CONTENTS

The Impact of the Financial Crisis on Higher Education in Malaysia

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Introduction

The US sub-prime crisis in September 2008 had triggered the worst global recession since the Great Depression in 1930s. By end of 2008 or early 2009, many countries had fallen into a deep recession. To stabilise the economy and to ease the adverse impact of the global crisis, many governments had taken measures such as budget re-allocations and efficient utilisation of budget and funds. Some countries introduced fiscal stimulus packages and easy monetary policy to counter the recession. By the 3rd or 4th quarter of 2009, most of the economies had improved and slowly abated from recession. The favourable performance of those countries was largely due to significant fiscal monetary support, inventory correctives and rising commodity prices. However in some advanced nations, recovery remained fragile and the debt crisis in Europe could further slow down the recovery pace.

The Malaysian economy was not spared from the negative shock of the global crisis due to over dependence on exports to the United States and other industrialised countries. To restore confidence in the economy and to reduce the impact of the crisis, two stimulus packages were introduced. The first was announced in November 2008 and the latter was launched in March 2009. Despite the measures taken, the economy fell into a recession when it went through three consecutive quarters of negative Gross Domestic Product (GDP) growth in 2009. Faced with this difficult situation, the government had taken stringent approaches through a drastic reduction in the allocation for management and development expenditures. This was explained in the budget allocation for 2010 that was reduced by almost 10 per cent compared to 2009.

The Malaysian economy showed some improvement and only exited from the recession in the fourth quarter of 2009 when it rebounded by 4.5 per cent. The recovery from the global economic recession was said to be due to proactive measures undertaken by the government and the successful implementation of two economic stimulus packages amounting to RM67 billion. The effectiveness of these measures was further reflected by a robust growth of 10.1 per cent in the 1st quarter of 2010 and this trend continued in the other quarters of the year.

This paper will share some of the findings of our study on the impacts of the financial economic crisis on Higher Education in Malaysia. It briefly presents the survey results on how public universities reacted and coped with the crisis and budget cuts.

Impact on Higher Education Budget and Allocation: Coping Strategies of Public Universities in Malaysia

The 2008-2009 crisis affected various sectors of the economy in Malaysia. In the education sector, response to the crisis varied by countries. Some governments reduced public funding for higher education, some increased, and some maintained the same level of funding (Varghese, 2009). A survey to assess the impact of the crisis on education budgets in member states was carried out by United Nations Educational, Scientific and Cultural Organization (UNESCO) in March 2009 (UNESCO, 2009). The report suggested that most governments made considerable efforts to protect education budgets from the adverse impact of the crisis. Of the eight countries in Asia and the Pacific region that responded to the questions on public education expenditure allocation, only two countries (Pakistan and Samoa) claimed that their public education expenditure were reduced in terms of its share in GDP and government finance. Another report on the impact of economic crisis on the education sector across the OECD area also indicated that public financing for education seemed to increase rather than decrease, regardless of the budget cuts (Karkkainen, 2010).

> **"The survey revealed that most of the public universities took some cost-saving measures and were involved in income generating activities in dealing with 2010 budget cuts."**

Overall, for the Malaysian case, the total allocated and actual expenditures for public universities had increased during the crisis in 2009. Perhaps this was due to the expansionary fiscal policies implemented during the crisis to boost the economy. However, in 2010 the amount of expenditure allocated was reduced substantially, including those allocated to public universities (Economic Report, Ministry of Finance, 2010). A quick survey was carried out in 2010 to gauge how the public universities coped with the 2009 economic crisis and the budget cut in 2010. The questionnaires include strategies taken by universities to reduce expenses or increase revenues by the bursary, human resource and academic affairs departments of each university. The questionnaires were sent to 20 public universities in Malaysia, and 19 universities participated in this survey. The respondents were the representatives of each public university comprising deputy vice-chancellors, bursars, human resources managers, and academic programme administrators.

The survey revealed that most of the public universities took some cost-saving measures and were involved in income generating activities in dealing with 2010 budget cuts.

About 84 per cent of the universities reduced their travelling expenditure and 83.5 per cent took measures to cut cost and reduce wastage such as unnecessary office equipments, stationaries and utilities. About 47 per cent of the universities had put on hold on some of their infrastructure development planning. Also about 47 per cent of the universities claimed that they had reduced grants for research quite substantially. Forty-five per cent of the universities recorded that the allocation of funds for students' activities have also been reduced.

Other cost-saving measures taken by some public universities were a reduction in staff recruitment and staff training expenditures. It was revealed that the recruitment of contract staff either under administrative, supporting or academic categories were severely affected. About 57 per cent of the universities stated that they had reduced the recruitment for contract administrative staff and 52.6 per cent reduced the recruitment of supporting staff. About 31 per cent of the universities also claimed that they had reduced the employment of temporary contract academic staff. Thus in terms of recruitment, the employment of administrative and supporting staff was more affected (on contract or permanent status) compared to academics. Another critical area of university activities that was not spared from cost cutting measures was the staff training programmes overseas.

Many universities also became more innovative and entrepreneurial in their income generating activities. About 84 per cent of the universities indicated consultancy activities as a potential source of income for their universities. To increase revenues and income, many universities offered some short-term professional development programmes (68.4 per cent), continuing studies programmes (63.2 per cent), and off-shore programmes (36.8 per cent). About 73 per cent of the universities had increased tuition fees for postgraduates studies. Other than that, about 50 per cent of the universities resorted to offering entrepreneurship programmes and were involved in profit-making activities through their corporate or private entities and enterprise units. Programmes to solicit donations, endowments and other philanthropic gestures to increase funds had been explored by more than 50 per cent of the local universities.

Generally, increase in tuition and fees are norms across universities as they struggle to find new sources of income and revenue during the downturn. However, interestingly, this is not the case for public universities in Malaysia. Public higher education in Malaysia is highly subsidised and decisions on student intake, fees and programmes/faculties offered are often centrally controlled. Thus, our survey revealed that fees at undergraduate level and student intake in the public universities were not directly affected by the crisis. It also appeared that the number of programmes and faculties in the public universities were also not affected. However, as the crisis deepens one may expect some impacts on programmes offered and size of faculties. Overall, about 68.4 per cent of respondents perceived that there would be a further reduction in the expenditure allocated for their universities in 2011.

Concluding Remarks

Studies carried out amongst the Asia Europe Meeting (ASEM) members indicated that the long-term effects of the 2008/2009 financial crisis on higher education are yet to be felt and that there is a possibilty the overall impact could be underestimated (Varghese, 2010). Thus, ASEM governments should ensure that higher education institutions can be sustained with adequate resources especially during the economic downturn.

> **"It is important to recognise that the budget cut has somewhat signalled to us that the government can no longer guarantee the expected quantum of funding that was available previously."**

The survey on Malaysian public universities coping strategies however indicated that most universities emphasised on short-term approaches. The short-term costs cutting strategies utilised include reduction in contract staff recruitment, travelling expenditure and deferrment of development plans. Universities should also look into long-term approaches such as strategic reviews of administrative as well as academic and student support structure to ensure more efficient allocation of resources. Outsourcing of certain support operations may also be considered.

The consequences of the economic crisis may present many challenges in the education sector. Regardless of tight fiscal constraints and scarce resources, the development in the higher education system has to be sustained even in difficult times, as Malaysia needs to nurture culture of excellence, guarantee access to education and meet the ever growing demand for higher education. It is important to recognise that the budget cut has somewhat signalled to us that the government can no longer guarantee the expected quantum of funding that was available previously. Given that notion, public universities need to constantly review their budgets and be very prudent in their expenditures. Most importantly, public universities need to look for other alternative sources of funding and generate their own income. The capacity for self-generating funds needs to be improved significantly. Building new partnerships with business and industries to fund investment and research projects, creating new business opportunities through knowledge and teaching expertise, and commercialising programmes are among the options to secure funding.

Although the economy is on the road to recovery, the concern is to what extent is such a favourable growth trend sustainable?

In the education sector, although the government has so far allocated quite a favourable level of funds, the concern is the ability for us to sustain the educational expansion and at the same time maintain the quality. The seemingly low adverse effect or rather a positive impact on higher education during the crisis in Malaysia should not make the education sector complacent.

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Measuring Postgraduates' Research Experiences in an Australian University

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Introduction

Universities play a central role in developing national research capacities through the provision of doctoral programmes by research. Doctoral graduates embody research skills and knowledge that help to sustain their nation's social, health, cultural and economic wellbeing (EUA, 2005; LERU, 2007; UNESCO, 2007), especially in emerging knowledge-based economies such as Malaysia (World Bank, 2010). Postgraduate education in general is one of the fastest-growing sectors in higher education (Sastry, 2004; Chinese Government, 2006) and, in particular, universities internationally emphasise the quality and best practices of the research experiences and resources provided for postgraduate research students (see, for example, Council of Graduate Schools (US), 2010, Council of Australian Deans and Directors of Graduate Studies, 2011). Australia and UK universities use surveys of research masters' and doctoral students' experiences to monitor and enhance the quality of postgraduate research degree provision. Based on analyses of the data gathered from these surveys, policies and strategic plans are formulated and modified, at both national and institutional levels, to improve the postgraduate research programmes.

This study provides an overview of two instruments which have been used to measure postgraduates' research experiences in an Australian university; (1) the UK Postgraduate Research Experience Survey (PRES); and (2) the Australian Postgraduate Research Experience Questionnaire (PREQ). A comparative study of PRES and PREQ at an Australian university were carried out in 2011. The data collected by the university using PREQ was used as a reference base to compare the validity of the PRES data gathered by the researchers. The results were then benchmarked against the state of Victoria and Australian national standards.

Postgraduates' Research Experiences

The most widely used instruments to gauge postgraduates' research experiences are the Postgraduate Research Experience Questionnaire (PREQ) developed for Australia and the Postgraduate Research Experience Survey (PRES) developed for the UK. A brief outline of their features follows.

Postgraduate Research Experience Questionnaire

The PREQ was developed in 1999 by the Graduate Careers Council of Australia [now Graduate Careers Australia (GCA)] and the Australian Council for Educational Research (ACER) (ACER, 1999). The 28-item instrument focuses on dimensions central to postgraduate research experience: (1) supervision, (2) intellectual climate, (3) skill development,

TABLE 1 Dimensions of Postgraduate Research Experience in PREQ

POSTGRADUATE RESEARCH EXPERIENCE QUESTIONNAIRE (PREQ)			
Background	**Main Dimensions**	**Focus**	**Items**
• 28 items • 7 dimensions • 5-point Likert scale, ranging from 'strongly disagree' to 'strongly agree' • To be answered by recent graduates (4 months after graduation)	Supervision	The accessibility and quality of research degree supervision	6
	Intellectual climate	The learning community and conditions provided by the institution	5
	Skills development	The extent of generic analytical and communication skill development	5
	Infrastructure	The quality of learning infrastructure such as space, equipment, and finance	5
	Thesis examination	Whether the examination process was timely, fair and satisfactory	3
	Goals and expectations	The clarity of learning structure, requirements and standards	3
	Overall satisfaction	Overall satisfaction with the recently completed degree	1

Source: Graduate Career Australia (2010)

(4) infrastructure, (5) thesis examination, (6) goals and expectation, and (7) overall satisfaction. It uses five-point Likert scaled responses to statements ranging from 'strongly disagree' to 'strongly agree'. The questionnaire is administered to graduates about four months after the completion of their degrees. It is mandated that universities invite graduates to complete the PREQ. This allows the GCA to report on national performances and trends, and also allows benchmarking between similar programmes in different universities (Graduate Careers Australia, 2010). On the institutional basis, the data gathered from PREQ can serve as foundation for strategic planning, faculty level academic development, and curriculum review to enhance the quality of research higher degrees. However, the application of PREQ at smaller units of analysis, such as individual student-supervisor level, may be questionable since its reliability is not well established at such level (Marsh, Rowe, & Martin, 2002).

Postgraduate Research Experience Survey (PRES)
The Postgraduate Research Experience Survey (PRES) is commonly administered by UK universities from March to May annually to current students, including those who have gone through the *viva voce* examination but have not graduated (e.g., in the process of final thesis submission and waiting for convocation). The PRES was adapted from the PREQ after consultation across the sector, including universities, the UK National Postgraduate Committee, the Quality Assurance Agency, the Higher Education Funding Council, the Research Councils, and the UK GRAD Regional Hubs (Park, Hanbury, Kulej, & Harvey, 2007). Table 2 shows the dimensions of PRES.

The instrument has two main sections: the first comprises 28 items which gauge students' research experiences in six dimensions (1) supervision; (2) skill development; (3) infrastructure; (4) intellectual climate (research environment); (5) goals and expectation; and (6) thesis examination; the second comprises aspects that are related to postgraduates' research experiences, such as professional and career development, roles and responsibilities, teaching opportunities, and personal factors. PRES uses similar five-point Likert scaled items to the PREQ.

PREQ and PRES share several similar items but there are two fundamental differences: PREQ surveys recent graduates about their satisfaction with previous experiences, whereas PRES surveys current students about their experiences (Oxford Learning Institute, 2008). PREQ is mandatory for Australian universities, whereas PRES is voluntary for UK. Furthermore, unlike PREQ, PRES also includes quality assurance items (Park et al., 2007; Oxford Learning Institute, 2008). The design and development of PRES was based on the principles in Table 3 (Park et al., 2007: 9).

TABLE 2 Dimensions of Postgraduate Research Experience in PRES

POSTGRADUATE RESEARCH EXPERIENCE SURVEY (PRES)			
Background	**Main Dimensions**	**Focus**	**Items**
• 28 items • 6 dimensions • 5-point Likert scale, ranging from 'strongly disagree' to 'strongly agree' • To be answered by current postgraduates • Focus on research experience rather than satisfaction	**Section I: Research Student Experience**		
	Supervision	The supervisor's knowledge, availability, the guidance and feedback provided	6
	Intellectual climate (research environment)	The research environment, social interaction with the research community and research ambience in the department	5
	Skill development	The development of generic analytical skills, communication skill, research skills, and transferable skills	4
	Infrastructure	The quality of infrastructure, such as equipment, working space financial support, computing resources, library facilities and technical support	6
	Goals and standards	The clarity of research standard in terms of thesis, standard of work expected and requirement for thesis examination	3
	Thesis examination *	Whether guidance was provided for *viva voce* preparation and the thesis examination process was timely, fair and standards	4
	Section II: Other Dimension Related to Research Student Experience		
	Professional and career development, roles and responsibilities and teaching opportunities and personal factors		

Note: * only answered by postgraduates who have experienced examination
Source: Park et al. (2007)

TABLE 3 The Underlying Principles of PRES

No.	Principles	Description
a)	Student-centred	it must listen to the student voice, and focus on enhancement of the student experience.
b)	Easy to use	from the student's perspective, it must be in an accessible online format.
c)	Easy to understand, quick to complete	from the institution's perspective, it must be easy to set up and administer, and easy to analyse and interpret the results.
d)	Voluntary	institutions and their research students must be allowed and encouraged, but not required, to take part.
e)	Flexible	while for comparative purposes it must have an agreed standard set of core questions, it must be possible for HEIs to add their own questions if they wish to.
f)	Useful	it must provide information that is useful to HEIs and national bodies, and this includes a focus on the student experience and the opportunity for comparative analysis (benchmarking and longitudinal tracking).
g)	Cost-effective	it must be economical for HEIs to run [the Academy meets all central development and support costs]; the survey itself is free to users; participating HEIs need a BOS site licence.
h)	Anonymous	the anonymity of student respondents and institutions taking part must be protected: all student responses are anonymous; a list of participating HEIs is not published.
i)	Secure	participating HEIs must be confident that their institutional results will not be made available to any third party.

Source: Park et al. (2007: 9)

A Comparative Study of PRES and PREQ at an Australian University

A comparative study of PRES and PREQ was carried out at an Australian university in 2011. The PRES was distributed online to all current 1,200 research Masters and doctoral candidates at the university. A total of 134 (11.2 per cent) postgraduates responded, which is congruent with voluntary online survey response rates (Siikamaki & Wernstedt, 2008; Wernstedt & Hersh, 2006). Before the study began, clearance was obtained from the university's Human Research Ethics Committee for an email to be sent to these candidates inviting them to participate in the study by completing an online survey. Minor modification was made to the items in the instrument to adapt to the context and structure of higher degree research programmes at the sampled university. For instance, a "not applicable' option was added to cater for students who may find some of the items not applicable, such as off-campus students and those who may still be early in their candidature. A subscale on thesis examination, which focuses on *viva voce*, was dropped as it is irrelevant to the Australian higher education context.

The PREQ data, on the other hand, were obtained from the 2008 survey of 2,921 research postgraduates at the same university. Valid responses were received from 1,590 (54 per cent) respondents (Australian Graduate Survey, 2009). The results are benchmarked against the Victorian (state) and national standards. As it is appropriate to use (PREQ) secondary data as a reference base to compare validity of (PRES) primary data (see Aaker, Kumar & Day, 2011; Nicoll & Beyea, 1999) the following comparative analysis

was produced. Figure 1 shows the postgraduates' research experiences in an Australian university as measured by the PRES and PREQ.

Five key dimensions were compared: (a) supervision; (b) intellectual climate; (c) skill development; (d) infrastructure; and (e) goals and expectations. PRES examination subscale, which focuses on *viva voce*, was dropped as it is irrelevant to the Australian universities context. An item on overall satisfaction was added to PRES to enable comparison to be made with the results gathered from the PREQ item.

Comparative analyses of the PREQ and PRES data showed many similarities. Both the current students (PRES respondents) and the graduates (PREQ respondents) rated most positively their experiences of skill development, and goals and expectations. Figure 1 shows that at least 80 per cent of PRES and PREQ respondents were satisfied with their experiences in these two aspects. Intellectual climate and infrastructure were rated less positively by groups of respondents. For supervision experiences, 79 per cent of the PRES respondents indicated that satisfaction and 77 per cent of PREQ respondents felt likewise. These results were consistent with both the state (76 per cent) and national (77 per cent) benchmarks. The PRES respondents rated overall satisfaction slightly lower than the PREQ respondents. However, this is to be expected as graduates have, by definition, experienced success, and students are yet to do so. Nevertheless, the overall findings suggest that both the university's students and graduates were satisfied with the quality of their research degree programme.
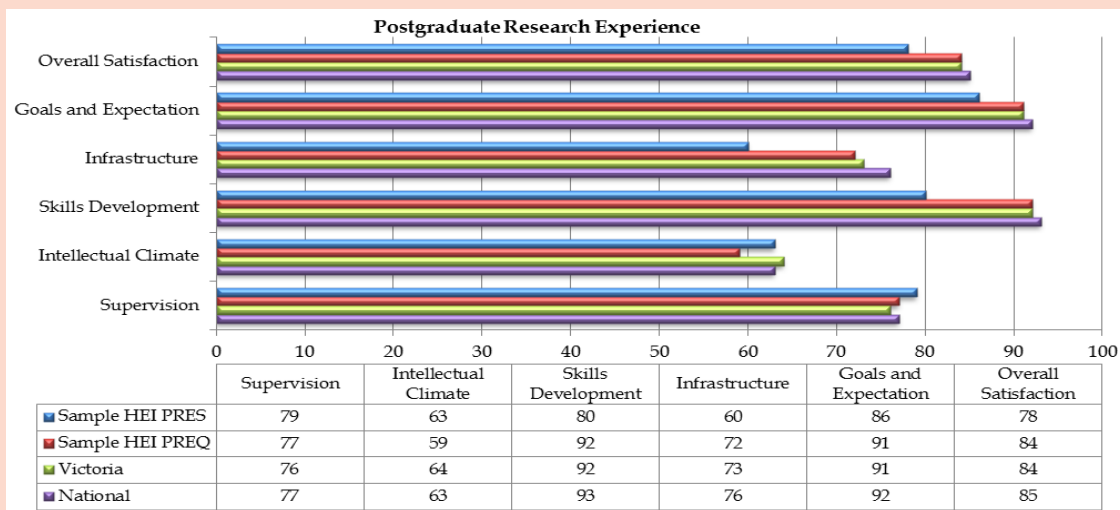
Postgraduate Research Experience

	Supervision	Intellectual Climate	Skills Development	Infrastructure	Goals and Expectation	Overall Satisfaction
▪ Sample HEI PRES	79	63	80	60	86	78
▪ Sample HEI PREQ	77	59	92	72	91	84
▪ Victoria	76	64	92	73	91	84
▪ National	77	63	93	76	92	85

FIGURE 1 Postgraduates' research experiences gauged by PRES and PREQ in an Australian university

Conclusion

Both PREQ and PRES are useful tools that can be used by universities to determine, monitor and benchmark postgraduates' research experiences at institutional and national levels. The validity and reliability of the instruments were well established (Park et al., 2007; Graduate Career Australia, 2010). Nevertheless, these instruments may require adaptation and refinement before use in another national contact as higher education system and development in each country may differ. Where common items are appropriate, Malaysian data may be compared with the Australian and UK data.

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A Proposed Conceptual Framework for the National Study on Postgraduate Research Students Experience (PRSE) in Malaysia

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Introduction

In recent years, the Malaysian Ministry of Higher Education (MoHE) has set its mission to establish a higher education environment that will foster the development of educational excellence. In this regard, the National Higher Education Strategic Plans (PSPTN) Phase 1 and Phase 2 have been designed towards this end. Internationalisation has brought together challenges and opportunities. In a highly globalised and competitive university environment the Malaysian government and Higher Education Institutions (henceforth HEIs) aim to engage with their stakeholders and partners including students locally and internationally. In particular, the Malaysian Ministry of Higher Education is working to develop evidence-based policy and practice with a mission to optimising quality. Postgraduate Research Student Experience (henceforth PRSE) explores the match between policy provision and student experience.

This paper provides an overview of the Malaysian PRSE study and the conceptual framework of the instrument, i.e., the Malaysian PRSE Questionnaire (henceforth MPRSEQ) developed by the researchers to measure the postgraduates' research experience in Malaysia.

The Malaysian PRSE Study

The study aims to (1) develop a conceptual model of PRSE in the Malaysian context; (2) develop a national instrument that measures the PRSE of research students in Malaysian Public Universities; (3) measure PRSE from research students perspectives in Malaysian Public Universities; (4) investigate the extent to which national policy and practices in PRSE provision have supported those working in research degrees in line with Malaysia's goal of being a leading global player of quality HE in the region.

Postgraduate students who are the targets of this study are Doctorate of Philosophy (PhD) students who are registered on a full-time or part time basis. They would be students who are required to conduct research and complete a thesis or dissertation as required by their respective research programmes. The Malaysian PRSE instrument would focus on the measurement of the level of satisfaction of PRSE from the perspectives and experience of the target students.

The Conceptual Framework of the Malaysian Postgraduate Research Student Experience Questionnaire (MPRSEQ)

MPRSEQ is adapted from the Postgraduate Research Experience Questionnaire (PREQ) developed for postgraduate students in Australia and the Postgraduate Research Experience Survey (PRES) used by the HEIs in the UK to investigate the research students' experience in the country. This is true of the six scales/constructs viz: supervision, intellectual climate, research skill development, system, infrastructure and research resources, roles and responsibilities, proposal defence and thesis examination. The adaptation of the instrument indicates the common grounds shared by the global HE community in terms of the quality of postgraduate education. The importance of these six scales are shared by HE Academy UK (2009) and HEIs such as Oxford University (Trigwell, & Dunbar-Goddet, 2005), Cambridge University (2011), Australian National University (2008), University of Sydney (2010), Murdoch University (Ballantyne, 2004), and Auckland University of Technology, New Zealand (2005). It should be noted that some of them have adopted a slightly different term for the scales. For instance, Oxford University uses "departmental intellectual climate" instead of "intellectual climate" in their 2005's study (Trigwell, & Dunbar-Goddet, 2005). On the other hand, Murdoch University adopts the term "support for research activities" to measure students' experience in relation to infrastructure (Ballantyne, 2004). In the MPRSEQ, the term has been renamed as "system, infrastructure and research resources" to capture all aspects of the quality of learning infrastructures such as space, equipment, finance and resource available to research students. Furthermore, "thesis examination" has been adapted to "proposal defence and thesis examination" as some of the research students in this proposed study in Malaysia may include students who yet to go through the final stage of their thesis writing. Therefore this is to accommodate students to whom the examination process may appear irrelevant for them.

Given the situational context of Malaysia in global higher education, some new constructs are used to describe the interests and contexts of Malaysian Higher Education. The three new constructs are English language communication needs and support in a research context, international exposure in a research context, and intercultural communication needs and support to take into account the Malaysian HE contexts and socio-cultural tapestry. The first construct recognises that postgraduate students experience very real English language communication needs in their research journey and hence support is crucial to ensure quality Higher Education provision. However this is often taken for granted and elided in native speaker English language contexts where it is often assumed that English language proficiency is an questionable prerequisite. The second new construct, 'international exposure in a research context', is incorporated to ascertain the extent to which Malaysia's emphasis on providing such a level of engagement

is in fact experienced by the research students here. The third construct, 'intercultural communication needs and support', recognises the multicultural tapestry in the Malaysian HE system and the need to develop intercultural understanding among students, academics, and supporting staff in the system.

> **"...the Malaysian Ministry of Higher Education is working to develop evidence-based policy and practice with a mission to optimising quality. Postgraduate Research Student Experience (henceforth PRSE) explores the match between policy provision and student experience."**

Descriptors of the 9 Broad Constructs/Scales in the MPRSEQ

Supervision
This scale covers students' satisfaction with the quality of supervision in terms of the supervisor's knowledge, experience, availability; the supervisor's understanding of the student's difficulties; guidance, feedback and support given; and the supervisor's interpersonal qualities.

Intellectual climate
This scale covers students' satisfaction on the intellectual climate in the institution in terms of openness and opportunities provided by the institution for social and academic contact with various communities; encouragement from the institution for dissemination of research findings; opportunities to be involved in lifelong learning, cutting edge research and a broader research culture; and the perception of being respected and integrated as a researcher.

Research skill development
This scale covers the extent to which students perceive their research experience to have fostered the development of the generic/transferable skills and research skills. Skills include problem solving; oral and written communication; development of ideas and their written presentation; collaboration with other researchers; analytical skills; planning and ability to learn independently.

System, infrastructure and research resources
This scale covers the quality of learning infrastructures such as space, equipment, finance and resource available to research students, including: access to a suitable working space, technical support, personal working space, necessary equipment, computing facilities and resources, financial and administrative support, etc.

Roles and responsibilities
This scale covers the clarity of roles and responsibilities in academic, legal, ethical and professional matters on the part of students as well as institutions.

Professional development of students as knowledge workers
This scale covers aspects of quality and satisfaction on students' professional development in terms of career progression, employability skills, linkages with alumni, industry and community.

English language communication needs and support in a research context
This scale covers aspects of quality and satisfaction on the English language communication needs of students and the support provided by the institutions.

International exposure in a research environment
This scale covers the quality and satisfaction on international exposure in a research environment as experienced by students in terms of global research opportunities, joint international programmes, international exposure on campus, global identity formation, personal growth and employability in global environments.

Intercultural communication needs and support
This scale covers aspects of quality and satisfaction on the intercultural communication (e.g., national, geographical, ethnic, socio-economic class, religion, ideology, age, gender, diversity) needs and support as experienced by students. This scale relates to opportunities and provision for students to develop intercultural understanding of self and other groups through intercultural awareness/sensitivity training and social interactions.

Proposal defence and thesis examination (only if relevant)
This scale covers aspects of the quality and satisfaction with the support given to students on the proposal defence and thesis examination in terms of transparency, accessibility to assessment criteria, feedback and appeal process.

Overall satisfaction
This scale covers overall satisfaction of the ten scales: supervision, intellectual climate, research skill development; system, infrastructure and research resources; roles and responsibilities; professional development; English language communication and support; international exposure in a research environment; intercultural communication support; proposal defence and thesis examination.

Research Methodology and Data Collection

The MPRSEQ will be used as a primary research instrument to identify and measure students' experiences of the nine core scales in the questionnaire. The MPRSEQ consists of three sections:

- Part A: supervision, intellectual climate, research skill development, system, infrastructure and research resources, roles and responsibilities, professional development of students as knowledge workers, English language communication needs and support in a research context, international exposure in a research context, and proposal defence and thesis examination.
- Part B: open-ended questions
- Part C: bio-data and demographic background of respondents

The study employs two research designs, namely qualitative and quantitative designs in the data collection and data analysis. SPSS will be used as the main tool for the quantitative analysis of the survey data. Document analysis/study will be conducted focusing on national policies from MoHE (MoHE, 2007; 2011b) and Malaysian Qualifications Agency (MQA, 2008) as the primary documents for examination. For the qualitative approach, thematic study of the focus group interviews with national stakeholders from MDPS, MoHE and MQA will be carried out.

> **"In the knowledge economy of the future, postgraduate education may become a site of heightened competition tension regarding what constitutes legitimate research environment for fostering knowledge workers."**

A total of 20 public universities are selected for the current study. Approximately 3,600 research students will be selected from a population of 17,718 PhD students (MoHE, 2011a) in Malaysian public universities.

Conclusion

In view of Malaysian Higher Education policy on developing an educational hub of excellence including its focus on internationalisation, the research team believes that the PRSE conceptual framework and the MPRSEQ could be used as a tool by Malaysian Ministry of Higher Education, HEIs and universities to measure, evaluate and benchmark postgraduates' research experiences at the institutional and national level in Malaysia. In the knowledge economy of the future, postgraduate education may become a site of heightened competition tension regarding what constitutes legitimate research environment for fostering knowledge workers.

Acknowledgement

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Profiling the Centre for Global Sustainability Studies – the early days of a think tank, a platform and a catalyst for sustainability transformation

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Introduction

Since the ten-year review of the Earth Summit, the World Summit on Sustainable Development (WSSD, 2002), world leaders have recommitted themselves to address critical sectoral issues in water, energy, health, agriculture, and biodiversity (WEHAB) and a number of cross-sectoral challenges such as climate change, unbalanced production and consumption, and overpopulation as a matter of urgent priority for sustainable growth.

Convinced that universities everywhere must change to embrace the globalising world, Universiti Sains Malaysia (USM) has embarked on a long-term strategy to make sustainability a major mainstream guiding principle. Based on its track record and preparedness for action, USM was chosen in 2008 as the sole recipient of the Accelerated Programme for Excellence (APEX) award. As part of its APEX initiative, USM has opted for a whole-system sustainability transition, which means that it will mainstream the social, economic and environmental components of sustainable development into its core activities such as teaching, research, community engagement and institutional arrangement. As a result, USM has initiated a range of mission activities, which through their specific objectives are expected to contribute to the achievement of the sustainability missions and overall vision.

One such mission of great significance was the decision to establish a Centre for Global Sustainability Studies (CGSS@USM; http://cgss.usm.my) to help mainstream sustainability into the entire fabric of the university. The Centre was formally launched by the Minister of Higher Education, YB Dato' Seri Mohamed Khaled Nordin in December 2009. By design CGSS is expected to avoid unnecessary duplication by promoting inclusive networking with all other relevant sections of the university, regional and international sustainability organisations, national and regional governments, private sector, civil society groups & NGOs and to promote sustainable development, paying particular attention to the disempowered bottom billion. The centre aims to provide a strong institutional framework to promote science-policy interactions between the academic community and the policymakers at the national, regional and international levels.

Background

The United Nations Conference on Environment and Development (UNCED, 1992, known as the Earth Summit) ignited a wildfire of interest in sustainable development. The Declaration of Rio and its Agenda 21 action programme are now on everyone's agenda. While this is encouraging, the gap between the rich and the poor deepens daily, with about a billion people pushed to the bottom of the world's resources and wealth.

For targeted action, it is pertinent to understand what Sustainable Development (SD) means. The Brundtland Report's "Development that meets the needs of the present without compromising the ability of future generations to meet their own needs" is the most popular definition of SD. However, there are many other working definitions of SD such as (i) a dynamic process enabling all people to realise their potential and improve their quality of life in ways that simultaneously protect and enhance the earth's life-support systems; (ii) development that meets human needs satisfactorily without violating long-term natural resource capacities and standards of environmental quality and social equity; and (iii) development that is good for all, forever.

> **"The centre aims to provide a strong institutional framework to promote science-policy interactions between the academic community and the policymakers at the national, regional and international levels."**

Acknowledging the critical role education plays in building sustainability capacity, a 'Decade of Education for Sustainable Development' (UNDESD, 2005–2014) was launched in 2005 in New York by the United Nations with UNESCO serving as the lead agency. Although since 2000, the governments of the world, together with United Nations agencies, have launched four distinctive initiatives which have a focus on education: the Millennium Development Goals (MDGs), Education for All (EFA), the United Nations Literacy Decade (UNLD), and UNDESD, these share in common the empowerment of people through education for a more meaningful and sustainable life.

CGSS's Commitment to Mainstream Sustainability in USM

CGSS uses aspects of 'system thinking' approach to identify the 'state-pressure-response' relationship of the issues it wants to address. The current state in Malaysia and ASEAN countries is one of fast tracked economic growth, and rising population, urbanisation and globalisation. This situation then generates pressures on our ecosystem (large footprint), waste management (unsustainable production consumption and poor management of resulting waste), energy production (C-intensive) and human capital development (poorly developed competency). The response to these pressures could be varied depending on the circumstances but in the case of CGSS, it may be narrowed down to knowledge transfer programs (KTP) aimed at empowering communities to address development challenges. Our focus is also on awareness and capacity building initiatives to train leaders at all levels to enhance SD based growth and to empower communities - village communities (especially women and youth), private sector (SME-MNC interaction and donor engagement) and the public sector (the government policy and implementation mechanism) - towards poverty alleviation and inclusive growth.

> **"The current state in Malaysia and ASEAN countries is one of fast tracked economic growth, and rising population, urbanisation and globalisation."**

Given its commitment to promote sustainability through its activities, CGSS has been involved in a number of special initiatives since its inception, namely:

(i) Development of the USM-APEX Sustainability Roadmap

CGSS coordinated the development of the USM-Sustainability Roadmap, which presents the University's case, state of readiness, and action plans for rolling out a systemic adoption of the principles and practices of Education for Sustainable Development (ESD). The roadmap attempts to integrate the entire activities of the university to achieve two major goals: (i) to be a world-renowned university for sustainability and (ii) to be a sustainability-led university. In order to achieve these goals, a two-pronged approach will be required – one which focuses on the major global sustainability challenges and the other on campus sustainability.

(ii) Teaching and Training Programs

CGSS is preparing to offer a new Masters in Development Practice (MDP) programme in network partnership with Columbia University, New York. This will be a training tailored for those planning to play a key role in the broad area of sustainability. A proper blend of theory and practice will be the special feature of the MDP program globally. The need for this training was highlighted by an International Commission on Education for Sustainable Development Practice, organised by the United National Secretary General in collaboration with McArthur Foundation and the Earth Institute of Columbia University, USA. (http://www.earth.columbia.edu)

In addition, CGSS is getting ready to offer a new course at the undergraduate level, Sustainability: Issues, Challenges and Prospects, that is expected to commence in the academic year 2011-2012.

Apart from the above formal educational approaches, CGSS is also focusing on non-formal approaches by offering 'Sustainability Training' on topics such as sustainable development and Malaysia's Vision 2020, climate change and disaster risk management, integrated waste management, multilateral environmental agreements, environmental governance, security and sustainable development, population-poverty and the environment, culture and environment.

(iii) Research and Publications

Research and publications are an integral part of CGSS activities. In order to ensure that USM's research profile befits its APEX aspirations, the Centre strives to work closely with existing research groups in the following areas: climate change and disaster risk management, integrated waste management, integrated coastal management, natural resource management, equity issues, security issues, poverty, energy, health, governance, indigenous knowledge systems, MEA, globalisation and urbanisation.

CGSS is currently working on three projects, for which it received the Delivering Sustainability Excellence grants. These are:

a. *Reducing Flood-Related Food Security Challenges through SD/ESD in Kuala Nerang, Kedah*. This project looks at the flood-related issues and food security relation in Kuala Nerang using the Vulnerability and Adaptation assessment to identify the groups least resilient to food security and to empower them through adaptation measures.

b. *Showcasing Balik Pulau as a 'Sustainable Village'*. This project focuses on helping communities reconnect with the resources that are used to promote human well-being by enhancing social and political empowerment, community self-reliance and self-determination.

c. *Enhancing Sustainable Living within Universiti Sains Malaysia and its Neighbouring Communities*. This project focuses on promoting sustainable lifestyles within the University campus and the surrounding neighbourhoods by engaging participants from various levels of community, and by creating an enabling environment in which collaborative efforts are possible through integrated waste management, recycling and awareness building exercise.

(iv) Sustainability Awareness Programs

CGSS has prepared a set of twelve Fact Sheets on a variety of topics ranging from Sustainable Development, Education for Sustainable Development, USM-APEX, Green Growth and Success Stories for sustainability on campus and public use. The fact sheets are available in both English and Bahasa Malaysia.

As part of the outreach projects, specific sustainability awareness/practices campaigns were conducted. Composting units and recycling bins were distributed to six schools, commercial entities, residential areas and industries around USM's vicinity. In addition, flood-kits, boats and makeshift kitchens for flood-victim relocation camps have also been distributed in Kuala Nerang, a flood prone area.

> **"...CGSS 'thinks global and acts local' so much so that it is a 'glocal' centre focusing on the impact of global challenges as they apply to our national and sub-national levels."**

(v) Professional Network Development

Since its inception in 2009, it has managed to poise itself as a global centre capable of rallying support both locally and internationally in carrying out its planned activities.

With effect from first December 2010, the Regional Centre of Expertise (RCE) Penang and Healthy Campus (Kampus Sejahtera) were fully registered as affiliate bodies of CGSS.

Internationally, CGSS is conducting a joint project with the United Nations Environment Program (UNEP), entitled "Review of the Implementation of Multilateral Environmental Agreements (MEAs) and their Implementation at the National Level." CGSS is also in collaboration with: (i) the Network for the Promotion of Sustainability in Postgraduate Education and Research (ProSPER.Net); (ii) Programme on Ecosystem Change and Society (PECS) (International Council for Science, ICSU); and (iii) the Asia-Pacific Network for Global Change Research (APN). The Centre is currently negotiating partnerships with University Leaders for a Sustainable Future (ULSF); and the Earth Institute, Columbia University, New York. In addition, the Economic Planning Unit, Prime Minister's Department Malaysia (EPU/PMD) and the United Nations Development Program (UNDP) Malaysia have engaged CGSS as the national consultant for Malaysia's preparatory process towards United Nations Conference on Sustainable Development (UNCSD/Rio+20) in 2012.

Under our global and regional commitment, CGSS hosted a number of conferences such as the ASEAN Workshop for the development of a Framework and Roadmap for Sustainability Education, Workshop on "Strengthening Institutional Framework for Sustainable Development" in Collaboration with United Nations Environment Program (UNEP), ASEAN Secretariat, Office of the Science Advisor to the Prime Minister of Malaysia, and The World Congress on Justice, Law and Governance (to be held on 10-11 October 2011), in collaboration with United Nations Environment Program (UNEP) and Office of the Science Advisor to the Prime Minister of Malaysia.

(vi) CGSS Policy Focus

As part of CGSS' policy focus, the centre has been publishing regularly under our 'policy discussion series'. Three items addressing the following thematic areas have already been published: (i) Science-technology innovation for sustainability; (ii) Climate change, food security and biofuels; and (iii) Knowledge infrastructure for Malaysia's New Economic Model. Three more issues are in print: (i) Front-end technologies for inclusive economic growth; (ii) Export focused solar energy for Malaysia's industrial competitiveness; and (iii) Earth Charter and the ethical dimension of sustainability in higher education.

(vii) APEX Coordination (Sustainability Office)

In order to promote the implementation of sustainability at all levels of USM, the university has established a Sustainability Office, which is based at CGSS. One of the major responsibilities of this Office is to carry out annual sustainability audits starting 2011. An extensive set of indicators has been developed by CGSS for this purpose.

Conclusion

While the centre is pleased about how far it has come, it is also conscious of how far it has to go to be recognised as a truly global sustainability centre. CGSS considers itself 'global' for two reasons: (i) it is extensively networked with a number of key global change centres; and (ii) in its mission activities CGSS 'thinks global and acts local' so much so that it is a 'glocal' centre focusing on the impact of global challenges as they apply to our national and sub-national levels. This approach is in-sync with the university's APEX agenda and it is hoped that its inclusive structure and operational plan will boost CGSS efforts to position itself as a regional centre of excellence for sustainability.

3rd GLOBAL HIGHER EDUCATION FORUM 2011
Global Higher Education: Reflecting on the Past, Designing Sustainable Futures

The 3rd Global Higher Education Forum 2011 was held at Hotel Equatorial, Penang, Malaysia from 13th to 15th December 2011 with over 300 participants from different regions. A pre-GHEF session on 12th December 2011 was held at the same venue. This unique session aims to provide opportunities to selected participants to present their topics. Fifteen paper were presented in this session. Participants included both academics and students from Malaysia and abroad such as South Korea, Australia, Japan, and Canada. Topics presented ranged from higher education policy to human capital development and international higher education.

One of the most interesting sessions in GHEF2011 was a parallel session titled Internationalising Higher Education: Lessons Learned from Regional Hubs. This session attracted most of the participants with distinguished speakers such as Jane Knight, Kanayathu Koshy and Anuwar Ali. Jane Knight stressed in the Q&A session that in order to be a successful hub, be it talent hub or education hub, the key factor was quality. Quality would ensure that a hub is able to attract the most talented students and individuals from the competitive global workforce.

GHEF2011 also had a session specifically for students to express their opinions about the future of higher education which titled Students' Perspectives on Higher Education in the Future with three student representatives from Malaysia, India and Europe. Representatives from Malaysia and India saw a big space for improvement for universities. The representative from India had a very pessimistic view on universities. He opined that universities were very policy-oriented and tended to neglect students' needs in general. Representative from Malaysia, on the other hand, suggested more communication be awarded between universities and students to enhance mutual understanding and needs.

Among the very fruitful outcome of GHEF2011 was the establishment of Global Higher Education Network (GHEN) that strives to attract members all over the globe. It was an effort to take GHEF to a further progress in which ideas suggested and discussed in GHEF were hoped to be translated into more practical implementation by GHEN members.

GHEF2011 was officiated by D.Y.T.M. Tuanku Syed Faizuddin Putra ibni Tuanku Syed Sirajuddin Jamalullail, the Crown Prince of Perlis.
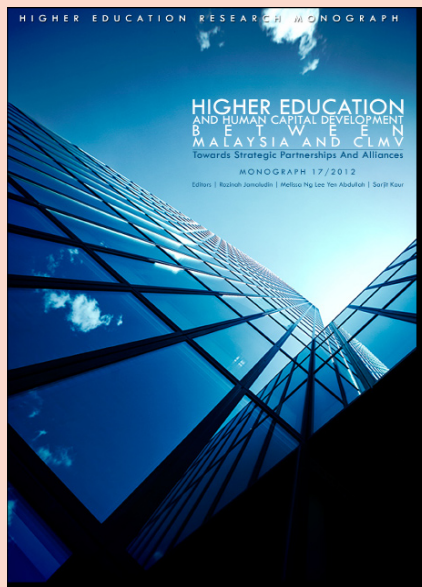

Local and international participants appreciating talks at GHEF2011.
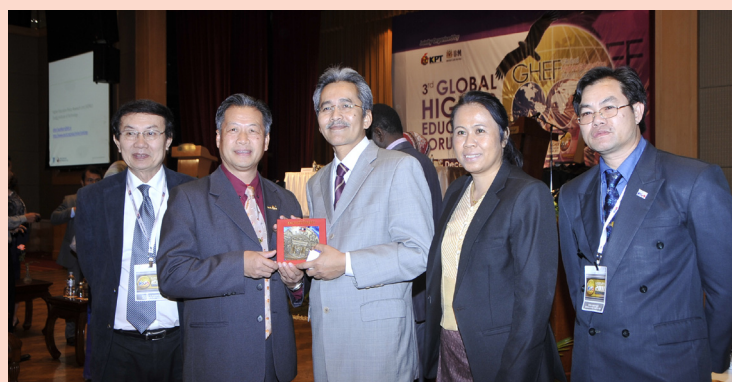
A token of appreciation from Lao PDR delegates to Prof. Dato' Omar, USM's Vice-Chancellor.

Higher Education and Human Capital Development between Malaysia and CLMV: Towards Strategic Partnerships and Alliances Monograph 17/2012

This collection of articles provides a timely, systematic and critical scope of collaborative activities among countries in Southeast Asia, with a detailed focus on Malaysia, Cambodia, Lao People's Democratic Republic and Vietnam. These countries share many similarities and commonalities in culture, traditions, values and developmental interests. This comprehensive volume reports on the Malaysia-CLMV collaboration in improving provision and management in higher education policy issues and capacity building. Many essential aspects of higher education cooperation are highlighted in the book: higher education systems, partnerships in the academic sector, partnering in quality assurance, linkages, staff and student exchanges, and partnerships and alliances in the research sector. The chapters enhance our understanding on the emerging higher education systems in Southeast Asia and the collaboration efforts of the region in higher education.

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Calling for Articles and News Briefs

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3. Authors are responsible for obtaining permission to use any published material. The publisher shall not be held responsible for the use of such material.
4. Citations in the text should include the author's last name and date of publication, e.g. (Ashton, 2001). If quotations are used, page numbers should be indicated, eg. (Ashton, 2001: 30).
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Watkins, D. (1998). A cross-cultural look at perceptions of good teaching: Asia and the West. In J. J. F. Forest (Ed.), *University teaching: International perspectives*. New York: Garland.

Wolfe, R. N. and Johnson, S. D. (1995). Personality as a predictor of college performance. *Educational and Psychological Measurement*, Vol. 2, 177-185.

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