

ASIAN JOURNAL OF UNIVERSITY EDUCATION

A Publication of
the Asian Centre for Research on University Learning and Teaching (ACRULeT)
Faculty of Education, Universiti Teknologi MARA

Advisor

Normah Abdullah

Chief Editors

Hazadiah Mohd. Dahan
Richard J. Holmes

Editorial Board

Abdul Karim Abdullah
Faizah Abd. Majid
Gurnam Kaur Sidhu
Harrini Md Noor
Lee Lai Fong
Parmjit Singh Aperapar
Suthargar Narasuman

Reviews Editor

Nor Aziah Alias

Editorial Advisory Board

Habibah Ashari (*Universiti Teknologi MARA, Malaysia*)
Richard Braddock (*Macquarie University, Australia*)
Lee Ong Kim (*NIE, Nanyang University of Technology, Singapore*)
Frank Hardman (*University of York, UK*)
Patricia Rogers (*CIRCLE, Royal Melbourne Institute of Technology, Australia*)
Allan White (*University of Western Sydney, Australia*)
Vasudha Kamat (*SNDT Women's Technology University, India*)

Copyright © 2010 Asian Centre for Research on University Learning and Teaching (ACRULeT), Faculty of Education, Universiti Teknologi MARA, 40450 Shah Alam, Selangor, Malaysia.

All rights reserved. No part of this publication may be reproduced, stored in a retrieval system or transmitted in any form or any means, electronic, mechanical, photocopying, recording or otherwise, without prior permission, in writing, from the publisher.

Asian Journal of University Education is jointly published by the Asian Centre for Research on University Learning and Teaching (ACRULeT), Faculty of Education and University Publication Centre (UPENA), Universiti Teknologi MARA, 40450 Shah Alam, Selangor, Malaysia.

The views, opinions and technical recommendations expressed by the contributors and authors are entirely their own and do not necessarily reflect the views of the editors, the Faculty or the University.



As Uni

Vol.6 N





ACRULeT

ASIAN CENTRE FOR RESEARCH ON UNIVERSITY LEARNING AND TEACHING

Asian Journal of University Education

Faculty of Education

Vol.6 No.1

June 2010

ISSN 1823-7797

- | | |
|--|----|
| 1. English in the Arab Gulf <i>Khawlah Ahmed</i> | 1 |
| 2. The Importance of Corporate Image in the Marketing of University Postgraduate Programs <i>Zainudin Awang</i> | 13 |
| 3. The Development of a Student Learning Outcomes Based Accreditation Model in Taiwan Higher Education <i>Angela Yung-chi Hou</i> | 29 |
| 4. Creativity and Innovation in Research: The Perceptions of Malaysian Postgraduate Students <i>Faizah Abd Majid</i> | 49 |
| 5. Factors Influencing Student Choice: A Study of a Malaysian Public University <i>Peter Songan</i> <i>Hong Kian Sam</i> <i>Gabriel Tonga</i> <i>Mustafa Abdul Rahman</i> <i>Tan Kok Wah</i> | 75 |
| 6. The THE-QS World University Rankings, 2004 – 2009 <i>Richard Holmes</i> | 91 |



Call for Papers

Asian Journal of University Education

The Asian Journal of University Education (AJUE) is a scholarly international refereed journal. It is published twice a year by the Asian Centre for Research on University Learning and Teaching (ACRULeT), Faculty of Education, Universiti Teknologi MARA, Shah Alam, Selangor, Malaysia.

The objective of the journal is to provide a forum for the publication of research and discussion on all aspects of university education such as internationalization of higher education, teaching methodology, learning styles, assessment, curriculum development, educational leadership, educational management and administration, leadership, gender issues and quality assurance in higher education. The journal hopes to receive papers that use a variety of methods including experimental, qualitative and case studies. Theoretical and narrative studies will also be considered. Book reviews and shorter research notes are also welcome.

The journal is published by the Asian Centre for Research on University Learning and Teaching (ACRULeT), Universiti Teknologi MARA, Shah Alam, Malaysia. It has a policy of double-blind reviewing. As an international journal it welcomes contributions from researchers and teachers from all parts of Asia and elsewhere.

Submission Requirements

Articles should be written in English or Bahasa Malaysia and should not exceed 30 double-spaced pages using font size 12. The format should be Microsoft Word version 6 or higher. Reviews, research notes and comments should not exceed 10 pages. All submissions should be accompanied by a statement that the said articles have not been submitted and will not be submitted for publication anywhere else.

Articles must be submitted to The Chief Editor as an e-mail attachment to ajue09@yahoo.com. Articles must be submitted together with a short biodata of the author on a page separate from the article. This should

include the title of the article, author or authors, address for correspondence, e-mail address and relevant telephone number(s). Contact information must be given for all co-authors.

Style

Orthography for English article may follow British or American conventions but should be consistent throughout the text.

Citations and References

Citations and references should follow APA conventions. Notes should be used as sparingly as possible and should be in the form of endnotes rather than footnotes.

Abstracts

Each article should be accompanied by an abstract of not more than 200-250 words. Abstracts in English and Bahasa Malaysia should accompany Bahasa Malaysia articles.

For further information, please contact:

Head

Asian Centre for Research on University Learning and Teaching (ACRULeT)

Faculty of Education, UiTM

Section 17 Shah Alam

40200 Selangor

Malaysia

Tel : 603-5522 7408 / 7432

Fax : 603-5522 7412

E-mail : ajue09@yahoo.com

English in the Arab Gulf

*Khawlah Ahmed
American University of Sharjah
United Arab Emirates*

ABSTRACT

Rapid changes are happening at all levels in the modern Arab Gulf societies. One of the fields where these changes matter most is education. Governments are trying to restructure their educational policies to respond to technological, economic and social changes without disrupting or clashing with firmly held beliefs, ideas and traditions. But the dramatic changes in these countries are bound to be accompanied by many challenges. In the field of education, one of the important issues posing a challenge is mandating the use of English as the medium of instruction in many academic institutions. This paper looks at the spread of English in these areas, its current position and the accompanying challenges.

Keywords: *English, education, change, tradition, strategy*

English in the Arab Gulf

Rapid changes are occurring on a worldwide basis on every level in modern societies. Of these changes, those in the field of education matter most. Education is a key component for national success but it is getting more difficult due to constant changes not only in classrooms but in teaching strategies and government requirements. Education is continuously debating the most appropriate strategies for coping with such changes. One of its challenges is to prepare individuals for the new expanding and diversified demands for life time learning of the new world order and globalization. Governments are also trying to restructure their educational, economic and social policies in order to respond to these technological,

ISSN 1823-7797

© 2010 Asian Centre for Research on University Learning and Teaching (ACRULeT), Faculty of Education, Universiti Teknologi MARA (UiTM), Malaysia.

economic and social changes. In education, many are caught in what Graddol (2006) describes as a never ending race for continuous upgrading and preparation of individuals. The challenge posed in the Arab Gulf countries is how to meet these increasing demands and ensure that the type of learning responds in an effective manner to the needs of individuals and countries, without disrupting beliefs and traditions.

There is a great deal of literature on how different societies are dealing with such changes whether in reexamining existing policies, methodologies, or concepts in all areas of education and how they are dealing with current changes in light of the new demands and reconfigurations (Baker, 2003; Bamgbose, 2001; Tollefson, 2002; Llosa, 2008; Barber, 2008; Kachru & Nelson, 1996; Kachru, 1977). Yet the Arab countries seem to have been left out of socio-educational discourse, as Findlow (2005) explains, due to factors such as “the accessibility of reliable information and sensitivities about applying a universalist perspective to analyzing the region – largely connected to such considerations of modernity” (p. 286). Lately, education in the Arab Gulf is increasing in importance due to the area’s new position in the world (World Report, 2008). The dramatic changes in these countries are bound to be accompanied by many challenges. In the field of education, one of the important issues posing a challenge is mandating the use of English as the medium of instruction in many academic institutions from primary to tertiary levels.

A Brief Overview

In terms of development, education in the Arabian Gulf countries has undergone tremendous change in a relatively short period of time and some, like the United Arab Emirates, have developed into modern and highly technological societies beginning to compete on a regional and international level. The emerging education systems of the GCC States (Gulf Cooperation Council, including Bahrain, Saudi Arabia, Oman, Kuwait, Qatar and the United Arab Emirates) are seeing a tremendous increase in student numbers (Syed, 2003; Mazawi, 2007) and academic institutions. The rise in academic institutions in the Arab Gulf not only reflects this area’s growth and development but also reflects how education has become bound up with globalized structures. This massive educational growth has led to the expansion of private sectors and to education becoming a field of international commerce, with many competing to provide for their needs. Foreign educational institutions are establishing

branches in all parts of the Arab Gulf. In the UAE alone, academic institutions like the American University, New York University (NYU), George Mason University, the Sorbonne, Murdoch University, Michigan State University, and the University of Wollongong have already established branches here and are attracting many students. With the establishment of academic university ‘cities’ and knowledge ‘villages’, these countries aim to provide their citizens with education that they once had to travel abroad to acquire.

Educational reforms are part of national and regional plans that accompany economic success. The aim of such efforts is to eliminate disparities in education and literacy and to try to catch up with the West. By improving opportunities for education and its quality, they aim to raise levels of literacy and conform to the United Nation’s “Education for All”, “Millennium Development Goals”, and “Literacy Decade” efforts. Educational development has also tremendously expanded academic opportunities at elementary and secondary levels with heavy emphasis on the higher tertiary levels. The small Arab Gulf countries which were, according to Findlow (2007), far behind other Arab states in terms of development have, since independence in the 1960s and 1970s, been able to reach remarkable achievements.

Going hand in hand with these changes, religion and culture have always had a strong presence in the Arab Gulf countries. Islam and the Arabic language have played a major role in the politics and education of this area throughout history. Education, prior to western imperialism was the sole responsibility of Islamic religious institutions (Hitti, 1970; Tibawi, 1972). Yet independence, modernization and globalization have brought with them, as Findlow (2008) explains, “concessions to culturally conservative forces, local and international” (p. 340) and “culturally conservative” factors such as religion have come to be debated in government policies. Arab political and legal systems have come “to pick and mix from a range of secular and religious codes” (Findlow, 2008, p. 341). With further liberalization and westernization, as Findlow explains, we see “authorities considering relaxing laws governing the teaching of Arabic and Islamic studies in schools” (p. 345).

The Spread of English

The quality of education sought by the Arab Gulf countries is believed to be the key to development, growth and empowerment. Governments are

spending a large percentage of their total budgets on education. Leaders of these Arab countries have come to recognize the need for modernization and change, and the source of their inspiration is the West (Kirdar, 2007). New curricula are being imported from the West and with them comes the English language and native English speaking faculty and staff to run these new rapidly developing institutions. Modernization and growth have mandated the use of the global language English and many of these countries have therefore required English to become the medium of instruction in many, if not the majority, of their academic institutions.

It seems that the “English factor” as Graddol (2006) explains, “is found in virtually every key macro trend” that has happened across the world, including “the reform of education in universities and schools” (p. 20). English as a global or international language has spurred a good deal of debate across the globe and has been the topic of a great deal of research (Alptekin & Alptekin, 1984; Kachru, 1992; Kramersch, 1993; McKay, 2002). The general debate on the teaching of English on a worldwide level (where English is not the native language), has revolved around whether teaching English means teaching the culture that comes with it or including the culture of the students involved. There are two views here. The first view is that language can be utilized to communicate cross-culturally and does not require attachment to any particular country or culture, while learners do not need to internalize its cultural norms in order to effectively utilize it (McKay, 2002). The belief here is that other cultures besides that which accompanies English can and should be offered in the English language classroom (Adaskou, Britten & Fahsi, 1990; Kramersch, 1993; McKay, 2002; Alptekin & Alptekin, 1984; Asraf, 1996). Research that supports this has shown that though students want to learn English, they are often unwilling to receive “the cultural load of the target language” (Alptekin & Alptekin, 1984, p. 17) or are just not interested in learning the culture of the Inner Circle (Kachru, 1992). Others believe that English should not replace other languages but should serve as an integral part of bilingualism (Brutt-Griffler, 2002). There are those in this camp that believe that even the English conventions used by the Inner Circle countries are irrelevant and may be considered inappropriate by the speakers involved (Kachru, 1992).

The second view is that the language being used as a medium of instruction should fully incorporate culture as a crucial component of language learning because the study of another language should also provide students with a knowledge and understanding of the culture that utilizes that language. This incorporation of language within a wider

social and cultural perspective is also supported by a great deal of research (Damen, 1987; Byram, 1994; Valdes, 1990; Stern, 1992; Seelye, 1993; Peck, 1998). It is believed that students should learn the “culturally appropriate behavior” that goes with the language (Peterson & Coltrane, 2003, p. 2) and so incorporating culture teaching is essential to the language syllabus and instrumental in fostering communicative competence (Savignon & Sysoyev, 2002). Therefore, the idea of those in this camp is that teaching language in isolation from its cultural background “can become communicatively and culturally vapid” (Oxford, 1994) and if learners are not taught the cultural contexts of the language itself, the learning experience is not vivid or purposeful (Peterson & Coltrane, 2003).

The global spread of English does not just raise linguistic, educational and economic issues. It also raises cultural, political and ethical ones (Graddol, 2006) and with the rise of such issues, there is a possibility, as Graddol explains, of a beginning of a new story about globalization, a giving way to greater regionalism and more complex patterns of linguistic, economic and cultural power (p. 13). Language and the culture that comes with it are powerful factors that need serious consideration because of their importance and the ramifications that can accompany them. They can be tools for symbolic violence and have a great deal of power in education.

The Challenges

For the Arab countries, the language issue is causing a great deal of concern and posing many challenges firstly because the official language of all Arab countries is Arabic. Arab Gulf countries, being members of the Arab League, are committed to cooperate educationally in the cause of “Arabization”, and to revive the “intellectual and artistic legacy of the Arabs” by including Arab history, geography and literature in educational curricula, with Arabic being “the language of instruction in all subjects and in all educational stages in the Arab countries” (Findlow, 2006). But this commitment has not been fully realized in the Arab Gulf because of “prioritization of international communication and competition” (p. 347).

Arabic is not just the official language, it is the language of the Quran, which means Islam. And Islam is not just a religion but a way of life for those who follow it – an integral part of the culture and identity of its members. Language has become a national issue in all the Arab

states. This poses a challenge for governments, curriculum developers, educators and parents. An important matter of concern here is their Arab-Islamic identity which many believe is at stake. The responsibilities behind the different choices made at all these levels of education and the use of English as the medium of instruction being one of them need to be reviewed. Reforms need to be characterized by a sense of realism that entails careful changes and a balance among the dominant forces. The position and status of Arabic as being the national language of these countries determines how it will be handled and promoted. New curricula which are being imported may need to be revised in terms of contextual and cultural appropriateness.

The majority of educational institutions, despite the many foreign components, from the curricula to faculty and staff, remain dominated by a student body with a collectivist high context culture that may have different, if not conflicting concepts and “another system” (Hall, 1976, p. 53) that may not be compatible with these new concepts and ideas. There are many factors that need to be taken into consideration even at this level. Cultural transmission and linguistic issues are developing and many have cautioned about transfer in education (Dyer, 1998; Thomas, 1997). Sentiments about culture and cultural sensitivity are surfacing (Sonleitner & Khelifa, 2004). There are differences in the characteristics of those involved (Almany & Alwan, 1982; Barakat, 1993; Feghali, 1997) in the academic context and in the difficulties that may be encountered due to cultural differences that relate to teaching and learning (Ortloff & Ortloff, 2003; Fisch, Greenfield & Trumbull, 1999; Dyer, 1998). There are also cultural conflicts that may result (Maurice, 1986) besides the other factors that need to be contended with.

Currently the “buoyant” economies may have “enabled coexistence and keep[t] a lid on discontent” (Findlow, 2005, p. 299) and the benefits of teaching English have so far outweighed any negatives (Zogoul, 2003; Syed, 2003). But there are potential problems lurking in the future. The spread of English as a medium of education, cultural shifts and cultural reproductions “against a context of rapid modernization with a regional undercurrent of recurrent pan-Arab and Islamist tinged nationalism” (Findlow, 2006, p. 21) are sites of evident concern. And, “How far does the linguistic-cultural dualism amount to a loss of linguistic-cultural diversity, and how far there is a linguistically-framed discourse of resistance to such a process” (Findlow, 2006, p. 21) are questions that need to be addressed. There are underlying ideological conflicts that now exist in these societies, as Findlow (2006) explains, and “changed political or

socio-economic circumstances could at any time threaten this balance and bring about a rather different set of feelings about the prevalence of English” (p. 34). In addition, the emergent global hierarchies of knowledge and their accompanying concepts and ideas of prestige and status with the neoliberal presumptions that Western norms should prevail (Graddol, 2006) are being questioned. The latest research shows that we are entering the next stage of global development where new and dramatic changes are also on the horizon. According to Graddol (2006), the world is rapidly shifting to a completely new social, economic and political order with a new world order in languages in which Spanish, Arabic and Mandarin may be dominating the educational scenes.

There is evidence of a beginning response to modern conditions and rapid and dramatic social changes in the Arab Gulf. Reactions are beginning to be felt in Kuwait (Tetreault, 1999, 2000), Saudi Arabia (Yamani, 2000) or the UAE (Findlow, 2005, 2006, 2008). In the UAE, for example, the language issue has caused heated debates and controversies in the academic and political arenas. It is believed that the Arabic language and ‘national identities’ are being ‘sidelined’ (Hellyer, 2008). English is beginning to be seen as a threat, dominating all aspects of life in these countries.

Language and culture and their positions in the curricula are a matter of great concern. Introducing a more coherent approach to the teaching of English in accordance with the needs of the new globalized world and in the context in which English is taught in will have to be revisited. This is important if we are to embark on teaching English and using it as the medium of instruction in private and public schools, especially with today’s heightened sentiments of nationalism and instability. Language and culture are pivotal points for curricula all over the world, even in those which were once considered as ‘melting pots’ and ‘mosaics’ and remain among “the most contentious concepts in academia” (Jandt, 2007, p. 6). They continue to be “very much a burning issue at the beginning of the 21st century” (Atkinson, 2004, p. 279).

References

- Adaskou, K., Britten, D. & Fahsi, B. (1990). Design decisions on the cultural content of a secondary English course for Morocco. *ELT Journal*, 44(1), 3-10.

- Almany, A. & Alwan, A. (1982). *Communicating with Arabs. A handbook for the business executive*. Prospect Heights, Ill: Waveland.
- Alptekin, C. & Alptekin, M. (1984). The question of culture: EFL teaching in non-English-speaking countries. *ELT Journal*, 38(1), 14-20.
- Asraf, R. M. (1996). Teaching English as a second or foreign language: The place of culture. *Proceedings of the International Conference "English and Islam: Creative Encounters 96"*, December 20-22, 1996. Retrieved June 1, 2005, from www.tesolislamia.org/articles.html
- Atkinson, D. (2004). Contrasting rhetorics/contrasting cultures: Why contrastive rhetoric needs a better conceptualization of culture. *Journal of English for Academic Purposes* 3, 277-289.
- Baker, W. (2003). Should culture be an overt component of EFL instruction outside of English speaking countries? The Thai context. *Asian EFL Journal*. Retrieved from <http://www3telus.net/linguisticsissues/thai.htm>
- Bamgbose, A. (2001). World Englishes and globalization. *World Englishes*, 20(3), 357-363.
- Barakat, H. (1993). *The Arab world: Society, culture, and state*. Berkeley, CA: University of California Press.
- Barber, B. (2008). The educated student: Global citizen or global consumer? In G. H. Muller (Ed.). *The new world reader: Thinking and writing about the global community* (2nd ed.), pp. 261-271. NY: Houghton Mifflin.
- Brutt-Griffler, J. (2002). In J. W. Tollefson (Ed.). *World English: A study of its development*. Clevedon: Multilingual Matters.
- Byram, M. (Ed.) (1994). *Culture and language learning in higher education*. Clevedon: Multilingual Matters.
- Damen, L. (1987). *Culture learning: The fifth dimension in the language classroom*. Reading, Mass.: Addison-Wesley.

- Dyer, B. (1998). Reflective teaching practice in cross-cultural contexts: Teaching women's studies in Japan. *Women's Studies Quarterly*, 3(4), 152-166.
- Feghali, E. (1997). Arab communication patterns. *International Journal of Intercultural Relations*, 21, 245-278.
- Findlow, S. (2005). International networking in the United Arab Emirates higher education system: Global-local tensions. *Compare* 35(3). 285-302.
- Findlow, S. (2006). Higher education and linguistic dualism in the Arab Gulf. *British Journal of Sociology of Education*, 27(1), 19-36.
- Findlow, S. (2007). Women, higher education and social transformation in the Arab Gulf. In C. Brock & L. Z. Levers (Eds.), *Aspects of Education in the Middle East and North Africa*, pp. 57-76. UK: Symposium Books.
- Findlow, S. (2008). Islam, modernity and education in the Arab States. *Intercultural Education* 19(4), 337-352.
- Fisch, C. R., Greenfield, P. M. & Trumbull, E. (1999). Bridging cultures with classroom strategies. *Educational Leadership*, 64-67.
- Graddol, D. (2006). English Nest: Why global English may mean the end of 'English as a foreign language. UK: British Council.
- Hall, E. T. (1976). *Beyond culture*. New York: Doubleday.
- Hellyer, P. (2008). *The National*, Tuesday, Retrieved November 11, 2008 from www.thenational.ae.
- Hitti, P. H. (1970). *History of the Arabs: From the earliest times to the present* (10th ed.). London: Macmillan.
- Jandt, F. E. (2007). *An introduction to intercultural communication: Identities in a global community*. (5th ed.). Thousand Oaks, CA: Sage.

- Kachru, B. (1992). Teaching world Englishes. In B. Kachru (Ed.), *The other tongue: English across cultures* (2nd ed.), pp. 355-365. Urbana: University of Illinois Press.
- Kachru, B. B. (1977). The new Englishes and old models. *English Teaching Forum*, 15, 29-35.
- Kachru, B. & Nelson, C. (1996). World Englishes. In S. McKay & Hornberger (Eds.), *Sociolinguistics and language teaching*, pp. 71-100. Cambridge: Cambridge University Press.
- Kirdar, S. (2007). The impact of educational empowerment on women in the Arab world. In C. Brock & L. Z. Levers, (Eds.), *Aspects of Education in the Middle East and North Africa*, pp. 39-56. Symposium Books.
- Kramsch, C. (1993). *Context and culture in language teaching*. Oxford: Oxford University Press.
- Llosa, M. V. (2008). The culture of liberty. In G. H. Muller (Ed.), *The new world reader: Thinking and writing about the global community* (2nd ed.), pp. 295-303. NY: Houghton Mifflin Company.
- Luke, A. (2004). The trouble with English. *Research in the Teaching of English*, 39(1), 85-95.
- Maurice, K. (1986). Cultural styles of thinking and speaking in the classroom. In P. Brd (Ed.), *Teaching across cultures in the university ESL program*, pp. 39-50. National Association for Foreign Student Affairs.
- Mazawi, A. E. (2007). Besieging the King's Tower? En/Gendering academic opportunities in the Gulf Arab States. In C. Brock & L. Z. Levers (Eds.), *Aspects of Education in the Middle East and North Africa*, pp. 77-97. UK: Symposium Books.
- McKay, S. L. (2002). *Teaching English as an international language: Rethinking goals and approaches*. Oxford: Oxford University Press.

- Ortloff, L. M. & Ortloff, W. G. (2003). A cultural challenge for school administrators. *International Education*, 14(13), 254-261.
- Oxford, R. (1994). Teaching culture in the language classroom: Toward new Philosophy. In E. Alatis (Ed.), *Georgetown University Round Table on Languages and Linguistic*, pp. 26-45. Washington Georgetown University Press.
- Peck, D. (1998). *Teaching culture: Beyond language*. Yale: New Haven Teachers Institute.
- Peterson, E. & Coltrane, B. (2003). Culture in second language teaching. *CAL Digest*, 3(9), 1-6. Retrieved June 15, 2006, from <http://www.cal.org/reasources/digest/0309peterson.html>
- Savignon, S. & Sysoyev, P. V. (2002). Sociocultural strategies for a dialogue of cultures. *The Modern Language Journal*, 96(4), 510-524. Retrieved April, 28, 2009. Wilson Omnifile database.
- Seelye, H. (1993). *Teaching culture: Strategies for inter-cultural communication*, (3rd ed.). Lincolnwood, IL: National Textbook Company.
- Sonleitner, N. & Khelifa, M. (2004). *Western-educated faculty challenges in a Gulf classroom*, 2(1). Retrieved from <http://www.zu.ac.ae/lthe/index/html>
- Stern, H. H. (1992). *Issues and options in language teaching*. Oxford: Oxford University Press.
- Syed, Z. (2003). TESOL in the Gulf: The sociocultural context of English language teaching in the Gulf. *TESOL Quarterly*, 37(2), 337-341.
- Tetreault, M. (1999). Sex and violence: Social reactions to economic restructuring in Kuwait. *International Feminist Journal of Politics*, 1(2), 237-255.
- Tetreault, M. (2000). Women's Rights in Kuwait: Bringing in the last Bedouins? *Current History*, January, 27-32.

Thomas, E. (1997). Developing a culture-sensitive pedagogy: Tackling a problem of melding 'global culture' with existing cultural contexts. *International Journal of Educational Development*, 17(1), 13-26.

Tibawi, A. (1972). *Islamic education: Its traditions and modernization into the Arab national systems*. London: Luzac.

Tollefson, J. W. (Ed.). (2002). *Language policies in education: Critical issues*. Mahwah, NJ. Lawrence Erlbaum.

Valdes, J. (1990). The inevitability of teaching and learning culture in foreign the language course. In B. Harrison (Ed.), *Culture and the language classroom*, pp. 20-30. ELT Documents: 132. London Modern English Publications.

World Report (2008). *The road not traveled*. Washington DC: The International Bank for Reconstruction and Development / The World Bank. Retrieved Sunday, May 17, 2008 from www.worldbank.org.

Yamani, M. (2000). *Changed identities: The challenge of the new generation in Saudi Arabia*. London: Royal Institute of International Affairs.

Yamani, M. (2002). Challenged by example: Globalization and the new Arab awakening. In T. Dodge & R. Higgott (Eds.), *Globalization and the Middle East: Islam, Economy, Society and Politics* (n.p.). London: Royal Institute of International Affairs.

Email address: khawlah@aus.edu

The Importance of Corporate Image in the Marketing of University Postgraduate Programs

Zainudin Awang
Universiti Teknologi MARA, Shah Alam, Malaysia

ABSTRACT

The increase in the number of universities offering higher education has surpassed the increase in demand for higher education. Hence, the competition for potential customers, especially postgraduates, is very stiff. When the characteristics of service offering have become uniform, universities should be looking for their own competitive edge in the market to differentiate themselves from their competitors. This study attempts to investigate the influence of the corporate image of a university on the willingness of their outgoing undergraduates to continue postgraduate studies at the university (market retention) and to recommend their friends, families, and employers to engage with the university (positive word of mouth). Data was collected randomly from 872 outgoing undergraduates using self-administered questionnaires. Factor analysis of corporate image items extracted three distinct dimensions. The study renamed these dimensions as the image of a university, image of its academic programs and the external recognition received by the university. As for the students' loyalty, the factor analysis extracted two distinct dimensions. The study renamed these dimensions as market retention and positive recommendation. The study found that the corporate image of a university had a significant and direct effect on students' intention to enroll in postgraduate programs at the university. Among the influential corporate image dimensions are the image of a university and the image of its academic programs. The corporate image of a

ISSN 1823-7797

© 2010 Asian Centre for Research on University Learning and Teaching (ACRULeT), Faculty of Education, Universiti Teknologi MARA (UiTM), Malaysia.

university provides a significant influence on positive word of mouth and recommendations by outgoing undergraduates to potential postgraduate customers to register with the university. The results have significant implications for the long-term growth and survival of postgraduate programs.

Keywords: *Corporate Image, Students' Loyalty, Postgraduate Programs*

Introduction and Background

The task of managing corporate organizations has become increasingly difficult in an open competition especially when globalization takes place. These organizations are competing to keep the momentum of their business and to stay ahead of their competitors. The industry of higher education is no exception. When the characteristics of services offered by universities are very similar, a favorable corporate image of a university can play a significant role in attracting potential students, their input. In Malaysia, the competition for potential students among universities has become stiff after the Malaysian Parliament passed the Private Higher Education and Institution Act or PHEIA 1996 (Zainudin, 2007).

With the passing of the Act in 1996, private organizations are allowed to set up universities and colleges and participate in the industry. Zainudin (2007) noted that from 2000 to 2005, the rate of increase of institutions of higher education was higher than the rate of increase of students seeking higher education, hence creating competition for potential students. The competition for students is evident when hundreds of institutions advertise their programs through electronic and print media just like other commercial products or services. Furthermore, these institutions are also promoting their programs through education road shows, expos, seminars and the like throughout the country. In promoting their services, universities and colleges are claiming that they have the best programs to offer, the best facilities available, the best academic staff and so on. Potential students have a chance to “shop around” before making their investment decision.

The painful evidence of fierce competition among universities and colleges was exposed when it was reported that 123 colleges were forced to terminate their operation and another 30 colleges would eventually be closed due to inadequate number of students. Since the choice of universities is plenty, the corporate image of a university emerges when

potential students are choosing which university to apply for admission. Like other service industries, the loyalty of the existing students (customers) should be of prime importance. This is because students' loyalty has tremendous benefits for a university. Loyal students can generate new customers for the university through positive words and recommendations to their close associates such as families, friends and anyone who is in close contact.

Literature Review

According to Griffin (2002), large corporations have been using image marketing to sell their products for decades. Dowling (1993) defines the concept of image as "the total impression an entity makes on the mind of people". Corporate image in the service marketing literature was early identified as an important factor in the overall evaluation of the service and the service provider (Gronroos, 1984).

Furthermore, Gronroos (2001) states that:

"A favorable and well-known corporate image would be an asset of a firm in service industry. This is because image has an impact on customer perceptions of the communication and the operation of the firms in many aspects. If a service provider has a positive image in the minds of customers, minor mistakes will be forgiven and will not affect their perceived quality towards the firm. As time progresses, more and more business organizations offering similar products and services emerge, thus creating competition for customers among themselves". (p. 150)

Hence, in order to keep generating new customers as well as retain the existing customers, these organizations need to have a clear and powerful corporate image that will project them favorably in the eyes of their customers. According to Hatch and Schultz (1997), the corporate image of an organization concerns the knowledge, feelings and beliefs about that particular organization in the thought of its stakeholders. Andreassen and Lindestad (1998) state that corporate image is established and developed in consumers' mind through communication and experience. They stress that an excellent corporate image would provide an added advantage for the organization to differentiate itself from its competitors in the same industry.

In the case of higher education, the corporate image of a university is established and developed in students' minds from their knowledge obtained through communication and exposure from media publication regarding the achievement and reputation of the university. Among the achievements of a university that might be exposed in the media are the contributions of the university to the government and society through certain research projects, the achievements of academic faculties from the university such as winning awards for research and invention at national and international competitions, and the external recognition received by the university from the International Organization for Standardization or ISO, from professional bodies such as associations of accountants, surveyors, engineers, doctors and from government departments. Studies by Fielder et al. (1993) and James et al. (1999) found that the corporate image of the university has a strong impact on students' decisions, affecting both the retention of current students and the attraction of new students.

Customer Loyalty is a complex construct that involves both behavioral and attitudinal aspects. This study assumes that a "loyal customer" is a student who would continue to study at the same university whenever possible, and who maintains positive attitudes towards the university. Dick and Basu (1994) propose two conditions in relation to customer loyalty, which represent the intersection of relative attitudes and repeat patronage. First, customers who exhibit loyal behavior would engage in repeat purchases when this is appropriate. Second, customers who are loyal in attitude are likely to make recommendations to someone else, and sometimes, their loyal attitude will lead to loyal behavior in the form of repeat purchases.

There are various theories in service literature relating to the concept used to measure customers' loyalty in higher education institutions. For example, the Relationship Marketing Theory (Reichheld and Sasser, 1990; Reichheld, 1996) revealed that a long term relationship with students may provide some sort of strategic competitive advantage in which gaining new students is generally more cost-intensive than maintaining existing relationships; and the cost-relationship effects are generated over the relationship life-cycle. Another example, the Service Marketing Theory on Customer Participation (Rust et al., 1996; Rodie and Kleine, 2000) stressed that loyal students (as the external factor in the service production process) might positively contribute to the quality of teaching and learning process at a university through their active participation and committed behavior.

Rowley (1997) stressed that highly committed and motivated students, together with a lecturer's involvement would stimulate a productive learning atmosphere in the classroom and would produce good academic performance which benefits both students and the university. She also mentions the importance of a customer loyalty base for success in the business of higher education.

This study focuses on the issue of students' loyalty in higher education by examining their behavioral and attitudinal commitments towards their respective university in the future, particularly towards postgraduate programs. The students' behavioral loyalty attributes consist of their intention to spread positive word of mouth and recommendations concerning the university to their families, friends and employers whenever they have a chance to do so. On the other hand, the attitudinal loyalty attributes consist of their intention to remain loyal to the university to complete the existing undergraduate programs and increase transaction with the same university in the future by continuing their studies at graduate programs at the same university.

Schematic Model of the Study

Variables in the Model

Dependent Variable

The dependent variable is students' loyalty towards the university, which is the variable of primary interest in the study. From a theoretical perspective, the loyalty components consist of behavioral loyalty and attitudinal loyalty. The study confirms these two components through exploratory factor analysis (EFA) and confirmatory factor analysis (CFA) conducted using 300 sets of data from a pilot study. The researcher renamed the components as positive recommendation and market retention.

Positive Recommendation consists of behavioral items such as willingness to spread positive word of mouth regarding the university to families, friends, and employers, and recommend them to engage with the university for industrial linkages, training enrolments, employee recruitment and sponsoring activities in the future.

Market Retention consists of attitudinal items such as willingness to remain with the university both to complete their present study programs,

and to continue their study to postgraduate programs upon graduation or sometimes in the future.

Independent variables

The independent variable is the corporate image of a university (Figure 1). Using the data from the pilot study, the researcher conducted an exploratory factor analysis (EFA).

The EFA produces three components of manifesting variables. The researcher renamed the components as university image, academic image, and external recognitions received by the university.

University image consists of the image of a university, image of faculties and departments within the university.

Academic image consists of awards from academic achievements received for researches, inventions and publications by the academic staff at the university.

External recognition consists of recognition received from government departments or professional organizations such as ISO. Since the study used the structural equation modeling (SEM) for the analysis, the service quality and corporate image were treated as two latent exogenous variables.

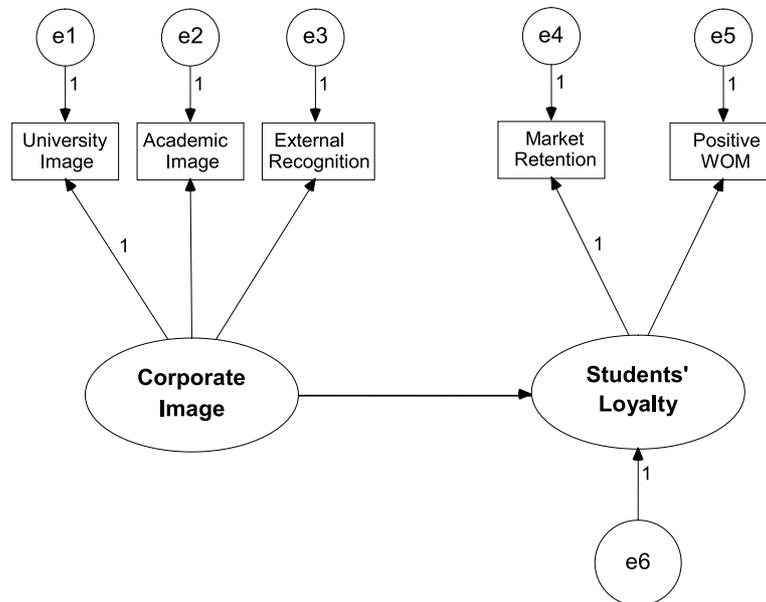


Figure 1: The Model in AMOS 16.0 Syntax

Research Methodology

Population and Sample

The population of the study consists of the outgoing undergraduates (students in their final semester) from the Faculty of Business and Management at Universiti Teknologi MARA. A total of 1000 undergraduate students were selected randomly from four different regions namely eastern (Kelantan, Terengganu, Pahang), northern (Perlis, Kedah, Pulau Pinang), Southern (Johor, Melaka, Negeri Sembilan) and UiTM Headquarter in Shah Alam. The respondents were given self-administered questionnaires with a self-addressed return envelope. They could complete the questionnaires at their own convenient time and mail them to the researcher within two weeks. A total of 872 completed questionnaires were received, which represented a satisfactory response of 87.2 percent.

Instruments

The instrument for corporate image was adapted from Andreassen (1994), Caruana (2002), Kang and James (2004), and Zainudin and Zaihan (2004) while the instrument for customer loyalty was adapted from Zeithaml et al. (1996), Caruana (2002), Ndubisi (2003), Kang and James (2004) and Zainudin et al. (2005b). The researcher modified the wording of certain items whenever necessary in order to suit higher education scenario. The instrument for corporate image consisted of 16 items while the instrument for students' loyalty consisted of 9 items. Factor Analysis procedure using Principal Axis Factoring with Varimax Rotation was performed for these two instruments.

Factor Analysis on Corporate Image Items

The Principal Axis Factoring with Varimax Rotation was performed for the 16 items in the service quality instruments. The result is presented in Table 1.

Table 1: KMO and Bartlett's Test for Corporate Image Instruments

| | | |
|---|---------------------|--------------|
| Kaiser-Meyer-Olkin Measure of Sampling Adequacy | | 0.932 |
| Bartlett's Test of Sphericity | Approx. Chi-Square | 8498.069 |
| | Df | 120 |
| | Significance | 0.000 |

This KMO value of 0.932 is excellent since it exceeds the recommended value of 0.6 as proposed by Kaiser (1974). The two results (KMO and Bartlett's) obtained suggest that the sampled data is appropriate to proceed with a factor analysis procedure. The Principal Axis Factoring extracted three distinct components with eigenvalues exceeding 1.0. The total variance explained for the three components is 84.3%. The study renamed the extracted components as Academic Image, University Image, and External Recognition respectively as shown in Table 2. Meanwhile the reliability measure for each component is given in Table 2.

Table 2: The Reliability Measures for Every Corporate Image Component Obtained in the Study

| Component | Number of items in a component | Cronbach's Alpha | Cronbach's Alpha based on standardized items |
|----------------------|--------------------------------|------------------|--|
| Academic Image | 7 | 0.909 | 0.909 |
| University Image | 5 | 0.855 | 0.857 |
| External Recognition | 3 | 0.685 | 0.688 |

Factor Analysis on Students' Loyalty Items

The Principal Axis Factoring with Varimax Rotation was performed for the 9 items in the students' loyalty instrument. The result is presented in the following table (Table 3).

Table 3: The KMO and Bartlett's Test for Loyalty Instruments

| | | |
|---|----------------------|--------------|
| Kaiser-Meyer-Olkin Measure of Sampling Adequacy | | 0.871 |
| Bartlett's Test of Sphericity | Approx. Chi-Square | 6328.338 |
| | df | 36 |
| | Significance. | 0.000 |

As shown in Table 3, the KMO value of 0.871 is excellent since it exceeds the recommended value of 0.6 by Kaiser (1974). The two results (KMO and Bartlett's) suggest that the sampled data is appropriate to proceed with a Factor Analysis procedure. The Principal Axis Factoring with Varimax Rotation extracted two distinct components with eigenvalues exceeding 1.0. The total variance explained for the two components is 75.5 percent. The reliability statistics for each loyalty component are given in the following table (Table 4).

Table 4: The Reliability Measures for Loyalty Instruments in the Study

| Component | Number of items in a component | Cronbach's Alpha | Cronbach's Alpha based on standardized items |
|------------------|--------------------------------|------------------|--|
| Market Retention | 4 | 0.874 | 0.874 |
| Recommendation | 5 | 0.918 | 0.919 |

The Procedure for Data Analysis

The study analyzed data using Structural Equation Modeling (SEM) using AMOS 16.0 software which analyzes means, variance, and covariance in the model simultaneously.

Assessment of Fitness for the Model

The study looked at a few universally recognized indexes as a measure to assess the fitness of the proposed model for the study. These indexes are shown in Table 5.

Table 5: The Model Fit Summary Produced by AMOS

| Model | GFI | AGFI | PGFI |
|----------------------|--------------|--------------|--------------|
| Default model | 0.987 | 0.951 | 0.506 |
| Saturated model | 1.000 | | |
| Independence model | 0.571 | 0.356 | 0.381 |

Referring to Table 5, the Goodness of Fit Index (GFI) is 0.987. This figure exceeds the required 0.90 as proposed by Joreskog and Sorbom (1984). According to Joreskog and Sorbom (1984), the GFI value of 0.90 or higher indicates the model is a perfect fit to the data. Another index, the Adjusted Goodness of Fit Index (AGFI) is 0.951. The figure also exceeds the requirement by Tanaka and Huba (1985) who state that the AGFI value above 0.90 indicates the model is a perfect fit to the data. And finally, the researcher looked at the Parsimony Goodness of Fit Index (PGFI). The PGFI for the model is 0.506. Mulaik et al. (1989) state that the PGFI value exceeds 0.5 indicating that the model employed is a perfect fit to the data in the study.

The parameter values computed by AMOS 16.0 for the model are presented in Figure 2 and Figure 3 respectively. Figure 2 shows the strength and magnitude of relationship between variables in the study.

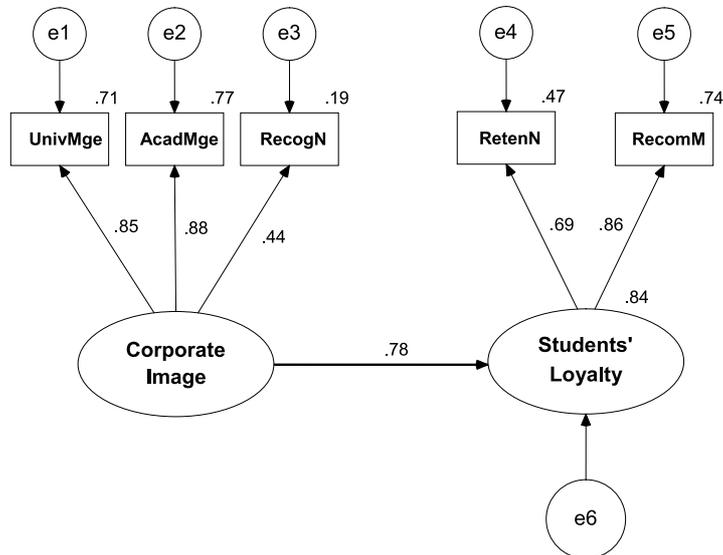


Figure 2: The Strength and Magnitude of Interrelationship among Variables in the Study (Standardized Estimates)

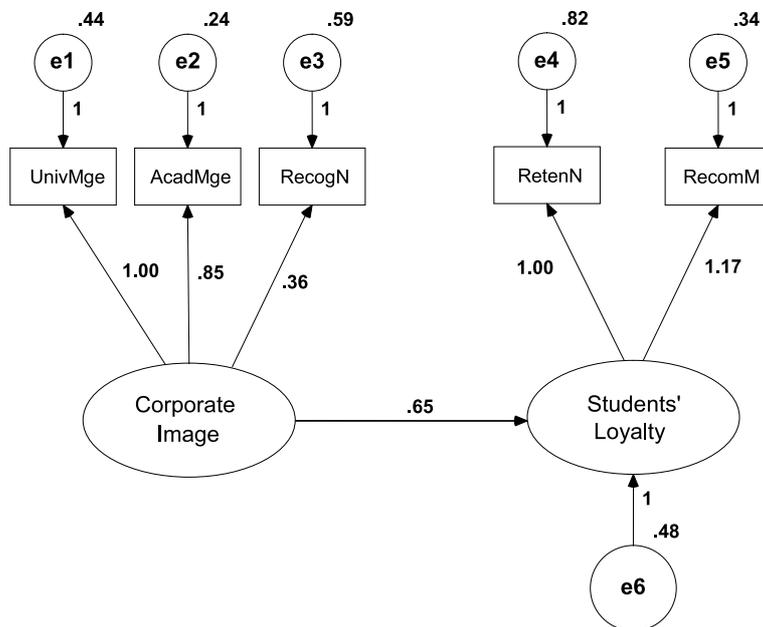


Figure 3: The Strength and Magnitude of Interrelationship among Variables in the Study (Unstandardized Estimates)

In other words, Figure 2 indicates how strong the relationship between two variables is. Figure 3 shows the coefficient of multiple regressions between variables in the study.

Results and Discussion

Figure 2 shows the strength of relationship between each dimension and its main variable as well as the relationship between the main variables in the study. The main interest of the study is the strength of relationship between corporate image and students' loyalty. The result shows the measure of relationship between corporate image and students' loyalty is 0.78 with R^2 0.84 (Figure 2).

From the output, the relationship between the "image of a university", "image of academic activities" and "external recognitions received by the university" to the corporate image of a university are 0.85, 0.88, and 0.44 respectively. In other words the "image of academic activities" conducted by the university contributes the most as far as the corporate image of a university is concerned.

The output in Figure 2 also shows the relationship between "retention" and "recommendation" to the students' loyalty towards the university are 0.69 and 0.86 respectively. In other words, the tendency of outgoing students to recommend the university to their friends, families and employers is higher than their tendency to continue studying at the university. The reasons might be due to the fact that these outgoing undergraduates would prefer to find a job and settle for a family before they proceed to postgraduate study at the university in the future. Another reason might be that they themselves would want to venture to a new place for a new life at another university for their postgraduate studies after spending a few years at the present university. The output in Figure 2 also indicates that 84% of the variation in students' loyalty towards their university can be explained by the corporate image of the university.

Figure 3 presents the regression coefficients among variables in the study. The significance of these causal relationships (path analysis test) is presented in Table 6.

Table 6: Path Analysis for Output in Figure 3

| PATH ANALYSIS | | Estimate | S.E. | P-value |
|----------------------|--------------------|----------|------|---------|
| STUDENTS LOYALTY | ← CORPORATE IMAGE | 0.652 | .046 | *** |
| MKT RETENTION | ← STUDENTS LOYALTY | 1.000 | | |
| +VE RECOMMENDATION | ← STUDENTS LOYALTY | 1.170 | .066 | *** |
| UNIVERSITY IMAGE | ← CORPORATE IMAGE | 1.000 | | |
| ACADEMIC IMAGE | ← CORPORATE IMAGE | 0.854 | .055 | *** |
| EXTERNAL RECOGNITION | ← CORPORATE IMAGE | 0.363 | .034 | *** |

*** Indicate the level of significance is 0.001 or lower

Path analysis 1: Corporate Image » Students' Loyalty
The β estimate is 0.652 with standard error 0.046.
The significance value ($p = ***$) is less than 0.001.
This shows that the impact of Corporate Image on Students' Loyalty is highly significant.

Path analysis 2: Corporate Image » Academic Image
Corporate Image » University Image
Corporate Image » External Recognitions
The β estimates are 1.00, 0.854, and 0.363 respectively.
The significance values are less than 0.001 for all paths.
These show the effects of Academic Image, University Image, and External Recognition on the Corporate Image of a university are highly significant.

Path analysis 3: Students' Loyalty » Retention
Students' Loyalty » Recommendation
The β estimates are 1.00 and 1.17 respectively.
The significance values are less than 0.001.
These show the effects of Market Retention and Positive Recommendation on Students' Loyalty are highly significant.

Implications for the Management of a University

This study finds that the corporate image of a university has a significant and direct effect on students' loyalty towards postgraduate programs at that particular university. The result of this study is consistent with Zeithaml's and Bitner's (1996) findings that corporate image of an organization has the ability to influence customers' purchasing behavior.

The result is also consistent with Zainudin's and Zaihan's (2004) findings that the corporate image of a hospital has a significant and positive influence of patients' willingness to choose that hospital again if the needs arises, and to recommend the hospital to their friends and families. More importantly, this finding is in line with Gronroos (1984, 2000), the Service Marketing Guru. In his research, Gronroos (1984) revealed that the corporate image of a service provider is an important factor in the customers' overall evaluation of service consumption and also their overall impression towards the service provider itself where positive impression would lead to favorable action and vice-versa.

Of the three corporate image dimensions that have emerged, the dimension of *academic image* is found to be the most important factor as far as the corporate image is concerned, besides *the image of a university* and the *external recognitions* received by the university. This research found that the achievements of the academic staff of the university for their research, inventions, and publications are important elements influencing students' positive perception of the university. Thus, the management of a university should give utmost priority to the academic excellence achieved by the academic faculties. Any achievement or awards obtained by these academic faculties should be well communicated to all stakeholders. The publicity of any achievement by lecturers, for example, would directly help them earn valuable appreciation and positive perception from their existing students. More importantly, the publicity would indirectly elevate the corporate image of a university as a whole in the eyes of other stakeholders.

Since the achievements of academic staff contribute significantly to the corporate image of that particular university, the university should provide an appropriate atmosphere for its academic staff to excel in their respective fields. Academicians who achieve excellence should be rewarded accordingly to motivate others to excel as well.

References

- Andreassen, T. W. & Lindstead, B. (1998). Customer loyalty and complex services: the impact of corporate image on quality, customer satisfaction and loyalty for customers with varying degrees of services expertise. *International Journal of Service Industry Management* 9(1), 7-23.

- Caruana, A. (2002). Service loyalty: The effects of service quality and the mediating role of customer satisfaction. *European Journal of Marketing*, 36, 811-828.
- Dick, A. & Basu, K. (1994). Customer loyalty: Toward an integrated conceptual framework. *Journal of Marketing Science*, 22, 99-113.
- Dowling, G. R. (1993). Developing your company image into a corporate asset. *Long Range Planning*, 26, 101-110.
- Fielder, J. S., Hilton, C. B. & Motes, W. H. (1993). Educational Services marketing: A proposed system for enhanced recruitment of students. *Journal of Professional Services Marketing*, 8, 191-205.
- Griffin, J. (2002). *Customer loyalty – How to earn it, How to keep it*. San Francisco, CA: Josey-Bass.
- Gronroos, C. (1984). *Service quality: The six criteria of good service quality*. New York: St John's University Press.
- Gronroos, C. (2001). The perceived service quality concept – a mistake? *Managing Service Quality*, 11, 150-152.
- Hatch, M. J. & Schultz, M. (1997). Relations between organizational culture, identity and image. *European Journal of Marketing*, 31, 356-365.
- James, R., Baldwin, G. & Mcinnis, C. (1999). *Which university? The factors influencing the choices of prospective undergraduates*. Australia: Centre for the Study of Higher Education: University of Melbourne.
- Jöreskog, K. G. & Sörbom, D. (1984). *LISREL-VI user's guide* (3rd ed.). Mooresville, IN: Scientific Software.
- Kaiser, H. (1974). An index of factorial simplicity. *Psychometrika*, 3, 31-36.

The Importance of Corporate Image

- Kang, G. J. & James, J. (2004). Service quality dimensions: An examination of Gronroos service quality model. *Managing Service Quality*, 14, 266-277.
- Mulaik, S. A., James, L. R., Van Alstine, J., Bennett, N., Lind, S. & Stilwell, C. D. (1989). Evaluation of goodness-of-fit indices for structural equation models. *Psychological Bulletin*, 105, 430-445.
- Ndubisi, N. O. (2003). Can current customer loyalty predict future loyalty? 5th Asian Academy of Management Conference – Challenges of Globalized Business. *The Asian Perspective*, 5, 327-334.
- Reichheld, F. F. (1996). In Stauss, B. and Neuhaus. The qualitative satisfaction model, *International Journal of Service Industries Management*, 8, 345-351.
- Reichheld, F. F. & Sasser, W. E. (1990). Zero defections: Quality comes to services. *Harvard Business Review*, 68, 105-111.
- Rodie, A. M. & Kleine, S. S. (2000). Customer participation in services production and delivery. In T.A. Swartz & D. Iacobucci, (Eds.), *Handbook of Services Marketing and Management*, pp. 111-125, Thousand Oaks, CA: SAGE.
- Rowley, J. E. (1997). Beyond service quality dimensions in higher education and towards service contracts. *Quality Assurance in Education*, 5(1), 7-14.
- Rust, R. T., Zahorik, A. J. & Keiningham, T. L. (1996). *Services marketing*. New York: HarperCollins.
- Tanaka, J. S. & Huba, G. J. (1985). A fit index for covariance structure models under arbitrary GLS estimation. *British Journal of Mathematical and Statistical Psychology*, 38, 197-201.
- Zainudin, A. & Zaihan, O. (2004). The impact of corporate image on perceived quality in healthcare industry. Proceeding of Conference of Social Science Research (CSSR 2005). Institute of Research Development and Commercialization UiTM.

Zainudin, A., Rustam, S. Farouk, M. Z. (2005). Service quality and customer satisfaction in the environment of higher education: A study on the public and private university students in Malaysia. Institute Research Development and Commercialization, IRDC, UiTM.

Zainudin, A., W. Fauzi, W. M. & Azuhari, C. M. (2005). Achieving students' satisfaction in higher education: Closing the gaps. International Conference on Quantitative Sciences and its Application (ICOQSIA 2005). Faculty of Quantitative Sciences, UUM.

Zainudin, A. (2007). The effects of service quality and corporate image on students' loyalty in postgraduate education: The case study of a local university, Unpublished Thesis, Universiti Malaysia Terengganu, Malaysia.

Zeithaml, V. A., Berry, L. L. & Parasuraman, A. (1996). The behavioral consequences of service quality. *Journal of Marketing*, 60, 31-46.

Zeithaml, V. A. & Bitner, M. J. (1996). *Services marketing*. New York: McGraw-Hill International Editions.

Email address: zainudin888@kelantan.uitm.edu.my

The Development of a Student Learning Outcomes Based Accreditation Model in Taiwan Higher Education

Angela Yung-chi Hou
Fu Jen Catholic University, Taiwan
Higher Education Evaluation and Accreditation Council of Taiwan

ABSTRACT

Student learning is currently a central concern of higher education administration and accreditation. Many institutions, programs and accrediting organizations are hearing similar requests about student learning outcomes from a number of sources: they all want to be able to provide concrete evidence of student academic achievement in higher education and to report on this evidence in a manner that is readily understandable to the public at large. Hence, the public, the higher education community, policy makers and students are increasingly seeking to use such information as an integral part of making judgments about the quality of accredited institutions and programs. The main purpose of the paper is to examine recent educational policy trends that emphasize learning outcomes and quality assurance in many nations and Taiwan higher education and the role that the accrediting agencies play. Finally, the challenges that institutions and accrediting agencies are facing will be stated as a conclusion.

Keywords: *learning outcomes, quality assurance, higher education*

ISSN 1823-7797

© 2010 Asian Centre for Research on University Learning and Teaching (ACRULeT), Faculty of Education, Universiti Teknologi MARA (UiTM), Malaysia.

Introduction

By the end of 20th century, global capitalism and free markets in higher education had a great impact on the policies of states and they also changed the relationship between governments and institutions. Pressured by social demand, as Chait (2002) observed, higher education in the 21st century is more controlled by external forces than ever before. A “market-oriented” mechanism and an administrative team has replaced the original “academic-oriented” mode resulting in different decision-making strategies and execution, so that “the shift of power is not towards the executive branch nor is it towards the board. Power has been released to those who are able to provide resources off campus, for example students, government officials, corporate sponsors, or individual donors” (Chait, 2002, p. 302).

On the other hand, as higher education institutions continue to be marketized and pressured to respond to the growing popularity of the concept “accountability”, they are expected to be more responsible to their stakeholders by disclosing assessment outcomes in public. Zumeat pointed out that “colleges and universities face unprecedented external demands and this shift in states’ expectations and relations with colleges and universities is significant not only for academe’s own interests but for important societal values” (Schmidtlein & Berdahl, 2005, p.74).

Today, however, the rapid expansion of higher education institutions throughout the world and its increasingly market-based orientation has led students, parents, higher education, employers and governments to have a much greater interest in the actual academic quality of universities and colleges. Definitely, universities and colleges are beginning to take on accountability toward related members of the school and societies in the way that private enterprises do. Colleges more and more are being requested to present institutional effectiveness to the general public. Hence, quality assurance mechanism and international benchmarking, which emphasize output monitoring and measurements and systems of accountability and auditing have become more popular worldwide (Marginson, 2007).

With a gradual shift to the universal type of higher education since the 80s, there are more than 160 colleges and universities in Taiwan higher education now. How to maintain quality in higher education has become a major concern for all stakeholders of higher education. In order to improve quality in Taiwan higher education consistently,

Taiwan's government started to develop a quality assurance system of higher education in the 1980s. A more decentralized system of quality assurance in Taiwan higher education was developed successfully when the Higher Education Evaluation & Accreditation (HEEACT) was founded in 2005. Nowadays, all types of Taiwan universities and colleges are obligated to be assessed by one of the external quality assurance agencies according to the University Law Revised of 2005. In the first cycle of program accreditation from 2006 to 2010, HEEACT mainly used input and process indicators, such as faculty quality, financial resources, research and professional performance, to assess the quality of higher education institutions.

Today, many institutions, programs, and accrediting organizations in Taiwan are hearing requests about learning outcomes from a number of sources to provide concrete evidence of student academic achievement in higher education and to report on this evidence in a manner that is readily understandable to the public at large. Hence, the general public, the higher education community, policy makers, and students are increasingly seeking to use such information as an integral part of making judgments about the quality of accredited institutions and programs. In order to respond to this legitimate public demand, HEEACT has started working toward greater emphasis on student learning outcomes for the upcoming 2011 institutional accreditation and the second cycle of program accreditation. Many institutions, policy makers and other stakeholders are invited to discuss with HEEACT about how evidence of the attainment of learning objectives can be obtained successfully.

Therefore, the main purpose of the paper is to analyze recent educational policy trends that emphasize learning outcomes and quality assurance in many nations and in Taiwan, especially higher education and accreditation standards of student learning outcomes set by HEEACT in its first cycle of program accreditation. The big challenges in the upcoming institutional round of program accreditation exercises that Taiwan's higher education institutions and HEEACT are facing are discussed at the end of the paper.

Development of Learning Outcomes-Based Accreditation and Role of Accrediting Bodies

Over the past decade, increasing pressure to demonstrate accountability of higher education had led to the rise of learning outcomes based

assessment in many countries. Hence, a debate over how to gather reliable evidence of the student achievement of these outcomes has been growing globally. According to Wolff (2009), the focus made accreditors shift the accreditation standards from “the use of key input and resources indicators to gain evidence of effectiveness, especially in relation to student learning outcomes” (p. 84).

The US was the first nation to focus on learning outcomes assessment. In the mid-80s, U.S. higher education began the so called “assessment movement”. As Ewell (2008) stated “this was and is aimed at gathering systematic evidence on student learning outcomes and a call to provide information that enabled institutions to establish a clear statement of intended learning outcomes and make the result public” (p. 42). In the early 90s, over 90% of institutions had an assessment program under way, though the majority of them were just getting started. At the same time, U.S. regional accreditors played a very prominent role in the outcomes assessment. The Southern Association, the Western Association’s Senior Commission and the North Central Association developed a new model of learning outcomes assessment by adopting institutional effectiveness standards. Program and career-related accreditors also paid increasing attention to evidence of student academic achievement by requesting programs to develop assessment systems such as creating exit examinations for graduates (Ewell, 2008).

In the 90s, the UK government began to express its concern about whether institutions and their graduates had achieved optimal academic and learning standards. A discipline-based panel was convened by QAA to create the “subject benchmark statements”, which describes what can be expected of a graduate in terms of abilities, skills, understanding and competence in the subject. However, they are not the learning outcomes standards for courses, just for broad comparability within subjects. In fact, setting up standards and gathering evidence remains a big challenge for UK institutions. In order to assess learning outcomes concretely, other nations, for example Australia and Hong Kong, developed National Qualification Frameworks to assist accreditors to examine whether students have achieved intended learning goals (Woodhouse, 2010).

In recent years, the trend in assessment for accountability has gained prominence throughout higher education worldwide, which has also changed the way that quality is defined. Accountability mainly aims at improving fiscal efficiency of an educational organization. In contrast,

assessment has been used to try to measure, to a greater extent, the quality of education at an institution. Therefore, student learning outcomes are assumed to be better indicators of institutional quality or effectiveness based on the newly developed concept of “assessment for accountability” in higher education. Hence, the notion of quality in accreditation, defined in terms of input and process standards, has evolved into notions of quality based on institutional mission fulfillment over decades and is now moving toward student learning outcomes based assessment (Ewell, 2008).

Generally speaking, there is wide recognition that the level of institutional capacity should be measured by how learning outcomes are produced. Yet, there is still little evidence of how much students are learning because no reliable comparable data is available to indicate if higher education learning is good, bad or somewhere in between (Woodhouse, 2010).

Assessment for Student Learning Outcomes

For public understanding, student learning outcomes generally refer to aggregate statistics on groups of students like graduation rates, retention rates, transfer rates and employment rates for an entering class or a graduating class. Nevertheless, they just represent to a certain extent institutional performance, not being able to show what and how students learn in universities and colleges. With a broader definition, student learning outcomes now encompass a “wider range of student attributes and abilities, both cognitive and affective, which are a measure of how their college experiences have supported their development as individuals” which include acquisition of specific knowledge and skills, values, goals, attitudes, self-concepts, world views, and behaviors affected in the learning context (Frye, 2009). The Council for Higher Education Accreditation (CHEA) also stated that student-learning outcomes are defined “in terms of the knowledge, skills, and abilities that a student has attained at the end of his or her engagement in a particular set of higher education experiences” (CHEA, 2001, p. 66). To conclude, student learning outcomes “can be broadly defined as something happened to an individual student as a result of his or her attendance at a higher education institution and/ or participation in a particular course of study” (Ewell, 2008, p. 5)

When it comes to student learning assessment, several issues pertaining to content, methodology and evidence are raised. Ewell (2008) proposed four types of student learning outcomes assessment that an accrediting agency might adopt in terms of three dimensions of choices: prescription of outcomes, unit of analysis and focus of review. An accrediting agency should specify the particular learning outcomes for the accredited programs and institutions and examine the direct evidence of student achievement to assure the quality of learning outcomes. These four approaches: program assessment, academic audit, auditing academic standards, and third party certification have their strengths and drawbacks (Ewell, 2008).

In the first model, program assessment is the typical accreditation practice. The program and institution define learning outcomes by themselves and the evidence of student achievement is collected directly through portfolios, examination and surveys.

In this approach, although programs and institution are encouraged to examine student learning in a “visible and actionable fashion”, there is no guarantee that all graduates of the institution or program have met established goals for learning.

In the academic audit model, the particular learning outcomes are decided by the program and institution and its effectiveness is the major focus of review. However, no direct evidence of learning is collected in this model.

In the auditing academic standards model, learning outcomes remain in the hand of the program and institution but the focus of attention shifts to individual attainment. Direct evidence such as student work products or student career development is required. However, like the other types of assessment, there is no guarantee that all students achieve the intended learning goals.

The third party certification model is unlikely to be adopted by an accrediting agency since it demands direct demonstration of the competence of each graduate to ensure that specified levels of mastery are attained. Students are the main focus of attention and direct evidence is needed for proof of student achievement (see Table 1).

In these four approaches, there are a few common problems regarding quality of evidence, such as what kind of evidence should be considered acceptable by an accrediting agency and how it is collected by the program and institution. Evidence for student learning outcomes take many forms including quantitative and qualitative methods of collection (Association of American Colleges & Universities, 2008). Evidence should be not only

Table 1: Characteristics of Four Models of Assessment for Student Learning Outcomes

| | program assessment | academic audit standards | auditing academic | third party certification |
|---------------------------------|---|--|---|---|
| prescription of outcomes | Program and institution | Program and institution | Student | Student |
| unit of analysis | Program and institution effectiveness | Program and institution effectiveness | individual attainment | Individual attainment |
| focus of review | indirect evidence / portfolios, examination and survey over students. | no direct evidence / learning / learning outcomes are decided by the institution and program | direct evidence/ student work products, student career development. | direct evidence/ license and certificates |

Source: CHEA (2001). Accreditation and student learning outcomes: A proposed point of departure. Washington, D.C.: CHEA.

relevant but also verifiable by third party inspection, particularly accrediting agencies. It is usually advised to collect several types of evidence such as faculty-designed examinations and assignments, performance on licensing or external examinations, portfolios of student work, student satisfaction surveys, interviews and so on. However, there is no guarantee that they fully represent what students learn in universities and colleges.

In short, the use of student-learning outcomes to improve curriculum and pedagogy remains a big challenge for institutions and accrediting agencies.

Quality Assurance in Taiwan Higher Education

Over the past ten years, higher education in Taiwan has expanded impressively, with respect to the number of institutions and the number of enrolled students. Amid flourishing economic development, social liberalization and democratization in the 1990s, Taiwan higher education has decentralized with the state exerting less control and universities seeking more autonomy. By 2008, the number of higher education institutions had increased to 163, largely due to the upgrading

of junior colleges to four-year universities. Student enrollment had increased 65% with a total number of 1.3 millions. The University Entrance Exam admission rate is close to 97% net enrollment and gross enrollment in higher education is approximately 55.3% (693,847/1,254,395) and 78.6% (987,914/1,254,395) respectively (Department of Higher Education, 2008).

As higher education has expanded, the public's desire to maintain and increase both quantity and quality has placed tremendous pressure on the government. Apart from encouraging institutions to conduct assessments on their own, a few professional associations such as the Chinese Management Association, the Chemical Society and the Physical Association of the Republic of China were chartered by the Ministry of Education to exercise program-based academic assessments beginning in the 1980s. In the 1990s, the government, under pressure from the public, began implementing a wide-range of comprehensive institutional evaluations with the goal of establishing a non-governmental professional evaluation agency whose purpose was to conduct evaluations of higher education institutions. In 1994, the Legislative Yuan passed the "University Law" which stated clearly that the national government is entitled to evaluate university in order to assure higher education quality. Up to the present, three independent evaluation agencies chartered by the Ministry of Education assess three different types of Taiwan higher education institutions, including four-year comprehensive colleges and universities, universities of science and technology and technical colleges.

Starting in 2002, the evaluation of technical colleges was conducted by National Yunlin University of Science and Technology. A total of forty institutions are scheduled to be reviewed over four years. Reviewers evaluate both administrative support and academic performance of an institution in a two-day onsite visit. There are four types of assessment outcome ranks (Establishing an evaluation mechanism, 2007).

Another is Taiwan Assessment and Evaluation Association (TWAEA). Established in 2003, TWAEA, the first non-profit evaluation agency jointly founded by senior members of the academic and business sectors, has assessed 38 universities of science and technology and technical colleges since 2004 (TWAEA, 2008). In order to "oversee current assessment mechanisms, enhance teaching assessments, maintain teaching quality and periodically conduct administrative assessment" based on the 2005 Revised University Law, another professional organization jointly endowed by the Ministry of Education and 153

colleges and universities, the Higher Education Evaluation and Accreditation Council of Taiwan (HEEACT) was established.

Generally speaking, Taiwan government assessments of universities and colleges had been only conducted in an evaluative mode until HEEACT was established. “Evaluation” clearly “focuses more on how successfully the institution achieves its goals and objectives” (National Institution for Academic Degrees and University Evaluation, 2007, p. 4). Evaluation agencies evaluate results in terms of the same set of criteria and this produces intense competition among all evaluated institutions and programs.

HEEACT adopted the American accreditation model, featuring peer reviews, on-site visits and self-enhancement, to each of which are added values that supersede the evaluative mode. According to CHEA, “accreditation” means “a process of external quality review created and used by higher education to examine colleges, universities and programs for the purposes of quality assurance and quality improvement” (CHEA, 2008, p. 12). In other words, accreditation “is a voluntary process of approval of an institution or program by an accrediting agency or body” according to its own mission and goal. In 2006, HEEACT began a five-year, program-based, nation-wide, modified accreditation of 76 four-year comprehensive institutions, including military and police academies. Participation is mandatory (shown in Table 2).

Over 800 reviewers from universities and industries are recommended by 47 Program Planning Committees formed by the Board to conduct evaluations (HEEACT, 2009b). The accreditation standards developed by HEEACT are as follows: 1. goals, features, and self-enhancement mechanisms, 2. curriculum design and teaching, 3. learning and student affairs, 4. research and professional performance, 5. performance of graduates. There are three review outcomes of accreditation including “accredited”, “conditionally accredited” and “denial”. Those with a status of “conditionally accredited” or “denial” are supposed to be reviewed again one year later to check if the major problems mentioned in the final accreditation report have been solved during the year.

A 2-4 page formative and summative report provided after the assessment contains two parts, comments based on site visits and accreditation outcome proposed. In the former, the strengths and weaknesses of the program are evaluated on the five standards addressed clearly in a descriptive format followed by constructive recommendations. As to accreditation outcome, a checklist of 5 criteria accompanied with 21 indicators are provided for reviewers. The review panel assesses the

Table 2: Comparison among Three Quality Assurance Agencies by Background and Accreditation Status

| | HEEACT | TWAEA | NYUST |
|-------------------------------------|---|--|--|
| Background | | | |
| Starting year | 2006 | 2004 | 2002 |
| Type | Non profit Foundation | Non profit Foundation | Higher education institution |
| Governance | 15 Board members | 15 Board members | Research center (6 staff) |
| Funding | Ministry of Education | Ministry of Education | Ministry of Education |
| Content of Quality Assurance | | | |
| Nature | Mandatory | Mandatory | Mandatory |
| Unit | Program | Institutional/ program | Institutional / Program |
| Scope | 76 4-year comprehensive colleges and universities | 38 Universities of Science and Technology | 40 Technical Colleges (including 2 and 5 year junior colleges) |
| Process | Self evaluation / peer review | Self evaluation / peer review | Self evaluation / peer review |
| Standards | 5 criteria | 5 items in institutional evaluation and 8 items in program evaluation | 5 items in institutional evaluation and 8 items in program evaluation |
| Review cycle | 5 years | 4 years | 4 years |
| Outcome | 1. Accredited 2. Accredited conditionally 3. Denial | Rank 1-4: Rank 1: above 80 points Rank 2: 70~80 Rank 3: 60~70 Rank: below 60 | Rank 1-4: Rank 1: above 80 points Rank 2: 70~80 Rank 3: 60~70 Rank: below 60 |
| Implication | Governmental Funding / enrolment approved | Governmental Funding / enrolment approved | Governmental Funding / enrolment approved |

Source: by author.

performance of the program in a six-point scale (6-excellent; 1-not good) based on the items of the checklist. At the

bottom of the checklist, the whole panel will suggest the final accredited status of the program based on the evidence provided and send it to Preliminary Accreditation Review Subcommittee. Then the Accreditation Review Committee finalizes the accredited status. The list of five criteria and 21 indicators is as follows (HEEACT, 2008b):

Item one: Mission, goals, features, governance, self-improvement system

1. Faculty and students understanding of mission and goals of the program
2. Mission and goals related to the institutional development
3. Operation of self-evaluation mechanism
4. Self-improvement system
5. Operation of various steering committees of the program

Item two: Curriculum design and instruction

1. Curriculum development and planning
2. Curriculum meeting program goal and mission
3. Quality and quantity of full-time and part-time faculty and staff satisfying student demands
4. Instruction content following course schedule
5. Faculty development and teaching quality are the centrality of the program
6. What faculty members teach corresponds to academic scholarship

Item three: Student learning and student affairs

1. Teaching resource satisfies student demands
2. Sufficient faculty resources to help students write theses and dissertations.
3. Student support and services in learning and counseling
4. Tutorial time scheduled
5. Students' opinions are respected and accepted
6. Active interaction between advisors and graduate students

Item four: Research output and professional performance

1. Research output and professional performance of faculty
2. Grants and research projects received by faculty
3. Faculty members provide professional services for the community

Item five: Alumni performance

1. Effective channels to contact with graduates and their employment and career tracking.

The accreditation final reports are provided for three major stakeholders, the institutions for self-improvement, the government for resource allocation and students for school selection (HEEACT, 2009).

Currently, four rounds of accreditations have been conducted, and the results of the first three and a half rounds have been released. According to the review outcomes of the past four years, among the total of 1,587 programs, the average rate for accredited status is 83.21%, for conditionally accredited status is 14.03%, and for denied status is 2.69% (see Table 3). The accredited programs in the fall semester of 2008 outnumbered the other six reviews. The pass rate dropped a little bit in the spring of 2009 because some newly established universities did not offer relevant programs based on their missions and goals. Thus, it is evident that these figures demonstrate that Taiwan institutions are becoming more and more acquainted with the HEEACT accreditation mode, and that they are aiming at self-enhancement and learning ways to prepare faculty for participation.

Table 3. Number and Percent of Programs by Status

| Review status | | Accredited | | | Accredited conditionally | | Denial | |
|---------------|-----------------|--------------------|--------|---------------|--------------------------|---------------|--------|--------------|
| Academic Year | | Number of programs | Number | % | Number | % | Number | % |
| 2006 | Fall Semester | 362 | 279 | 77% | 71 | 19.6% | 11 | 3% |
| | Spring Semester | 242 | 159 | 65.7% | 55 | 22.7% | 27 | 11.6% |
| 2007 | Fall Semester | 265(458*) | 386* | 84.3% | 65* | 14.2% | 7* | 1.5% |
| | Spring Semester | 231(418*) | 376* | 90% | 42* | 10% | 0 | 0% |
| 2008 | Spring Semester | 231(418*) | 376* | 90% | 42* | 10% | 0 | 0% |
| | Fall Semester | 266(455*) | 425 | 93.41% | 30 | 6.59% | 0 | 0 |
| 2009 | Spring | 222(378*) | 336 | 88.89% | 42 | 11.11% | 0 | 0% |
| Total | | 1587 | | 83.21% | | 14.03% | | 2.69% |

Source: Higher Education Evaluation & Accreditation Council of Taiwan (2010). 2009 Annual report. Unpublished. Taipei: Higher Education Evaluation & Accreditation Council of Taiwan.

* They are classes.

To sum up, a decentralized system of quality assurance for higher education institutions was established with the formation of the HEEACT in 2005. The government still plays an indirect role and influences all higher education institutions through the funding of allocation policies and total enrollment controls based on review outcomes. If a program fails to pass the accreditation for two consecutive years, the MOE requests the university to terminate its enrollment and operation (HEEACT, 2008b). Looking at institutions prior to review and after being accredited, there is no difference in that curriculum reform, faculty hiring and resource allocation are still determined with complete academic autonomy. On the other hand, it cannot be denied that most institutions wisely chose to close unaccredited programs based on the HEEACT final report. Administrators at higher education institutions realize that a pass in the evaluation exercise is vital for the survival of an institution.

This situation clearly represents a dilemma called “the principal-agent problem”; that the responsibility of the delegated accrediting body ensures the government’s wishes is a fact even though they may have their own agenda and mission. (Hawkins, et al., 2006, Ewell, 2008). A consequence of this is decentralization of the system which conflicts with centralized state control. In turn, discussions have been initiated over the most effective ways to make the decentralized quality assurance system more professional and independent.

HEEACT Student Learning Outcomes Standards

As indicated above, the first cycle of HEEACT program accreditation focuses on input and process standards. Graduate performance is the only one out of five accreditation standards relevant to student learning outcomes. In the HEEACT handbook, evaluated programs are advised to provide quantitative evidence of graduate performance over the last three years, such as graduation rate, employment rate, number of student awards, number of professional certificates or licenses, pass rate of national examination for governmental offices as evidence of student learning outcomes (HEEACT, 2008b). In it, several questions are also prepared for the evaluated programs as reference for evidence collection in a qualitative approach. The review panel interviews a few students and graduates during the two day on site visit in order to collect their opinions of how they learned from the program and the institution:

1. How do the standards of graduate competencies correspond to the mission and goal of the program and institution?
2. What is the employability of graduates and how do they pursue advanced study?
3. Are the goals sought by graduates related to what they learn in the program and the institution?
4. What are the results of surveys of employers, parents and communities? How do programs and institutions use them to improve the quality of the curriculum and pedagogy?
5. How do the programs and institutions track the career development of graduates?

Identified as a type of program assessment as indicated above, the HEEACT standard of student learning outcomes, which emphasizes the learning experience of students does not, in fact, represent that all graduates of the institution or the program have met established goals. It merely attempts to assist programs and institutions to track where their graduates go after graduation in order to understand institutional effectiveness instead of individual attainment. Indeed, some evidence, which includes graduation rate, employment rate and student awards does not prove directly the competence of all graduates. As to the indirect evidence provided by programs and institutions such as student satisfaction surveys, focus groups or interviews, this also does not represent directly what students have learned and how they have changed in college life.

In fact, the HEEACT standard of graduate performance can be maintained only if the evaluated program has developed a set of core competencies for students according to its mission and goal, which is adopted as a guideline for student learning as well as a measure of student knowledge and skills (Wang, 2008). Rather, the major element of the standard is to see if the program develops a follow-up mechanism for graduates and collects their opinions as a proxy for institutional effectiveness. This explains why HEEACT required the evaluated programs to invite an adequate number of alumni to go back to school to be interviewed. Through interviews with graduates, information can be obtained such as how and what students learned could be applied to the job market and how competencies and skills of graduates satisfy recruiters. Graduation rates and employment rates, which may concern programs and institutions drastically, on the other hand, have been considered as evidence of the career development of graduates in a program in the last three years (HEEACT, 2008b).

However, the issue of what students learn in colleges and how it is measured continues to worry Taiwan's society as the university acceptance rate rose to more than 97% in 2009. The Taiwan public is losing confidence in the quality of higher education. As one of the major accrediting agencies in Taiwan, HEEACT has taken leadership in the face of escalating requests for easily understood information demonstrating what college students learn. In response to the changing context of higher education, HEEACT started to develop a new regulatory framework for accreditation standards to assess institutional effectiveness based on student learning outcomes instead of on input and process standards in the upcoming institutional accreditation in 2011 and the second cycle of accreditation in 2012 (HEEACT, 2009).

A New Accreditation Model and Institutional Actions

Prior to the establishment of HEEACT, higher education evaluation in Taiwan mainly focused on the input and process measures. Of the 2005 institutional evaluations of over 76 four-year comprehensive universities and colleges conducted by Taiwan Assessment and Evaluation Association for example, none are directly relevant to student learning outcomes. When HEEACT conducted the program accreditation exercise in 2006, learning outcomes started to gain increasing attention of the government and institutions. In the 2007 Evaluation on Colleges of Science & Technology and Technical Colleges, the item of "student achievement and development" was adopted as one of the standards of program effectiveness (TWAEA, 2007).

Recently, pressured heavily by public demand to ensure higher education quality, the Ministry of Education has announced a new policy that would put greater emphasis on evidence of educational effectiveness and student learning in the upcoming cycle of program accreditations. In order to ensure the levels of the professional knowledge and skills students require in a job market, the Guidelines of "Promoting Student Quality in Postsecondary Education Program" initiated by the MOE in 2009 indicated clearly that all programs and institutions are required to set a series of core competences or to hold exit tests for all students (Ministry of Education, 2009a). Also, the other important governmental funding program, "Excellent Teaching Programs", stated that all applicants for funding will be reviewed and selected according to a common set of criteria, including teaching quality, student learning effectiveness and

curriculum and program planning. In the dimension of student learning outcomes, applicants are required to provide some evidence of institutional effectiveness, including freshmen counseling support and alert system establishment, core competence development, mechanisms for alumni tracks, healthy functions of career planning office, citizenship cultivation, etc. (Ministry of Education, 2009b). In the upcoming 2011 institutional accreditation, 81 institutions have been requested to establish a set of generic attributes and core competencies for graduates and to explain how the intended learning outcomes can be achieved. Most important of all, the institutions have to establish a reliable assessment system in order to provide the relevant evidence for the exercise. In the second cycle of program accreditation, student learning outcomes will also be expected to be embedded into each standard.

In order to meet global demands and the public need for more educational accountability, Taiwan's government has acted to establish more student learning based model of quality assurance in higher education. On the other hand, several universities have also taken action to develop student learning outcomes in boarder ways, such as establishing clear statements of student learning outcomes, collecting and interpreting evidence of student performance, routinely modifying the standards, policies, curricular structure and leaning support systems based on opinions from graduates, employers, and student e-portfolio. Soochow University, for example, successfully designed student attributes and competencies in three domains: general education, social and interpersonal skills and professional knowledge. Then the intended generic and professional competency indicators were embedded into curriculum design, stressing the connectivity of theory and practice. Finally, three domains of student learning outcomes and competency indicators are built into the customized student e-portfolio system, which helps students realize the quality of their learning outcomes and provides advice (Ho, 2009). Furthermore, several institutions have adopted capstone courses at the final level of undergraduate education. Taiwan's universities and colleges are also encouraged to put emphasis on the development of a curriculum map to help learners select core and elective courses in order to cultivate the core and professional competencies required in job seeking.

To conclude, Taiwan Accrediting agencies are transforming the traditional accreditation model into a new learning outcomes based model and this has led Taiwan's institutions to develop diversified strategies to achieve learning goals. In fact, the standards and criteria of learning

outcomes are not difficult to develop in Taiwan's universities and colleges. The major concern, however, is how to assess them successfully based on the mutual trust and understanding between accreditors and institutions. Hopbach (2009) indicated that "using learning outcomes is not only a challenge for higher education institutions in designing curricula and assessing students but also for quality assurance be it internal or external quality assurance" (p. 24) . Therefore, the crucial job is to develop the close cooperation between accreditors and institutions so that "accreditors must work collaboratively with higher education institutions to develop common language that can explain the diverse approaches to addressing student learning outcomes" (Hawkins, 2009, p. 36).

Conclusion

A well-developed decentralized system in higher education evaluation has been created since the foundation of HEEACT in 2005. Now HEEACT is working on a new framework of student learning outcomes based standards. But it is only in the initial phase of turning from a focus on input and process indicators into a new outcomes-based model. Nevertheless, many problems between accrediting agencies and institutions still need to be solved, particularly the consensus on quality of evidence and the development of a national qualification framework. Accrediting agencies therefore should talk to institutions about the key elements of learning outcomes. Moreover, accrediting agencies should also fully understand the evidence the programs and institutions can provide and the problems they face in the new accreditation model. However, mutual understanding about the student learning outcomes between accrediting agencies and institutions is starting to increase. As Ewell (2008) noted, the task of addressing student-learning outcomes has no single and simple answer. Only with collective action and mutual understanding about student learning outcomes can the new model be successful.

References

Association of American Colleges & Universities. (2008). *New leadership for student learning and accountability*. Washington, D.C.: AACU.

Chait, R. (2002). The “academic revolution” revisited. In S. Brint (Ed.), *The city of intellect*, pp. 293-321. Stanford, California: Stanford University Press.

CHEA (2001). *Accreditation and student learning outcomes: A proposed point of departure*. CHEA Occasional Paper, Washington, D.C.: CHEA.

Department of Higher Education. (2008). *Introduction to higher education*. Taipei: Ministry of Education.

Establishing an evaluation mechanism of impartiality-an interview with President of National Yunlin University of Science & Technology (2007). *Technological & Vocational Educational Newsletter* No. 176. Taipei: Ministry of Education.

Ewell, P. (2008). *U.S. accreditation and the future of quality assurance*. Washington, D.C.: CHEA

Forum on the Collaborations among University Evaluation Agencies (Nov. 26, 2008).

Frye, R. (2009). *Assessment, accountability, and student learning outcomes*. Retrieved 27 April, 2009, from <http://www.ac.wvu.edu/~dialogue/issue2.html>

Hawkins, D., Lake, D., Nielson, D. & Tierney, M. (Eds.). (2006). *Delegation and agency in international organizations*. Cambridge, U. K.: Cambridge University Press.

Hawkins, J. (2009). “*Internal and external quality assurance: implication for learning and accreditation: some observations from the University of California*”, Proceedings of Conference on QA and Student Learning Outcomes of HE in Asia-Pacific Region, Taiwan, pp. 55-72.

HEEACT (2008a). *2007 HEEACT annual report*. Taipei: Higher Education Evaluation & Accreditation Council of Taiwan.

- HEEACT (2008b). *HEEACT Handbook*. Taipei: Higher Education Evaluation & Accreditation Council of Taiwan.
- HEEACT (2009). *2008 HEEACT annual report*. Taipei: Higher Education Evaluation & Accreditation Council of Taiwan.
- Ho, S. H. (2009). *Learning outcomes and quality assurance in Soochow University, Taiwan*. Proceedings of Conference on QA and Student Learning Outcomes of HE in Asia-Pacific Region, Taiwan, pp. 93-108
- Hopbach, A. (2009). Learning outcomes and quality assurance in Europe: A paradigm shift in higher education and its implication on accreditation. Proceedings of Conference on QA and Student Learning Outcomes of HE in Asia-Pacific Region, Taiwan.
- Hou A. Y. C. (2009). *Student learning outcomes and quality assurance of higher education in Taiwan*. Proceedings of Conference on QA and Student Learning Outcomes of HE in Asia-Pacific Region, Taiwan, pp. 55-72.
- Marginson, S. (2007). The public/private divide in higher education: A global revision. *Higher Education*, 53(3), 307-333.
- Ministry of Education. (2009a). Promoting student quality in postsecondary education program. *E-Journal*. Retrieved 27 April, 2009, from [http://72.14.235 search?q=cache:oOuGPd1NpH41:140.111.34.116/e9617-epaper/news.a...](http://72.14.235/search?q=cache:oOuGPd1NpH41:140.111.34.116/e9617-epaper/news.a...)
- Ministry of Education. (2009b). *Teaching excellence program for colleges of technology and technical colleges*. Retrieved from 27 April, 2009, <http://pote.oit.edu.tw/rules/r9.pdf>
- National Institution for Academic Degrees and University Evaluation (2007). *Glossary of Quality Assurance in Japanese higher education*, Tokyo.

Schmidlein, F. A. & Berdahl, R. O. (2005). Autonomy and accountability: Who controls Academe? In P. G. Altbach et al. (Eds.), *American higher education in the twenty-first century*, (2nd ed), pp.71-90. Baltimore: The Johns Hopkins University Press.

TWAEA. (2008). *Evaluation reports*. Retrieved Dec. 7, 2008, from <http://www.twaea.org.tw/about.htm>.

UNESCO. (2006). *UNESCO-APQN Toolkit: Regulating the quality of cross-border education*. Bangkok: UNESCO Asia and Pacific Regional Bureau for Education.

Wang, B. J. (2008). How is graduate performance evaluated? *Evaluation Bimonthly*, 15, 24-25.

Wolff, R. (2009). Future directions for U.S. higher education accreditation. In T. W. Bigalke & D. E. Neubruer (Eds). *Higher Education in Asia/ Pacific*, pp. 79-98. New York: Palgrave Mcmillian.

Woodhouse, D. (2010). The pursuit of international standards. *International Leadership Colloquium*. Madrid.

Email address: hou@heeact.edu.tw

Creativity and Innovation in Research: The Perceptions of Malaysian Postgraduate Students

Faizah Abd Majid
Universiti Teknologi MARA Malaysia

ABSTRACT

The 21st century global market demands a highly skilled workforce that is intellectually active, creative, innovative, articulate, adaptable and capable of critical thinking. Consequently, Malaysian higher education institutions of the 21st century will have the responsibility to ensure the targets are achieved (Ministry of Higher Education Strategic Plan Report, 2007). Some strategies have been suggested by the Ministry of Higher Education to achieve the targets of producing researchers who are creative and innovative. This research sought to investigate the perceptions of Malaysian postgraduates on creativity and innovation in research. A survey of a selected group of postgraduates based on a convenience sampling technique was carried out to elicit relevant data. Quantitative data was analysed and presented in terms of means and percentages. Descriptive data was analysed thematically and categorised. The findings revealed that the respondents were aware of the national higher education agenda on enhancing research and innovation. Likewise, they were able to provide descriptions of creative and innovative researchers. However, they indicated that much more could be done in higher education institutions in order to prepare them to become creative and innovative researchers. Their suggestions include revising the curriculum in particular the content, assignments and assessment. Most importantly, they highlighted the need to include them as key players in research activities and to participate globally. These

ISSN 1823-7797

© 2010 Asian Centre for Research on University Learning and Teaching (ACRULeT),
Faculty of Education, Universiti Teknologi MARA (UiTM), Malaysia.

findings have direct implications for higher education policy makers, curriculum designers and postgraduate instructors.

Keywords: *postgraduates, creative and innovative researchers, Higher Education Institutes*

Introduction

Vision 2020 emphasizes the demand for a creative and critical society. Additionally, the 'Human Capital' proposed by Tun Abdullah Ahmad Badawi when he was the Prime Minister of Malaysia in the Ninth Malaysian Plan (2005) further elevates the importance of a thinking society. During the tabling of the Ninth Malaysia Plan in March 2006, the Prime Minister asserted that,

Development of quality human capital will be intensified. The approach must be holistic and emphasise the development of knowledge, skill and intellectual capital in fields such as science technology and entrepreneurship. Simultaneously, we must develop a culture that is progressive, coupled with high moral and ethical values. This is what is meant by human capital with First-Class Mentality.

Source: National Higher Education Action Plan 2007-2010.

As information and knowledge are the key factors to the success of a nation, it is necessary for the society to be made up of individuals who are creative and critical. Several researchers (The Graduate Quality of University Experience, 2001; Hardman, 2008; Faizah and Hazadiah, 2009) have examined the experiences of graduates while at university. One of the research studies is a joint project between the Council of Graduate Students and the Graduate School at the Ohio State University (2001). Basically, the research focuses on the graduates' experience. The project has identified aspects that the university was doing well and those that would require changes. Hardman (2008), on the other hand, investigated how universities could provide their students with "a rich learning environment in which they are taught to reason and think critically, and to develop a range of attributes needed by employers..." (p. 31). In Malaysia, Faizah and Hazadiah (2009) assessed the needs of the adult learners who were pursuing their postgraduate studies at a local public university. They found that in the government's attempt to transform

higher education and accelerate the innovative and research culture in the universities, assistance through revised policies and practices may be required to enable more adults to re-enter higher education.

In the last sixty years, adult learners have become very visible in higher education across the globe as expanding advanced learning programs and credentials by governments, professional bodies, business entities provide equity and access to working adults. A ten year research program (1986-2006) conducted in the USA with adults returning to school identifies several reasons, the primary one being the desire to equip themselves with knowledge and skills needed for their careers and better prospects (Aslanian, 2007). In a developing country like Malaysia, the prime reason adult learners are returning to school is similar (Mazanah, 2001). In aligning itself to the framework of a knowledge economy, higher education is challenged to reframe its mission.

A more inclusive culture in providing training and knowledge premised on research innovations, collaboration with companies as well as global partners to produce knowledgeable and skilled adults is seen as desirable. This points out to the fact that “adult learning has taken on a much higher profile in the last decade, as OECD economies and ageing societies are increasingly knowledge-based” (Office of Economic Cooperation and Development, 2005, as cited in Kasworm, 2007, p. 25). The Malaysian government has made public its attempt to elevate the Malaysian economy through knowledge (News Straits Times, 2nd April 2010). This attempt is described in the New Economic Model (NEM) which was developed by the National Economic Advisory Council (NEAC). Among others, the new model suggests approaches the government could take in facilitating the knowledge-based society in promoting more local than foreign experts. The availability of local experts is an asset in attracting international companies to invest in the country.

In the 21st century, economies compete by producing “innovative products and services at the global technology frontier using the most advanced methods” (Porter, Ketels & Delgado, 2007 as cited in Faizah and Hazadiah, 2010, p. 56). Fully developed countries require a workforce equipped with multiple intelligences to translate their business models to international marketplaces as they have a high capacity for innovation. Multiple intelligences include verbal intelligence, problem solving skills and the ability to offer “cross-border perspectives and solutions”, cross-cultural intelligence and environmental intelligence which would enable the workforce to adapt to change. The Ewing Marion Kauffman

Foundation also observed a similar emphasis when they claim that “fueling creativity, innovation and adaptability that are the hallmarks of competitive, high-growth and emerging industries requires a highly skilled, creative and nimble workforce” (2007 as cited in Faizah and Hazadiah, 2010, p. 57). At this juncture, it is understood that creative, innovative and educated adults are required to fuel the global economy.

The National Higher Education Action Plan outlines aspects that will transform the quality of human capital by focusing on all the necessary attributes that define a First Class Mentality. As stated in the Action Plan,

...This transformation plan aims squarely on holistic human capital (modal insan) development, to produce Malaysians who are intellectually active, creative and innovative, ethically and morally upright, adaptable and capable of critical thinking. The model human capital would also need to be well-rounded individuals with an appreciation for humanistic pursuits such as the arts, culture, sports and volunteerism. This process will create the environment necessary for the development of an individual to find and fully achieve his or her personal potential.

Source: National Higher Education Action Plan 2007-2010.

Several personal attributes are associated with “creative thinking” as postulated by Rhodes (1961), Gowen (1972), Taylor (1976), Davis (1983) and Starko (1995). The creative person is someone who has the following characteristics: imaginative, curious, open, objective, flexible, sensitive to sensory stimulation, humorous, confident, and willing to try something new, to name a few. Nonetheless, according to Starko (1995) and Chuah (2004), creative thinking is quite likely to be more than the listed characteristics put together.

To further understand creative thinking, it is also wise to understand the process which leads to creativity. According to Razik (1966, p. 160),

Creative thinking involves the ability to produce original ideas, to perceive new and unsuspected relationships, or to establish a unique and improved order among seemingly unrelated factors. Creative thinking does not involve just one kind of behaviour. It operates in various fields of human endeavour. It is potential that all people have, but to different degrees.

In short, creative thinking is best understood by understanding the process one undergoes in order to get ideas which are original. It is also obvious from the descriptions of creative thinking that its aim is to stimulate curiosity and promote divergence.

Creative thinking is often associated with being innovative. UNESCO has defined “innovation” as “the implementation of a new or significantly improved product (good or service), or process, a new marketing method, or a new organizational method in business practices, workplace organization or external relations” (cited in UiTM, 2010). On the same note, Hearn (2010) claims that innovation is about introducing new processes and ways of doing things and revolutionizing how things were done before. She further elaborates that innovation is not only about making improvements as innovation also entails discoveries and changes.

The idea of being innovative is best described by Warlow (2007). The following is his list of attributes of someone who is innovative.

1. Curious; constantly questioning things
2. Open to new ideas; putting oneself in situations where one can receive stimulation
3. Dare to be different; being prepared to act against accepted or conventional wisdom and challenge the unchallengeable
4. Be ready; as innovative ideas can strike at any time, there is a need to capture them before they disappear from the mind
5. Persistent; time is needed in finding the solutions which are innovative
6. Collaborate; ideas can be thought of when working with others

There is a relationship between being creative and innovative. According to Tucker (2008, cited in UiTM, 2010, p. 6)

...coming up with ideas and bringing them to life. Hatching ideas is the ‘creative’ part; bringing them to life successfully in the form of a new product or service or management method is what makes a raw idea an innovation.

However, the report from NEAC (2010) concludes that creativity and innovation have yet to reach a sufficient level in Malaysia. According to the report, “... Efforts to innovate and create have been insufficient. The weak track record of domestic innovation in Malaysia is reflected by the comparatively low number of researchers” (NEAC, 2010, pp. 5 – 6). The report further asserts that,

The Department of Statistics reports that in 2007, 80% of Malaysia's workforce received education only up to Sijil Pelajaran Malaysia (SPM). Skill shortage, together with complaints about inadequate creativity and English proficiency, consistently ranks high among the top obstacles faced by firms according to studies on Malaysia's investment climate.

(NEAC, 2010, p. 6)

Nonetheless, the government aims to encourage research and innovation. In his 2010 Budget Speech, the Prime Minister asserts that,

We were successful in the past in transforming the economy from agriculture to industrial-based. We now have to shift to a new economic model based on innovation, creativity and high-value added activities. Only then, will we be able to remain relevant in a competitive global economy.

Professor Emeritus Tan Sri Dato' Dr Syed Jalaludin Syed Salem, a National Distinguished Academic Award winner for 2007 relates the responsibility of higher education institutions in providing relevant experiences to the students in an effort to harness their creativity and innovation in his talk entitled, "Innovation and Best Practices". According to him,

The novel purpose of the establishment of a university aspires to provide knowledge, establish scientific realm and enhance humanity relevance in sustainable living. Hence, a fine reminder is that the university is not all about research as it has another major responsibility, and that is to provide quality education... In providing better education, our students are to be given the opportunity to excel in innovation and creativity".

(Syed Jalaludin, 2009, p. 12)

Some of the strategies suggested by the Ministry of Higher Education to achieve the targets of meeting the 21st century challenge in producing researchers who are creative and innovative include;

- i. Doubling the efforts towards global and top notch research universities
- ii. Strengthening research centres of excellence at public universities in prioritised and important areas
- iii. Developing researchers' critical mass through postgraduate research programmes at public universities

- iv. Increasing the involvement of public universities in research activities and innovation based on the aim of the national innovation
- v. Increasing the integration between public universities' research and global research society
- vi. Upgrading the research and publication quality
- vii. Increasing the commercial activities of the R & D products

Literature has suggested some psychometric assessment of creativity (Cooper, 1991; Torrance, 1981; Torrance 1995; Cropley, 2001). Torrance (1979) posits that creativity assessment can be done by two primary methods; the cognitive approach and the personality approach. Cooper (2000) claims that these approaches can measure both the creative person and the creative process. The personality approach measures creativity as a set of personal attributes or characteristics which developed at a young age and is stable over time. According to Cooper (2000), the California Psychological Inventory and the Myer-Biggs Personality Test are examples of the personality approach assessment. The cognitive approach, on the other hand, measures creativity through rational and logical thinking abilities which consequently regards creativity as intelligence (Torrance, 1979). The Torrance Test of Creative Thinking (Torrance, 1999) is an example of cognitive assessment.

Besides creativity assessment, there is also evidence from the literature to measure innovativeness. The Enterprize™ Questionnaire which was developed based on 26 research-based attributes of an innovative individual (Enterprize™ Questionnaire – Identifying Innovative People, 2010) is an example of assessment on innovativeness. Generally, the items in the questionnaire are divided into five main constructs which are;

- Innovation, creativity, and imagination
- Opportunistic behaviour and initiative within the workplace
- Commitment and the desire to prove one's self
- Risk tolerance and risk management
- Leadership and the ability to inspire others

From this discussion, a number of questions arise that drive this research study, which sought to investigate the perceptions of Malaysian postgraduates as creative and innovative researchers. Additionally, the study also investigated their perceptions of the preparation for creative and innovative research.

Based on these objectives, the study was guided by the following questions.

1. What are the attributes of a creative and innovative researcher as perceived by the respondents in each programme?
2. To what extent do the respondents perceive in each programme that the university has prepared them to be creative and innovative researchers?
3. How confident are the respondents in each programme of becoming creative and innovative researchers?

Methodology

This study sought to investigate the respondents' perceptions of creative and innovative researchers and not to measure their own level of creativity. Hence, the Creative and Innovative Researcher Survey was constructed to measure the knowledge, perceptions and attitudes of a selected group of Malaysian postgraduate students studying in a public university regarding creative and innovative researchers. The items, format and procedure of the instrument were derived and constructed based on the study's research questions and also the literature related to creative and innovative researchers.

The survey consisted of two sections; Section A and B. Section A contained the purpose statement, directions, and was designed to collect demographic information which included gender, ethnicity, and the programme enrolled. As the respondents came from three programmes; M.Ed TESL, M.Ed Educational Management and Leadership, and M.Ed Visual Art Education, Section A enabled the researcher to identify the respondents' perceptions according to their programme. This in turn could help answer the research questions posed earlier. Section B on the other hand, consisted of direction and open-ended items to obtain information regarding the respondent's knowledge, perceptions, and attitudes towards creative and innovative researcher.

Several drafts of the instrument were reviewed by a panel of experts in the field. Revisions were made based on their comments and recommendations. The instrument was also pilot-tested on a small group of target respondents. Once the instrument was validated, it was administered to the respondents. A total of 44 usable questionnaires were returned which constituted an 88% response rate. Using thematic

analysis, the open-ended items were qualitatively analyzed and grouped into emerging categories.

Findings

The purpose of the study was to identify the perceptions of postgraduate students of creative and innovative researchers of the 21st century. The data were organised and analysed around the study's research questions. As the perceptions of the respondents from different programmes were sought, thematic analysis was conducted on the responses given by the respondents according to their programme. Table 1 shows demographic information about the respondents, of whom 11.4% were males and 88.6% females. The majority of the respondents came from the TESL programme (43.2%), followed by Educational Management and Leadership (40.9%) and Art Education (15.9%). This reflects the general population of the faculty's postgraduates of which the TESL programme is the biggest and oldest. Additionally, the Art Education programme is fairly new since it has only been run for two semesters. As a consequence, the distribution of the respondents according to their part of the programme is heaviest in the first part (68.1%), followed by the part 4 students (20.5%). It was discovered that the part 4 and part 5 respondents were TESL postgraduates.

Table 1: Demographic Information about the Respondents

| | Items | Frequency (n = 44) | Percentage (%) |
|-----------|-------------------------------------|--------------------|----------------|
| Gender | Male | 5 | 11.4 |
| | Female | 39 | 88.6 |
| Programme | TESL | 19 | 43.2 |
| | Educational Management & Leadership | 18 | 40.9 |
| | Art Education | 7 | 15.9 |
| Part | 1 | 30 | 68.1 |
| | 2 | 3 | 6.8 |
| | 3 | 1 | 2.3 |
| | 4 | 9 | 20.5 |
| | 5 | 1 | 2.3 |

Responses to research question 1: What are the attributes of a creative and innovative researcher as perceived by the respondents in each programme?

In eliciting the respondents' feedback on the attributes of a creative and innovative researcher, they were first asked to describe what they understood by the terms 'creative' and 'innovative'. A thematic analysis was conducted to identify the emerging themes which were common and similar given by the respondents in their feedback. Tables 2 and 3 in the Appendix provide the relevant details.

The respondents regardless of their programme shared a similar understanding of 'creative' as similar phrases were used. Phrases like 'think out of the box', 'use talent and knowledge to create something new', 'being different', 'look at things differently' and 'use of multiple intelligences' were repeatedly identified from their answers. It could be concluded that the respondents had a similar interpretation of 'creative' and that their interpretation is close to the descriptions of 'creative' given in most literature (see Razik (1966)).

With regards to the respondents' descriptions of 'innovative', it was discovered that they tended to mention 'modify existing product', 'improvise something', 'upgrade', 'become better', 're-create with more function', and 'change for the better'. Warlow (2007) also mentioned similar descriptions of 'innovative'. Additionally, the respondents in each programme also mentioned the relationship between innovative and creativity when they claimed "need to be creative to be innovative" and "comes after creativity" which parallels Tucker (2008 cited in UiTM, 2010, p. 6).

Finally, in providing the attributes of a creative and innovative researcher, the respondents gave the following descriptions. The analysis indicated that most of the attributes given were consistent with their descriptions of 'creative' and 'innovative' which they gave earlier (Refer Table 4 in the Appendix). Additionally, when asked to describe a researcher who is both creative and innovative, the respondents in each programme pointed out the importance of collaboration, sharing of knowledge, networking, publishing and originality. They also added the need for the researcher to provide suggestions and new ideas, seize opportunities, and solve problems besides the need to be adventurous, resourceful, industrious and IT literate. It is interesting to note that the respondents in each programme mentioned common aspects of a creative and innovative researcher as

identified by the Ministry of Higher Education. As described earlier, the Ministry of Higher Education has outlined several strategies which include the need to collaborate, publish, network and commercialize in its attempt to produce creative and innovative researchers (National Higher Education Action Plan 2007-2010).

Responses to research question 2: To what extent has the university prepared the respondents in each programme to be creative and innovative researchers as perceived by them?

In eliciting the relevant information to answer research question 2, the respondents were asked to provide their opinions on how the programme, courses and assignments prepared them to be creative and innovative researchers. Their feedback is summarized in the following tables (Tables 5-7) according to the respondents' program.

Table 5 which can be found in the Appendix summarizes the respondents' feedback on how their programme prepared them to be creative and innovative researchers. It was discovered that the respondents in each programme gave positive feedback. In general, they confirmed that the programme had made them more resourceful as they were required to do a lot of reading. They were also required to be independent as they were given the autonomy and responsibility to conduct and organize class activities such as forums, seminars, lead presentations and case studies. In relating to the work assigned, the respondents claimed that they needed to show evidence of critical thinking as they were required to look at things from various perspectives. Originality was also emphasized in the programme as the respondents were required to give their opinions as well as ideas. Most interestingly, some of them stated the relevance of the programme with practical issues since the programme prepared them for the future and the world, not for exams. It is important to note also that one of the respondents mentioned that his programme prepared him to be IT savvy as proposed by Syed Jalaludin (2009, p. 12).

Based on the respondents' feedback about their programme, it is safe to conclude that their respective programmes were claimed to prepare them to become creative and innovative researchers as the programme included activities which required a lot of critical and creative thinking to make them independent and original in their work. This finding is further confirmed by the respondents' feedback on the courses (refer Table 6 in the Appendix) and assignments (refer Table 7 in the Appendix).

The respondents claimed that the courses were practical as they were exposed to the 'how' of things. This is evident when the respondents also stated that they were required to relate what they learnt from one course to another ('go across curriculum' and 'courses are related with each other'). They also admitted that the courses exposed them to new ideas and expanded their existing knowledge through relevant exposure. In relation to this, the respondents claimed that the courses required them to do a lot of reading to be resourceful and reflect on their current profession for self-improvement (Refer Table 6 in the Appendix).

Similarly, the respondents claimed to have a positive attitude towards their programme and courses (Refer Table 7 in the Appendix). In addition, the data supports what the respondents had claimed earlier about the programme and courses. They admitted that reading is a must and they did a lot of it. On top of reading, their assignments also required them to 'go beyond theories' as they needed to synthesize the information gathered and relate it to their experiences and 'real life application'. Finally, the respondents also claimed that they were trained to be independent and resourceful.

Responses to research question 3: What is the confidence level in becoming creative and innovative researchers of the respondents in each programme?

To find out the confidence level of the respondents in becoming creative and innovative researchers in each programme, they were asked to determine their confidence level based on a Likert scale (1: very unconfident to 10: very confident). Table 8 depicts their feedback. Likewise, their feedback was presented according to the programme they were in.

From the table, it could be concluded that 50% of the respondents had a medium level of confidence (between 4 and 7 on the scale). This was followed by 29.5% who claimed to have a high level of confidence (between 8 and 10 on the scale). A handful (9%) admitted to having a low level of confidence (between 1 and 3 on the scale). Of the three programmes, respondents who were from Art Education programme seemed to have a high level of confidence as 5 (71.4%) out of 7 claimed to be between 8 and 10 on the scale.

The fact that more than half of the respondents claimed to have a low (9%) and medium (50%) level of confidence indicates that these students require more exposure and training. This is due to the fact that

Table 8: Respondents' Confidence Level

| Programme | Low (1 – 3) n | Medium (4 – 7) n | High (8 – 10) n | No Response n |
|-------------------------------------|------------------|---------------------|--------------------|------------------|
| TESL | 2 | 12 | 2 | 3 |
| Educational MGMT & Leadership | 2 | 10 | 6 | - |
| Art Education | | | 5 | 2 |
| % | 9 | 50 | 29.5 | 11.5 |

most of the respondents (68.1%) were from the first semester of their studies (i.e. part 1). However, this finding also suggests that improvement is needed in the postgraduate programmes either in terms of their courses or assignments. The respondents' suggestions about what could be done to improve the programmes in preparing them to be creative and innovative researchers of the 21st century provided the relevant data. Table 9 which could be found in the Appendix summarizes their suggestions.

It was learnt that the respondents wanted to have more hands-on assignments such as seminars and presentations. There is also a suggestion to include demonstrations or model presentations as part of the assignments. This type of assignment could require a high level of creativity and originality (Hardman, 2008). At this juncture, it is worth highlighting that one of the challenges in the 21st century is the ability to produce and be original. Hence, the respondents gave relevant suggestions. They suggested the need to collaborate with industries and stakeholders either as part of the course input, content or assignment requirement. This is in line with the need of the 21st century postgraduate to participate with relevant parties aside from their lecturers and classmates in their learning process. In relation to the suggestion about collaboration, the respondents also stated that conducting research with industries such as schools both at local and international level could be included as part of the assignments. As noted by the Ministry of Higher Education, participating in research activities with local and international partners is a strategy for producing creative and innovative researchers. Additionally, they also suggested for more exposure to IT and academic reading. This is perhaps due to their need to be proficient in both skills in completing their postgraduate programme. Finally, there is a suggestion to exclude quizzes as part of the assessment, especially those which require heavy memorization of facts.

Implications and Recommendations

The purpose of the study was to investigate the perceptions of postgraduate students about being creative and innovative researchers of the 21st century. The data revealed that the respondents' understanding of 'creative' and 'innovative' was consistent with the descriptions given in the literature. Likewise, they were also aware of the attributes of a creative and innovative researcher and the attributes provided by them were similar to that in the literature.

In general, the respondents had a positive attitude towards their programme, courses and assignments in preparing them to be creative and innovative researchers. Nonetheless, when asked about their level of confidence in becoming such, more than half of the respondents admitted to having a medium or low level. This is an indication that they still require relevant exposure and training. After all, most of them (68.1%) were from part 1 of their studies. However, the suggestions they gave are worth considering in attempting to improve the current programmes, courses, assignments and assessment. Their suggestions include revising the curriculum in particular the content, assignments and assessment. Most importantly, they highlighted the need to be included as key players in research activities and the need to participate globally.

The discussion on the recommendations is based on the suggestions by the respondents. First, as they indicate, there is a need for global exposure in the postgraduate programmes. This could be done through students' participating in collaborative research with relevant international partners or industries. Besides research, the respondents also claimed that international exposure could be gained through revising certain contents by including international input. Second, the respondents suggested more hands-on assignments and practical activities such as demonstrations or model presentations. Indirectly, this could train them to be creative and innovative as they are required to come up with an original and new product or idea. Third, as the 21st century is synonymous with a borderless world, the respondents suggested that exposure to IT and global network is necessary. In the same vein, they suggested academic reading training be included as they saw the need to be resourceful and exposed to international publications.

Conclusion

This paper has reported a survey of a group of postgraduate students studying in three programmes in a public university in Malaysia. The findings have revealed interesting results such as respondents' awareness of the attributes of creativity and innovation and their perceptions of how their programmes prepare them to be creative and innovative researchers. It is heartening to know that their understanding of the attributes is consistent with that described in the literature. Nonetheless, their varying degree of confidence as creative and innovative researchers and the suggestions they gave to improve the running of their programmes suggest more needs to be done in preparing postgraduates to meet the challenge of being creative and innovative researchers in the 21st century. On this note, future research could be conducted to revise postgraduates' curriculum and investigate the challenges faced by postgraduates in fulfilling the requirements of 21st century researchers. Other research could investigate if the students' perceptions are an accurate measure of reality, that is how successful the programmes are in producing creative and innovative researchers.

References

- Aslanian, C. (2007). Trends in adult learning: a recent snapshot. *The Catalyst*, 36(3), 14-22.
- Chua, Y. P. (2004). *Creative and critical thinking styles*. Serdang: UPM Press.
- Cooper, E. (1991). A Critique of six measures for assessing creativity. *Journal of Creative Behavior*, 25(3), 194-204.
- Cooper, R. B. (2000). Information technology development creativity: A case study of attempted radical change. *MIS Quarterly*, 24(2), 245-274.
- Cropley, A. (2001). *Creativity in education and learning*. Bodmin: Routledge Falmer.

- Davis, G.A. (1983). *Creativity is forever*. Iowa: Kendall/Hunt.
- Enterprize™ Questionnaire – Identifying innovative people*. (2010). Retrieved August 30, 2010 from <http://www.psychpress.com.au/psychometric/talent-psychometric-testing.asp?entrepreneurship>
- Faizah, A. M. & Hazadiah, M. D. (2009). Catering for adult learners through the transformation of higher education. *Bulletin of Higher Education Research*, 14, 8-10.
- Faizah, A. M. & Hazadiah, M. D. (2010). An assessment of the 21st century adult learners' needs: issues and challenges for institutions of higher education. In Ros Aizan Y., Rohaya, A.W., Norsidah, M.N., Norshiha, S. & J. Walters (Eds.), *Strategies for Malaysian education in the 21st century Series 1*. Shah Alam: UPENA.
- Gall, M. D., Borg, W. R. & Gall, J. P. (1996). *Educational research: An introduction*. New York: Longman.
- Gowen, J. C. (1972). *The development of the creative individual*. San Diego: R.R Knapp.
- Hardman, F. (2008). Promoting human capital: The importance of dialogic teaching in higher education. *Asian Journal of University Education*, 3(1), 31-48.
- Hearn, W. (2010). *Innovation creates success*. Retrived April 2, 2010 from <http://www.business-personal-coaching.com/innovation-creates-success.html>
- Kasworm, C. (2007). Lifelong learning – The perspective of higher education serving adult learners. Proceedings of the World Conference on Lifelong Learning, Chongwon, Korea. Retrieved August 10, 2009 from <http://www4.ncsu.edu/~cekaswor/>
- Ministry of Education, Malaysia. (2008). *English language syllabus for secondary school*. Putrajaya: Ministry of Education.
- Ministry of Higher Education Strategic Plan Report*. (2007). Putrajaya: Ministry of Education.

- National Economic Advisory Council. (2010). *New economic model for Malaysia part 1*. Putrajaya: Percetakan Nasional Malaysia Berhad.
- National Education Blueprint 2001-2010*. (2001). Putrajaya: Ministry of Education.
- New Economic Model for Malaysia-Part 1*. (2010). Putrajaya: Percetakan Nasional Berhad.
- New Economic Model*. New Straits Times. 2 April 2010.
- Ninth Malaysia Plan 2006-2010*.(2005). Putrajaya: Ministry of Prime Minister.
- Razik, T. (1966). Creativity, nature nurture, and measurement and evaluation. In *Theory into Practice*, 5, 147-150.
- Rhodes, J. M. (1961). An analysis of creativity. *Phi Delta Kappa* 7, 305-310.
- Starko, A. J. (1995). *Creativity in the classroom: Schools of curious delights*. NY: Longman.
- Syed Jalaludin Syed Salem. (2009). *Innovation and best practices*. A talk presented at Higher Education Leadership Academy (AKEPT). Damansara: Oxford Fajar.
- Taylor, C. W. (1976). A factorial study of fluency in writing. *Psychometrika*, 12, 239-263.
- The Graduate Quality of University Experience Report. (2001). Retrieved August 30, 2010 from http://www.gradsch.ohio-state.edu/Depo/PDF/GQUE/Ch_Intro1.pdf
- Torrance, E. P. (1979). *The Search for satori and creativity*. Buffalo, NY: Creative Education Foundation.
- Torrance, E. (1981). Creative teaching makes a difference. (2nd ed). In J.C. Gowan (Ed.), *Creativity: Its educational implications*. Dubuque, IA: Kendall/Hunt.

Torrance, E. (1995). *Why fly? A philosophy of creativity*. Norwood, NJ: Ablex.

Tucker, R. B. (2008). *Driving growth through innovation*. San Francisco: Berrett-Koehler.

UiTM. (2010). *Innovation DNA for Universiti Teknologi MARA and local communities: 2010-2019 A decade of vibrant innovation ecosystem*. Shah Alam: UPENA.

Warlow, R. (2007). *Being an innovative entrepreneur*. Retrieved April 2, 2010 from <http://ezinearticles.com/?Being-an-Innovative-Entrepreneur&id=452482>

Appendix

Table 2: The Definition of ‘Creative’

| TESL | Educational MGMT & Leadership | Art Education |
|---|---|--|
| <p>PART 1</p> <ul style="list-style-type: none"> • Think outside the box • Go beyond norm but achievable & rationale • Ability to use talent, knowledge to produce something different • Flexible, think out of the box • Think out of the box, able to integrate knowledge, critical thinking • Think out of the box • Use knowledge and transform it into new idea <p>PART 4</p> <ul style="list-style-type: none"> • Think out of the box • Out of the box • Be different from others in terms of ideas & producing things what stand out compared to others • Think out of the box; look at things differently or out of the norm <p>PART 5</p> <ul style="list-style-type: none"> • Ability to do or come up with something different | <p>PART 1</p> <ul style="list-style-type: none"> • Not complicated, new & fresh; think out of the box • Being different from others & dare to try new things • Able to think out of the box; ideas different from contemporary way of doing things • Think out of the box • Ability to create new things with new ideas • Have a lot of ideas which can be used to come up with something new • Ability to create something new, different & fresh from existing products <p>PART 2</p> <ul style="list-style-type: none"> • Have ideas that can be used to produce something new • New ideas, refresh existing things, involve process of generating ideas • Able to create something new out of a given situation <p>PART 3</p> <ul style="list-style-type: none"> • Able to come up with different ideas | <p>PART 1</p> <ul style="list-style-type: none"> • Ability to do something new; out of the norm, different from others • Produce something different & more interesting • Ability to look for alternatives; more than one view; use Multiple Intelligences; able to come up with better solution • Think out of the box; Multiple Intelligences |

Table 3: Definition of ‘Innovative’

| TESL | Educational MGMT & Leadership | Art Education |
|---|--|---|
| <p>PART 1</p> <ul style="list-style-type: none"> • Modify existing product to come up with a new one • Modify existing products to make it more appealing • Improvise something in existence to make it better and aligned with the changes like globalisation & modernization <p>PART 4</p> <ul style="list-style-type: none"> • Improvise existing theories, ideas to create something more practical & useful in daily lives • Related to creativity <p>PART 5</p> <ul style="list-style-type: none"> • Modify to be more adaptive to one’s needs | <p>PART 1</p> <ul style="list-style-type: none"> • Make changes to upgrade to become more efficient & meet current needs or market demand • Adoption or improvement of existing thing • Ability to change which result in improvement • Change to become better to contribute to the society • Futuristic <p>PART 2</p> <ul style="list-style-type: none"> • Need to be creative to be innovative • Comes after creativity <p>PART 3</p> <ul style="list-style-type: none"> • Ability to create newness, be creative | <p>PART 1</p> <ul style="list-style-type: none"> • Re-create with more function, sense of humanity, in touch with environment & useful • New methods/tech for better condition; upgrade; parallel with globalization • Change existing things to become more advance & useful • Needs creativity • Change for the better |

Table 4: Attributes of a Creative and Innovative Researcher

| TESL | Educational MGMT & Leadership | Art Education |
|--|---|--|
| <p>PART 1</p> <ul style="list-style-type: none"> • Can collaborate to get new insights • Hardworking, accept challenges, tries to improve • Persistent; always hungry to produce something new; • Hardworking, critical thinker, determined • Able to provide new insights, new info for knowledge sharing • Determined, goal-oriented • knowledgeable, quick thinking, look at things differently • analytical & critical, ready to accept & argue <p>PART 4</p> <ul style="list-style-type: none"> • able to explore; produce articles for knowledge sharing • think out of the box; open to criticism; willing to explore • grab opportunities; patient; forward-looking; fresh ideas; look at things from different perspectives • share knowledge & contribute new ideas/suggestions <p>PART 5</p> <ul style="list-style-type: none"> • Patient, persevere | <p>PART 1</p> <ul style="list-style-type: none"> • Up-to-date with the latest info or knowledge; alert; explore; play games; travel • Committed; able to suggest new ideas • Resourceful, hardworking, wider view & perspective, think out of the box, critical thinker • Like to think; creative thinking; instinct to develop & discover new knowledge; love reading; like to try • Determined, imaginative, focus-oriented; open, think out of the box; willing to try something new • Critical thinker, original, passion • Aware of current issues, manipulate issues, research the issues & publish the new knowledge for future researchers <p>PART 2</p> <ul style="list-style-type: none"> • Always looking for new findings; up-to-date; critical thinker • Original; IT literate, critical thinker • Diligent; industrious; responsible; committed <p>PART 3</p> <ul style="list-style-type: none"> • Has lots of interesting ideas | <p>PART 1</p> <ul style="list-style-type: none"> • Open minded; think of the country's future & development • Find opportunities • Resourceful • Open minded, resourceful • Original; problem solver; ready • Sharp thinkers, outspoken; IT savvy, humble; social network; religious • Smart & quick; problem solver; beyond expectation; curious |

Table 5: Respondents' Opinions on the Programme

| TESL | Educational MGMT & Leadership | Art Education |
|---|---|---|
| <p>PART 1</p> <ul style="list-style-type: none"> • Make me read a lot; enrich vocabulary • Work independently, feedback from everyone; sharing of knowledge • Expand our knowledge & make us look at things from different perspectives; persuade us to become critical thinkers • We are given the autonomy & responsibility; exposed us to relevant academic activities (seminars, conferences & other outside classroom activities) • Allow us to look at things from various perspectives & encourage us to be critical • Makes me think forward, how I could improve the education system, I became a very critical thinker as I acquire different views • A lot of thinking, creative knowledge & lots of reading <p>PART 4</p> <ul style="list-style-type: none"> • Topics are current • Various courses expose me to new areas • Makes us create products as part of the assignments (e.g: Syllabus Design) | <p>PART 1</p> <ul style="list-style-type: none"> • The work required need a lot of critical & creative thinking (e.g workshop, presentation) • Be independent • Extensive reading • Exposure to various fields • Made us think what next • Various courses provided are relevant for the exposure needed <p>PART 2</p> <ul style="list-style-type: none"> • Motivate students to contribute ideas | <p>PART 1</p> <ul style="list-style-type: none"> • Programme prepares me for the future and not meant for exams • Made me aware of the importance of my work & research to the country • This programme itself is creative and innovative; teach students to overcome challenges & obstacles • Open my mind to the world of art locally and internationally • Prepared us to be IT savvy |

Table 6: Respondents' Opinions on the Courses

| TESL | Educational MGMT & Leadership | Art Education |
|---|--|---|
| <p>PART 1</p> <ul style="list-style-type: none"> • Provided info on the 'hows' (e.g produce proposal, forum, seminar) • Requirement to be resourceful • Ability to go across curriculum <p>PART 4</p> <ul style="list-style-type: none"> • Make me reflect on my work as an educator & find ways to improve myself | <p>PART 1</p> <ul style="list-style-type: none"> • Give new ideas, knowledge • Expand current knowledge <p>PART 2</p> <ul style="list-style-type: none"> • group work can help to become creative & innovative • Courses are related with each other <p>PART 3</p> <ul style="list-style-type: none"> • Case study for almost every subject | <p>PART 1</p> <ul style="list-style-type: none"> • Help improve reading skills & awareness of current issues • Exposure to latest hi-tech gadgets • Work independently • Exposure from world |

Table 7: Respondents' Opinions on the Assignments

| TESL | Educational MGMT & Leadership | Art Education |
|--|---|--|
| <p>PART 1</p> <ul style="list-style-type: none"> • forum, seminar, lead discussion • presentations, conduct interviews, case studies • made me become more investigative • pushed to go beyond theories; relate to real world application • need to seek for in-depth info • forum & lead discussions encouraged us to become self-directed <p>PART 4</p> <ul style="list-style-type: none"> • Encourage me to think and synthesize relevant works • Lots of reading needed to complete an assignment; need to give our critical review • Observations, interviews, case study <p>PART 5</p> <ul style="list-style-type: none"> • Gave us ample practice to conduct research | <p>PART 1</p> <ul style="list-style-type: none"> • Need to read a lot; learnt new insights • Find own resources • Be independent • Be self-directed & go beyond expectation • Seminar, case study, article review • Need to relate with current situation <p>PART 2</p> <ul style="list-style-type: none"> • Integrate prior knowledge and new skills <p>PART 3</p> <ul style="list-style-type: none"> • Reading different types of material | <p>PART 1</p> <ul style="list-style-type: none"> • Lots of reading before able to write • Need to relate to our experiences |

Table 9: Suggestions to Improve the Programme

| TESL | Educational MGMT & Leadership | Art Education |
|---|--|---|
| <ul style="list-style-type: none">• Hold more seminars or research presentations• Involve relevant stakeholders to provide input• No quizzes especially on memorization• Conduct collaborative research with the schools | <ul style="list-style-type: none">• Besides written assignments, there should be hands-on assignments such as demo/model• Include relevant industries• Compare local and international contexts• Involve in lecturers' research | <ul style="list-style-type: none">• More IT related exposure• Need training on academic reading• More global/international exposure |

Email address: faiza404@salam.uitm.edu.my



Factors Influencing Student Choice: A Study of a Malaysian Public University

Peter Songan
Hong Kian Sam
Gabriel Tonga
Mustafa Abdul Rahman
Tan Kok Wah
Universiti Malaysia Sarawak

ABSTRACT

This paper discusses a study of the information sources employed by students to get information regarding University Malaysia Sarawak (UNIMAS) and also the factors influencing students' choice of UNIMAS. In addition, differences in sources of information and factors of influence based on types of faculty and selected student demographics were also examined. This cross-sectional survey research was carried out with a sample consisting of 1,396 first-year students in UNIMAS. The findings of the study showed that "Word of mouth through friends and relatives" and "UNIMAS website" were the two main sources of information. Furthermore, "Academic Program Choice", "Quality of Teaching and Academics", "Employment Prospect" and "University Choice" were factors contributing towards students selecting UNIMAS to pursue their studies. Inferential statistical analyses consisting of independent t-tests and One-way ANOVA yielded mixed results that could have implications for UNIMAS and other public higher education institutions in employing appropriate strategies to target different segments of prospective students.

Keywords: *information, universities, survey, quality, choice*

ISSN 1823-7797

© 2010 Asian Centre for Research on University Learning and Teaching (ACRULeT), Faculty of Education, Universiti Teknologi MARA (UiTM), Malaysia.

Introduction

A rapid increase in the number of public and private universities in Malaysia in recent years has resulted in an increasingly competitive tertiary learning environment (Ministry of Higher Education, n.d.). Mohd Anuar Marzuki, Ravindran and Syed Musa Alhabshi (2008) suggest that higher education in Malaysia is exposed to a multitude of issues such as performance and funding, graduate employability, research, consultancy, student recruitment, innovation and internationalization. In terms of student recruitment, higher education institutions in Malaysia increasingly have to compete for students in recruitment markets. Therefore students have a wide choice of universities to select from while public universities have to compete to attract the best students.

Universiti Malaysia Sarawak (UNIMAS) was established in 1982 and is a relatively new public university in Malaysia. In addition, UNIMAS is located in East Malaysia and its distance from Peninsular Malaysia serves as a deterrent for potential students. Therefore, UNIMAS faces challenges in positioning itself as a university of choice among students and a strategic move towards achieving this aim is through the understanding of the important information sources and factors that could contribute to students' preference for UNIMAS.

Purposes of the Study

The main purpose of this study was to investigate the sources of information students used and factors that affected their choice of UNIMAS, in addition to differences in sources of information and influential factors based on selected demographic characteristics of the students and the various faculties in UNIMAS.

Review of Related Literature

Studies in countries such as the United States, Europe, Australia and Turkey have looked into factors that could impact on students' selection of higher educational institutions. A few relevant past studies are reviewed and discussed below.

Krampf and Heinlein (1981) in a study at a university in the United States reported that students tended to focus on factors such as the attractiveness of a campus, informative campus visits, recommendation

from family members, good programs in their major, informative university catalogues, proximity to home and a friendly campus atmosphere in selecting a university. Hooley and Lynch (1981) investigating the choice patterns of potential students from universities in the United Kingdom found six factors students used in deciding on their choice of university. These were suitability of courses, location of a university, academic reputation of a university, distance of home to the university, type of university (modern/ old), and parents' and teachers' advice.

Mazzarol, Soutar, and Tien (1996) completed a study using a sample of international students studying in Australia and reported that future employers' recognition of a university's degree was the most important determining factor. Other factors reported by Mazzarol et al. (1996) in descending order of importance were the institution's academic reputation, its willingness to take into consideration prior qualifications and the academic staffs' reputation and expertise. Turner (1998) in his study among business undergraduates enrolled at a university in Australia listed future job prospects, employers' perceptions of degrees obtained, modern facilities at the university, teaching standards and international recognition of the university programs as crucial factors. Soutar and Turner (2002) reported that the four most important factors influencing Australian school leavers were course suitability, academic reputation, job prospects and teaching quality.

Lin (1997) investigated the reasons for student choice of an educational institution in the Netherlands. This study reported that the significant factor impacting on student choice of an institution were the quality of education offered, career opportunities, institutional reputation, opportunity for traineeships, faculty qualifications, academic standards, availability of modern facilities, curriculum emphasis, quality of student life and an international student body.

Keskinen, Tiuraniemi, and Liimola (2008) conducted a study involving psychology departments of six universities in Finland. Keskinen et al. (2008) listed the location of university, familiarity with programmes offered by university, familiarity with university, and availability of programmes as some of the major factors influencing students' choice of a university. A university's proximity to the students' hometown, having acquaintances in towns near to the university and a pleasant living environment surrounding the university had a positive impact on students' decision to select a university. Availability and familiarity with programmes offered also enhanced the chances that a student would select the university.

Yamamoto (2006) examined the criteria that affected students' choice of a university in Turkey. This study reported personal preferences, parents' inclinations, university ranking, and friends as some of the major influences. Most students made their university selection based on their own decisions without outside influences. For those affected by external and situational factors, parental influence had a high impact on students' choice. High school advisors did not play a key role. In terms of university's promotional efforts, more students were affected by the university's web page, followed by families, friends and printed advertisements. Promotions in high schools, fairs and newspapers advertisements were not as influential.

A summary of the past research would indicate that factors such as course suitability, university location, academic reputation, distance from home, type of university, family opinion, job prospects, quality of teaching and campus atmosphere have considerable influence on students' choice of a university to pursue their study. Furthermore, some of the key information sources to consider are university web page, advertisements, printed materials and family sources. Although these findings are from a Western context, these factors have been suggested as possible factors to be investigated in the present study.

Research Methodology

This cross-sectional survey research used a questionnaire for data collection. The 2,040 first year students enrolled in programs offered by the eight faculties in UNIMAS for the 2007/08 academic year constituted the population of the study. Using a stratified random sampling method based on the criteria of faculty and academic programs, a sample of 1,396 students (approximately 68 percent of the population) was selected as respondents of this study.

The questionnaire used in this study was adapted from instruments used in studies by Hooley and Lynch (1981), Lin (1997), Turner (1998) and Soutar, and Turner (2002). The questionnaire had three sections. Section A was made up of questions for gathering information on selected demographic characteristics of the respondents. Section B consisted of 12 closed-ended items. These items gathered information on respondents' sources of information about the university and also asked them to state the extent of the impact of each of these sources on their choice.

Section C comprised 46 closed-ended items which measured factors influencing students' selection of a university. The 46 items were further sub-divided into six sub-sections of "University choice" (12 items), "Institutional reputation" (7 items), "Personal fit" (11 items), "Academic program choice" (6 items), "Employment prospect" (5 items) and "Quality of teaching and learning" (5 items).

The close-ended items in Section B and Section C had six choices of response ranging from "Very little influence", "Little influence", "No influence", "Strong influence", "Very strong influence", to "Not applicable". Data collection was carried out during the second semester of the 2007/08 academic year in February 2008.

Findings and Discussions

Reliability of the Questionnaire

Based on the findings from an initial pilot study carried out with 72 third year Education students from the Faculty of Cognitive Science and Human Development (FCSHD), UNIMAS, the Cronbach Alpha (α) values for Section B and the six sub-sections in Section C of the questionnaire for the pilot study were more than 0.7 (Nunnally, 1978) indicating that the questions were reliable for use in the actual study (refer Table 1). Reliability analyses based on the actual research sample likewise showed the questionnaires to be reliable (refer Table 1).

Table 1: Reliability of the Questionnaire Based on Pilot and Actual Studies

| Questionnaire | Pilot Study (N = 71) | Actual Study (N = 1396) |
|--|-------------------------|----------------------------|
| <i>Section B:</i> | | |
| Source of information on UNIMAS (12 items) | 0.914 | 0.879 |
| <i>Section C:</i> | | |
| University choice (7 items) | 0.753 | 0.735 |
| Institutional reputation (7 items) | 0.883 | 0.913 |
| Personal fit (11 items) | 0.860 | 0.850 |
| Academic program choice (6 items) | 0.787 | 0.847 |
| Employment prospect (5 items) | 0.770 | 0.894 |
| Quality of teaching and learning (5 items) | 0.896 | 0.910 |

Demographic Data

As shown in Table 2, the breakdown of the respondents by faculty generally reflected the distribution of students amongst the faculties in UNIMAS.

Table 2: Distribution of Respondents by Faculties

| Faculty | Frequency | Percent |
|--|-----------|---------|
| Faculty of Engineering (FE) | 141 | 10.1 |
| Faculty of Medical and Health Sciences (FMHS) | 100 | 7.2 |
| Faculty of Resource Science and Technology (FRST) | 296 | 21.2 |
| Faculty of Computer Science and Information Technology (FCSIT) | 28 | 2.0 |
| Faculty of Economics and Business (FEB) | 237 | 17.0 |
| Faculty of Applied and Creative Arts (FACA) | 242 | 17.3 |
| Faculty of Cognitive Sciences and Human Development (FCSHD) | 150 | 10.7 |
| Faculty of Social Sciences (FSS) | 202 | 14.5 |
| Total | 1396 | 100.0 |

Likewise, as shown in Table 3, the breakdown of the respondents in terms of gender reflects the ratio of female to male students in UNIMAS which was approximately 2:1. The distribution of gender by ethnicity (refer Table 3) also matches the composition of the major races found in Malaysia.

Table 3: Distribution of Respondents by Gender, Ethnicity and Residence

| Selected Demographic Variables | Frequency | Percentage |
|--------------------------------|-----------|------------|
| Gender | | |
| Male | 431 | 30.9 |
| Female | 959 | 69.7 |
| Omitted | 6 | 0.4 |
| Ethnicity | | |
| Malay | 623 | 44.5 |
| Chinese | 399 | 28.6 |
| Indian | 61 | 4.4 |
| Sarawak Bumiputera | 223 | 26.0 |
| Sabah Bumiputera | 61 | 4.4 |
| Other Bumiputera | 13 | 0.9 |
| Others | 8 | 0.6 |
| Omitted | 8 | 0.6 |
| Residence | | |
| Urban | 876 | 62.3 |
| Rural | 426 | 30.5 |
| Omitted | 94 | 6.7 |
| Total | 1396 | 100.0 |

Sources of Information

This section provides a summary of the findings on the sources of information the respondents used in obtaining information regarding UNIMAS. A more detailed description of the findings is provided in Songan, Hong, Tonga, Abdul Rahman, and Tan (2000). Based on the mean values reported in Table 4, “word of mouth through friends and relatives” and “UNIMAS’ website” were the most influential source of information on UNIMAS. Other important information sources were “*Unit Pusat Universiti Guides*” (UPU Guides), “school teacher career talks” and “UNIMAS published materials” with almost equal means. “Newspaper articles”, “UNIMAS road show”, “school visit to UNIMAS”, “newspaper advertisement”, “UNIMAS open day”, “UNIMAS telephone hotline” and “documentary on UNIMAS in television and radio” were less important sources of information based on the respondents’ responses.

Table 4: Sources of Information and the Extent of Their Influence

| Sources of Information | Mean | Std Dev |
|---|------|---------|
| 1 Friends and relatives | 2.47 | 1.26 |
| 2 UNIMAS website | 2.46 | 1.21 |
| 3 <i>Unit Pusat Universiti</i> (UPU) Guides | 2.08 | 1.30 |
| 4 School teacher career talk | 2.06 | 1.30 |
| 5 UNIMAS published materials | 2.01 | 1.26 |
| 6 Newspaper articles and supplements | 1.99 | 1.26 |
| 7 UNIMAS roadshow event and career fairs | 1.94 | 1.29 |
| 8 School visit to UNIMAS | 1.84 | 1.37 |
| 9 UNIMAS newspaper advertisements | 1.83 | 1.28 |
| 10 UNIMAS open day | 1.82 | 1.31 |
| 11 UNIMAS telephone hotline | 1.73 | 1.33 |
| 12 UNIMAS documentary on television and radio | 1.68 | 1.33 |

Notes: The 5-point Likert scale used in the questionnaire (0 = No Influence, 1 = Very Little Influence, 2 = Little Influence, 3 = Strong Influence, 4 = Very Strong Influence).

Differences in Influences of Information Sources

Gender and Residence

The respondents were asked to rate the extent of the influence of the 12 major sources of information students used to decide on choosing UNIMAS as the place of study. Independent t-tests analyses found no significant gender differences in seven of the sources of information.

The five sources of information indicating gender differences were “UPU Guides” ($t(1263) = -2.483, p = 0.013$), “UNIMAS published materials” ($t(1253) = -2.226, p = 0.026$), “UNIMAS telephone hotline” ($t(1242) = -2.893, p = 0.004$), “School visit to UNIMAS” ($t(1164) = -2.013, p = 0.044$) and “Newspaper articles and supplements” ($t(1247) = -3.088, p = 0.002$). The females generally placed greater importance on these five sources of information than did males.

For rural-urban comparisons significant differences were found in seven of the twelve sources of information, namely “UPU Guides” ($t(1184) = -2.757, p = 0.006$), “UNIMAS published materials” ($t(1169) = -2.557, p = 0.011$), “UNIMAS telephone hotline” ($t(1163) = -3.028, p = 0.003$), “School teacher career talk” ($t(1170) = -2.737, p = 0.006$), “School visit to UNIMAS” ($t(1088) = -2.013, p = 0.001$), “Newspaper advertisements by UNIMAS” ($t(1183) = -2.713, p = 0.007$), and “Documentary on UNIMAS in television and radio” ($t(1137) = -2.668, p = 0.008$). Rural respondents generally gave higher scores than urban respondents. Hence, efforts should be made to ensure that the right channel of information is exploited to reach potential students in urban and rural areas and students of both genders.

Ethnicity

Ethnic differences in the importance placed on the information sources were investigated using One-Way ANOVA analyses. There were significant differences amongst the ethnic groups for all sources of information except for “UNIMAS open day” ($F(6,1180) = 1.034, p = 0.401$) and “School teacher career talk” ($F(6,1243) = 0.337, p = 0.918$). Statistically significant differences were found between Chinese and Malays and Sarawak *Bumiputera*. Generally, the Chinese respondents rated the ten sources of information as of lower importance than their Malay and Sarawak *Bumiputera* counterparts. It would hence appear that Chinese students may need sources of information not investigated in this study.

Faculties

One-way ANOVA analyses were used to determine if there were differences in the ratings of the respondents’ perceptions of the importance of the information sources amongst respondents from the eight faculties. Significant differences amongst the faculties were detected for all the sources of information except for “Friends and relatives” ($F(7,1309) = 2.030, p = 0.06$). Relative to respondents from

other faculties, respondents from FMHS appeared to place least importance in all sources of information except for “Friends and relatives”. As for “UPU Guides”, respondents from FACA, FEB and FCSHD indicated that this was a significantly more influential source of information about UNIMAS and its academic programs compared to respondents from FRST, FE and FMHS. Moreover, respondents from FACA rated “UNIMAS open day” and “UNIMAS published materials” as significantly more important than those from FMHS, FE, FRST and FCSIT.

Thus, the findings above suggested that sources of information influenced the respondents from various faculties differently. This was especially true for respondents from FMHS, whereby they mostly rated all the sources of information as of little influence except for “Friends and relatives”. Respondents from FE, FRST and FCSIT formed another group which also appeared to place relatively little importance to the 12 sources of information with the exception for “UNIMAS website” and “Friends and relatives.” Thus, for these faculties, a strong alumnus is of utmost importance and the university website must be well-maintained to be able to attract potential students.

On the other hand, respondents from FACA appeared to be strongly influenced by “UNIMAS website”, “Friends and relatives”, “UPU Guides”, “School teacher career talk”, “UNIMAS published materials” and “UNIMAS open day”. Respondents from FEB, FSS and FCSHD formed another group that placed more importance on the following sources of information: “UNIMAS website”, “Friends and relatives”, “UPU Guides”, “School teacher career talk”, “UNIMAS published materials”, “UNIMAS roadshow and career fair” and “Newspapers articles and supplements”. For these groups of potential students, efforts must be made to further strengthen the selected sources of information to enable them to reach and influence potential students to select UNIMAS as their university of choice.

Factors Determining University Choice

This study investigated six factors (University Choice, Institutional Reputation, Personal Fit, Academic Program Choice, Employment Prospect and Quality of Teaching and Academics) to determine their impact on respondents’ decision to choose UNIMAS as the university to pursue their tertiary studies. The overall mean scores, standard deviations and rankings for the six factors are shown in Table 5.

Table 5: Rankings of the Six Factors Influencing Student Decision to Select UNIMAS

| Factors | Mean | Std Dev |
|-----------------------------------|------|---------|
| Academic Program Choice | 2.36 | 1.34 |
| Quality of Teaching and Academics | 2.33 | 1.29 |
| Employment Prospect | 2.32 | 1.30 |
| University Choice | 2.16 | 1.43 |
| Institutional Reputation | 2.01 | 1.36 |
| Personal Fit | 2.01 | 1.35 |

This section only provides a summary of the findings regarding factors that impacted on students' selection of UNIMAS and a more complete discussion of the findings are provided in Songan et al. (2000). Based on the mean values presented in Table 5, the most influential factors were Academic Program Choice followed by Quality of Teaching and Academics, Employment Prospect and University Choice.

In this study, Academic Program Choice refers to the respondents' perceptions of their ability to complete the requirements of a chosen program, previous graduates' satisfaction with the program and prospect of the program. Quality of Teaching and Academic denotes respondents' views on the quality of teaching and academics, teaching approaches and academic support system at the university. Employment Prospect reflects the respondents' perceptions of the prestige, employment rates and starting salaries associated with the chosen field of study. University Choice refers to respondents' views on whether the university offers an academic program of their choice, closeness of the university and ease of access of the campus to their hometown and availability of residence halls.

Factors such as Institutional Reputation which refers to perceived prestige associated with studying at the university and Personal Fit that covers perceived ability to fit into campus life at the university were of less importance.

Details of findings on how these factors influenced respondents' decision to select UNIMAS based on faculty and demographic factors are discussed in the following sub-sections.

Differences based on Gender and Residences

Independent t-test analyses were used to determine gender differences in terms of the six factors investigated. There were no gender

differences in terms of “University Choice”, “Personal Fit”, Academic Program Choice”, and “Employment Prospect”. However, gender differences were detected for “Institutional Reputation” ($t(1158) = -2.109, p = 0.035$) and “Quality of teaching and academics” ($t(1279) = -3.579, p < 0.0005$) with the females placing greater importance on them compared to the males.

Similar analyses were used to determine differences between urban and rural respondents in terms of factors influencing their decisions to select UNIMAS as the place of study. There were no significant differences in the influence of “Personal Fit”, “University Choice”, “Academic Program Choice”, and “Employment Prospect” between the rural and urban respondents. However, “Institutional Reputation” ($t(1087) = -2.229, p = 0.026$) and the “Quality of Teaching and Academics” ($t(1202) = -3.299, p = 0.001$) appeared to be significantly different for the urban-rural respondents, with the rural respondents placing greater importance on these two factors.

Differences based on Ethnicity

There were significant differences in all the six factors influencing the respondents’ decision to select UNIMAS based on ethnicity (p values < 0.001 for all comparisons). Probably due to immediacy to UNIMAS, Sarawak *Bumiputera* generally tended to rate the listed factors higher than other ethnic groups, and this was followed by the Malays. Meanwhile, the Chinese were inclined to place less importance on “Institutional Reputation” and “Personal Fit”. Whilst the Indians as a group did not seem to place much importance on “Institutional Reputation”, they gave high ratings to the rest of the other five factors. For Sabah *Bumiputera*, “University Choice”, “Institutional Reputation” and “Personal Fit” received poor ratings amongst the respondents relative to the other four factors.

Differences based on Faculties

One-way ANOVA analyses yielded significant differences in the influences of the six factors on the respondents’ choice of UNIMAS based on faculties in UNIMAS (p values < 0.001 for all comparisons). Compared to other faculties, respondents from FACA tended to rate relatively high on all the factors investigated, especially “University Choice”, “Institutional Reputation”, “Personal Fit”, and “Program

Choice”. However, “University Choice”, “Institutional Reputation”, “Personal Fit” and “Quality of Teaching and Academics” appeared less important for respondents from FMHS. Respondents from FRST, FCSIT and FE gave lower ratings for “Institutional Reputation.” Though statistical analyses showed differences amongst the faculties in ratings for “Employment Prospects”, the respondents from all the faculties gave this factor relatively high rating.

Conclusions and Recommendations

The two major sources of information students used to gain information on UNIMAS and its academic programs are through “word of mouth from friends and relatives” and “UNIMAS website”. No significant gender and rural-urban differences were apparent for these two sources of information. However, these sources of information appeared to be less effective for Chinese respondents than Sarawak *Bumiputera* and Malay respondents. Responses from respondents coming various faculties were varied. FMHS appeared to perceive “Friends and relatives” as an important source of information, while FE, FCSIT and FRST placed importance on “Friends and relatives” and “University website”. Respondents from other faculties appeared also to obtain information from other sources.

“Academic Program Choice”, “Quality of Teaching and Academics”, “Employment Prospect” and “University Choice” were the important factors students considered in deciding on UNIMAS for their further studies. In terms of differences in factors influencing decision to select UNIMAS, female respondents generally perceived these factors to be more influential than did male respondents. Rural respondents on the other hand tended to view these factors as having more influence in making them chose UNIMAS compared to urban respondents. Likewise, Sarawak *Bumiputera* and Malay respondents perceived these factors as having more influence on them in selecting UNIMAS in comparison to their Chinese counterparts. On the other hand, though there were differences, respondents from all the faculties generally perceived “Employment prospects” as important. Except for FACA and FMHS, respondents from other faculties generally showed a pattern of responses that is relatively similar.

Therefore, the findings of this study appeared to support the literature from the West which reported that the ability of academic

programs to prepare students for future careers and challenges (course suitability and academic reputations) (Krampf & Heinlein, 1981; Soutar & Turner, 2002), availability of study program, (Keskinen et al., 2009), employers recognition of academic degrees and institutional reputation (Mazzarol et al., 1996), quality of education and career opportunities (Lin 1977) and campus and surrounding environment (Keskinen et al., 2008) as important determining factors. Other findings of this study such as the importance of friends and relatives and the university's web page supported the results reported by Hooley and Lynch (1981) and Yamamoto (2006). However, information sources such as academic advisors in school, road shows and fairs played only marginal role as students' sources of information.

It is therefore proposed that UNIMAS management should continuously improve the quality and attractiveness of information provided at its websites. The university's website is the window where prospective students have their first look at the university and its faculties. UNIMAS must also provide favourable campus environments for students to study and socialize because as alumni after graduation, they are the ambassadors to relay what UNIMAS have to offer to future students of UNIMAS. Thus, an active and strong alumni body is another avenue for UNIMAS to promote itself to the society.

UNIMAS should also maintain and further enhance its existing academic programs as students perceived the university as contemporary and forward looking. To further improve its academic program, one area to focus on could be improving the approaches used in teaching and learning including harnessing the advantages provided by ICT. In this area, UNIMAS has taken several concrete steps including providing academics with continuous pedagogical development opportunities through the Postgraduate Diploma in Teaching and Learning (Norazila et al., 2010). This program provides the academic staff of UNIMAS with knowledge and skills on university teaching (Norazila et al., 2010). UNIMAS should also consider effectively targeting future students by taking into considerations differences in the use of information sources and factors influencing choice of university based on faculty and demographic factors as evident in the findings of the present study. The findings of this study, although conducted in UNIMAS, may be applicable to public higher learning institutions sharing similar characteristics in Malaysia.

Acknowledgement

The study was supported by a Universiti Malaysia Sarawak short term research grant.

References

- Hooley, G. J. & Lynch, J. E. (1981). Modeling the student university choice process through the use of conjoint measurement techniques. *European Research*, 9(4), 158-70.
- Keskinen, E., Tiuraniemi, J. & Liimola, A. (2008). University selection in Finland: How the decision is made. *International Journal of Educational Management*, 22(7), 638-650.
- Krampf, R. F. & Heinlein, A. C. (1981). Developing marketing strategies and tactics in higher education through target market research. *Decision Sciences*, 12(2), 175-93.
- Lin, L. (1997). What are student education and educational related needs? *Marketing and Research Today*, 25(3), 199-212.
- Mazzarol, T., Soutar, G. N. & Tien, V. (1996). *Education linkages between Canada and Australia: An examination of the potential for greater student flows*. Unpublished Research Paper, Institution for Research into International Competitiveness, Curtin Business School, Perth, Australia.
- Ministry of Higher Education (n.d.). *List of IPTA*. Retrieved November 11, 2008, from <http://www.mohe.gov.my>.
- Mohd Anuar Marzuki, Ravindran, R. & Syed Musa Alhabshi (2008). Performance measurement systems, performance indicators, and funding mechanism in Malaysian public universities: A conceptual framework. In Munir Shuib, Sarjit Kaur, & Rozinah Jamaludin (Eds.), *Governance and leadership in higher education*, pp. 209-225. Minden, Penang: Penerbit Universiti Sains Malaysia.

Factors Influencing Student Choice

- Norazila Abd Aziz, Hong, K. S. Fitri Suraya Mohamad, Songan, P. & Noweg, G. T. (2010). Brave new world for university educators: Effects of pedagogical training on teaching at higher education level. Paper presented at the *Third Regional Conference on Engineering Education and Research in Higher Education*, 7-9 June, 2010, Kuching, Sarawak, Malaysia.
- Nunnally, J. C. (1978). *Psychometric theory*. (2nd ed.). New York: McGraw-Hill.
- Songan, P., Hong, K. S., Tonga, G., Mustafa Abdul Rahman & Tan, K. W. (2009). Information sources and factors influencing students' selection of Universiti Malaysia Sarawak. *ADEPT (AKEPT Research Bulletin)*, 3, 80-91.
- Soutar, G. N. & Turner, J. P. (2002). Students' preferences for a university: A conjoint analysis. *International Journal of Educational Management*, 16(1), 40-45.
- Turner, J. P. (1998). *An investigation of business undergraduates' choice to study at Edith Cowan University*. Unpublished Research Paper, Edith Cowan University, Perth, Australia.
- Yamamoto, G. T. (2006). University evaluation-selection: A Turkish case. *International Journal of Educational Management*, 20(7), 559-569.

Email address: hksam@fcs.unimas.my



The THE-QS World University Rankings, 2004 – 2009

Richard Holmes

Universiti Teknologi MARA, Shah Alam, Malaysia

ABSTRACT

This paper reviews the origin, development and demise of the Times Higher Education Supplement (now Times Higher Education) – QS Quacquarelli Symonds (QS) World University Rankings between 2004 and 2009. It describes the structure and methodology of the rankings, their public impact and various criticisms that have been made. It also analyses changes that were introduced between 2005 and 2009 and concludes by noting the development of two distinct ranking systems by the magazine Times Higher Education (THE) and by its former partner, the consulting company Quacquarelli Symonds.

Keywords: Rankings, universities, quality, globalization, evaluation

Introduction

During the five years of their existence, the *Times Higher Education Supplement* (THES), later Times Higher Education (THE) – QS (Quacquarelli Symonds) World University Rankings (Times Higher Education, 2010; QS Topuniversities, 2010) had a remarkable impact on higher education around the world. They were not the first attempt to rank universities or even the first attempt at comparative international evaluation. They did, however, arouse an unprecedented degree of public interest, shown in hits on the websites of THE, the publisher of the rankings, and QS, the consultants who collected and analysed the data on which they were based. At the end of October 2009, THE declared

ISSN 1823-7797

© 2010 Asian Centre for Research on University Learning and Teaching (ACRULeT), Faculty of Education, Universiti Teknologi MARA (UiTM), Malaysia.

that they would no longer use QS to provide data. Instead, they would form partnerships with Thomson Reuters, the compiler of data on scientific publications and citations, and Ipsos MORI, a UK based polling company, and produce an entirely new ranking system that they claimed would be more robust, valid and transparent than the old one (Baty, 2009). For their part, QS announced that they would continue to produce the World University Rankings by themselves with no significant changes (QS Topuniversities, 2009). At the time of writing, THE was developing a new ranking system while QS had stuck to the old one. The two rival rankings were scheduled for release in September, 2010.

The idea of ranking universities is not new. The first major systematic ranking was America's Best Colleges started by the newspaper *US News and World Report* in 1983 (Meredith, 2004). In the US, there followed a proliferation of rankings of various kinds that included the detailed examination of particular disciplines especially in law and business management such as the *Top 2010 Law School Rankings* (2010) and *Which MBA?* (2009). There are also several frivolous indexes, an expanding category that now includes top party schools (Marketing Charts, 2009), hottest student bodies (Popcrunch, 2009) and best universities for squirrels (Campus Squirrel Listings, 2009). The Princeton Review (2010) also has a range of rankings of various kinds, based on a large student survey. Even so, for most people *America's Best Colleges* remains the dominant force in the US rankings world, although it now faces a serious challenge from the Center for College Affordability and Productivity (2009). The ranking of universities has also proliferated in the UK where there are now four general rankings, produced by newspapers, namely the *Times*, the *Sunday Times*, the *Independent* and the *Guardian*, of national universities.

The first international, although not global, university ranking was that conducted by the Hong Kong based magazine *Asiaweek* in 1999 and 2000 (Asiaweek, 2000). This was the first attempt to produce a general ranking of large numbers of universities internationally. A wide variety of measures were combined to give an overall score although the reasons for the weighting of various factors were not fully explained. Asian universities were assessed by academic reputation, student selectivity, faculty resources, research, financial resources, students per academic staff member, graduate students, citations in international journals, and internet bandwidth.

These rankings showed a high degree of face validity. The placing of the universities did not contain any gross anomalies although there

were clearly a few sobering moments for some. It was noticeable, for example, that Australian universities were beginning to lag behind those in Hong Kong and Japan.

The big problem with the *Asiaweek* rankings was that they were too dependent on data derived from the universities themselves which meant that those dissatisfied, whether because they were bad losers or because of a principled objection to ranking or quantification, could sabotage them by refusing to take part. In 2000, a total of 35 leading Asian universities did not participate. They included Peking, Tsinghua and fifteen other mainland Chinese universities. The universities of Calcutta, Delhi and Madras, Universiti Kebangsaan Malaysia, the International Islamic University Malaysia, Massey University in New Zealand and Chulalongkorn University in Thailand also opted out. The most noticeable absentee was the University of Tokyo, then and now considered by many to be the best university in Asia. As a result, the ranking was cancelled in 2001, ostensibly because it was not expected that there would be significant changes since the previous year.

Nevertheless, it is a tribute to the quality of the *Asiaweek* survey that when the initial selection for the THES – QS rankings did not produce enough Asian universities, the consultants simply added universities from the *Asiaweek* list, even though a few years had passed.

In 2003, Shanghai Jiaotong University produced its first Academic Ranking of World Universities (Academic Ranking of World Universities, 2003). This index combined several weighted indicators, the number of alumni who had won Nobel prizes in economics, physics, chemistry and medicine (peace and literature were not counted) and Fields medals for mathematics, the number of staff who had won these awards, the number of highly cited researchers listed by Thomson ISI, the number of publications in *Nature* and *Science* between 1998 and 2002, the number of publications in journals included in the Science Citation Index – expanded and the Social Science Citation Index, and productivity per capita which was calculated by adding these totals and then dividing by the number of faculty as indicated by national public data.

The publication of the first Shanghai rankings in 2003 aroused much interest in academia. It clearly showed that English was the dominant language of international research, with US universities taking a disproportionate share of the top places. Chinese universities did not do particularly well and Asian universities in general were unimpressive. The impact of the rankings was most pronounced in continental Europe, especially France whose schools fared very badly.

The Shanghai rankings received much criticism. There was no adequate justification for the weighting of the various components. Nor was there any attempt to measure teaching quality, apart from Nobel and Fields laureate alumni, which referred to previous decades. The data came from widely different periods, one year for publications, a century for Nobel award winners. They were heavily biased towards the natural sciences and medicine and against the social sciences and even more so the arts and humanities. Nonetheless, the Shanghai rankings have acquired considerable respect over the years, not least because the compilers have steadfastly refused to change their methodology.

Times Higher Education and Quacquarelli Symonds

The first THE (then THES)-QS ranking came out in October 2004 and was followed by annual rankings until 2009. THE decided the overall structure of the rankings and provided the commentary. The collection of data was entrusted to QS Quacquarelli Symonds Ltd and data on citations of research was at first collected by the British company, Evidence Ltd. which was headed by Jonathon Adams, formerly of Imperial College London.

It is necessary to clarify the relationship between *Times Higher Education* or *The Times Higher Education Supplement* as it was known until recently and the national daily newspaper, *The Times*. It seems that many university administrators and journalists still think that *Times Higher Education* is in some way connected with the *Times* or at least produced by the same publishers. There are many references to the World University Rankings being produced by the “Times of London”. For example, we find the Brazilian periodical *Pequisa FAPESP* reporting that “the British newspaper the Times published for the first time a ranking of the best 200 universities on the planet” (Marques, 2005). In October 2006, the University of Rochester in New York State observed that the “University of Rochester is ranked 21st among U.S. universities in the global ranking table issued by the *Times of London* today. Overall, Rochester moved up to 48th in the world from 73rd last year” (Rochester in Top 25, 2006). The author of this paper has also noticed that senior university administrators in Southeast Asia and the Middle East often refer to “*The Times*” as the producer of the rankings.

The first of *The Times* “supplements”, *The Times Education Supplement*, founded in 1910, was originally a free supplement folded

inside *The Times* newspaper once a week but it became an independent weekly publication in 1914. *The Times Higher Education Supplement* (THES) was first published in 1971, going online in 1995 and was always a separate weekly newspaper produced, like *The Times* by the Thomson Organisation. It has been through several reorganizations over time. In 1981, News Corporation bought *The Times*, the two educational “supplements” and the Times Literary Supplement and in 1989, a completely separate company, Times Supplements Ltd. was set up to run the TES, THES and the TLS. In 1999, the company changed its name to TSL Education Ltd. to indicate that the relationship with *The Times* was now “purely historic”. In 2005, Exponent Private Equity acquired the educational supplements and Nursery World for 235 million pounds, so that TSL Education no longer had even a tenuous connection with *The Times* (News International Poised to Offload TES, 2005). In December 2008, the publication was renamed *Times Higher Education* and adopted a magazine rather than a newspaper format. THE is supposed to be the leading source of information about education in the UK although it is perhaps most appreciated by academics for its job advertisements and Laurie Taylor’s satirical column. There is also a lot of news, letters and book reviews. It is not, however, an academic journal that publishes original scholarly research and has no pretensions to being such.

The editor of THE during the period of the first three rankings was John O’Leary, a graduate of Sheffield University, whose career started with the *Evening Chronicle* in Newcastle and who was formerly the Education Editor of *The Times* (EUPRIO, 2006). He is also the author of the *Times Good University Guide*. In February 2007, he left THE “apparently after a period of disagreements with the paper’s owner over its future direction” (Brook, 2007).

The editor with specific responsibility for producing the World University Rankings was Martin Ince who is described as “a journalist and communications adviser”. He is also a media adviser to several British research councils and has written a number of books on science and education (*Assessing Quality*, 2005). O’Leary and Ince have now left *Times Higher Education* and have joined the ranking team at QS Quacquarelli Symonds Ltd., thereby reconstituting the original group but this time entirely under QS auspices.

The task of collecting data for the rankings was assigned to QS who describe themselves as “one of the leading international networks for top careers and education. Their mission is to provide a lifetime of career and educational support for high achievers”. It was founded in 1990 by

Nunzio Quacquarelli. QS's main office is in London and in 2004, it had branch offices in Paris, Singapore, Washington DC, Sydney and Beijing (Going Global 2, 2006). It started off as an agency that acted as an intermediary between managers and future managers and their trainees and employers. It has a noticeable penchant for flattering its clients. Its websites and publications are full of phrases like "the best in higher education", "market leading publications", "high-calibre graduates and executives", "major recruiters" and "top universities".

The founding director of QS, Nunzio Quacquarelli, has an MA from Cambridge and an MBA from The Wharton School at the University of Pennsylvania, where he won the Frederick H. Glockner Prize for Management and the Moot Corp Business Venture Award. He is an editor of *the MBA Career Guide*, producer of the Global Top 100 business schools report and has also written for the *Guardian Weekly*, *Handelsblatt*, *South China Morning Post*, *Chief Executive China*, *Il Mondo* and other publications (Going Global 4, 2010). The other director of QS, Matt Symonds does not appear to be directly involved in the rankings.

It is interesting that THES should have assigned the job of compiling the data to a company that had specialized in the recruitment of MBAs and the ranking of MBA programs. It is surely inconceivable that university administrators would be so blase about allowing a group of post-modern cultural theorists to classify, categorise and compare the overall performance of every other discipline. The confidence placed in QS is especially noteworthy since management studies have all the characteristics of immature disciplines (Micklethwaite & Wooldridge, 1996). The choice of QS as compilers of the rankings seems yet another example of the extraordinary deference displayed by senior academics to management theorists as shown in the rush for ISO certification, team-building games and the cult of personal development.

The background of those who saw the rankings through their formative years was therefore in journalism and marketing rather than academic research or university teaching. It was somewhat different from Nian Cai Liu, whose background is in chemistry and engineering, and Ying Cheng, trained in statistics, who were responsible for the Shanghai rankings (Liu, 2006). The founders of the THE-QS rankings were certainly skilled in marketing, public relations and writing, if we forgive things like "West is best but there's a rich feast in the East" (Ince & Jannuzi, 2004), but it is debatable whether this was enough to create a global ranking system.

The First THES-QS Ranking

The first ranking that appeared in 2004 started with an initial list of 500 universities selected on the basis of research impact (Sowter 2008a, 2008b). A number of universities, mainly German, were then added based on subjective impressions and Asian universities were taken from the *Asiaweek* rankings. Since then, universities have been admitted to the “initial list” on a case by case basis. In the early years, there were some notable omissions, some of which are described below, although these were gradually rectified.

The 2004 ranking was composed of just five indicators. Of these a survey of academic opinion, inappropriately called a “peer review” was given a weighting of fifty per cent. Twenty per cent went to faculty student ratio, supposedly a measure of the quality of teaching, twenty per cent to the number of citations over the last ten years divided by the number of current faculty and five per cent each to the proportion of students and faculty who were international, that is not citizens of the country where they worked or studied.

Changes

Several changes were made in subsequent years. Those that occurred before 2008 are listed in Sowter (2008c). In the second edition in 2005, a survey of employers of graduates was added with a weighting of ten per cent while the academic survey was reduced to forty per cent. There was also a modest change with citations being counted over a five year rather than a ten year period, which might have helped new and growing institutions and those with strengths in disciplines in which papers were most frequently cited a few years after publication.

A flurry of changes came in 2007. First was a measure to prevent a problem which had, perhaps somewhat belatedly, come to the notice of QS, namely that of institutions encouraging large numbers of junior staff or students to join the academic survey, something that would not seem to be very difficult, and nominate their own schools en masse. QS therefore prevented respondents from nominating their own institutions. It was probably at this time that QS also imposed a limit of one response per computer.

QS also introduced Z scores to present the data. Previously, a score of 100 was assigned to the top school in each category and then other scores calculated proportionately. If, for example the top university for the faculty student ratio indicator had two students for each faculty member, then it received a score of 100, a university with eight per faculty a score of 25 and so on. Under the new system, the mean for each indicator was converted to a score of fifty and then scores for each university were calculated by determining the standard deviation from the mean. Effectively, this meant that scores were now bunched around the mean so that universities would no longer get a disproportionately high overall score as a result of doing well on one or two indicators even if their performance on others was mediocre or worse. Thus, one result of this change was that the London School of Economics fell from 17th in 2006 to 57th in 2007 (World University Rankings 2006; 2007), a slight that rankles many of its supporters even today. What happened was that in 2007, many universities with modest percentages of international students and lecturers but with high scores on other indicators now got more points for these criteria thus catching up or overhauling LSE in the overall rankings.

In addition, QS now obtained its citation data from Scopus, which is owned by the Anglo-Dutch publishing company Elsevier rather than Thomson Reuters. This database was larger and included more publications, particularly from non-English speaking countries. However, the list contained a disproportionate number of publications from the UK and the Netherlands compared to the US. It is also likely that in its attempt to be as comprehensive as possible, Scopus had become less selective and was therefore measuring the sheer quantity of published research rather than its quality.

The introduction of Z scores, prohibiting correspondents from voting for their own universities, the extra weighting given to nominations from outside a university's own country and the introduction of a shorter period for counting citations meant that the THE-QS rankings did become more professional and rigorous. Nonetheless, the insistence on assigning 50% of the total score to a subjective and not very well controlled pair of indicators, the bias against the humanities and social sciences and the reliance on data submitted by institutions themselves undermined academic confidence in the rankings although they still continued to get more media attention than the more stable but less interesting Shanghai rankings.

Reactions

There has been a very broad range of reactions to international university rankings since the publication of the first Academic Ranking of World Universities by Shanghai Jiao Tong University (2003). Some academics and political figures have welcomed them whole-heartedly while others have criticised them vigorously. Few, however, have been able to completely ignore them. In general, support for international rankings has tended to come from those who have performed well or hope to perform well in the future while those who have fared less well, have been tended to be negative.

In a few cases, universities and governments treated a poor or mediocre showing as a challenge. Datuk Mustapa Mohamed, then Higher Education Minister in Malaysia commented that “vice-chancellors have come to accept international university rankings as important guides to performance and a gauge of their progress in building the human capital Malaysia needs to remain globally competitive” (Mustapa Mohamed, 2007).

Another response has been the creation or extension of a multitude of national rankings, ratings and quality enhancement programs especially in places where not many universities have any hope of a place in an international ranking. National rankings include long established ones in the USA and UK and there are now recent arrivals in countries such as Kazakhstan (Ministry of Education and Science, 2007), Ukraine (Shantsev, 2008) and Taiwan (Hou and Morse, 2009).

The first Shanghai ranking in 2003 showed that universities in continental Europe, especially in France and Germany were lagging behind those in the English speaking countries, especially the United States. The response by French academics and political leaders was to create a ranking that included exactly one indicator, the number of CEOs of companies in the Fortune Global 500 (Mines Paris Tech, 2009). Perhaps unsurprisingly, French institutions, especially the grandes ecoles did very well although cynics might suspect that this had something to do with the linguistic and cultural introversion of French businesses who prefer to recruit local talent for top executive positions. French academics and civil servants also sought to sponsor the development with Germany, the Netherlands and Belgium of a new general ranking system (Spongenberg, 2010). This, however, at the time of writing, seems to be slow to get off the ground.

Again, Russian universities have generally done badly in all rankings, prompting the creation in 2009 of a new global ranking of universities (Global Universities Ranking, 2009) that put Lomonosov Moscow State University in fifth place ahead of Harvard, Stanford and Cambridge.

Administrators of major universities generally welcomed the rankings, seeing them as an important element in the development of an international mission or as providing useful public relations material. Thus, Harvard's Director of Undergraduate Admissions has said that *the Times Higher Education Supplement* "was correct to include a large number of great universities" (Ince, 2004). Shih Choon Fong, who was the President of the National University of Singapore and is now head of King Abdullah University of Science and Technology in Saudi Arabia, told the *Straits Times* of Singapore that "higher education had become a global industry and NUS had to compete globally with the best for academic talent and students" and said that "(w)e welcome these international comparisons, because we are confident of the quality of our education at NUS, and we can only raise our profile further if we make it to such lists" (*Straits Times*, 2004).

Chris Patten, former Governor of Hong Kong and now Chancellor of Oxford University has said "in the last month, another respected international survey placed Oxford and Cambridge joint second to Harvard in the league table of world-class universities. This confirms what others have suggested in recent years" (Holmes, 2007c). He was using the excellent performance of Oxford and Cambridge in the THE-QS rankings to argue that these universities should have the right to set their own tuition fees. Similarly, ranking performance was used to support the case for Imperial College to become completely separate from the University of London and issue its own degrees (University of London, 2006).

Other university administrators were hostile to rankings in general and to the one produced by THE and QS in particular. The Vice-Chancellor of RMIT Melbourne, Margaret Gardner, claimed that international university rankings had seriously undermined the quality of Australian university education by emphasizing generalist rather than vocationally orientated education (Rood, 2006).

It is now widely recognized that the THE-QS World University Rankings and other rankings have had an important influence on international education policy. Justin Lin, Senior Vice-president and Chief Economist of the World Bank in his foreword to Salmi (2009) referred to the "the emerging power of league tables and rankings in driving the tertiary education policy debates world wide". This is

especially true of major research universities. Simon Marginson, a respected Australian critic of university rankings, has studied the views of major research universities and interviewed presidents, rectors and vice-chancellors. He found that “the most important single influence shaping the global sector was university rankings”. He noted that such rankings were regarded as significant everywhere except for the USA, where national rankings such as those produced by the *US News and World Report*, still dominated public debate and Mexico. He also observed that the policies of many universities were greatly influenced by rankings. Thus, David Naylor, President of the University of Toronto acknowledged that “we certainly have changed our behavior in the light of rankings” (Marginson, 2009).

A useful summary of international academic opinion is provided in a recent report from Thomson Reuters (Adams & Baker, 2009), produced for Times Higher Education in preparation for the development of a new ranking system. They found that 45% of the respondents thought that rankings were somewhat useful and 40% very useful or extremely useful. Nonetheless, respondents to the survey did in many respects hold negative views of existing rankings.

While the significance of rankings cannot be disputed, many observers found much about the THE-QS rankings to criticise. Detailed criticism can be found in Holmes (2006) and in the Thomson Reuters report, where respondents identified major problems such as improper methodology, inappropriate weighting, bias, manipulation, lack of transparency and excessive emphasis on research.

Many observers simply found that the evaluations of the THES-QS rankings, especially the opinion surveys did not accord with their own observation and experience. Thus Garry Stevens, an Australian architectural sociologist observed that “*THE/QS* ranks the top 200 of the world’s universities, down to the very rank. *THE/QS* ranks the Australian universities much higher than ARWU does. We are more than dubious. The 2007 *THE/QS* ratings also place one Australian university as better than every university in Europe and every university in Japan. We don’t think so” (Stevens, 2010).

Errors

One source of criticism was a succession of errors that might have resulted from QS’s lack of experience of higher education, undue reliance

on junior staff and a need to cut corners to meet publishing deadlines. By 2008, the rankings had become largely error-free but it took a long time to get there. At first, it seemed as though QS were forgiven for these and other errors. The author of this paper has heard the consequences of the error involving “international” students and faculty at Malaysian universities (see below) ascribed on at least two occasions to a “change in methodology”. Eventually, however, the accumulation of errors combined with other flaws, served to turn a large section of academic opinion against the rankings.

Perhaps the worst error was not in the rankings themselves but in the book, *Guide to the World’s Top Universities*, published in 2007 incorporating the 2006 rankings and written by two editors from THES and Nunzio Quacquarelli, the director and founder of QS (O’Leary, Quacquarelli & Ince, 2007).

This error was a beautiful example of the butterfly effect, where a very simple data transfer error led to hundreds of mistakes. Among other things, the book contained data about student faculty ratios of over 500 ranked universities. It should have been obvious immediately that there was something very wrong with these data. Many figures were far too high. Yale was assigned a ratio of 34.1, Harvard 18, Cambridge 18.9 and Pretoria 590.3. On the other hand, there were some implausibly low figures such as 3.5 for the Dublin Institute of Technology and 6.1 for the University of Santo Tomas in the Philippines. Sometimes the ratios flatly contradicted information given on the same page and there was also no relationship between the ratios and the scores in the THES-QS rankings. What happened was very simple. Someone slipped three rows when transferring data so that every single student faculty ratio in the book, over 500 of them, was incorrect. Duke University’s ratio of 3.5, which was incorrect to begin with, was given to the Dublin Institute of Technology. The ration of 590.3 faculty per student at the University of Pune in India was given to the University of Pretoria while the ratio that should have been assigned to the University of Wales at Aberystwyth went to Aachen RWT. (Holmes, 2007a; 2007b)

Neither QS nor the authors of the book ever acknowledged this error although when the 2008 edition appeared it had a new title and was no longer published by Blackwell’s of Oxford (O’Leary, Quacquarelli & Ince, 2008).

There was an error that, in contrast to the above, received a great deal of attention, at least in Malaysia. In 2004, there was great jubilation at Universiti Malaya (UM), the country’s oldest university, when it

was learnt that it had reached 89th place in the first THES-QS world rankings. Universiti Sains Malaysia (USM) also did very well. Then in 2005 came disaster. UM crashed 100 places, seriously damaging the Vice-Chancellor's career (Preliminary Announcement, 2010), and USM disappeared from the top 200 altogether. The Malaysian political opposition had a field day blasting away at the supposed incompetence of the university leadership.

The dramatic decline should have been no surprise at all. A Malaysian blogger (Pua, 2005) had noticed that the figures for international students and faculty in 2004 were erroneous. What happened was that in 2004 QS were under the impression that large numbers of foreigners were studying and teaching at the two Malaysian universities. Actually, there were just a lot of Malaysian citizens of Indian and Chinese descent. In 2005, the error was corrected causing the scores for international faculty and students to fall precipitously.

Later, THES referred to this as “a clarification of data”, a piece of elegant British establishment obfuscation that is almost as good as “being economical with the truth” (Rankings Spur Change, 2005)

Another error involved Duke University, an elite institution in North Carolina. Between 2004 and 2005, Duke rose dramatically in the rankings from 57th to 11th (World University Rankings 2004, 2004; World University Rankings 2005, 2005). It did so mainly because it had been given a very low and incredible student faculty ratio in the latter year, less than two students per faculty. This was not the best ratio in the rankings. That supposedly belonged to Ecole Polytechnique in Paris (see below). But it was favorable enough to give Duke a powerful boost in the rankings.

The ratio was the result of a ludicrous error. QS listed Duke as having 6,244 faculty, well in excess of anything claimed on the university's web site. Oddly enough, this was exactly the number of undergraduate students enrolled at Duke in the fall of 2005. Somebody evidently had copied down the figure for undergraduate students and counted them as faculty, giving Duke four times the number of faculty it should have. (Holmes, 2006b).

Having made a mess of Duke's student faculty ratio in 2005, QS pulled off a truly spectacular feat in 2006 by making an even bigger mess. The problem, perhaps, lay with Duke's public relations office having its hands full with the Lacrosse rape hoax, an utterly implausible accusation of rape, abetted by influential faculty and administrators, against three students, so that the web site had not been fully updated since the fall of 2005. For students, QS apparently took undergraduate student enrollment

in the fall of 2005, subtracted the number of undergraduate degrees awarded and added the 2005 intake. This is a bit crude because some students would have left without taking a degree, Reade Seligmann and Colin Finnerty, victims of the rape accusation, for example, but probably not too inaccurate. Then, there was a problem because while the number of postgraduate degrees awarded was indicated on the site there was no reference to postgraduate admissions. So, QS seems to have deducted the degrees awarded and added what they thought was number of postgraduate students admitted, 300 of them, to the Pratt School of Engineering, which is an undergraduate, not a graduate school. Then, in a final flourish, they calculated the number of faculty by doubling the figure on the Duke site, apparently because Duke listed the same number classified first by department and then by status.

The result was that the number of students was undercounted and the number of faculty seriously overcounted, giving Duke the best student faculty ratio for the year. Although the ratio was higher than in 2005, Duke was now in first place for this section because QS had calculated more realistic ratios for the Ecole Polytechnique and the Ecole Normale Supérieure (Holmes, 2006b).

It is worth taking a look at the data for the Ecole Polytechnique. In 2005, it went zooming up the rankings to become the best university in continental Europe. Then in 2006, it went zooming down again. All this was because of extraordinary fluctuations in the student faculty ratio. What happened could be determined by looking at the data on QS's top graduate site. Clicking on the rankings for 2005 led to the data that was used for that year (it is no longer available). There were two very different sets of data for students and faculty for that year, evidently one containing part-time faculty and another with only full time faculty. It seems that in 2005, part-time faculty were counted but not in 2006.

Another error concerned China's best or second best university, Peking University. The name was not changed to Beijing University apparently to avoid confusion with Beijing Normal University. There are also over twenty specialist universities in Beijing teaching and researching in Traditional Chinese Medicine, Foreign Languages, Aeronautics and so on.

In 2004 and 2005, THES and QS referred to Beijing University finally correcting it to Peking University in 2006. This was perhaps not too serious an error except that it revealed something about QS's knowledge of its own sources and procedures. In November 2005, Nunzio Quacquarelli went to a meeting in Kuala Lumpur, Malaysia. Much of

the meeting was about the international students and faculty at Universiti Malaya and Universiti Sains Malaysia. There was apparently also a question about how Beijing University could have got a very high score on the academic opinion survey while apparently, according to the data published in THES, producing almost no research. The correct answer would have been that QS was trying to find research written by scholars at Beijing University, which does not exist. Quacquarelli, however, answered that “we just couldn’t find the research” because Beijing University academics published in Mandarin (Holmes, 2005).

This is revealing because QS’s “peer review” is actually largely a survey of the subscribers to World Scientific, a Singapore-based company that publishes academic books and journals, many of them Asia-orientated and mostly written in English. World Scientific has very close ties with Peking University. If Quacquarelli knew very much about the firm that produces his company’s survey, he would surely have known that it had a close relationship with Peking University and that Chinese researchers, in the physical sciences at least, do quite a lot of publishing in English.

Another issue concerns the omission or inclusion of certain institutions. THES and QS have apologized for omitting the British universities of Lancaster, Essex and Royal Holloway. A more serious omission was the omission of the State University of New York’s (SUNY) University Centres at Buffalo, Albany and Binghamton. SUNY has four autonomous university centres which are normally treated as independent and are now often referred to as the University at Buffalo and Albany and Binghamton Universities. Until 2008, THES-QS does refer to one university centre as Stony Brook University, probably being under the impression that this is the entirety of the SUNY system. Binghamton was ranked 82nd according to the USNWR and 37th among public national universities in 2008. It can boast several internationally known scholars such as Melvyn Dubofsky in labour history and Immanuel Wallerstein in sociology. To exclude it from the rankings while including the likes of Dublin Institute of Technology and the University of Pune is ridiculous. On the other hand, QS has included single-subject institutions such as the University of California at San Francisco, a medical school, in 2004 and Aston Business School in 2007 (Holmes, 2007d).

Another error concerned Washington University in St. Louis, a leading university in every respect. Yet in 2007, QS gave it a score of precisely 1 for citations per faculty (which actually represented zero publications with 1 being added during the normalization process), behind Universitas Gadjah Mada, the Dublin Institute of Technology and Politecnico di Milano

and sent it falling from 48th to 161st in the overall rankings. What almost certainly happened was that QS got mixed up with the University of Washington (in Seattle) and gave all WUSL's citations to the latter school. There were several other errors like this in 2007. The Indian Institutes of Technology, Stony Brook University (State University of New York) and Technion: Israel Institute of Technology all suffered the indignity of receiving a solitary point for the research indicator and all posted an apparently improved score in 2008. Again, the cause of the problem was almost certainly that QS had got them mixed up with other schools.

It is amusing that the remarkable but spurious rise of Israeli, Indian and Swiss universities between the 2007 and 2008 rankings was the subject of a solemn article in the *researchnews* of Scopus (page now unavailable) that praised the introduction of bibliometric strategies by these institutions (Holmes, 2009).

The End of the THE-QS Rankings

In the end, criticism of the rankings was such that the new editorial team that had led THE since 2008 decided that something had to be done. Phil Baty, who is now Deputy Editor of *Times Higher Education* with responsibility for the World University Rankings told an Australian newspaper that "perhaps the most embarrassing aspect was the so-called "peer review" score. Forty per cent of a university's overall ranking score was based on the results of a "peer review" exercise: in fact, a simple opinion survey of academics, asking them which institutions they rated most highly. Some critics object in principle to the use of such subjective measures in rankings, on the grounds that they reflect past, not current performance, that they are based on stereotype or even ignorance, and that a good or bad reputation may be mindlessly replicated". He concluded that "rankings are here to stay. They do have positive effects. They can help students select courses, department heads choose new research partners and university managers benchmark performance internationally and set strategic priorities" (Baty, 2010).

It would seem that as the effects of globalisation continue to extend throughout the world's higher education systems, some kind of comparison is necessary. There are schools like Reed College, the University of the Philippines and Universiti Sains Malaysia that refuse to have anything to do with rankings but the mass opposition that undermined the *Asiaweek* rankings seems to have evaporated.

Nonetheless, the shortcomings of the THE-QS were so glaring that few academics could be found to defend them. The assigning of 40% of the weighting to an opinion survey seemed quite unreasonable especially since reported response rates were so low. There were also strange irregularities in the distribution of responses with comparatively few coming from the United States. There was also concern that the citations per faculty measure favoured institutions that specialised in science and medicine and penalised those that were strong in the social sciences and humanities.

For the general public, the end of the partnership between THE and QS came suddenly and unexpectedly at the end of 2009 although apparently the new editorial group at THE had been concerned about the rankings since early 2008. Since then, THE has moved to construct an entirely new system. There was an elaborate process of consultation beginning with a meeting of the THE advisory board. This was followed by an opinion survey conducted by Thomson Reuters and then by consultations with several ranking experts including those who had been critical of the old rankings. The result was a ranking that included 13 different indicators. It contained a substantial teaching and learning component with a thirty per cent weighting. This certainly marked an improvement over the old rankings where teaching quality was measured by student faculty ratio, an indicator whose effectiveness was undermined by the counting of research only faculty. There were also several indicators that measured financial inputs of various kinds. The weighting of the subjective survey element was reduced.

At the time of writing, there were still ongoing discussions about the precise weighting of the various criteria. Meanwhile, QS had repeatedly made it clear that the THE-QS rankings would continue under the name of the QS World University Rankings.

Whatever happens, it is clear that the rankings business has now entered a new and very interesting phase.

Note

- ¹ Sections of this paper are based on postings to the blog *University Ranking Watch*. <http://rankingwatch.blogspot.com/>

References

- Academic ranking of world universities*. (2003). Retrieved May 7, 2010 from <http://www.arwu.org/ARWU2003.jsp>.
- Adams, J. & Baker, K. (2010). *Global opinion survey: New outlooks on institutional profiles*. Retrieved January 23, 2010 from http://science.thomsonreuters.com/m/pdfs/Global_Opinion_Survey.pdf.
- Asiaweek*. (2000). Retrieved December 23, 2009 from <http://www.asiaweek.com/asiaweek/features/universities2000/schools/multi.overall.html>.
- Assessing Quality*. (2005). 2nd Athens International Conference on University Assessment. Retrieved May 5, 2010 from http://quality.hau.gr/pages/prvConference_02.htm.
- Baty, P. (2009). New data partner for world university rankings. *Times Higher Education*, 30/10/2009. Retrieved May 23, 2010 from www.timeshighereducation.co.uk/story.asp?storycode=408881.
- Baty, P. (2010, February 17). Back to square one on the rankings front. *The Australian*.
- Brook, S. (2007). *TES editor departs*. Retrieved May 5, 2010 from [guardian.co.uk, 21/02/2007. http://media.guardian.co.uk/presspublishing/story/0,,2018200,00.html](http://media.guardian.co.uk/presspublishing/story/0,,2018200,00.html).
- Campus Squirrel Listings*. (2009). Retrieved February 23, 2009 from <http://www.gottshall.com/squirrels/campsq.htm>. aretried.
- Center for College Affordability and Productivity. (2010). Retrieved Jan 23, 2010 from <http://www.centerforcollegeaffordability.org>.
- Davie, S. (2004, November 6). NUS beats top US varsities to rank no. 18. *Singapore Straits Times*.
- EUPRIO Annual Conference (2006). John O'Leary. Retrieved May 4, 2010 from www.vu.lt/site_files/InfS/EUPRIO/CV__J._O__Leary.pdf.

- Global Universities Ranking*. (2009). Retrieved December 23, 2009 from http://www.globaluniversitiesranking.org/index.php?option=com_content&view=frontpage&Itemid=65.
- Going Global 2. (2006). *QS Quacquarelli Symonds*. Retrieved May 5, 2010 from <http://www.britishcouncil.org/goingglobal-gg2-sponsors-qs-quacquarelli-symonds.htm>.
- Going Global 4. (2010). *Silver – QS Quacquarelli Symonds*. Retrieved May 5, 2010 from <http://www.britishcouncil.org/goingglobal-qs.htm>.
- Holmes, R. (2005, December 2). Evaluation basis flawed. *New Straits Times*, p. 26.
- Holmes, R. (2006a). The THES university rankings: Are they really world-class? *Asian Journal of University Education*, 2(1), 1-14. <http://universities06.com/ajue.pdf>.
- Holmes, R. (2006b). More about Duke. *University Ranking Watch*, 16/12/06. <http://rankingwatch.blogspot.com>.
- Holmes, R. (2007a). A mystery solved. *University Ranking Watch*, 17/7/07. <http://rankingwatch.blogspot.com>.
- Holmes, R. (2007b). A bit more about student faculty ratios. *University Ranking Watch*, 11/8/07. <http://rankingwatch.blogspot.com>.
- Holmes, R. (2007c). Chris Patten, Oxford and the rankings. *University Ranking Watch*. 3/12/07. <http://rankingwatch.blogspot.com>.
- Holmes, R. (2007d). Aston business school. *University Ranking Watch*, 27/11/07. <http://rankingwatch.blogspot.com>.
- Holmes, R. (2009). No way but up. *University Ranking Watch*, 31/1/09. <http://rankingwatch.blogspot.com>.
- Hou, Y. & Morse, R. (n.d.). Quality assurance and excellence in Taiwan higher education: An analysis of three Taiwan major college rankings. *Evaluation in Higher Education*, 3(2), 45-71.

Ince, M. (2004, November 12). University rankings cause a global stir. *Times Higher Education*.

Ince, M. & Jannuzi, C. (2004, November 5). West is best but there's a rich feast in the east. *Times Higher Education*.

Liu, Nian Cai. (2006). *Curriculum Vita*. Retrieved May 5, 2010 from <http://ed.sjtu.edu.cn/gsecms/UpFiles/Article/201051021164060919.pdf>.

Marginson, S. (2009). Global perspectives and strategies of Asia-Pacific research universities. *Evaluation in Higher Education*, 3(2), 1-44.

Marketing Charts. (2009). *Top US party schools for 2010*. Retrieved December 23, 2009 from <http://www.marketingcharts.com/topics/top-20-party-schools-in-the-us-penn-state-1-9931/princeton-review-top-20-party-schools-2010-july-2009jpg/>.

Marques, F. (2005). *The club of excellence*. *Pesquisa FAPESP Online*. Retrieved April 30, 2010 from <http://www.revistapesquisa.fapesp.br/?art=1351&bd=1&pg=1&lg=en>

Meredith, M. (2004). Why do universities compete in the ratings game? An empirical analysis of the effects of the US News and World Report college rankings. *Research in Higher Education*, 45(5), 443-461.

Micklethwait, J. & Wooldridge, A. (1996). *The witch doctors*. London: Heinemann.

Mines Paris Tech. (2009). International professional ranking of higher education institutions. Retrieved December 23, 2009 from <http://www.ensmp.fr/Actualites/PR/EMP-ranking.html>

Ministry of Education and Science of the Republic of Kazakhstan. (2007). *Ranking of leading higher education institutions of Kazakhstan*. Astana: National Accreditation Center.

- Mustapa Mohamed. (2007, November 14). Plan to shape varsities of world class. *The Star* on the Web. Retrieved May 18, 2010 from <http://thestar.com.my/news/story.asp?file=/2007/11/14/nation/19464095&sec=nation>.
- News international poised to offload TES for £240m (2005, September 30). *Guardian* on the Web. Retrieved May 4, 2010 from <http://business.guardian.co.uk/story/0,3604,1581551,00.html>
- O’Leary, J., Quacquarelli, N. & Ince, M. (2007). *Guide to the world’s top universities: Exclusively featuring the complete THES/QS world university rankings*. Oxford: Blackwell.
- O’Leary, J., Quacquarelli, N. & Ince, M. (2008). *Top universities guide*: London: Quacquarelli Symonds.
- Popcrunch. (2009). *Hottest student bodies 2009: The 50 best colleges ranked by looks*. Retrieved December 23, 2009 from <http://www.popcrunch.com/hottest-student-bodies-2009/>
- Preliminary announcement: Keynote speakers. (2010). Sabah Dental Congress 2010. Retrieved April 19, 2010 from http://www.mda.org.my/90_event_20100424_05_sk_hashim.html
- Princeton Review. (2010). *The best 373 colleges: 2011 edition*. New York: Random House. Retrieved Jan 23, 2010 from <http://www.princetonreview.com/best-press-release.aspx>
- Pua, T. (2005). Universiti Malaya: 6th most international university? *Education in Malaysia* 4/9/2005. Retrieved December 23, 2009 from <http://educationmalaysia.blogspot.com/>
- QS Topuniversities. (2009). *US News and World Report and other leading world media replace times higher education as publishing partners*. 02/11/2009. Retrieved December 23, 2009 from <http://www.topuniversities.com/articles/rankings/qs-world-university-rankings-reaches-5-million-web-visitors-topuniversitiescom>.

QS Topuniversities. (2010). Retrieved Jan 23, 2010 from www.topuniversities.co.uk.

Rankings Spur Change. (2005). *Times Higher Education Supplement 11/11/2005*. Retrieved April 19, 2010 from <http://www.timeshighereducation.co.uk/story.asp?storyCode=199650§ioncode=26>.

Rochester in Top 25 in Times of London Rankings. (2006, October 5). Retrieved May 30, 2010 from http://www.rochester.edu/news/times_ranking.html.

Rood, D. (2006). RMIT head slams rankings. Retrieved May 6, 2010 from <http://www.theage.com.au/articles/2006/04/30/1146335610725.html?from=rss>

Salmi, J. (2009). *The challenge of establishing world-class universities*. Washington DC: The World Bank.

Shanghai Jiao Tong University. (2003). Academic Ranking of World Universities. Retrieved December 23, 2009 from <http://www.arwu.org/ARWU2003.jsp>

Shantsev, I. (2008). *Looking for our prinstone. Foundation for Development of Ukraine*. Retrieved May 6, 2010 from <http://www.fdu.org.ua/en/articles/116>.

Sowter, B. (2008a). World University Rankings: Methodology and Asia's performance. 04/04/2008 to Presentation, Bangkok.

Sowter, B. (2008b). World University Rankings: Methodology and Thailand's performance. Presentation 04/04/2008, Bangkok.

Sowter, B. (2008c). The Times Higher Education Supplement and Quacquarelli Symonds (THES-QS) World University Rankings: New developments in ranking methodology. *Higher Education in Europe*, 33(2&3), 345-347.

The THE-QS World University Rankings, 2004 – 2009

Spongenberg, H. (2010). *EU to test new university ranking in 2010*. Retrieved April 30, 2010 from <http://euobserver.com/881/29189>.

Stevens, G. (2010). Australia's best universities. Retrieved May 7, 2010 from <http://www.archsoc.com/kcas/bestunis.html>.

Times Higher Education. (2010). Retrieved Jan 23, 2010 from www.timeshighereducation.co.uk.

Top 2010 Law School Rankings. (2010). Retrieved Jan 23, 2010 from <http://www.top-law-schools.com/rankings.html>.

University of London. (2006). *University of London Council agrees withdrawal arrangement for Imperial College London*. Retrieved May 6, 2010 from <http://www.lon.ac.uk/495.html>.

Which MBA? (2009). London: The Economist.

World University Rankings. (2005). *Times Higher Education Supplement*. Retrieved April 4, 2010 from <http://www.timeshighereducation.co.uk/Magazines/THES/graphics/WorldRankings2005.pdf>.

World University Rankings. (2006). *Times Higher Education Supplement*. Retrieved April 4, 2010 from <http://www.timeshighereducation.co.uk/Magazines/THES/graphics/WorldRankings2006.pdf>

World University Rankings. (2007). *Times Higher Education Supplement*. Retrieved April 4, 2010 from <http://www.timeshighereducation.co.uk/hybrid.asp?typeCode=142&pubCode=1&navcode=118>

Email address: rjholmes99@yahoo.com

