic skills components are also elaborated. Finally, this paper ends with suggestions and recommendations with respect to further initiatives to enhance the employability of the graduates.

DEFINING GENERIC SKILLS

Generic skills are also known by many other terms such as soft skills, key skills, common skills, essential skills, employability skills, basic skills, necessary skills, competencies skills, and transferable skills. Nabi and Bagley (1998), have divided the generic skills into three categories which are personal skills, communication skills, and problem solving skills. Bennett, Dunne and Carre (2000) have reported based on their research findings that generic skills can be presented in four broad areas of management skills namely management of self, management of others, management of task, and management of information. Crosbie (2005) had listed the eight soft skills that are needed by all individuals: collaboration/teamwork, communication skills, initiative, leadership ability, people development/coaching, personal effectiveness/personal mastery, planning and organizing, and presentation skills.

A recent effort to come up with a competence-based and multidimensional operationalization and measurement of employability from a career perspective was undertaken by Van der Heijde and Van der Heijden (2006) who have studied employees in their organizational context. They define employability as "the continuous fulfilling, acquiring or creating of work through the optimal use of competencies". The authors have developed a measurement instrument, in which occupational expertise is complemented with four more transferable competencies. They propose four generic dimensions: Anticipation and optimization, Personal flexibility, Corporate sense, and Balance, as important distinguishing and complementing components of employability for individual employees. According to NCVER (2003), the list of generic skills has six common elements namely, basic fundamental skills, people related skills, conceptual/thinking skills, personal skills, skills related to business world, and skills related to community.

Soft skills are identified to be the most critical skill in the current global job market especially in this fast moving era of technology ((Ministry of Higher Education, Malaysia, 2006). From the reviews of

literature in other countries, the Malaysian Ministry of Higher Education has developed the soft skills module that was introduced to the public universities in 2007. The former higher education minister, Datuk Mustapa Mohamed has said that the module was introduced after taking into consideration complaints from employers that local graduates lacked soft skills.

"We take these views seriously, which is why we are introducing this new module for the new 2006/07 intake... My mission is to ensure our graduates have the necessary skills."

The module highlighted seven elements of generic skills that need to be incorporated into the curriculum namely communication skill; critical thinking and problem solving; teamwork; lifelong learning and information management; ethics and professional moral; entrepreneurship; and leadership skill.

A BRIEF BACKGROUND ON THE MALAYSIAN UNIVERSITY SYSTEM AND UNIVERSITY MALAYSIA TERENGGANU

The Ministry of Higher Education was established on 27 March 2004. The Malaysian Ministry of Higher Education is comprised of two departments and an agency. The departments are the Higher Education Management Department (JPIPT) and the Polytechnic and Community College Management Department. The JPIPT is further subdivided into two management sectors that are the IPTA (or public universities) Management Sector and the IPTS (or private universities) Management Sector. In order to enhance the academic quality in the universities, the Malaysian Qualifications Agency (MQA), was established on 1 November 2007 with the coming in force of the Malaysian Qualifications Agency Act 2007.

The main role of the MQA is to implement the Malaysian Qualifications Framework (MQF) as the basis for quality assurance of higher education and as the reference point for the criteria and standards for national qualifications. MQF is an instrument that develops and classifies qualifications based on a set of criteria that are approved nationally and benchmarked against international best practices. It also clarifies the earned academic levels, learning outcomes of study areas and credit system based on student academic load. These criteria are accepted and used for all qualifications awarded by recognized higher education providers. MQF also has given emphasis to learning outcomes of study areas namely knowledge, psychomotor/practical/technical skills, social skills & responsibility, professionalism, values, attitudes, ethics, communication and team skills, critical thinking & scientific approach, managerial & entrepreneurial skills, life long learning and information management

Currently there are 22 Public Institutions of Higher Learning in Malaysia. University Malaysia Terengganu (UMT) is the 14th public university in Malaysia. Its location at Mengabang Telipot, Kuala Terengganu is along the coast of South China Sea and this makes UMT an ideal maritime university. UMT was formerly known as KUSTEM (University College of Science and Technology) and the university's research focus is on oceanography, marine biotechnology, aquaculture and island and peripheral community development. UMT's research undertakings have been acknowledged universally by different bodies as evidenced by outstanding research achievements and recognitions, recorded both at national and international research exhibitions and competitions. To date, UMT has four faculties and three institutes namely, the Faculty of Science & Technology, Faculty of Agrotechnology and Food Science, Faculty of Management and Economics, Faculty of Marine Science and Maritime Studies, Institute of Tropical Aquaculture, Institute of Oceanography and Institute of Marine Biotechnology. UMT offers 24 undergraduate programs to about 6000 students from all over the country.

CURRICULUM DEVELOPMENT STRUCTURE IN UNIVERSITY MALAYSIA TERENGGANU (UMT)

Curriculum development is one of the key factors related to meaningful and successful program improvement. Curriculum development can be defined as the systematic planning of what is taught and learned in university as reflected in courses of study and university programs. These curricula are embodied in official documents (typically curriculum "guides" for lecturers) and diligently being implemented by each academic department. The development of curriculum structure in UMT is based on Ritz's Model which have three stages, firstly curriculum foundation, curriculum content, and curriculum evaluation (Diagram 1). UMT has taken a proactive strategy based on the unemployment studies and reports available by undertaking their first curriculum revision. The revised curriculum was implemented in the May 2003/2004 session and the main focus and priority was on integrating generic skills in all the courses for each of the programs offered by the university. Lecturers were asked to incorporate generic skills in their teaching content. The revision of curriculum created awareness and provided the guidelines for academic staff to implement generic skills in their teaching and thus enhance the learning process of the students.

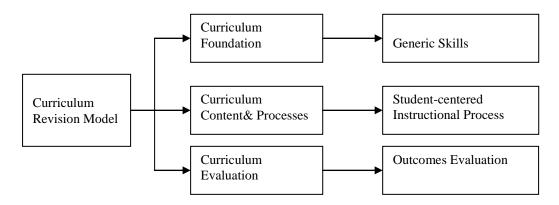


Diagram 1: Curriculum Revision Process in UMT

• Curriculum foundation

Curriculum foundations are the components that influence and control the content and organization of the curriculum. They are based upon values one has developed pertaining to knowledge, society, learning, and the individual. Such components as definition of the program area, rationale for the study of the program area, content source, content structure, program aim, and program goals are included in the curriculum foundations.

With regards to the national unemployment report and studies carried out elsewhere, UMT has identified the elements of generic skills such as communication, languages, analytical thinking, learning to learn, information communication technology (ICT), numerical competency, entrepreneurship and character building to be inculcated to the students through the integration of these skills across the curriculum. The importance of some of these skills are also documented in the Code of Practice for Quality Assurance in Public Universities of Malaysia document, which states that the quality of a university program is assessed by the ability of graduates to carry out their expected roles and responsibilities within the society (Aida Suraya, 2005). Thus, based on the report from the Quality Assurance Division (2004), students should be able to demonstrate the following generic skills by the end of their programs: critical thinking, problem solving, creative decision making, and the ability to communicate.

• Curriculum content

Curriculum content is the second major category of curricular elements. It includes the knowledge, skills, and attitudes (values) which educators are interested in conveying to learners. As the

foundations of the curriculum determine what and why to teach, the content focuses upon the specific information to be transmitted and the means of transmission. In this category are the scope, sequence and unit specifications. The unit specifications may be further divided into goals, rationales, objectives, activities, and references. In all, the content elements provide direction for organizing curriculum content and for transmitting it to learners. Student-centered is an approach to <u>education</u> focusing on the needs of the <u>students</u>, rather than those of others involved in the <u>educational</u> process, such as teachers and administrators. This approach has many implications for the design of curriculum, course content, and interactivity of courses.

To illustrate how UMT integrates generic skills in the curriculum content, the following discussion will be focused on the Bachelor of Accounting program. Table 1 shows the mapping of generic skills under the Bachelor of Accounting program after taking into consideration the generic skills (GS) matrices during the four years of study. The program adopted the following steps in mapping out the course objectives in line with the GS:

Table 1: Incorporating the Generic Skills by the year of study

Year 1	Year 2	Year 3	Year 4
****	****	***	***
****	****	***	***
**	***	****	****
**	***	***	****
****	****	***	**
***	***	**	**
*	*	**	***
	**** *** ** ** ** ** ** ** **	****	****

Note:

Least emphasis

greatest emphasis

A summary of GS incorporating all the learning objectives within the Bachelor of Accounting program is shown in Table 2.

Table 2: Incorporating GS in the Bachelor of Accounting Program

GS	GS	GS	GS	GS	GS	GS
1	2	3	4	5	6	7
X	X			\mathbf{X}	\mathbf{X}	
X	X			X	X	
X	X	X	X		X	
X	X		X		X	X
X	X			X	X	
X	X	X	X		X	
4 1	21	4 k	4.1		4 L	
Y	Y	\mathbf{v}	\mathbf{v}		Y	Y
	X X X X	1 2 X X X X X X X X X X X X X X X X X X	1 2 3 X X X X X X X X X X X X X X X X X X	1 2 3 4 X X X X X X X X X X X X X X X X X X X X X X	1 2 3 4 5 X X X X X X X X X X X X X X X X X X X X X X X X X X X X	1 2 3 4 5 6 X X X X X X X X X X X X X X X X X X X X X X X X X X X X X X X X X X X X X X X

	GS 1	GS 2	GS 3	GS 4	GS 5	GS 6	GS 7
AKN 3401 Taxation I					X	X	
AKN 3104 Advanced Financial			**	**	**	**	***
Accounting I			X	X	X	X	X
Year3:			37	**		37	
AKN 4402 Taxation II			X	X		X	
AKN 4501 Accounting Information			X	X			X
System AKN 4105 Advanced Financial			Λ	Λ			Λ
Accounting II			X	X		X	X
ACCOUNTING IT AKN 4301 Audit I	X	X	Λ	Λ	X	Λ	Λ
AKN 4802 Company Secretarial	Λ	Λ			Λ		
Practices	X	X			X		
AKN 4602 Corporate Finance	X	X	X	X	71	X	X
AKN 4403 Advanced Taxation	21	71	X	X		X	X
AKN 4302 Audit II			X	X		X	X
AKN 4106 Accounting Theories and							
Practices	X	X			X		X
AKN 4107 Public Services Accounting	X	X			X		
AKN 4203 Management Accounting III			X	X		X	X
AKN 4999A Project Paper I	X	X	X	X		X	X
Year4:							
AKN 4108 Current Issues on							
Accounting							
and Audit			X	X			
AKN 4803 Business Ethics	X	X	X	X			X
AKN 4999B Project Paper II	X	X	X	X	X		
AKN 4799 Industrial Training	X	X	X	X	X	X	X

Example of course:

Course Name: AKN 3202 MANAGEMENT ACCOUNTING II

Level: Year 2 Credit hours: 3

Learning Outcomes:

At the end of this course, the student should be able to:

- 1. Prepare profit statements based on a variable costing and absorption costing system.
- 2. Distinguish between relevant costs and irrelevant costs for decision-making.
- 3. Construct an overhead analysis sheet and calculate cost centre allocation rates.
- 4. Describe how value chain analysis can be used to increase customer satisfaction.
- 5. Examine the differences between ABC and Traditional Costing Systems.
- 6. Evaluate the similarities and differences of TQM and Return on Quality.

Table 3: Relationship between GS and Learning Outcome

GS	Learning Outcome	
Communication	LO4, LO5, LO6	
Language Proficiency	LO6	
ICT	LO1, LO3, LO6	
Analytical	LO1, LO3, LO5, LO6	
Learning to learn	LO2, LO4, LO5, LO6	

Numeracy	LO1, LO3, LO5	
Entrepreneurship	-	

Note: LO refers to learning outcome

The learning outcomes stated above could be related to the integration of GS as shown in Table 3

Curriculum evaluation

The final broad category of curriculum element is evaluation. It exists for two primary purposes. First, it attempts to measure whether the learners are achieving the content objectives set forth in the curriculum, and second, whether the curriculum is doing what it is supposed to do, which reflects its content validity. Therefore, the evaluation category of a curriculum should be divided into student evaluation and document validation elements.

INCORPORATING GENERIC SKILLS THROUGH THE CO-CURRICULUM COMPONENT

UMT also ensures that students' campus experience is enriched through different learning opportunities which include expanding their social network and skills through co-curriculum activities. This involves programs and activities that are created, developed and implemented to support soft skills either directly or indirectly. Through co-curriculum activities, the students are able to gain a physically and spiritually balanced and holistic education and the end result will be a more matured and confident student. In general, the importance of co-curriculum development at UMT is as follows:

- To incorporate and inculcate leadership qualities, staff discipline, organizational skills and teamwork
- To provide space and opportunities for students to discover and develop their talents.
- To nurture the spirit of cooperation and unity.
- To provide opportunities for active participations in high performance and mass sports amongst students.

Co-curriculum courses are offered with the objective of producing holistic and versatile graduates. A maximum of one unit/credit hour is allocated for co-curriculum courses. A variety of co-curriculum activities are offered and these can be uniform activities, sports activities, cultural activities, leadership component and martial-arts activities.

Uniform activities

Uniform activities give more opportunities for students to develop their talents and skills through efficient networking with outside organizations. These activities also encourage students to lead a more active lifestyle through teamwork activities. In addition, uniform activities inculcate responsibility and leadership qualities in students with the intended outcome of producing citizens that are mature, patriotic and rationale.

Sports activities

Sports and physical fitness are considered as preparation for a healthy and active life. Students are encouraged to participate in a variety of sport activities such as football, hockey, netball and scuba diving.

Cultural activities

Cultural activities provide a holistic performing arts education towards producing a skilled and enlightened workforce who are aware of the unique and diverse population of Malaysia. It also promotes traditional Malaysian culture and at the same time support contemporary performances like regular theatre, music and dance performances.

Leadership component

Students can participate in these courses where they are trained on skills such as leadership, team work, problem solving and public speaking. This course can develop their talent and preparation for life after university and to give them a more competitive edge in their career development.

Martial arts activities

Martial arts are currently studied worldwide from a variety of cultures. Martial arts can improve student fitness levels and muscular condition immensely.

Flagship program - Sea Survival

Sea survival is a flagship program that has been designed as a component of the co-curriculum activities. It is compulsory for all the first year students at UMT. The main objective of this program is to expose essential survival skills to the students. Through this activity the students are trained to survive by learning skills to build shelters, gather food, make fires, and travel without the aid of standard navigational devices. These essential skills are required in order to live successfully through any survival situation. Additionally, through this program students learn to manage and survive life-threatening circumstances. A key ingredient in any survival situation is the mental attitude of the individual(s) involved.

Debates

Students are able to participate in debates through the university debate club. Students who show great potential may be invited to continue in the program depending on their performance with regard to several criteria. Parliamentary debates are done extemporaneously in which the topic changes from debate to debate. Debaters learn of the topic approximately fifteen minutes prior to the debate. The debates are spontaneous, engaging interchanges between well-informed and articulate students. In debates, the preparation and delivery of arguments provide students with the opportunity to think critically, develop their academic research skills, improve their communication abilities, solve problems creatively, and increase their self-confidence. This is due to the fact that students involved in debates regularly engage in writing, information analysis, in-depth library and internet research. Debates enable students to express their views effectively and to respond cogently to arguments with which they disagree. In addition, debaters are often the most well read and well-informed of students and by being debaters they take part in a truly worldwide examination of the issues facing humanity.

Industrial training

Industrial training refers to work experience that is relevant to professional development prior to graduation. Industrial training requires students to attend work in the industry for a minimum of 2 months (8 weeks) to a maximum of 4 months (16 weeks) depending on the corresponding program. This translates into a hands-on, no-lecture, focused industrial attachment. All students should make considerable effort and give sufficient thought into obtaining the most relevant and effective industrial training. It should also be noted that developing an awareness of general workplace behaviour and interpersonal skills are important objectives of the industrial training experience.

World Cultures course

This course exposes students to global knowledge, language skills and significant international experience. It is basically an electronic interactive learning that offers students a study on world cultures, societies and countries via virtual and collaborative dialogue and discussion with partners from other regions in face-to-face environment without having to leave their classroom. UMT is a charter member of the Global Partners in Education (GPE) program consisting of 21 universities in 18 countries. This main objective of this program is to engage partners through lecture exchanges, joint courses, and international research. The cultural exchange is based both on written communications between pairs of students (via 'chatting' and combined assignments) as well as through 'webstreamed' face-to-face dialogue.

UMT'S HOLISTIC FRAMEWORK FOR STUDENTS

Universiti Malaysia Terengganu is committed to producing graduates that will become creative professionals who are capable of developing innovative solutions to problems facing society. This will require graduates to possess analytical and critical capacities as well as the ability to synthesize ideas and adapt to new situations. In addition to integrating elements of generic skills in the teaching and learning activities in the curriculum, the UMT holistic framework for students are designed to develop skills (content skills, soft skills & ESQ (emotional spiritual quotient)), essential competencies, learning from industrial-training, and real knowledge through community linkages as well as a set of appropriate professional attitudes (Diagram 2).

The university strives to develop graduates equipped with a range of skills and attributes which will help them succeed in a wide and diverse range of tasks and responsibilities. Within this holistic framework, programs implemented for the students will facilitate the university in producing graduates that will be productive members and contribute to the society they live in. The development of these skills and attributes will take place in all courses in ways that reflect the particular discipline or professional field. While the skills and attributes have been listed separately it should be recognized that effective professional practice requires the ability to integrate knowledge and the different skills and attributes.

The assimilation of generic skills through both curriculum and co-curriculum embedded programs especially in the uniformed club and leadership activities provide value added competencies to the students. These findings have been supported by Bedrow and Evers (2005) and RSA (2006) whereby they have asserted the importance of embedding generic skills through the curriculum and extra curriculum activities. Egan (2004) in Luciana at el (2007) had identified key generic skill elements such as leadership, communication, team working and project management as important factors to building sustainable communities by incorporating them in the curriculum.

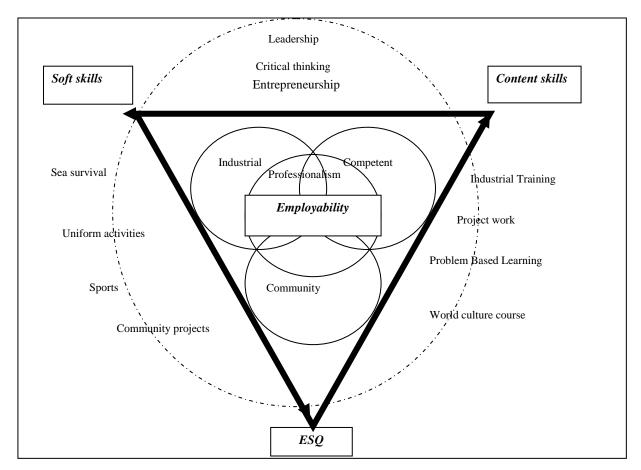


Diagram 2: UMT's Holistic Framework for Students

There has been general agreement by academicians and the industry practitioners on the importance of generic skills for the sustainable employment of the graduates. Due to the dynamic changes of the economy and industry, future curriculum content development has to be continuously benchmarked universally. At the same time, curriculum development needs to be locally relevant to the higher learning education policies in the country. Therefore a good balance between content knowledge and generic skills can be achieved through quality assurance and continuous improvement adaptation. Nevertheless the actual competency requirements need to be world class. This has been proven by professional programs worldwide such as in accounting, medicine, engineering, business and food and agriculture that have been implemented in the well-known universities namely Indian Institute of Information Technology, Chulalongkorn University, Monash University and Griffith University. In this regard, the holistic framework for student development in UMT is seen as a move forward to ensure that graduates have industry preferred work related skills and they will be able to compete and contribute in the globalized world.

DISCUSSION AND CONCLUSION

With the rapid development of new technologies and the impact of globalization, the graduates are more competitive and employable in the job market. This requires leaders in IHLs to take into consideration the role higher education can play for sectors of employment which were not taken into consideration in the past, in the process towards what is often called the "knowledge society", informal sectors of employment and new ways of self-employment. UMT has taken steps in this direction by developing a holistic approach for students' development. The approach emphasizes the development of skills (content skills, soft skills & ESQ (emotional-spiritual quotient)), essential competencies, learning from industrial training, and real knowledge through community linkages as well as a set of appropriate professional attitudes.

With respect to curriculum development, questions do arise as to what could be the optimal amount of learning effort should be allocated for generic skills development as the competing requirements for content and other competencies continues to rise. It further remains to be ascertained as to what are really the pertinent aspects of the generic skills that employers say that they cannot do without and as exemplified by UMT's framework, certain critical skills are thought to be more significant than others and the holistic make-up of the graduating student is believed to be more sustainable in the long run. Others have stressed that a final good measure of a University is the quality and value of the graduates which then calls for the continuous monitoring and evaluation of the quality and richness of the learning experience of the students whilst they pursue their studies. More recently, the pressure of university rankings has also impinged upon the apparent conflict of how best to spend university resources and direct the efforts of the university's expert manpower. In other words, the debate between how much to teach versus how much research has continued to be strategically debated and managed so as to strike a good balance for each university. Young universities should learn from the vast experience of others who have gone along this path and not fall into the trap of trying to overachieve, at the expense of producing graduates that are employable and trainable.

However the success of this undertaking depends on the forward-thinking, commitment, monitoring, supervision and the availability of the supportive infrastructure. Higher education has to accommodate the fact that students have become more diverse not only in their motivations and capabilities, but also in their assignments and roles after graduation in order to respond to the broadening spectrum of graduate employment and work.

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