2006-877: EVOLVING EFFECTIVE PARTNERSHIP AGREEMENTS BETWEEN UK AND MALAYSIAN HIGHER EDUCATION INSTITUTIONS: TWO CASE STUDIES

John Rowe, Sheffield Hallam University

Tim Mulroy, Sheffield Hallam University

Ian Robinson, Sheffield Hallam University

Boon Han Lye, Kolej Bandar Utama International College

Evolving effective partnership agreements between UK and Malaysian Higher Education Institutions: two case studies

Introduction and Background

This paper describes the development of partnership arrangements between a UK university and two private accredited Higher Education Institutions (HEIs) in Malaysia. The two partnerships represent case studies of effective cooperation in the design of mutually validated professional engineering courses. The UK University concerned is Sheffield Hallam University (SHU) with approximately 30,000 students located in South Yorkshire, England. SHU became a university in 1992 following a period as a polytechnic from 1969 with elements of the institution tracing their history to the mid 19th century. The two Malaysian institutions are Tunku Abdul Rahman College (TARC) and KBU International College (KBU). Both colleges are located in Kuala Lumpur.

There continues to be a great desire by students from Malaysia to achieve a degree level qualification from a western HE institution, as well as securing professional body accreditation of their learning. In the UK, intending professional engineers must achieve an appropriate educational standard prior to undertaking professional training. Currently two routes may broadly achieve this outcome. Firstly, students may study and obtain an accredited degree (accredited by the appropriate professional subject institution). Alternately, students may take UK Engineering Council exams. For many years, individuals from Malaysia have achieved this aim by independently applying to overseas universities, or taking UK Engineering Council or other professional body examinations in Malaysia. A holistic and sustainable approach to satisfying this demand is to create and maintain institutional frameworks that satisfy both countries' regulatory bodies, and promote opportunities for the students to best benefit from the experience.

Malaysia is a fast developing South-East Asian country that continues to share elements of culture and history with the UK through membership of the Commonwealth. Mahathir Mohamed, the former Prime Minister of Malaysia, developed vision 2020, a policy to propel Malaysia towards achieving fully developed country status by 2020. The aim of the government is to build a truly Malaysian society of the future, and it sees education as a way of achieving this goal. For the students, education is seen as a tool for providing social mobility and as a means to improve the quality of life in a modern society.

Malaysia is a multi-racial nation with a population of over 25 million made up of a number of different racial groups. These include Malays, Chinese, Indians, and various indigenous groups that are found in Peninsula Malaysia, Sabah and Sarawak as well as non-Malaysians. The Malaysian population is relatively young with 41% of the population below the age of 20 (as against 37% who are 40 years and older). Although the age dependency ratio has declined in recent years, the heavy demand for social services such as education, housing and welfare remains.

The Malaysian public education system bears many relationships to that in the UK. Compulsory education ends at age 15, and students who continue for another two years take the Sijil Pelajaran

Malaysia (SPM). The Malaysian Government has recently recognised that the country's economic success is directly related to the capability of the population in foreign languages and technical knowledge. English Language is being re-introduced as a medium of instruction for teaching of science and mathematics in both primary (grades K-7) and secondary (grades 8-11). English has always been one of the compulsory SPM subjects. Following SPM, students can then continue to study for two years to obtain their Sijil Tinggi Persekolahan Malaysia (STPM). The STPM allows students to matriculate for university entry.

The first case study, between Sheffield Hallam University (SHU) and Tunku Abdul Rahman College (TARC) has run since 1999. This study reports on the developmental approach taken by the two institutions to enable students to further their academic qualifications to the level of a UK professionally accredited degree. TARC is private mixed Further Education (FE)/Higher Education (HE) College, offering courses at Certificate, Diploma and Advanced Diploma levels with students typically completing their studies at age 22. The institutional arrangement has enabled a range of TARC Advanced Diplomas to be subjected to detailed mapping exercises, to determine the level of the subjects studied at TARC. The mapping was used to establish the additional subjects to be studied, to allow the students to achieve the same level as graduates who had spent three academic years at SHU.

The second case study, between SHU and KBU International College, Malaysia (KBU) is a full bi-lateral partnership, where SHU degree programmes are delivered in totality by KBU staff in Malaysia. Students studying the degree in Malaysia achieve the same learning outcomes concurrently with students studying the degree in the UK. This requires a strong working relationship at different levels within each institution, from the administration of the programme of study, to the communication between teaching staff teaching the same module in the UK and Malaysia. The programme is carefully structured, so that students can transfer seamlessly between institutions for a semester or year of study at the other institution.

Beerkens[1] developed a typology of international interorganisational arrangements in HE and noted that both institutional and national boundaries have become more porous to individual HEIs. Beerkens identifies five drivers that support the development of international arrangements namely: student demand, staff demand, increasing pressure of internationalisation and globalisation processes on the curriculum, opportunities for transnational education and the changing role of HE in nation building. Nonetheless, at the level of the individual institutional arrangements discussed here no organisation will get involved in such cooperative arrangements if they do not expect to gain from the cooperation. They both expect to reap benefits, but have to cooperate to do so. Organisations actively establish linkages to both strengthen their own position and to control and minimise uncertainty apropos the external environment, in a manner suggested by resource dependence theorists[2,3,4]. As a result, membership of cooperative agreements is not open and the selection and qualification of partners forms an important part of institutional cooperative strategy. Networks emerge to serve the individual organisational interests of the participants.

The organisational interests of HEIs globally are substantially determined by competition in the free market as Taylor[5] points out.

'It is evident that the politicians and business leaders, (the "madmen in authority" as

they were referred to by John Maynard Keynes), have developed a sincere commitment to a social philosophy based on competition in the free market, which they believe will engender widespread public benefits, including higher quality and more choice at lower cost to the consumer. In the education sector, this commitment would be manifested by placing the concerns and needs of students at the centre of the educational system: not just in institutional rhetoric, but in day to day practice … every single day'.

The notion of the free market in HE in the UK is also rhetoric and the British government like many others jealously guards and steers the HE system. This is despite formal recognition of HE as a tradable good in the 1997 Dearing report[6] advising the UK government on the future direction of HE. This idea is also reflected by official acknowledgement of what Malaysia requires overseas suppliers of education and training to offer:

- international recognition of quality at all levels
- quality assurance systems that demonstrate the appropriateness of study to purpose
- an international reputation in key subject areas
- a wide range of specialists, types of service, training options and modes of delivery
- appropriate training for employment
- practical examples of educational reform and functioning systems
- substantial experience of producing goods and services for overseas markets
- 'leading edge' reputation in science, technology, ICT and business

With these points in mind, the following two case examples of international engineering education are described. In both cases, bilateral foci on educational quality, equivalence, transferability of academic credit, differences in academic culture and financial matters were all of high importance. However, the considerable and lengthy effort expended in the assurance and continuing maintenance of these factors has not been described in this paper except where pertinent to the engineering educational theme.

The SHU-TARC Articulation Partnership

The Sheffield Hallam University, UK (SHU) - Tunku Abdul Rahman College, Kuala Lumpur, Malaysia (TARC) articulation partnership provides opportunities for Malaysian students to study in the UK. Malaysian students who graduate from TARC Advanced Diplomas study for a summer semester in the UK and are able to top-up their award to a BEng (Hons) award from SHU. The development of this arrangement followed a period of informal partnership and SHU entered into a formal partnership with TARC in 1999. The partnership currently operates five engineering programmes of study (termed courses in the UK) as follows:

- BEng (Hons) Electronic Systems Engineering
- BEng (Hons) Materials and Manufacturing Engineering
- BEng (Hons) Mechanical and Manufacturing Systems Engineering
- BEng (Hons) Automation and Manufacturing Systems Engineering
- BSc (Hons) Information Technology

TARC is a highly regarded Malaysian College of 30 years' standing with a mission to provide high quality education. Its provision ranges across business and finance, commerce, IT and computer science, construction, science, engineering and mass communications. It operates from a main campus in Kuala Lumpur, with four branches in other parts of the country. Its student body has grown from 16,000 to in excess of 30,000 in the last two years, and is planned to grow to 45,000 within the next two years. The College is predominantly Chinese funded partly by the Malaysian government and partly by private sponsorship. TARC currently recruits from only the top 10% of predominantly Chinese, Indian and Malay school leavers. The engineering curriculum at TARC is heavily analytical and demanding, but generally lacking exposure to modern technology and equipment.

The formal agreement was approved initially as a transitional arrangement for two years, pending developments, which, it was hoped, would lead to an integrated SHU/TARC dual award for delivery in Malaysia. It has since been extended until the summer of 2006, and last year saw developments of additional top-up degrees in Automation and Manufacturing Systems. To date the students' results have been excellent, their performance more than justifying SHU's confidence in the academic standards of the TARC awards. The pass rate has been 100% over the last 7 years. In the UK first degrees are normally graded over a range from 1st class honours (SHU average mark >70%), 2:1 (SHU average mark 60%-69%), 2:2 (SHU average mark 50%-59%), 3rd (SHU average mark 40%-49%). Unclassified (or ordinary) degrees may also be awarded. The mean of the average student marks in Engineering has been about 55% with a standard deviation of 12 marks for UK students. For the TARC students the mean mark is 60% with a standard deviation of half the UK figure. This may be a result of cultural issues[7,8], or from the selectivity on entry to TARC.

The total number of engineering undergraduates at SHU is approximately 1600 (full time equivalent) and the table shown below (Table 1) illustrates the number of TARC students who attended SHU during the indicated academic years.

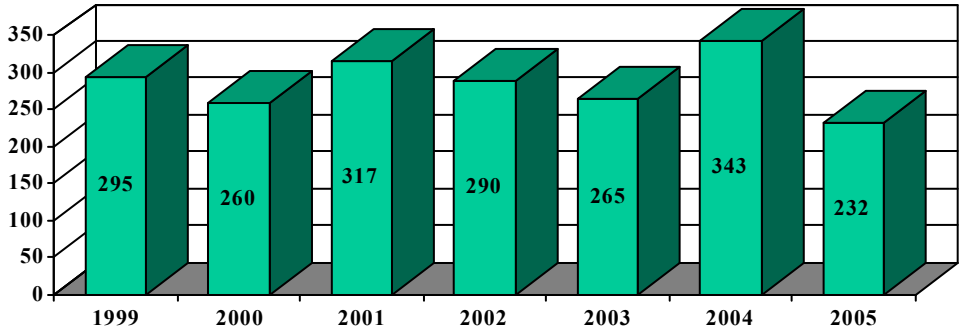

Table 1

In addition to this successful arrangement at the undergraduate level, it has always been a joint aspiration to broaden the partnership to build long term postgraduate and continuing professional development (CPD) links. At the engineering postgraduate level, SHU has had a long-term, albeit small relationship with TARC. Prior to the formal 1999 partnership, the School had used the international 'good honours degree equivalence' of the TARC Advanced Diploma (recognised by the UK Government's NARIC service for qualification equivalence[9]) to recruit 5 students to MSc programmes. All succeeded in obtaining their MSc awards. Since the partnership was formalised,

SHU has recruited between 3 and 23 engineering students per annum onto the MSc programme, supported by the partnership scholarship scheme. All students have been successful so far.

TARC is the only private college in Malaysia also receiving government subsidy, and it offers a range of pre-university level courses, STPM courses and vocational Diploma awards. In Engineering, the Diploma students are recruited from candidates offering Distinction (and very occasionally Strong Credit) SPM grades. The Diploma is traditionally a three year course, but is now offered over two, three semester years, at a fee reduction. Most TARC Diploma students take the accelerated route. Some 50% of the Diploma students continue to study for the Advanced Diploma.

SHU's decision to enrol TARC Advanced Diploma students with such a high level of effective credit transfer was based on a number of important points of reference shown below.

- SHU past experience of 80 TARC Diploma students (equating to 1 year of UK HE study) entering directly into year two of BEng awards before 1999.
- Perceived international equivalence. Firstly, NARIC[9], the book of UK qualification equivalencies confirms that the TARC Advanced diploma is recognised worldwide as an entry qualification for taught postgraduate study. Secondly the close relationship between the UK Engineering Council part 2 exam syllabus and that of the TARC Advanced Diploma
- Market acceptance of degree standards. Of the 2002 graduands, 94% obtained engineering employment after graduation This is particularly notable, since approximately half of them were employed in Singapore, a country which traditionally does not recognise degree level qualifications from the UK post-92 university sector.
- A mapping of TARC Advanced Diploma subject material onto the proposed curriculum. The TARC Advanced Diploma is taught and examined in English hence students' ability in English has not been a major issue. The relationship between the somewhat traditional and very analytical TARC curriculum (derived from its relationship to the Engineering Council curriculum) and the forward looking SHU curriculum has proven to be apposite and positive for student employment after graduation. The 'top up' semester comprises units which either introduce a more modern approach, introduce a 'western' perspective or develop areas and introduce technology not fully covered by TARC
- Advanced Diploma holders performance on taught SHU Masters provision. Prior to 1999 five TARC Advanced Diplomats were enrolled onto taught postgraduate programme at SHU. All progressed satisfactorily to MSc and since 1999, 30 TARC/ SHU graduates have successfully graduated with an MSc. This is direct and robust evidence that the TARC/ SHU collaboration is producing graduates of intellectual abilities equivalent to BEng degrees elsewhere in UK HE.

The programme of TARC partnership degrees in engineering has recently been revalidated and continues in full approval until at least 2008.

The KBU-SHU Articulation and Franchise Partnership

The second international engineering partnership discussed in this paper is between SHU and

KBU relate to a franchising of two engineering degree courses. The two courses recently franchised are BEng (Hons) Electrical & Electronic Engineering, and BSc (Hons) Computer & Network Engineering to KBU. However, of particular note is the opportunity the arrangement affords students from both countries to move seamlessly between institutions for a semester or year of study at the other institution.

KBU, is a small private Malaysian Higher Education College based in a suburb some 10 miles outside Kuala Lumpur. KBU currently offers programmes in engineering, computing, business, art and design and meets student demand within the region. There are plans to develop within the general area of hospitality and leisure, a Malaysian Government priority, and an area of development consistent with the business interests of KBU's Holding Company. KBU's Strategic Plan strives for:

- Academic Excellence
- Professionalism
- Responsible and caring graduates
- The development of global citizens

These are all embedded within the Malaysian Government's long term vision for the country, and are also crucial features of SHU's vision and mission. In particular, both HEIs have explicit policies to broaden access to HE in their countries and regions. Values and practices have been found to be largely congruent, although as one might expect, SHU has policies somewhat more mature and detailed than the smaller and younger KBU.

KBU is owned by First City Corporation Sdn Bhd, a Private Limited Company within Malaysia, and is a member of a larger group (First Nationwide Group). It received its Malaysian Government licence to operate as a Private HE College in November 1990, although the company had been formed nearly a year earlier. The Group has broad business interests in property development, construction, real estate, plantations, mortgage financing, insurance agency, hospitality, private education and car rental. The Group is the developer of the township in which the College is located. The Group has a strong commitment to education and to other social benefits, and the financial support it provides to the college is seen as part of its contribution to the development of the township's social stability. The KBU College campus currently has a built up area of 250,000 sq. ft. with a comprehensive range of facilities for students. The existing campus is occupied at between one third and one half of its designed student capacity. The College delivers a range of UK HE programmes, and supports them with studies of English language. The language of instruction in the college is entirely English.

The college has been delivering UK HE programmes as a franchise partner of British universities for some 12 years. The College is also accredited by EDEXCEL (part of Pearson plc an education service company) for the delivery of EDEXCEL Higher National Diploma courses (roughly equivalent to the US associate degree level). The British Council (a UK government sponsored organisation) in Malaysia consider that KBU is one of the top ten private colleges in the country, with a sound reputation, particularly in engineering.The college academic staff are well-qualified, and the management team operate a policy of requiring their staff to be qualified to a level higher than that upon which they teach. Thus, all staff teaching on franchised degree courses will be

qualified to at least Masters level. The staff have generally studied in well-respected universities around the world, and have significant experience of teaching in higher education. The College encourages staff development, has a buoyant programme of scholarly activity, staff are supported in their study for doctorates and a number of staff engage in personal research. KBU staff are expected to engage in scholarly activity, and there are a number of small research laboratories for both staff personal research and student project activities.

KBU's current engineering provision has been professionally accredited by the Board of Engineers Malaysia (BEM) by virtue of the host programmes in the UK being accredited by the British professional engineering bodies. KBU is the first private college thus accredited. The college received, in 2000, formal acknowledgement of the quality of provision, which allows students and the College to access preferential support funding from the Government.

The Head of the School of Engineering at KBU has developed a culture of 'teach, assess and reflect' and KBU academic staff clearly see themselves as members of 'trans-national' teaching teams. In order to assure student achievement is equitable between the two institutions the majority of effort to compare standards will be a direct comparison of student work. In addition, as (a proportion of) KBU students progress to SHU for their final year of study, a direct side-by-side comparison of standards and achievement will be possible. The UK operates an independent external examiner system whereby an academic member of staff from another HEI is appointed to provide oversight of the operation of courses, normally from a subject point of view. This process operates universally in the UK and with the SHU/KBU scheme the external examiner appointed to the SHU course(s) will also support the KBU course(s).

Discussion

Two examples of international inter-institutional partnerships have been described here and a number of observations can be made about them. Firstly, in both cases the fundamental driving force behind the developments has been student demand, whilst the institutional pull has been more complex. In the case of the SHU-TARC partnership the decade long gestation of the programme is evidence of both groups of engineering academics working together. This generates institutional, student and staff benefits from the process outside of the narrow financial concerns-important though they may be.

The second partnership with KBU, although initially identified as a business opportunity, has been shaped by academic considerations to provide greater opportunities for both Malaysian and UK students. It has been calculated that there would be an economic advantage for UK students to study the courses in Malaysia.

Devon *et. al.*[10] cite a 1996 OECD study on factors that were found to contribute to successful efforts to internationalise higher education in OECD which are as follows:

- Sufficient institutional autonomy
- Sufficient flexibility in curriculum regulations and restrictions
- The idea represents an academic challenge
- A strong innovator leads the process

- A broad involvement and commitment of staff
- Endorsement from the management
- Combined top-down and bottom-up strategy
- Consistence with institutional mission and policy
- Continuous evaluations
- Budget for development costs
- Complementarity
- Differences that impede
- Personal relationships

All of these factors have contributed to the development of the two partnership arrangements described in this paper. A further two can be added beyond the enlightened self interest identified in the introductory section. Firstly, a mutual understanding of the institutional purpose of HE and, secondly a shared academic cultural understanding of the needs of engineering students. This second additional factor entails an evaluative and joint response to the questions: '*What should they know?*' and '*What should they become?*'' and is analogous to Humboldt's concept of *Bildung* [11]. In order to internationalise engineering education and improve engineers' mobility an important foundation is the development of effective institutional partnerships. This paper has shown how two such partnerships have been developed.

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