

Assessing Graduates' Generic Skills: An Indicator of Employability

Parmjit Singh^{1*}, Roslind Xaviour Thambusamy² and Adlan Ramly²

¹*Mathematics Department, Faculty of Education, Campus Sec. 17, Universiti Teknologi MARA, Malaysia, 40200 Shah Alam, Selangor, Malaysia*

²*TESL Department, Faculty of Education, Campus Sec. 17, Universiti Teknologi MARA, Malaysia, 40200 Shah Alam, Selangor, Malaysia*

ABSTRACT

This concept paper seeks to discuss the issues of the measurement of Malaysian university graduates' generic skills as an indicator of their employability in the real world job market. Despite the heated discussions and arguments among stakeholders on the problem of rampant unemployment of fresh university graduates, there is still a distinct absence of a valid screening tool to test the level of work readiness of the university students before they are awarded their scrolls. Starting July 2006, the Malaysian Ministry of Higher Education (MOHE) instituted the implementation of seven generic skills to be incorporated into the tertiary curriculum in an effort to address and redress the shortcomings in graduate employability. This worthy effort however, has been stymied by the somewhat informal, subjective, and lackadaisical treatment of the generic skills component in the actual implementation. This, coupled with the absence of a validated exit screening tool, undermines all serious efforts to ensure that graduates are genuinely work ready. This concept paper proposes a model called Graduate Employability Model (GEM) as a framework that policy makers and higher education practitioners could use to generate a more stringent quantitative and summative quotient of the future graduates' employability as indicated by their generic skills.

Keywords: Generic skills, employability skills, assessment tool, screening tool, model, framework

ARTICLE INFO

Article history:

Received: 2 April 2013

Accepted: 28 October 2013

E-mail address:

parmj378@salam.uitm.edu.my (Parmjit Singh)

* Corresponding author

INTRODUCTION

Someone once said that all you have to do to stop a child from thinking is to send him to school. Sadly, one cannot help but agree with this dismal statement in considering

the current Malaysian education system which rewards rote learning, as evidenced by the annual celebratory lauding in the media of candidates scoring strings of A's in national examinations. This penchant for garnering as many A's as possible is directly responsible for the mushrooming of private tuition centers that offer "crash courses" designed to cram the children with "model" answers which, duly memorized, produce the desired A's. (Bray, 2007). In the preface to this seminal publication on the global phenomenon of private tutoring, the general editor contends that

"Training pupils for examinations only may not be the best training that can take place. Cramming is often to the detriment of creative learning and may not lead to the expected increase in human capital." (Bray, 2007, p.11)

This sad state of affairs has led the Malaysian Prime Minister to recently declare that education has hitherto emphasized memorization (the what part) and that this has to be changed to emphasize to the thinking process (the how part) so that students can utilize the knowledge gained to their advantage in innovative and creative ways. In attending to the issues that such rote learning has engendered, the Prime Minister has declared that it is necessary

"... to bring about an education transformation where the essence is to motivate students to think because we want to create a generation which

can think creatively, innovatively and critically, as well as think out of the box and resolve problems... The world has changed. We need to prepare the present generation to face the world of the future which will surely be much different from that of today," (Bernama, 2012, para. 3-4)

The Prime Minister's concern about the need to "create a generation which can think creatively, innovatively and critically, as well as think out of the box and resolve problems" is shared by many concerned stakeholders, particularly the employers who have to deal with the thousands of graduates pouring out of the numerous higher education institutions (henceforth HEIs) every year, the bulk of whom do not fit the bill as articulated by the Prime Minister.

The need to produce thinking graduates has become all the more important nowadays as the world has changed, and with it, the requirements and needs of the working environment. What worked 50, or even 30 years ago, does not work now, and graduates need to be equipped with both content-specific technical knowledge as well as skills, such as ICT and 'tech-savvy-ness' that their forebears had no need of. The challenges facing new graduates today are formidable as "the contemporary requirements of the economy which is characterized by the globalization of national economies, rapidly-changing markets, increased global competition for

goods and labour, technological innovations and the movement from mass production to flexible specialization in the production process” (Teh & Pendergast, 2009) and the subsequent elimination of physical boundaries through the advent of ICT has necessitated the sharpening of skills related to communication, entrepreneurship, and life-long learning in order to keep pace with the global strides in all areas of human endeavor.

How have the Malaysian HEIs addressed these issues and concerns in their pedagogical and curricular approaches? From the data provided by the Malaysian Department of Statistics, it appears that the situation is worrying. There seems to be a massive gap between what higher education is providing and what the employers are seeking in graduates. This is borne out by the statistics which revealed that from 2007 until 2010, the number of unemployed graduates had steadily increased to over 30,000 at both the diploma and degree levels (Department of Statistics, 2011). These 30,000 unemployed graduates, many of whom were educated at the taxpayers' expense at the 20 public universities in Malaysia (Norshima, 2008) is indeed a grim statistic and one that rightly deserves the approbation of the stakeholders like parents and employers.

There is obviously a glaring mismatch between the products, that is the graduates, and the mission of higher education when such an uncomfortable number of fresh graduates remain unemployed after graduation, or are forced to take

on jobs which do not require degree qualifications. In a bizarre turn of events, while an increasing number of graduates end up being unemployed, 67% of private companies increased “the size of their current international assignee population” in 2008 (Sri Ramalu, Che Rose, Uli, & Kumar, 2010), indicating that employers seem to favor foreigners and expatriates over local graduates. This scenario should immediately trigger several concerns, the outstanding one being that our graduates are apparently unworthy employee material as compared to foreigners, and second is that the output of our higher education is obviously below par compared to that of foreign universities. This however, is highly unlikely in terms of the syllabus and content being offered at Malaysian universities, as these are subject to review and revision according to the latest professional standards and trends worldwide in line with the Malaysian Qualifications Agency's mandates. Therefore, it may be assumed that the problem lies not so much in the content of the courses being offered as the development of the students themselves. Thus, what matters now is the personal development of the graduate, as opposed to his or her mastery of technical content (Orr, 1991, page number?). In other words, it is high time that the focus of higher education be redirected from the “what” (content material) to the “how” (referring to the “generic skills”) as it contributes to the development of the “who” (the graduate). A fitting prelude to an in-depth discussion regarding these issues, is the premise that underscores

this issue of why the “what”, “how” and “who” resonates deeply with the notion of “employability”. Unlike yesteryears, when university education was the bastion of the intellectually elite and academically inclined, and where professors displayed scant concern over issues of employability, considering such matters as beneath their intellectual/academic purview, graduates were expected to develop generic or work-related skills peripherally as an indirect or covert application of content knowledge and the socialization that campus life offered. However, with the democratization and subsequent massification of higher education, the doors of the ivory towers were thrown open to the ‘masses’ seeking to better their socio-economic prospects through the ‘paper chase’. Suddenly, the economic considerations of a university education began to impinge on the academic consciousness, with words like ‘marketability’, ‘employability’, and ‘soft’, ‘hard’, and ‘generic skills’ infiltrating curricular considerations. Universities, particularly the more traditional establishments, now in direct competition with the numerous private, for-profit higher education providers that were mushrooming to take advantage of the demand for higher education, had to quickly reconfigure their academic paradigm to accept the fact that higher education institutions could no longer operate as ‘ivory towers’ detached from the world around them. HEIs were now being held directly responsible for their “products” as these graduates entered the working world. With lifelong learning being touted

as an exemplary habit in the new work order, the clarion call to keep learning quickly became a pivotal prerequisite justifying the need for higher education. Learning, lifelong and otherwise, began to be espoused as the panacea for socio-economic development of nations, with skills related to employability becoming embedded in higher education curricula to cater for the needs and vagaries of the burgeoning global marketplace.

It is clear then that the premise of higher education today far exceeds the statistics of passes and excellent achievements in university examinations. The burning question for higher education practitioners is not whether our undergraduates are performing well in examinations, but rather whether we are preparing them adequately for the working world? This question cannot, however, be easily answered. By all accounts, given the MOHE’s mandate to implement the seven generic skills (these skills are detailed in page 7) into the Malaysian higher education curricula since 2007 (Ministry of Higher Education, 2007), things should be working like clockwork. Still, the hard, cold facts as indicated by the statistics have proven otherwise. What does emerge from this paradox is that if the content is beyond question and the generic skills are already being imparted in the curricula, then it is the students’ actual capabilities (when they graduate) that we should be focusing on. This further begs the question that if we have an intricate and comprehensive system of screening for university entrance via the national school leaving examinations and the Malaysian English University

Test (MUET), why do we not exert the same fervor and comprehensiveness to screen their capabilities before they graduate? Other than examinations, which to all intents and purposes only test content knowledge, why have we not measured their communicative competency, their problem solving skills, critical thinking abilities and those other elements that would determine their employability? Consequently, this conceptual paper seeks to justify the need for and propose a model that would indicate definitively the work-worthiness of students before they are allowed to graduate. Obviously, such a model would require the requisite grounding in order to justify its standing and this will appear in the next portion of this paper.

OBJECTIVE

The objective of this paper is to discuss the issue of graduate employability, generic skills and the assessment of both in the current tertiary educational context and to suggest a model or framework that can be used to construct an instrument for such purpose. The specific objectives of this paper are:

1. To discuss employability and the issue of unemployment among fresh Malaysian graduates.
2. To elucidate the relation between employability and generic skills.
3. To discuss the importance of a valid exit screening test for graduates and the current trend of assessment for generic skills in universities.

4. To propose a framework called the Graduate Employability Model (GEM) as a feasible exit assessment tool of graduating students' generic skills.

SIGNIFICANCE OF THE STUDY

This paper hopes to drive home the point that this model, premised on the need for a stringent assessment of generic skills prior to graduation, would help to stem the employability issues that currently plagues the Malaysian higher education. With a model like this in place, Malaysian HEIs will have in hand, a comprehensive assessment tool that can act as an all-purpose indicator of employability which serves not just employers but also the graduates and HEIs. This tool, when efficiently deployed, will enable all stakeholders to get a clear view of graduate capabilities. Apart from certification of their technical knowledge, the graduates will be provided with an additional evaluation, that of their generic skills, acknowledging them as fit for the world of work. If they fail to display the requisite skills, the model can identify and isolate those specific areas of weakness which can then be targeted for improvement or enhancement. In this way, graduates will be able to focus on those areas which they need to improve before they seek employment, saving both themselves and prospective employers frustration and heartache. The HEIs, through this model, will be able to gauge the extent to which the implementation of generic skills as curricula or co-curricula elements has been successful, and embark on remedial

measures if the implementation is found lacking. Thus, implementing such a model is a win-win situation for all stakeholders concerned where so much that is wrong in the current employability scenario can be redressed and alleviated.

As always, while the notion may be impeccable, the implementation is open to interpretation and this is where some limitations may arise. Each HEI, having their own mission and vision may skew the components of the generic skills to be assessed to align to their respective institutional mission and vision, which will naturally upset the fine balance of the assessment criteria. A case in point is Universiti Teknologi MARA, which having been recently declared an entrepreneurial university, is in the process of inculcating the tenets of entrepreneurialism in its coursework, wherever possible. With such a paradigm, it is inevitable that the entrepreneurial skill (among the seven MOHE endorsed generic skills) will be emphasized when graduates are assessed on their soft skills using this model. This can become a setback in providing a balanced picture of the gamut of skills required by graduates to be 'properly' employable.

LITERATURE REVIEW

In this section, employability and the manner in which generic skills insinuate themselves into a workable premise of the notion of employability is presented with a view to justifying the need for the incorporation of a model to assess the generic skills of graduates in order to ensure

that they emerge ready for work from the HEIs. The premise of this discussion and the justification of a university exit model to assess graduate work-related competencies is clearly supported by Yorke (2006, p.4) who contends that

“When trying to appreciate higher education’s potential for contributing to economic wellbeing it is helpful to distinguish between the formation of subject-specific understandings and skills, and the promotion of other valued skills, qualities and dispositions. Whereas the world of employment has, by and large, been satisfied with the disciplinary understanding and skills developed as a consequence of participation in higher education, it has been less happy with the development of what have been termed ‘generic skills’, such as communication, team-working and time-management.”

Employability

The concept of employability is neither recent nor under-defined, having been elucidated and elaborated by many researchers in this area. (Asnida, (2003); Chiam, (2005); Hesketh, (2000); Hinchliffe, (2002); Holmes, (2001); Gibbons, (2000); Knight & Yorke, (2004); Leon, (2002); Morley, L. (2001); Pierce, (2002); Purcell & Elias, (2002); Stephenson, (1998); Wolf, (2002); Yorke & Knight, (2006); Ong, (2006); Marina, (2007); Norizan,

et al.,(2006)). These works represent but a fragment of the immense undertaking of researchers in this area which reflects the importance attached to the notion of employability all over the world.

One of the most applicable in general terms would be the definition provided by the United Kingdom Institute of Employment that characterizes employability as possessing the capability to acquire, maintain and seek for newer (if necessary) employment or a job and that such capabilities include:

“their assets in terms of the knowledge, skills and attitudes they possess; the way they use and deploy those assets; the way they present them to employers; and crucially, the context (e.g. personal circumstances and labor market environment) within which they see work” (Hillage & Pollard, 1998 p.1).

Yorke (2006, p.21) sums up the tenets of employability as

“A set of skills, knowledge and personal attributes that make an individual more likely to secure and be successful in their chosen occupation(s) to the benefit of themselves, the workforce, the community and the economy.”

This supports the notion that (content) knowledge per se contributes to only a small portion of the understanding of

employability while the rest include personal attitudes and the ability to manipulate and use the knowledge in creative and practical ways as required by the needs (Orr, 1991). Brown, Hesketh, and Williams (2002) similarly defined employability as a notion that encapsulates the very economic and political pathos of a certain country and that in the current global economic climate, the efficiency of the economy depends on the population's capability to acquire the knowledge, skills, and capabilities that employers need in an increasingly knowledge-driven economy. Here too, knowledge is part of a package deal that includes skills and specific work-related capabilities which should reflect the employers' needs.

An even more cogent definition is given by Mantz Yorke (2006) who posited that employability is not the same as employment. Yorke argued that those graduates who acquired employment may not actually possess the quality of employability depending on the needs, climate, and type of employment that are acquired. For example, an engineering graduate who is employed as a bartender may not possess the qualities of employability (for his field) although he is employed. In other words, those who are employed may not necessarily reflect high employability. This makes the discussion on employability difficult as it shows that mere statistics of employment and unemployment are not reliable indicators of the graduates' employability. To gauge such a tenuous attribute, quantitative data based on surveys or examinations must first be acquired.

In creating a tenable assessment of the employability of graduates and soon-to-graduate university students, the inclusion of “soft skills” or “generic skills” is a prerequisite. Ian Hampson and Anne Junor (2010) for example, contend that “soft skills” have been under-rated until lately and that this does not encompass merely the technical content of the students’ knowledge, but how they are used in the social context of the working environment. But what are these soft or generic skills? Are they solely social or do they have deeper implications?

Generic Skills and its Relation to Employability

To begin with, it is difficult to precisely define what “generic skills” are. Nonetheless, although its definition is elusive, we can begin to glean an understanding of these skills by roughly knowing what they are not. Generic skills are not technical skills or the content knowledge of a certain field or specialized area. For example, knowing the theory of aerodynamics is not part of the generic skills that an aeronautic engineer should possess. Similarly, a deep knowledge of a particular subject does not automatically make a good teacher as effective teaching is predicated upon knowing not just what to teach but how to teach. Such content-derived knowledge, referred to the “hard skills” are related to the specialized knowledge and skills that can be properly analyzed, defined, and tested. These are usually termed technical skills (Turner, 2004).

If technical knowledge or hard skills form one part of the employability package,

then soft skills or the generic skills refer to the range of skills that form the other part of the package. These generic skills complement the hard skills in the work place as they deal with those capabilities that employees would need to utilise to function competently in any organisation. First and foremost, it is important to note that the nomenclature for generic skills is varied, depending on contextual application, and among the names that it is known by include: “key competencies”, “core skills” and “employability skills” (Md. Yunus et al., 2005). The dimensions of these skills are also wide and subject to interpretation. Leon and Borcehrs (2002) for example, grouped them into skills of reading, writing and math; communication; critical thinking; group interactions; personal development; computer skills; technical systems; leadership; and team work (cited in Agus et al., 2011). Koo (2007, pp.39), on the other hand, suggested a “pluriliteracy” related to employability skills that included linguistic proficiency, communicative literacy, cultural awareness, content literacy, sustainable citizenship, attitudes and mindset, vocational literacy, and critical literacy.

Returning to the issue of unemployment of the Malaysian graduates, the Malaysian Ministry of Higher Education has acknowledged the importance of generic skills and instituted its implementation in the higher education curriculum since 2007. In 2006, Datuk Mustapa Mohamed, then the higher education minister, announced that the ministry considered generic skills a serious matter and suggested a model of generic

skills that comprised “communication skill; critical thinking and problem solving; teamwork; lifelong learning and information management; ethics and professional morals; entrepreneurship; and leadership skill.” (Yassin et al., 2008). Given that universities have now become responsible for producing employable graduates, it is only logical that the attainment of generic skills are being emphasized. Shyamal (2009) noted that among the reasons for such emphasis are:

(1) the requirements of the knowledge-based new economy and continuing impact of globalization and new information technologies; (2) the exponential pace of change; (3) the consequent pressures of life-long learning; (4) the need for individuals to maintain employability; (5) changes in the workplace; (6) requirement to foster enterprise skills and innovation culture in some countries, among the few” (p. 2).

As can be seen from the reasons stated above, much of the need originates from the expectancy of economic demands that employers have to meet. The salient implication here is that in today's highly globalized and increasingly competitive world where work places and opportunities are no longer physically constrained, the adaptability and transference of skills and competencies is highly prized and coveted by employers seeking to reap

the optimal economic rewards from their choice of employees. In such a scenario, it is no wonder that, generic skills have significantly become the determining factor of employability (Othman, 2012). Thus, we are obliged to ask ourselves whether our universities are producing graduates with the relevant generic skills.

Generic Skills Assessment & Screening Tools Worldwide and their Significance in Malaysia

Outside Malaysia, the idea of assessing graduates to ensure their non-academic skills are sufficient is not a new practice. The University of Cambridge for example, developed and introduced the Thinking Skills Assessment in 2001 which tests problem solving skills and critical thinking skills. This test is now used by 27 out of its 29 colleges and branches (TSA Cambridge, 2008). At present, the test is being used by the University of Cambridge, the University of Oxford and University College London as an exit screening test for its undergraduates. Similarly, the Australian government has taken the initiative to gauge the Australian graduates' generic skills by devising the Graduate Skills Assessment, better known as the GSA. Utilizing the four elements of Critical Thinking, Problem Solving, Interpersonal Understanding and Written Communication Skills, the GSA was first implemented in 2000 and the validity study shows a significant advantage in utilizing the test in increasing the graduates' employability (Hambur, Rowe, & Luc, 2002). Another Australian effort,

implemented by the Australian Learning and Teaching Council (ALTC) is called Embedding the Development and Grading of Generic Skills in the Business Curriculum (EDGGS). Unlike the GSA, the EDGGS is a series of assessments that are invigilated at the end of each year (every two semesters) of the students' study period in the university and involves the four generic skills of teamwork, critical thinking, ethical practice, and sustainable practice or the consistency of the graduates to improve and maintain the first three skills (Thomas et al., 2009). In the United States, efforts in assessing generic skills have been undertaken by the American College Testing Centre for Education and Work in which the Work Keys System that covers the employability skills of "Reading for Information, Applied Mathematics, Listening, Writing, Locating Information, Applied Technology, and Teamwork" were introduced as early as 1994 (Saterfiel & McLarty, 1995).

A cursory observation of all these tools reveals that the main components used in these various generic skills assessments are Problem Solving Skills, Critical Thinking Skills, Interpersonal Skills, and Communicative Skills. These components are often used not only because they are the most feasible to assess, but also because of their significance in portraying an individual's employability. Problem Solving and Critical Thinking skills are good indicators of the graduates' ability to use their expert knowledge in creative and innovative ways while Interpersonal and Communicative Skills allow them

to convey their ideas in a clear, effective manner. An effective amalgamation and application of these skills would contribute indirectly to the creation of positive working environments, which would understandably result in better production and reductions of costs for the employer.

The discussion thus far can now be related to the issue of "what", "how" and "who" as raised at the beginning of this paper. We can begin to understand that the graduates' technical knowledge and expertise can be considered the "what", whereas their ability to use problem solving and critical thinking in creative and innovative ways and their effectiveness of relaying such ideas to other parties in a real working context refers to the "how". The manner, in which these two separate strands are inextricably linked within the development of the "who", is at the heart of the employability issue.

Now, the important question to ask here is that, while generic skills assessment tools are being used worldwide as an indicator of employability, why have we, in Malaysia, not come up with a sound screening tool that can be used to gauge our graduates' work readiness? University entrance is subject to a strict screening process, whereby on top of the high academic standards that the students need to attain in their Sijil Pelajaran Malaysia (equivalent to O-levels), Sijil Tinggi Pelajaran Malaysia (equivalent to A-levels), and Matriculation examinations, the candidates are further filtered through a battery of interviews, written assessments, practical auditions

and tests for particular courses. It seems then that the university entrance procedures emphasize high standards of quality control in selecting the candidates. Why then are the same high standards of quality control not exerted before the students are allowed to graduate? This question is all the more confounding, knowing that generic skills have already been acknowledged as vital to graduates' employment.

Having recognized the importance of these skills, MOHE has instructed Malaysian HEIs to implement generic skills into their curricular content since 2007. However, the universities have been given the mandate to inculcate these skills into the students in whatever manner they see fit. Thus, these skills are often implemented according to the individual university's curricular constraints in the forms of coursework, apprenticeship, entrepreneurship, finishing school sessions, and mobility/internship, where, particularly in the non-coursework modes, these skills are subjectively assessed by taking into account the students' presence and/or involvement and asking lecturers to assess the students using holistic opinions (Othman, 2012). It comes as no surprise then that the whole issue of generic skills are generally treated as a trifling matter and sidelined in favor of the hard skills. It can be seen then, that in terms of the inculcation of the generic skills in higher education, there is a serious gap between what is intended and what is actualized. What is missing here is a sound screening tool to quantitatively assess graduating students' generic skills across the board in a

systematic and organized manner in order to provide an accurate picture of the students' actual employability. This conceptual paper seeks to suggest a model that would lead to such a screening tool.

The Stages in the Development of Graduate Employability Model

This section elucidates the developmental stages and procedures adopted in the construction of the Graduate Employability Model based on the configuration of the different phases of operation. To justify the premise under which the model will operate, the different phases in the construction of the model are clarified based on the relevancy of the stage in the development of the model.

Graduate Employability Model (GEM)

The Graduate Employability Model (GEM) is premised on a structured process of how a feasible generic skills test can be utilized as an exit screening test in universities. The construction of this model is graphically represented in Fig.1. The model is divided into four phases. The first phase may be referred to as Planning & Research. In this phase, literature review on generic skills and instruments that can be used to measure them is conducted. This however, may not correspond to the immediate needs of a nation or society. The research however is crucial to pinpoint and create a specific structure of criteria that can facilitate in identifying out the needs.

The second phase is the Needs Analysis. Using the information gathered in the Planning & Research phase, a questionnaire

is constructed to find out the specific needs of a society or nation. The questionnaire is then pilot tested and refined until it is suitable for distribution. Once the questionnaire has been finalized, it is distributed to three different groups of samples. First, is the employer sample as they would elucidate the immediate needs of the industry and working fields and their demands of fresh graduates' abilities and employability. Secondly, the questionnaire will be distributed among academic staff of HEIs as this information would serve as a foil to the actual needs of the employers. It may seem odd, but it may happen that what the university policy makers consider important may differ from what the employers require and they are the major stakeholder in higher education. Last but not least, the questionnaire will be distributed to undergraduates in order to

assess if they possess the skills demanded by both employers and the university.

Once the data from the questionnaire has been collated, it is analyzed and brought forward to the third phase, which is the Instrument Construction phase. This phase begins with the analysis of the data acquired from the questionnaires. The construction of the instrument is predicated on the needs derived from the survey data where the percentage, ratio and weightage of the skills measured in the instrument are based on the priorities as determined by the needs. Once the instrument has been constructed, it undergoes a pilot testing and refinement process as well to weed out irrelevant items. This would become the first screening instrumentation. It is suggested that this instrument be called the Graduate Employability Model which when shortened

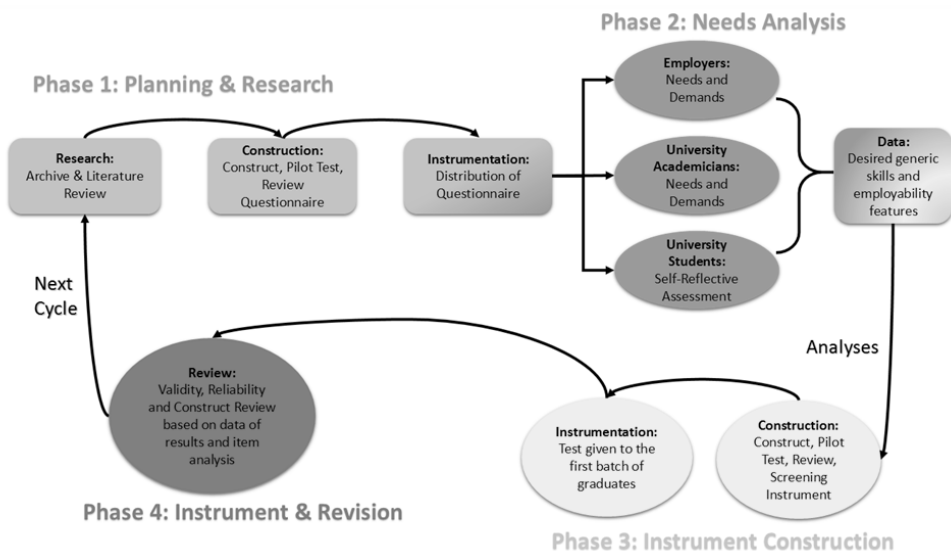


Fig. 1: Structured process of the construction of the Graduate Employability Model

is called GEM, an apt metaphor for the work ready graduates emerging as a consequence of being assessed through this model.

The last phase is the Instrumentation and Revision of the GEM assessment tool. This is to be administered to final year students who are about to graduate. The results obtained from this instrument would allow the university to gauge the graduating students' employability. Obviously, validity, reliability and construct review are strictly observed using item analyses to avoid any discrepancies occurring during the construction or data analyses process. The result of the analyses is then used to review and refine the format of the assessment tool and is included as an important consideration in the construction of instrument in the next cycle. The whole process, being cyclic in nature, is repeated in each cycle.

CONCLUSION

Once this model is up and running, it can be expected to generate a lot of research in terms of its efficacy and implementation. Research would be forthcoming on the actual performance of the graduates in the workplace as to whether they are living up to the assessment generated through this model. Employers would definitely have a lot to say regarding the efficacy of the model and the strengths and weaknesses that may emerge would be readily disclosed by them. HEIs and the Department of Higher Learning in the Malaysian Ministry of Education would be most interested to track the progress of the graduates who have been assessed through this model.

It is highly ambitious to expect the first run of the GEM assessment tool to be completely effective and flawless. Being a new model, there are bound to be hiccups in implementation which may necessitate some revision in the implementation or recalibration of the phases in order to rectify any weaknesses that (may) emerge. Realizing that unforeseen drawbacks may emerge, the model developers have designed it along a cyclical process framework, where it is open to constant and continuous upgrading. Still, such a model is inarguably necessary for a comprehensive assessment of graduate work-related competencies and having one that works fairly well, is much better than having none at all.

What is salient in this discussion is that while we still lack a systematic exit screening instrument that can effectively gauge our graduates' employability, many other countries have already embarked on this venture for a number of years. While meticulous and stringent screening measures are in place for university entrance, university exit appears to be lax specifically with regards to generic skills evaluation— which is to our mind, a far more crucial element to the graduates' success than their entrance to the university. In view of the worrying trends in graduate unemployment, it is timely that we begin to reflect upon, research, plan, survey, construct, and administer some sort of employability assessment tool to help us to rectify the shortcomings or enhance the quality of our graduates as they exit the university. At the end of the day, it doesn't

matter how many students graduated with a first class honors. What is more important is how many of them can contribute positively to their respective fields that would in the long run propel the nation's growth and development. When all is said and done, we must never forget that a university generates the nation's workforce and is thus beholden to cater to the needs of employers who are then, its clients.

REFERENCES

- Agus, A., Awang, A. H., Yussof, I., & Mohamed Makhbul, Z. K. (2011). The Gap Analysis of Graduate Employees' Work Skills in Malaysia. International Conference on Business and Information (BAI2012) (pp.1-15). Sapporo, Japan: Universiti Kebangsaan Malaysia (UKM).
- Asnida S. (2003). *Pengangguran Siswazah di Malaysia*. (Unpublished thesis for Master of Economics). University of Malaya: Kuala Lumpur.
- Bernama. (2012, March 13). *Education Transformation Needful To Create Thinking Generation – Najib*. Kuala Lumpur, Kuala Lumpur, Malaysia. Retrieved March 29, 2012, from <http://1malaysia.com.my/news/education-transformation-needful-to-create-thinking-generation-najib/>, pp.3.
- Brown, P., Hesketh, A., & Williams, S. (2002). *Employability in a Knowledge-Driven Economy*. Cardiff University, School of Social Sciences. Cardiff: Cardiff University.
- Chiam, T. H. (2005). *Employability and Learnability of Malaysian Graduates at the Work Place*. Paper presented at the 9th Malaysian Education Summit: World-Class Education in Malaysia: Creating a New Breed of Human Capital to Transform Malaysia into a Centre of Knowledge and Technology Excellence, Sunway Pyramid Convention Centre, Kuala Lumpur, 21-22 March 2005
- Department of Statistics, M. (2011). *Statistics of Graduates in the Labour Force Malaysia 2011*. Department of Statistics, Malaysia, Labour Force Survey. Putrajaya: Department of Statistics, Malaysia.
- Hambur, S., Rowe, K., & Luc, L. T. (2002). *Graduate Skills Assessment: Stage One Validity*. Canberra: Australian Council for Educational Research.
- Hampson, I., & Junor, A. (2010). Putting the process back in: Rethinking service sector skill. *Work, Employment and Society*, 24(3), 527-545.
- Hesketh, A. J. (2000). Recruiting an elite? Employers' perceptions of graduate education and training. *Journal of Education and Work*, 13(3), 245-271.
- Hillage, J., & Pollard, E. (1998). Employability: Developing A Framework for Policy Analysis. *Research Brief*, 85, 1-4
- Hinchliffe, G. (2002) Situating skills. *Journal of Philosophy of Education*, 36(2), 187-205.
- Holmes, L. (2001). Reconsidering graduate employability: the Graduate Identity approach. *Quality in Higher Education*, 7(2), 111-119.
- Gibbons, M. (2000). *Higher Education Relevance in the 21st Century*. Paper presented at the International Conference on Policy Issues in Higher Education in the New Millenium, Kuala Lumpur, 12-13 June.
- Knight, P. T., & Yorke, M. (2004). *Learning, curriculum and employability in higher education*. London: Routledge Falmer.
- Koo Y. L. (2007). Mindful PluriLiteracy (PL) For Multilingual Learners: Sustaining Diverse Cultures in Language and Literacy Education. In Ambigapathy Pandian, Koo Yew Lie, & Peter Kell. (Eds). *Innovation and Intervention in ELT: Pathways and Practices*. (pp. 201 - 223) Serdang: Universiti Putra Malaysia Press.

- Leon, P. (2002, November 22). Graduates say degrees leave them short of skills. *The Times Higher Education Supplement*, p.6.
- Md. Yunus, A. S., Abu, R., Mohd. Nor, S., Ahmad Tarmizi, R., Abu Bakar, K., Wan Ali, W. Z., Hamzah, R., Ismail, H. (2005). Generic Skills of Malaysian University Students. *Bulletin of Higher Educational Research*, 6, 5-6.
- Ministry of Higher Education, Malaysia (2007). *The National Higher Education Action Plan 2007-2010: Triggering Higher Education Transformation*. Putrajaya: Ministry of Higher Education Malaysia.
- Morley, L. (2001) Producing new workers: quality, equality and employability in higher education. *Quality in Higher Education*, 7(2), 131-138.
- Norshima Z. S. (2008). *Are graduates to be blamed? Unemployment of computer science graduates in Malaysia*. Retrieved 8 June 2009 from <http://aabss.org/journal2008AABSS2008Article6NORSHIMAZSHAH.pdf>.
- Norizan, A.R., A. Hazita, A.A.M. Sallehhudin, F.F. Wong and Y. Azizah (2006). *The Quality and Marketability Value of Local Graduates: Perspectives from the Malaysian Employers*. paper presented at the 6th SEAAIR Annual Conference, Langkawi, 5-7 September.
- Ong, P. H. (2006). *Soft Skills in Higher Education: The UNIMAS Medical Model*. paper presented at the 6th SEAAIR Annual Conference, Langkawi, 5-7 September.
- Orr, D. (1991). What is Education For? Six myths about the foundations of modern education, and six new principles to replace them. In Context: *A Quarterly of Humane Sustainable Culture*, 27(Winter (The Learning Revolution)), 52-55
- Othman, J. (2012). *A Nationwide Comparative Study between Private and Public University Students' Soft Skills*. IIUM, IREP, pp. 1-10.
- Pierce, D. (2002). Employability: higher education and careers services. Abridged version of a report prepared for AGCAS (mimeo).
- Purcell, K., & Elias, P. (2002). Seven years on... Making sense of the new graduate labour market. *Graduate Recruiter*, 8(October), 22-23.
- Saterfiel, T. H., & McLarty, J. R. (1995, January 30). *Assessing Employability Skills*. ERIC Digest. Retrieved February 23, 2012, from ERIC Digest: <http://www.ericdigests.org/1996-3/assessing.htm>
- Shyamal, M. (2009, September 16 - 18). *Emerging Generic Skills for Employability in the Knowledge Society*. Retrieved January 12, 2012, from Colombo Plan Staff College for Technical Education (cpsctech.org): <http://drupal.cpsctech.org/management/dg/sl/2-EMERGING%20GENERIC%20SKILLS.pdf>
- Sri Ramalu, S., Che Rose, R., Uli, J., & Kumar, N. (2010). Personality and Cross-Cultural Adjustment among Expatriate Assignees in Malaysia. *International Business Research Journal*, 3(4), 96-104.
- Stephenson, J. (1998). The concept of capability and its importance in higher education. In Stephenson, J. and Yorke, M. (Eds.) *Capability and quality in higher education* (pp.1-13) London: Kogan.
- The, H., & Pendergast, D. (2009). *Graduate and Employer Perspectives on Course Efficacy – A study of VET in a Developing Economy. AVETRA - VET Research: Leading and Responding in Turbulent Times* (pp. 1 - 19). Sydney: Australian Vocational Education and Training Research Association. Retrieved January 17, 2013, from http://www98.griffith.edu.au/dspace/bitstream/handle/10072/32854/57291_1.pdf?sequence=1. ISBN: 978-0-9805275-1-3.
- Thomas, T., Petocz, P., Rigby, B., Clark-Murphy, M., Daly, A., Dixon, P., Kavanagh, M., Lees, N. Leveson, L., & Wood, L. (2009). Embedding

- Generic Skills Means Assessing Generic Skills. Melbourne: Royal Melbourne Institute of Technology.
- TSA Cambridge Background & Research*. (2008). Retrieved March 15, 2012, from Cambridge Assessment: <http://www.admissionstests.cambridgeassessment.org.uk/adt/tsacambridge/research>
- Turner, R. (2004). Towards a Structural Model Connecting Hard Skills, Soft Skills and Job Conditions and the IS Professional: The Student Perspective. *Issues in Informing Science and Information Technology*, 1, 977-991
- Wolf, A. (2002). *Does education matter? Myths about education and economic growth*. London: Penguin.
- Yassin, S., Abu Hasan, F., Amin, W., & Amiruddin, N. (2008). *Implementation of Generic Skills in the Curriculum*. EDU-COM International Conference (pp. 571-582). Perth: Edith Cowan University.
- Yorke, M. (2006). *Employability in Higher Education: What It Is - What It Is Not*. Heslington, York, United Kingdom: The Higher Education Academy United Kingdom.
- Yorke, M. and Knight, P. (Reprinted 2006). *Embedding employability into the curriculum*. York, Higher Education Academy.